

Sessional Papers

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

No. 1.

WEEKLY REPORT OF DIVISIONS

IN

COMMITTEE OF THE WHOLE.

(EXTRACTED FROM THE MINUTES.)

THURSDAY, 20 NOVEMBER, 1884.

No. 1.

SUPPLY—GENERAL ESTIMATES FOR 1885.

(Agent-General for the Colony.)

Question proposed,—That there be granted to Her Majesty a sum not exceeding £5,877 for Department of the Agent-General for the Colony, for the year 1885. (*Mr. Dibbs.*)

Motion made (*Mr. Garrard*) and Question put,—That the Estimate be reduced by £877.

Committee divided.

Ayes, 10.

Mr. Targett,
Mr. Vaughn,
Mr. Holtermann,
Mr. Abigail,
Mr. Burdekin,
Mr. Harris,
Mr. Garrard,
Mr. Fletcher,

Tellers,

Mr. Melville,
Mr. Luscombe.

Noes, 27.

| | |
|----------------|---------------------|
| Mr. O'Mara, | Mr. Cransie, |
| Mr. Jones, | Mr. Stokes, |
| Mr. Burns, | Mr. Humphery, |
| Mr. Suttor, | Mr. Griffiths, |
| Mr. Abbott, | Mr. Lloyd, |
| Mr. Farnell, | Mr. Levin, |
| Mr. Dibbs, | Mr. Russell Barton, |
| Mr. Brunker, | Mr. Garvan, |
| Mr. Lyne, | Mr. Barbour, |
| Mr. Hammond, | Mr. McCourt, |
| Mr. Slattery, | <i>Tellers,</i> |
| Mr. Quin, | Mr. William Clarke, |
| Mr. Merriman, | Mr. Spring. |
| Mr. McCulloch, | |
| Mr. Murray, | |

*Proposed reduction negatived.**Original Estimate (£5,877) agreed to.*

No. 2.

(Immigration.)

Question proposed,—That there be granted to Her Majesty a sum not exceeding £51,461 for Immigration for the year 1885. (*Mr. Dibbs.*)

Motion made (*Mr. Melville*) and Question put,—That item £50,000, Immigration generally, be reduced by £49,000.

Committee divided.

Ayes, 8.

Mr. Luscombe,
Mr. Targett,
Mr. Vaughn,
Mr. Garrard,
Mr. Fletcher,
Mr. Melville,

Tellers,

Mr. Holtermann,
Mr. Abigail.

Noes, 22.

| | |
|---------------------|---------------------|
| Mr. Jones, | Mr. Teece, |
| Mr. Burns, | Mr. Cramsie, |
| Mr. Brunner, | Mr. McCourt, |
| Mr. Abbott, | Mr. Humphery, |
| Mr. Farnell, | Mr. William Clarke, |
| Mr. Dibbs, | Mr. McCulloch, |
| Mr. Russell Barton, | Mr. Levin, |
| Mr. Suttor, | Mr. Lloyd, |
| Mr. Quin, | <i>Tellers,</i> |
| Mr. Griffiths, | Mr. O'Mara, |
| Mr. Slattery, | Mr. Tarrant. |
| Mr. Burdekin, | |

Proposed reduction negatived.

And the Committee continuing to sit after Midnight.

FRIDAY, 21 NOVEMBER, 1884, A.M.

No. 3.

(Same Item.)

Motion made (*Mr. Fletcher*) and Question put,—That the item be reduced by £25,000.

Committee divided.

Ayes, 8.

Mr. Targett,
Mr. Luscombe,
Mr. Holtermann,
Mr. Melville,
Mr. Abigail,
Mr. Fletcher,

Tellers,

Mr. Garrard,
Mr. Burdekin.

Noes, 22.

| | |
|---------------------|---------------------|
| Mr. R. B. Smith, | Mr. Suttor, |
| Mr. Jones, | Mr. O'Mara, |
| Mr. Burns, | Mr. Cramsie, |
| Mr. Brunner, | Mr. McCourt, |
| Mr. Farnell, | Mr. Lloyd, |
| Mr. Abbott, | Mr. Levin, |
| Mr. Dibbs, | Mr. McCulloch, |
| Mr. Tarrant, | Mr. William Clarke, |
| Mr. Russell Barton, | <i>Tellers,</i> |
| Mr. Quin, | Mr. Teece, |
| Mr. Slattery, | Mr. Humphery. |
| Mr. Griffiths, | |

Proposed reduction negatived.

Original Estimate (£51,461) agreed to.

On motion of Mr. Dibbs, the Chairman left the Chair to report progress, and ask leave to sit again.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

No. 2.

WEEKLY REPORT OF DIVISIONS

15

COMMITTEE OF THE WHOLE.

(EXTRACTED FROM THE MINUTES.)

WEDNESDAY, 26 NOVEMBER, 1884, A.M.

No. 1.

SUPPLY—SUPPLEMENTARY ESTIMATES FOR 1884 AND PREVIOUS YEARS.

(Compensation to Captain Armstrong.)

Question proposed,—That there be granted to Her Majesty a sum not exceeding £99,331 13s. 11d. to defray supplementary charge under the head "Services of 1884." (*Mr. Dibbs.*)

Motion made (*Mr. Garrard*) and Question put,—That item £1,000, compensation to Captain Armstrong, late Resident Magistrate, for loss sustained by his removal from Lord Howe Island, be omitted.

Committee divided.

Ayes, 15.

| | |
|---------------------|-----------------|
| Mr. Melville, | Mr. Burdekin, |
| Mr. Humphery, | Mr. Garrard, |
| Sir John Robertson, | Mr. Murray, |
| Mr. Suttor, | Mr. Poole. |
| Mr. Teece, | <i>Tellers,</i> |
| Mr. Gould, | Mr. Holtermann, |
| Mr. Quin, | Mr. O'Mara. |
| Mr. Hammond, | |
| Mr. Barbour, | |

Noes, 13.

| | |
|----------------|-----------------|
| Mr. Farnell, | Mr. Gibbes, |
| Mr. Dibbs, | Mr. Purves. |
| Mr. White, | <i>Tellers,</i> |
| Mr. Cohen, | Mr. See, |
| Mr. Day, | Mr. Spring. |
| Mr. Lévien, | |
| Mr. Chapman, | |
| Mr. Griffiths, | |
| Mr. Fletcher, | |

*Item omitted.**Estimate as reduced (£98,331 13s. 11d.) agreed to.*

On motion of Mr. Dibbs the Chairman left the Chair to report progress, and ask leave to sit again, and also to report certain resolutions.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

No. 1.

WEEKLY ABSTRACT

OF

PETITIONS RECEIVED

BY THE

LEGISLATIVE ASSEMBLY.

| WHEN RECEIVED. | FROM WHOM AND WHENCE PRESENTED. | NUMBER OF SIGNATURES. | BY WHOM PRESENTED. | ABSTRACT OF PRAYER. |
|----------------|--|-----------------------|--------------------------------------|--|
| 1884. | | | | |
| Nov. 19 | The "Star of Hope" Division, S.O.T., Balmain | One | Mr. Garrard | In favour of the extension of the principle of Local Option to the renewal of Publicans' Licenses. |
| " " | The "Dewdrop" Lodge | One | Mr. Burns | |
| " " | The "Goulburn" Division, No. 44, Sons of Temperance | One | Mr. Teece | |
| " " | The "Hope of Goulburn" Lodge of Good Templars | Three | Mr. Teece | |
| " " | The "Evening Star" Division, S.O.T., Balmain | One | Mr. Garrard | |
| " " | The "Hand and Heart" Lodge, I.O.G.T. | Fifteen | Mr. Chapman | |
| " " | The "Progress" Lodge, No. 366, I.O.G.T. | One | Mr. Abbott | |
| " " | The "Nil Desperandum" Tent of the I.O.R. | One | Mr. Mitchell | |
| " " | The "Happy Dawn" Lodge of Good Templars at Araluen | One | Mr. Garrard, for Mr. Alexander Rynie | |
| " " | The "M'Laughlin" Lodge of the I.O.G.T. at Taree | One | Mr. Young | |
| " " | The "Resolution" Lodge of Good Templars, Narrandera | Two | Mr. Loughnan | |
| " " | The "Happy Home" Lodge, No. 362, I.O.G.T. | One | Mr. Loughnan | |
| " " | The "A. S. Browne" Lodge, No. 339 | One | Mr. Luscombe | |
| " 20 | The "Evening Star" Lodge, No. 18 | One | Mr. Hugh Taylor | |
| " " | The "Prince Alfred" Division, No. 29, S.O.T., Parramatta | One | Mr. Hugh Taylor | |
| " " | The "Nil Desperandum" Lodge, Em-maville | One | Mr. W. J. Fergusson | |
| " " | The "Star of the Glen" Lodge, Glen Innes | One | Mr. W. J. Fergusson | |
| " " | The "Guiding Star" Tent of the I.O.R. | One | Mr. Melville | |
| " " | The "Multum in Parvo" Lodge, Hinton | One | Mr. Wisdom | |
| " " | The "Hope of Grenfell" Lodge, No. 205, Grenfell | One | Mr. Vaughn | |
| " 21 | Mayor and Aldermen of the Borough of Newcastle | One | Mr. Fletcher | Praying for leave to proceed with the Newcastle Streets Bill during the present Session. |
| " " | Directors of the Wallsend and Platts-burg Gas Company | Six | Mr. Fletcher |  | Praying for leave to proceed with the Wallsend and Plattsburg Gas Company's Bill during the present Session. |
| " " | The "Harvest Home" Lodge, I.O.G.T., Tamworth | One | Mr. Levien | In favour of the extension of the principle of Local Option to the renewal of Publicans' Licenses. |
| " " | The "Hope of Uralla" Lodge, I.O.G.T., Uralla | One | Mr. Cameron, for Mr. Proctor | |
| " " | The "Rose of Marrickville" I.O.G.T. | One | Mr. Hammond | |

Legislative Assembly Offices,
Sydney, 21 November, 1884.

STEPHEN W. JONES,
Clerk of Legislative Assembly.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

No. 2.

WEEKLY ABSTRACT

OF

PETITIONS RECEIVED

BY THE

LEGISLATIVE ASSEMBLY.

| WHEN RECEIVED. | FROM WHOM AND WHENCE PRESENTED. | NUMBER OF SIGNATURES. | BY WHOM PRESENTED. | ABSTRACT OF PRAYER. |
|----------------|--|-----------------------|---------------------|--|
| 1884. | | | | |
| Nov. 25 | The "Banner of Hope" Lodge, Stroud. | One | Mr. White | In favour of the extension of the principle of Local Option to the renewal of Publicans' Licenses. |
| " " | The "Star of the South" Lodge, I.O.G.T., Cooma. | One | Mr. Badgery | |
| " " | The "Rock of Refuge" Lodge, No. 137. | One | Mr. Purves | |
| " " | The "Star of Hope" Lodge, No. 148. | One | Mr. Purves | |
| " " | The "Bright Example" Lodge, No. 387 | One | Mr. Young | |
| " " | The "Hope of Orange" Lodge, No. 265 | One | Mr. William Clarke. | |
| " " | The "Ark of Safety" Lodge, I.O.G.T. | One | Mr. William Clarke. | |
| " " | The "Crystal Fountain" Lodge, I.O.G.T. | One | Dr. Ross | |
| " " | The Blue Ribbon Society, Albury | One | Mr. Day | |
| " " | The "Murray Valley" Tent, I.O.R., Albury | One | Mr. Day | |
| " " | The "Millewa" Lodge, I.O.G.T. | One | Mr. Day | |
| " " | The "Haste to the Rescue" Lodge, I.O.G.T. | Two | Mr. Garrard | |
| " " | The "Pride of St. Peter's" Lodge, I.O.G.T. | One | Mr. Stephen | |
| " " | The "Solid Rock" Division, Sons and Daughters of Temperance. | Two | Mr. Abigail | |
| " " | The "Wardell Hope" Lodge, I.O.G.T. | One | Mr. Abigail | |
| " " | The "Prince Edward of Wales" Lodge, I.O.G.T. | One | Mr. Abigail | |
| " " | The "Lifeboat" Lodge, I.O.G.T. | Two | Mr. Abigail | |
| " " | The "Dawn of Freedom" Lodge of Good Templars | One | Mr. Abigail | |
| " " | The "Loyal Alfred" Lodge of Good Templars | Two | Mr. William Clarke. | |
| " " | The "Evening Star" Lodge, I.O.G.T. | One | Mr. Mitchell | |
| " 26 | The "Home of Peace" Lodge, I.O.G.T. | One | Mr. Lackey | |
| " " | The "Unity" Lodge, I.O.G.T. | Two | Mr. Poole | |
| " " | The "Bound to Succeed" Lodge, No. 193 | One | Mr. Luscombe | |
| " " | The "Prince Edward of Wales" I.O.G.T., No. 291 | Two | Mr. Luscombe | |
| " " | The "True to the Core" Lodge, No. 321 | One | Mr. Luscombe | |
| " " | The "Wilberforce" Lodge, I.O.G.T. | One | Mr. Luscombe | |
| " " | The "Emulation" Lodge of Good Templars | One | Mr. See | |
| " " | The "Nil Desperandum" Lodge, I.O.G.T. | One | Mr. See | |
| " " | The "Hope of Chippendale" Tent, I.O.R. | One | Mr. Fletcher | |
| " " | The "John Wright" Lodge, I.O.G.T. | One | Mr. Murray | |

Legislative Assembly Offices,
Sydney, 26 November, 1884.

STEPHEN W. JONES,
Clerk of Legislative Assembly.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

No. 1.

REGISTER OF PUBLIC BILLS ORIGINATED IN THE ASSEMBLY DURING THE
SESSION OF 1884.

| Short Title. | By whom Initiated. | Originated in Committee of the Whole. | Ordered. | Presented and Read 1 st . | Read 2 nd , committed, reported, and Report adopted. | Read 3 rd , passed, and sent to Council for concurrence. | Agreed to by Council without Amendment. | Remarks. |
|-------------------------------------|--------------------|---------------------------------------|--------------------------|--------------------------------------|---|---|---|---|
| Appropriation | Mr. Dibbs | 1884. 26 Nov. A.M. | 1884. 26 Nov. A.M. | 1884. 26 Nov. A.M. | 1884. 26 Nov. | 1884. 26 Nov. | 1884. 26 Nov. | Founded on Resolutions of Ways and Means Nos. 1 and 2. Standing Orders suspended, 26 November, 1884. Assent not reported. |
| Divorce Amendment | Mr. Buchanan .... | ..... | 20 Nov. | 20 Nov. | ..... | ..... | ..... | Stopped by Prorogation. |
| Ordinance Lands Transfer | Mr. Dibbs .... | ..... | ..... | 10 Nov. | ..... | ..... | ..... | <i>Pro forma</i> Bill. |
| Sydney Corporation Act Amendment .. | Mr. O'Connor.. | ..... | 20 Nov. | 25 Nov. | ..... | ..... | ..... | Stopped by Prorogation. |

No. 2.

REGISTER OF PRIVATE BILLS INTRODUCED UPON PETITION TO THE ASSEMBLY
DURING THE SESSION OF 1884.

| Short Title. | By whom and when Petition presented. | Ordered, presented, and read 1 st . | Referred to Select Committee. | Remarks. | |
|---|--------------------------------------|--|-------------------------------|------------------|--|
| Great Southern Coal-mining Company Railway. | Mr. Hammond | 1884. 26 Nov. | 1884. 26 Nov. | 1884. 26 Nov. | Brought in and proceeded with under Standing Order No. 65. Not reported from Select Committee. |
| Newcastle Streets | Mr. Fletcher | 21 Nov. | 21 Nov. | ..... | Brought in and proceeded with under Standing Order No. 65. Stopped by Prorogation. |
| Wallsend and Plattsburg Gas Company's .. | Mr. Fletcher | 21 Nov. | 21 Nov. | ..... |  |

No. 3.

REGISTER OF PUBLIC AND PRIVATE BILLS BROUGHT FROM THE COUNCIL DURING
THE SESSION OF 1884.

[None.]

RECAPITULATION.

| | | | | |
|---|---|---------|----------|--------|
| Public Bills originated in the LEGISLATIVE ASSEMBLY, shown on Register No. 1 | 4 | | | |
| Private Bills do. do., shown on Register No. 2 | 3 | | | |
| Public Bills brought from the LEGISLATIVE COUNCIL, as shown on Register No. 3 | 0 | | | |
| Private Bills do. do., do. do. do. | 0 | | | 7 |
| Passed | | Public. | Private. | Total. |
| <i>Pro forma</i> Bill | 1 | 1 | ..... | 1 |
| Not reported from Select Committee | 1 | ..... | ..... | 1 |
| Stopped by Prorogation | 2 | 2 | ..... | 4 |
| | | | | 7 |

Legislative Assembly Offices,
Sydney, 27th November, 1884.

STEPHEN W. JONES,
Clerk of Legislative Assembly.

1884.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

ALPHABETICAL REGISTERS

OF

ADDRESSES AND ORDERS FOR PAPERS,

AND OF

ADDRESSES

(NOT BEING FOR PAPERS).

SESSION 1884.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

REGISTER OF ADDRESSES AND ORDERS FOR PAPERS DURING THE SESSION 1884.

| No. of ADDRESS OR ORDER. | WHEN PASSED. | | | ON WHOSE MOTION. | PAPERS APPLIED FOR. | | RETURN TO ADDRESS OR ORDER. | REGISTER NUMBER. | IF TO BE PRINTED. | |
|-----------------------------------|--------------|-------------|--------|------------------|---------------------|--|-----------------------------------|---------------------|-------------------|--|
| | VOTES. | | | | By Address. | By Order. | | | Date of Order. | When given to Clerk of Printing Branch |
| | No. | Date. | Entry. | | | | | | | |
| | | 1884. | | | | | 1884. | 1884. | 1884. | 1884. |
| 1 | 2 | 20 Nov..... | 6 | Mr. Burns ..... | ..... | The £5,500,000 Loan ..... | ..... | ..... | ..... | ..... |
| 3 | 5 | 26 Nov..... | 11 | Mr. Burns ..... | ..... | Do. .... | ..... | ..... | ..... | ..... |
| 2 | 3 | 21 Nov..... | 7 | Mr. Suttor ..... | ..... | Under Secretary for Public Instruction | 25 November | 84/1276 | 25 November | 26 November. |

REGISTER OF ADDRESSES AND ORDERS FOR PAPERS DURING FORMER SESSIONS.

| NO. OF ADDRESS OR ORDER. | WHEN PASSED. | | | ON WHOSE MOTION. | PAPERS APPLIED FOR. | | RETURN TO ADDRESS OR ORDER. | REGISTER NUMBER. | IF TO BE PRINTED. | |
|--------------------------|--------------|-----------------------|--------|-----------------------|--|-------------------------------------|-----------------------------|------------------|-------------------------|--|
| | VOTES. | | | | By Address. | By Order. | | | Date of Order. | When given to Clerk of Printing Branch |
| | No. | Date. | Entry. | | | | | | | |
| 26 | 9 | 1883. 24 Oct. | 12 | Mr. W. J. Fergusson.. | ..... | Mineral Conditional Purchases | 1884. 21 November... | 1884. 1237 | 1884. 21 November... | 1884. 21 November. |
| 168 | 145 | 1884. 13 Aug. | 8 | Mr. Melville..... | ..... | Mining under Railways | 19 November... | 1221 | 19 November... | 20 November. |
| 177 | 161 | 24 Sept. | 3 | Mr. Butcher..... | ..... | Point Piper Road, Paddington | 19 November... | 1222 | 19 November... | 20 November. |
| 98 | 167 | 7 Oct. | 3 | Mr. R. B. Smith | Police Magistrate for the Macleay River. | ..... | 26 November... | 1308 | 26 November... | 27 November. |
| 103 | 57 | 15 February | 3 | Mr. Dangar ..... | ..... | Public Tanks, Wells, and Dams | (In part) 19 November... | 1223 | 19 November... | 20 November. |
| 161 | 137 | 24 July | 4 | Dr. Ross ..... | ..... | Typhoid Fever..... | (In part) 26 November... | 1299 | 26 November... | 27 November. |

REGISTER OF SEPARATE AND JOINT ADDRESSES (NOT BEING FOR PAPERS), TO THE GOVERNOR, DURING THE SESSION OF 1884.

| SUBJECT OF ADDRESS. | ORIGINATED IN THE ASSEMBLY. | | | | WHEN AND HOW PRESENTED. | | | | WHEN AND HOW ANSWERED. | | | | REMARKS. |
|-------------------------------------|-----------------------------|------------------|--------|------------------|-------------------------|------------------|--------|-------------------|------------------------|------------------|--------|------------------------------|----------|
| | VOTES. | | | | VOTES. | | | | VOTES. | | | | |
| | No. | Date. | Entry. | On whose Motion. | No. | Date. | Entry. | By whom. | No. | Date. | Entry. | By whom and how. | |
| The Governor's Opening Speech | 1 | 1884. 19 Nov. | 5 | Mr. See | 1 | 1884. 19 Nov. | 6 | Mr. Speaker | 1 | 1884. 19 Nov. | 6 | His Excellency the Governor. | |

Legislative Assembly Offices,
Sydney, 27th November, 1884.

STEPHEN W. JONES,
Clerk of the Legislative Assembly.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

STANDING AND SELECT COMMITTEES APPOINTED DURING THE SESSION OF 1884.

| No. OF COMMITTEE. | DESIGNATION OF COMMITTEE. | WHEN AND HOW APPOINTED. | MEMBERS. | CHAIRMAN. | No. OF MEETINGS. | | No. OF WITNESSES EXAMINED. | WHEN REPORTED. | |
|-------------------|--|---|---|--|------------------|-------|----------------------------|----------------|--------------------|
| | | | | | Called. | Held. | | | |
| 1 | The Governor's Opening Speech | 19 November, 1884. Votes No. 1, Entry 5... (On motion of Mr. Sec.) | { Mr. Sec, Mr. Brunker, Mr. O'Mara, Mr. Levicn, Mr. Loughlan, | { Mr. Slattery, Mr. William Clarke, Mr. Cass, Mr. Purves. | Mr. Sec..... | 1 | 1 | None..... | 19 November, 1884. |
| 2 | Standing Orders Committee*..... | 19 November, 1884. Votes No. 1, Entry 20. (On motion of Mr. Dibbs.) | { Mr. Dibbs, Mr. Speaker, Mr. Wisdom, Sir Patrick Jennings, Mr. Garrett, | { Mr. Stephen, Mr. Poole, Mr. Cameron, Mr. Heydon, Mr. Griffiths. | ..... | ..... | ..... | ..... |  |
| 3 | Library Committee†..... | 19 November, 1884. Votes No. 1, Entry 21. (On motion of Mr. Dibbs.) | { Mr. Dibbs, Mr. Speaker, Mr. Burns, Mr. Combes, Mr. Griffiths, | { Mr. Wisdom, Mr. R. B. Smith, Mr. Tarrant, Mr. Garvan, Mr. Trickett. | ..... | ..... | ..... | ..... |  |
| 4 | Refreshment Committee* | 19 November, 1884. Votes No. 1, Entry 22. (On motion of Mr. Dibbs.) | { Mr. Dibbs, Mr. R. B. Smith, Mr. Cameron, Mr. Fremlin, Mr. White, | { Mr. Farnell, Mr. W. R. Campbell, Mr. McLaughlin, Mr. Trickett, Mr. Purves. | ..... | ..... | ..... | ..... |  |
| 5 | Great Southern Coal-mining Company Railway Bill | 26 November, 1884. Votes No. 5, Entry 6... (On motion of Mr. Hammond.) | { Mr. Hammond, Mr. Fletcher, Mr. Abigail, Mr. Tece, Mr. Chapman, | { Mr. Lloyd, Mr. Garrard, Mr. Murray, Mr. Sydney Smith. | ..... | ..... | ..... | ..... |  |
| 6 | Elections and Qualifications | 26 November, 1884. Votes No. 5, Entry 8... (By Speaker's Warrant, which had not matured at end of Session.) | { John Fitzgerald Burns, Esquire, George Campbell, Esquire, Henry Clarke, Esquire, Edward Combes, Esquire, C.M.G., Henry Moses, Esquire, Richard Lennon Murray, Esquire, John Mitchell Purves, Esquire. | ..... | ..... | ..... | ..... | ..... |  |

*Confers on subjects of mutual concernment with a similar Committee appointed by the Legislative Council.

† These Committees act in co-junction with similar Committees appointed by the Legislative Council.

Legislative Assembly Offices,
Sydney, 27th November, 1884.

STEPHEN W. JONES,
Clerk of Legislative Assembly.

10. 11.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

ESTIMATES FOR 1885 AND SUPPLEMENTARY ESTIMATES FOR
1884 AND PREVIOUS YEARS.

(MESSAGE No. 1.)

Ordered by the Legislative Assembly to be printed, 19 November, 1884.

AUGUSTUS LOFTUS,
Governor.

Message No. 1.

In accordance with the provisions contained in the 54th clause of the Constitution Act, the Governor recommends to the consideration of the Legislative Assembly the accompanying Estimates of the Expenditure of this Government for the year 1885, with Supplementary Estimates of Expenditure for the year 1884 and previous years.

Government House,
Sydney, 19th November, 1884.

ESTIMATES
OF THE
PROBABLE EXPENDITURE
OF THE
GOVERNMENT
OF
NEW SOUTH WALES,
FOR THE YEAR
1885.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
19 NOVEMBER, 1884.



SYDNEY : THOMAS RICHARDS, GOVERNMENT PRINTER.

1884.

[3s. 9d.]

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| North-western | 66 | Gardens—Botanic | 31 |
| Northern District | 67 | Gladesville Hospital | 22 |
| Contingencies | 67 | Governor—His Excellency the | 10 |
| Divorce Court | 63 | Grammar School | 1 |
| Dock—Fitz Roy | 101 | Grants in aid of Public Institutions | 59 |
| Dredge Service | 101 | Geological Surveyor | 136 |
| Domains and Hyde Park—Government | 31 | Garden Palace Grounds | 32 |
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| Drawbacks and Refund of Duties | 1 | Government Savings Bank | 130 |
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| Diamond Drill Branch—Mines | 137 | H | |
| E | | Harbours and Rivers Navigation :— | |
| Electric Telegraphs | 131 & 132 | Engineer's Department | 101 |
| Electric Telegraphs—Contingencies | 132 | Fitz Roy Dock | 101 |
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| Existing Lines—Railways | 123 | Public Works | 104 |
| Engineer's Department—Harbours and Rivers Navigation | 101 | Health Board | 44 |
| Executive and Legislative—Summary | 9 | His Excellency the Governor | 10 |
| Executive Council | 10 | Hyde Park—Government Domains and | 32 |
| Endowments—Municipalities | 1 | Hospital for Insane, Gladesville | 22 |
| Endowment of the University of Sydney | 1 | Do. Branch Establishment | 22 |
| Do. Australian Museum | 1 | Hospitals for the Insane generally | 22 |
| Do. Sydney Grammar School | 1 | Do. do. Parramatta | 23 |
| Endowment of Affiliated Colleges | 1 | Do. do. Newcastle | 24 |
| Do. Municipal Council of Sydney | 1 | Do. do. Callan Park | 24 |
| Electric Lights and Telephones | 133 | Do. do. Cooma | 25 |
| F | | Hospital, Little Bay | 26 & 45 |
| Fitz Roy Dock | 101 | Harbour Masters | 46 |
| Free Public Library | 59 | | |
| Fisheries Commission | 30 | I and J | |
| Forest Conservancy | 137 | Insolvency Court | 64 |
| Fire Brigades | 31 | Imported Stock | 139 |
| G | | Industrial Schools | 56 |
| Gaols :— | | Inquests—Coroners | 67 |
| Sydney | 81 | Judges—Their Honors the | 6 & 63 |
| Parramatta | 81 | Justice—Minister of | 62 |
| Bathurst | 82 | Do. do. do. —Summary | 61 |
| Maitland | 82 | Do. do. do. —Miscellaneous Services | 86 |
| Goulburn | 82 | Infirm and Destitute—Asylums for | 30 |
| Berrima | 82 | Inspector of Public Charities | 29 |
| Albury | 82 | Immigration | 29 |
| Grafton | 83 | Inspector of Mines | 136 |
| Mudgee | 83 | Judges—District Courts | 1 |
| Armidale | 83 | Interest on Debentures | 1 |
| Wagga Wagga | 83 | Interest and Extinction of the Railway Loan | 1 |
| Yass | 83 | Improvement Board—City of Sydney | 29 |
| Deniliquin | 83 | | |
| Young | 83 | L | |
| Tamworth | 84 | Lands—Department of | 92 & 93 |
| Hay | 84 | Lands—Occupation of | 138 |
| Acting Gaolers | 84 | Lands—Secretary for (Summary) | 91 |
| Acting Matrons | 84 | Lands—Survey of | 94 & 95 |
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| Contingencies generally | 84 | Land Agents, Appraisers, &c. | 94 |
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| Glebe Island Abattoir | 45 | Legislative Council | 10 |
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| Gold Fields | 136 | | |
| Gold Receivers | 41 | | |

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| Legislative Council and Assembly | 11 | N | |
| Library—Parliamentary | 11 | Nautical School Ship "Vernon" | 56 |
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| Light-houses—Australian Coast | 49 | New Zealand Cable Subsidy | 133 |
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| Lunatic Reception House, Darlinghurst | 23 | North-western and Eastern Districts | 66 |
| Life-boats | 49 | Naval Artillery—Volunteer | 20 |
| Library, Free | 58 | Nursery Garden, Campbelltown | 31 |
| Lunatic Patients | 25 | O | |
| Lunacy | 22, 23, 24, & 25 | Official Visitors—Lunacy | 22 |
| Local Marine Board, Newcastle | 46 | Observatory | 57 |
| Little Bay—Convalescent and Fever Hospital | 26 | Occupation of Lands | 138 |
| M | | Ordnance and Barrack Department | 43 & 44 |
| Marine Board of New South Wales:— | | Orphan Schools, Parramatta | 56 |
| Marine Board, Sydney | 46 | P | |
| Do. Newcastle | 46 | Parliamentary Draftsman | 88 |
| Harbour Masters | 46 | Parliamentary Reporting Staff | 15 |
| Colonial Light-houses | 46 & 47 | Parliamentary Library | 11 |
| Sea and River Pilots | 47 & 48 | Permanent and Volunteer Military Force 15, 16, 17, 18, & 19 | |
| Boatmen | 48 | Do. General Staff | 15 |
| Telegraph Stations | 48 | Parramatta Hospital for the Insane | 23 |
| Australian Coast Light-houses | 49 | Parramatta Orphan Schools | 56 |
| Life-boats | 49 | Pensions—Schedule B. | 6 & 7 |
| Miscellaneous | 49 | Pensions—Supplement to Schedule B. | 7 |
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| Master in Lunacy | 25 | Police | 21 |
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| Do. Contingencies | 137 | Pounds and Commons | 140 |
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| Do. Minister of Justice | 86 | Public Works—Department of | 100 |
| Do. Treasurer and Secretary for Finance and Trade | 50 | Public Works—Harbours and Rivers Navigation | 104 |
| Do. Railways | 125 | Public Instruction | 52 to 55 |
| Do. Secretary for Lands | 97 | Public Schools Cadet Corps | 55 |
| Do. Secretary for Public Works | 100 | Public Library | 58 |
| Do. Secretary for Mines | 140 | Public Tanks and Wells | 140 |
| Do. Attorney General | 89 | Public Works—Prison, Trial Bay | 85 |
| Do. Marine Board | 49 | Pensions under the Superannuation Act Repeal Act of 1873 | 1 |
| Money Order and Government Savings Bank Department | 130 | Public Parks | 14 |
| Museum—Curator | 57 | Public Wharves | 49 |
| Museum—Technological | 57 | Pharmacy Board | 45 |
| Mint—Sydney Branch of Royal | 1 | Pastures and Stock Protection Act and Rabbit Act | 140 |
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| | | R | |
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| | | Railways—Summary | 117 |
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| | | Railways—Existing Lines—Working Expenses | 123 |

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| Railways—Miscellaneous | 125 | Do. Colonial Secretary | 13 |
| Receivers—Gold | 41 | Do. Minister of Public Instruction | 51 |
| Reception House for the Insane, Darlinghurst | 23 | Do. Minister of Justice | 61 |
| Refineries—Colonial Distilleries and | 41 | Do. Attorney General | 87 |
| Registrar-General | 28 | Do. Treasurer and Secretary for Finance and Trade | 35 |
| Registration of Brands | 140 | Do. Secretary for Lands | 91 |
| Rivers Navigation—Harbours and | 104 | Do. Secretary for Public Works | 99 |
| River Pilots—Sea and | 47 & 48 | Do. Railways | 117 |
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| Do. Superintendence | 111 | Do. Secretary for Mines | 135 |
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| Roads—Construction and Maintenance of | 111 to 114 | Stamps | 37 |
| Reformatory for Girls—Shaftesbury | 86 | Supplement to Schedule B. | 7 |
| Rent of Land Offices | 97 | Survey of Lands | 94 to 95 |
| Registrar of Copyrights | 86 | Do. Runs | 138 |
| Royal Mint—Sydney Branch of | 1 | Scab in Sheep—Prevention of | 139 |
| Refund of Duties—Drawbacks and | 1 | Surveyor—Geological | 136 |
| Revenue and Receipts returned | 1 | Survey Staff—Mines | 136 |
| Revotes—Colonial Architect | 109 | Sydney Improvement Board | 29 |
| Do. Roads and Bridges | 114 | Sydney Branch of Royal Mint | 1 |
| Rabbit Nuisance Act | 139 | Special Appropriations | 1 |
| | | Sydney University | 1 |
| | | Sewerage | 114 |
| | | Sydney Marine Board | 46 |
| | | | |
| | | T | |
| | | Technological Museum | 57 |
| | | Telegraphs—Electric | 131 & 132 |
| | | Telegraph Stations | 48 |
| | | Temporary Hospital for Insane, Cooma | 25 |
| | | Their Honors the Judges | 6 & 62 |
| | | Treasurer and Secretary for Finance and Trade (Summary) | 35 |
| | | Treasurer and Secretary for Finance and Trade—Miscellaneous Services | 50 |
| | | Treasury | 36 |
| | | Triangulation and General Survey of the Colony | 96 |
| | | Towards the payment of Interest and Extinction of the Railway Loan of 1867 | 1 |
| | | Training Ship "Wolverene" | 20 |
| | | Treasurer's Advance Account | 50 |
| | | Tanks and Wells (Roads and Bridges) | 140 |
| | | Telephones and Electric Lights | 133 |
| | | | |
| | | U | |
| | | University of Sydney | 1 |
| | | | |
| | | V | |
| | | Vaccination, &c. | 26 |
| | | Volunteers | 17 to 19 |
| | | Volunteer Naval Artillery | 20 |
| | | "Vernon"—Nautical School Ship | 58 |
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| | | "Wolverene" Training Ship | 20 |
| | | Warlike Stores | 44 |
| | | Western District Court | 66 |
| | | Works and Buildings—Public | 108 & 109 |
| | | Works of Defence | 17 |
| | | Wharfs—Public | 49 |
| | | Working Expenses—Existing Lines | 123 |

ESTIMATES OF EXPENDITURE.

ABSTRACT of the ESTIMATES of the PROBABLE EXPENDITURE of the
GOVERNMENT of NEW SOUTH WALES, for the Year 1885.

| Page. | GENERAL HEADS OF SERVICE. | Appropriated for 1884. | | | Required for 1885. | | |
|-------|---|---------------------------|----|----|-----------------------|----|----|
| | I. SCHEDULES A, B, AND C, TO SCHEDULE 1, OF 18 & 19 VICTORIA, CAP. 54:— | £ | s. | d. | £ | s. | d. |
| 5 | Provided by the Constitution Act | 36,565 | 8 | 0 | 36,015 | 8 | 0 |
| 5 | Provided by Colonial Acts | 9,920 | 0 | 0 | 9,920 | 0 | 0 |
| | | 46,485 | 8 | 0 | 45,935 | 8 | 0 |
| 5 | Additional Expenditure | 1,189 | 0 | 0 | 1,189 | 0 | 0 |
| 9 | II. EXECUTIVE AND LEGISLATIVE | 23,043 | 0 | 0 | 22,513 | 0 | 0 |
| 13 | III. THE COLONIAL SECRETARY | 842,640 | 0 | 0 | 866,589 | 0 | 0 |
| 35 | IV. THE TREASURER AND SECRETARY FOR FINANCE AND TRADE | 455,663 | 0 | 0 | 444,218 | 0 | 0 |
| 51 | V. MINISTER OF PUBLIC INSTRUCTION | 809,679 | 0 | 0 | 822,269 | 0 | 0 |
| 61 | VI. MINISTER OF JUSTICE | 254,131 | 0 | 0 | 252,401 | 0 | 0 |
| 87 | VII. THE ATTORNEY GENERAL | 38,218 | 0 | 0 | 42,156 | 0 | 0 |
| 91 | VIII. THE SECRETARY FOR LANDS | 457,784 | 0 | 0 | 499,151 | 0 | 0 |
| 99 | IX. THE SECRETARY FOR PUBLIC WORKS— | | | | | | |
| 100 | PUBLIC WORKS GENERALLY | 1,113,849 | 0 | 0 | 1,146,141 | 0 | 0 |
| 117 | RAILWAYS... .. | 1,531,951 | 0 | 0 | 1,842,252 | 0 | 0 |
| 117 | RAILWAYS—SALARIES PAYABLE FROM LOAN VOTES | 54,374 | 0 | 0 | 49,279 | 0 | 0 |
| 127 | X. THE POSTMASTER GENERAL | 562,581 | 0 | 0 | 589,616 | 0 | 0 |
| 135 | XI. THE SECRETARY FOR MINES | 144,606 | 0 | 0 | 174,869 | 0 | 0 |
| | | 6,289,708 | 0 | 0 | 6,752,643 | 0 | 0 |
| | | 6,336,198 | 8 | 0 | 6,798,573 | 8 | 0 |
| | SPECIAL APPROPRIATIONS. | | | | | | |
| | | 1884. | | | 1885. | | |
| | Interest on Debentures and Funded Stock | 980,000 | 0 | 0 | 1,230,400 | 0 | 0 |
| | Towards the payment of Interest and Extinction of the Railway Loan of 1867 (£1,000,000), 31 Vic. No. 11 | 70,000 | 0 | 0 | 70,000 | 0 | 0 |
| | Drawbacks and Refund of Duties | 40,000 | 0 | 0 | 50,000 | 0 | 0 |
| | Revenue and Receipts returned | 100,000 | 0 | 0 | 200,000 | 0 | 0 |
| | Charges on Collections | 6,000 | 0 | 0 | 9,000 | 0 | 0 |
| | Endowment of the University of Sydney | 5,000 | 0 | 0 | 5,000 | 0 | 0 |
| | Endowment of the Australian Museum | 1,000 | 0 | 0 | 1,000 | 0 | 0 |
| | Endowment of the Sydney Grammar School | 1,500 | 0 | 0 | 1,500 | 0 | 0 |
| | Endowment of the Affiliated Colleges... .. | 1,500 | 0 | 0 | 1,500 | 0 | 0 |
| | Endowments under the Municipalities Act | 20,000 | 0 | 0 | 20,000 | 0 | 0 |
| | Endowment of the Civil Service Superannuation Account, 1st instalment... | ..... |  |  | 20,000 | 0 | 0 |
| | Chief Commissioner of Insolvent Estates | 1,500 | 0 | 0 | 1,500 | 0 | 0 |
| | Judges under the District Courts Act | 10,500 | 0 | 0 | 10,500 | 0 | 0 |
| | Sydney Branch of the Royal Mint | 15,000 | 0 | 0 | 15,000 | 0 | 0 |
| | Pensions under the Superannuation Act Repeal Act of 1873 | 8,600 | 0 | 0 | 8,000 | 0 | 0 |
| | Pension to the late Collector of Customs under Act 43 Vic. No. 22 | 476 | 0 | 0 | 476 | 0 | 0 |
| | Endowment of the Municipal Council of Sydney, 43 Vic. No. 3 | 25,000 | 0 | 0 | 25,000 | 0 | 0 |
| | Commissioners of Customs, 42 Vic. No. 19 | 600 | 0 | 0 | 600 | 0 | 0 |
| | Expenses of Parliamentary Witnesses, 45 Vic. No. 5 ... .. | ..... |  |  | 300 | 0 | 0 |
| | Expenses under the Civil Service Act, 48 Vic. No. 24 ... .. | ..... |  |  | 1,500 | 0 | 0 |
| | TOTAL SPECIAL APPROPRIATIONS | 1,286,676 | 0 | 0 | 1,671,276 | 0 | 0 |
| | GRAND TOTAL... .. | £ 7,622,869 | 8 | 0 | 8,469,854 | 8 | 0 |

NEW SOUTH WALES.

—♦—

ESTIMATES OF EXPENDITURE,
1885,
DETAILED.

I.

Schedules A, B, and C, to Schedule 1,

OF ACTS 18 & 19 VICTORIA, CAPUT 54.

SUMMARY.

| Page. | HEAD OF SERVICE. | PROVIDED BY THE CONSTITUTION ACT. | PROVIDED BY COLONIAL ACTS. | TOTAL. |
|-------|--|-----------------------------------|----------------------------|------------|
| | | £ s. d. | £ s. d. | £ s. d. |
| | Authorized Expenditure. | | | |
| | SCHEDULE A:— | | | |
| 6 | Salaries as per annexed Statement | 18,050 0 0 | 9,150 0 0 | 27,200 0 0 |
| | SCHEDULE B:— | | | |
| 6-7 | Pensions as per annexed Statement | 6,850 0 0 | 770 0 0 | 7,620 0 0 |
| | SCHEDULE C:— | | | |
| 7 | Public Worship as per annexed Statement... .. | 11,115 8 0 | ..... | 11,115 8 0 |
| | TOTAL | £ 36,015 8 0 | 9,920 0 0 | 45,935 8 0 |
| | Expenditure to be Authorized. | | | |
| | SUPPLEMENT TO SCHEDULE B:— | | | |
| 7 | Pensions as per Statement attached to be voted | £ ..... | ..... | 1,189 0 0 |

The Treasury, New South Wales, Sydney, 19th November, 1884.

GEORGE R. DIBBS, Treasurer.

| No. I.—SCHEDULES. | | | | | | | PROVIDED IN SCHEDULE. | PROVIDED BY COLONIAL ACTS. |
|--|-----|-----|-----|-----|-----|------------|--------------------------|-------------------------------|
| | | | | | | | £ s. d. | £ s. d. |
| SCHEDULE A. | | | | | | | | |
| His Excellency the Governor | ... | ... | ... | ... | ... | 7,000 0 0 | ..... |  |
| The Chief Justice | ... | ... | ... | ... | ... | 2,000 0 0 | 1,500 0 0 | |
| Four Puisne Judges, at £2,600 | ... | ... | ... | ... | ... | 3,000 0 0 | 7,400 0 0 | |
| The Colonial Secretary | ... | ... | ... | ... | ... | 2,000 0 0 | ..... |  |
| The Colonial Treasurer | ... | ... | ... | ... | ... | 1,250 0 0 | 250 0 0 | |
| The Auditor General | ... | ... | ... | ... | ... | 900 0 0 | ..... |  |
| The Attorney General | ... | ... | ... | ... | ... | 1,500 0 0 | ..... |  |
| The Governor's Private Secretary | ... | ... | ... | ... | ... | 400 0 0 | ..... |  |
| TOTAL | ... | ... | ... | ... | £ | 18,050 0 0 | 9,150 0 0 | |
| SCHEDULE B. | | | | | | | | |
| Pensions. | | | | | | | | |
| To JUDGES, who have retired from office:— | | | | | | | | |
| Sir Alfred Stephen, C.B., K.C.M.G., late Chief Justice | ... | ... | ... | ... | ... | 1,400 0 0 | 420 0 0 | |
| John Fletcher Hargrave, late Puisne Judge | ... | ... | ... | ... | ... | 1,050 0 0 | 350 0 0 | |
| | | | | | | 2,450 0 0 | 770 0 0 | |
| To OFFICERS OF THE GOVERNMENT who, on political grounds, retired, or were released from office, viz.:— | | | | | | | | |
| Francis Lewis Shaw Merewether, formerly Auditor General | ... | ... | ... | ... | ... | 900 0 0 | ..... |  |
| To THE UNDERMENTIONED PENSIONERS, according to the Scale and Rates fixed by the Superannuation Act of the Imperial Parliament, 4 & 5 Gul. IV., cap. 24, viz.:— | | | | | | | | |
| James Larmer, late Surveyor | ... | ... | ... | ... | ... | 167 0 0 | ..... |  |
| James Warner, late Assistant Surveyor | ... | ... | ... | ... | ... | 70 0 0 | ..... |  |
| Mrs. Susannah Mileham, Widow of Surgeon Mileham | ... | ... | ... | ... | ... | 100 0 0 | ..... |  |
| Thomas Bevan, late Trooper, Mounted Police | ... | ... | ... | ... | ... | 9 2 6 | ..... |  |
| Carried forward | ... | ... | ... | ... | £ | 346 2 6 | ..... |  |
| Carried forward... .. | ... | ... | ... | ... | £ | 3,350 0 0 | 770 0 0 | |

No. I.—SCHEDULES.

| SCHEDULE B—continued. | PROVIDED IN SCHEDULE. | PROVIDED BY COLONIAL ACTS. |
|---|-----------------------|----------------------------|
| | £ s. d. | £ s. d. |
| Brought forward | 3,350 0 0 | 770 0 0 |
| Pensions—continued. | | |
| Brought forward | 346 2 6 | ..... |
| Edward Wilson, late Constable, Penrith Police | 14 18 3 | ..... |
| Thomas Reilly, late Sergeant to Governor General's Orderlies | 32 13 4 | ..... |
| William Wedge Darke, late Assistant Surveyor | 153 0 11 | ..... |
| James Bean, late Messenger, Survey Department | 29 7 3 | ..... |
| David Moores, late Foreman, Colonial Stores | 48 12 2 | ..... |
| John Hayes, late Storehouseman, Colonial Stores | 44 8 0 | ..... |
| Hannah Pope, late Housekeeper in the Colonial Secretary's Office | 22 17 6 | ..... |
| Ellen Delprado, late Housekeeper, Audit Office | 39 11 8 | ..... |
| Hugh Roland Labatt, late Assistant Surveyor and Assistant Engineer, Harbours and Rivers Department | 53 12 7 | ..... |
| J. S. Adam, late Chief Draftsman, Surveyor General's Department | 228 11 5 | ..... |
| Henry Halloran, late Under Secretary, Colonial Secretary's Department | 800 0 0 | ..... |
| William Wilton, late Visiting Surgeon, Maitland Gaol | 27 10 0 | ..... |
| R. T. Hall, late Assistant Inspector, Audit Department | 166 0 0 | ..... |
| T. C. Battley, late Clerk of Petty Sessions, Gosford | 118 12 0 | ..... |
| L. I. Brennand, late Superintendent of Stores | 171 8 0 | ..... |
| C. G. Lockhart, late Commissioner Crown Lands | 214 0 0 | ..... |
| Hy. Broderick, late Engineer, &c., Marine Board | 196 0 0 | ..... |
| Benjamin C. Bradshaw, late Clerk in the General Post Office | 121 0 0 | ..... |
| Eliza B. Daly, late Postmistress, Maitland | 109 0 0 | ..... |
| James H. Palmer, late Shorthand Writer, Legislative Assembly | 321 8 6 | ..... |
| Balance to be appropriated | 241 5 11 | ..... |
| | 3,500 0 0 | ..... |
| TOTAL SCHEDULE B... .. | £ 6,850 0 0 | 770 0 0 |
| SCHEDULE C. | | |
| Public Worship— | | |
| Church of England | 5,690 17 6 | ..... |
| Presbyterian Church | 1,052 0 0 | ..... |
| Wesleyan Methodist Church | 1,222 10 6 | ..... |
| Roman Catholic Church | 3,150 0 0 | ..... |
| TOTAL SCHEDULE C... .. | £ 11,115 8 0 | ..... |
| | AMOUNT. | TOTAL. |
| SUPPLEMENT TO SCHEDULE B. | | |
| Pensions. | | |
| Lady Forbes, Widow of the late Sir Francis Forbes, Chief Justice | 200 0 0 | ..... |
| Mrs. Anne Petrie, Daughter of the late Captain Flinders, R.N. | 100 0 0 | ..... |
| Mrs. Maria Bate Wise, Widow of the late Mr. Justice Wise | 200 0 0 | ..... |
| Mrs. Margaret Edwards, Widow of the late Pilot Edwards... .. | 50 0 0 | ..... |
| Mrs. Julia Robinson, Widow of the late Pilot Robinson | 150 0 0 | ..... |
| Mrs. Jane Reader, Widow of the late Pilot Reader | 75 0 0 | ..... |
| Mrs. Shanks, Widow of the late Pilot Shanks | 50 0 0 | ..... |
| Mrs. Petersen, Widow of the late Pilot Petersen | 30 0 0 | ..... |
| Mrs. Wickham, late Postmistress, Parramatta | 84 0 0 | ..... |
| Mr. E. H. Hargraves, of Brisbane Water | 250 0 0 | 1,189 0 0. |
| TOTAL AMOUNT TO BE VOTED | £ | 1,189 0 0 |

II.

Executive and Legislative.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|-------|---|--------------------|-----------------------|
| | | £ | £ |
| 10 | His Excellency the Governor | 2,060 | 2,060 |
| 10 | Executive Council | 1,028 | 1,028 |
| 10 | Legislative Council | 5,990 | 6,055 |
| 11 | Legislative Assembly | 9,920 | 9,055 |
| 11 | Legislative Council and Assembly | 2,350 | 2,620 |
| 11 | Parliamentary Library | 1,695 | 1,695 |
| | TOTAL | £ 23,043 | 22,513 |

*The Treasury, New South Wales,
Sydney, 19th November, 1884.*

GEORGE R. DIBBS,
Treasurer.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|--|--|---------------------------|-------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| His Excellency the Governor. | | | | | |
| PRIVATE SECRETARY. | | | | | |
| 1 | 1 | Private Secretary. (Provided in Schedule.) | | | |
| 1 | 1 | | | 370 | 370 |
| 1 | 1 | | | 150 | 150 |
| 1 | 1 | | | 55 | 55 |
| AIDE-DE-CAMP. | | | | | |
| 1 | 1 | | | 358 | 358 |
| MOUNTED ORDERLIES. | | | | | |
| 1 | 1 | | | 183 | 183 |
| 1 | 1 | | | 138 | 138 |
| 2 | 2 | | | 257 | 257 |
| | | | | 146 | 146 |
| | | | | 173 | 173 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | | | 120 | 120 |
| | | | | 60 | 60 |
| | | | | 50 | 50 |
| | | | | 549 | 549 |
| 9 | 9 | | | 2,060 | 2,060 |
| Executive Council. | | | | | |
| 1 | 1 | | | 650 | 650 |
| 1 | 1 | | | 200 | 200 |
| 1 | 1 | | | 150 | 150 |
| 1 | 1 | | | 18 | 18 |
| | | | | 10 | 10 |
| | | | | 1,018 | 1,018 |
| | | | | 10 | 10 |
| 4 | 4 | | | 1,028 | 1,028 |
| Legislative Council. | | | | | |
| 1 | 1 | | | 1,200 | 1,200 |
| 1 | 1 | | | 500 | 500 |
| 1 | 1 | | | 700 | 700 |
| 1 | 1 | | | 500 | 500 |
| 1 | 1 | | | 400 | 400 |
| 1 | 1 | | | 550 | 550 |
| 1 | 1 | | | 400 | 400 |
| 1 | 1 | | | 300 | 300 |
| 1 | 1 | | | 250 | 250 |
| 1 | 1 | | | 200 | 200 |
| 1 | 1 | | | 175 | 190 |
| 1 | 1 | | | 140 | 150 |
| 4 | 4 | | | 500 | 540 |
| | | | | 5,815 | 5,880 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | | | 75 | 75 |
| | | | | 100 | 100 |
| | | | | 175 | 175 |
| 16 | 16 | | | 5,990 | 6,055 |

ESTIMATES OF EXPENDITURE—1885.

11

| No of Persons. | | No. II.—EXECUTIVE AND LEGISLATIVE. | | | |
|--|------|------------------------------------|-------|---------------------------|-------|
| 1884 | 1885 | SALARIES AND CONTINGENCIES. | | | |
| | | Amount Voted for 1884. | | Amount Required for 1885. | |
| Legislative Assembly. | | | | | |
| | | £ | | £ | |
| 1 | 1 | 1,500 | | 1,500 | |
| 1 | 1 | 800 | | 800 | |
| 1 | 1 | 900 | | 900 | |
| 1 | 1 | 675 | | 675 | |
| 1 | 1 | 550 | | 550 | |
| 1 | 1 | 450 | | 450 | |
| 1 | 1 | 600 |  | ..... |  |
| 1 | 1 | 450 | | 450 | |
| 1 | 1 | 400 | | 400 | |
| 1 | 1 | 350 | | 350 | |
| 1 | 1 | 300 | | 300 | |
| 3 | 3 | 700 | | 700 | |
| 1 | 1 | 220 | | 220 | |
| 1 | 1 | 165 | | 165 | |
| 9 | 9 | 1,235 | | 1,255 | |
| 1 | 1 | 75 | | 90 | |
| | | | 9,370 | | 8,805 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | 300 |  | ..... |  |
| | | 100 | | 100 | |
| | | 150 | | 150 | |
| | | | 550 | | 250 |
| 26 | 26 | £ | 9,920 | £ | 9,055 |
| Legislative Council and Assembly. | | | | | |
| 1 | 1 | 250 | | 250 | |
| 1 | 1 | 75 | | 85 | |
| 1 | 1 | 150 | | 150 | |
| 1 | 1 | 125 | | 135 | |
| 1 | 1 | 125 | | 135 | |
| 1 | 1 | 125 | | 135 | |
| 3 | 3 | 195 | | 225 | |
| 1 | 1 | 200 | | 200 | |
| 3 | 3 | 390 | | 420 | |
| 1 | 1 | 65 | | 75 | |
| 1 | 1 | 125 | | 135 | |
| | | | 1,825 | | 1,945 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | 350 | | 500 | |
| | | 50 | | 50 | |
| | | 125 | | 125 | |
| | | | 525 | | 675 |
| 15 | 15 | £ | 2,350 | £ | 2,620 |
| Parliamentary Library. | | | | | |
| 1 | 1 | 450 | | 450 | |
| 2 | 2 | 525 | | 525 | |
| | | | 975 | | 975 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | 450 | | 450 | |
| | | 100 | | 100 | |
| | | 100 | | 100 | |
| | | 45 | | 45 | |
| | | 25 | | 25 | |
| | | | 720 | | 720 |
| 3 | 3 | £ | 1,695 | £ | 1,695 |

III.

Colonial Secretary.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|-------|--|--------------------|-----------------------|
| | | £ | £ |
| 14 | Colonial Secretary | 7,153 | 7,153 |
| 14 | Public Parks | 782 | 782 |
| 14 | Protectorate of Aborigines | 6,600 | 6,450 |
| 15 | Parliamentary Reporting Staff | 3,453 | 4,160 |
| | Permanent and Volunteer Military Forces— | | |
| 15 | The General Staff... .. | 3,074 | 3,072 |
| 15-16 | Artillery Force | 33,347 | 33,575 |
| 17 | Artillery Reserve Force | 1,520 | ..... |
| 17 | Works of Defence | 1,500 | 3,150 |
| 17-19 | Volunteer Force | 54,786 | 90,182 |
| 19 | Volunteer Naval Artillery | 500 | 500 |
| 20 | Naval Brigade | 5,817 | 5,815 |
| 20 | Training Ship "Wolverene" | 4,200 | 4,200 |
| 21 | Police | 263,558 | 274,940 |
| 21 | Government Analyst | 950 | 950 |
| 22-25 | Lunacy | 82,114 | 80,697 |
| 25 | Master in Lunacy | 1,200 | 1,200 |
| 25 | Medical Board | 100 | 100 |
| 26 | Medical Adviser, Vaccination, Medical Officers, &c. | 9,465 | 9,505 |
| 26 | Convalescent and Fever Hospital, Little Bay | 7,000 | 4,000 |
| 27 | Department of Audit | 9,495 | 9,645 |
| 28 | Registrar General | 21,445 | 21,745 |
| 29 | Agent General for the Colony | 5,877 | 5,877 |
| 29 | Immigration | 51,814 | 51,461 |
| 29 | City of Sydney Improvement Board | 360 | 360 |
| 29 | Charitable Institutions—Inspector of Public Charities | 1,050 | 1,330 |
| 29-30 | Fisheries Commission | 4,759 | 5,244 |
| 30 | Asylums for the Infirm and Destitute | 25,112 | 25,162 |
| 30 | State Children's Relief Department | 12,725 | 18,535 |
| ... | Fire Brigades | 6,000 | 6,920 |
| 31 | Botanic Gardens | 7,184 | 5,385 |
| 31 | State Nursery | 950 | 830 |
| 31 | Government Domains | 2,419 | 2,433 |
| 32 | Garden Palace Grounds | 1,170 | 1,170 |
| 32-33 | Charitable Allowances... .. | 79,229 | 67,208 |
| 33-34 | Miscellaneous Services... .. | 126,432 | 112,853 |
| | TOTAL | £ 842,640 | 866,589 |

| No. of Persons. | | No. III.—COLONIAL SECRETARY. | | | |
|--|------|---|--|---------------------------|-------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Colonial Secretary. | | | | | |
| 1 | 1 | Colonial Secretary. (Provided in Schedule.) | | | |
| 1 | 1 | | | 900 | 900 |
| 1 | 1 | | | 625 | 625 |
| 1 | 1 | | | 475 | 475 |
| 1 | 1 | | | 425 | 425 |
| 1 | 1 | | | 350 | 350 |
| 1 | 1 | | | 325 | 325 |
| 1 | 1 | | | 250 | 250 |
| 1 | 1 | | | 225 | 225 |
| 1 | 1 | | | 200 | 200 |
| 1 | 1 | | | 175 | 175 |
| 1 | 1 | | | 125 | 125 |
| 1 | 1 | | | 100 | 100 |
| 1 | 1 | | | 100 | 100 |
| 1 | 1 | | | 100 | 100 |
| 1 | 1 | | | 100 | 100 |
| 1 | 1 | | | 100 | 100 |
| 1 | 1 | | | 250 | 250 |
| 1 | 1 | | | 175 | 175 |
| 1 | 1 | | | 175 | 175 |
| 1 | 1 | | | 120 | 120 |
| 1 | 1 | | | 90 | 90 |
| 1 | 1 | | | 90 | 90 |
| 1 | 1 | | | 90 | 90 |
| 1 | 1 | | | 72 | 72 |
| | | | | 5,637 | 5,637 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | | | 700 | 700 |
| | | | | 60 | 60 |
| | | | | 200 | 200 |
| 7 | 7 | | | 556 | 556 |
| | | | | 1,516 | 1,516 |
| 32 | 32 | | | 7,153 | 7,153 |
| Public Parks. | | | | | |
| 1 | 1 | | | 500 | 500 |
| 1 | 1 | | | 157 | 157 |
| | | | | 657 | 657 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | | | 125 | 125 |
| 2 | 2 | | | 782 | 782 |
| Aborigines Protection Board. | | | | | |
| 1 | 1 | | | 200 | 200 |
| | | | | 200 | 200 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | | | 2,000 | 2,000 |
| | | | | 4,000 | 4,000 |
| | | | | 300 | 250 |
| | | | | 100 | 250 |
| | | | | 6,400 | 6,250 |
| 1 | 1 | | | 6,600 | 6,450 |

ESTIMATES OF EXPENDITURE—1885.

15

No. III.—COLONIAL SECRETARY.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|--|-------|---------------------------|--------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Parliamentary Reporting Staff. | | | | | |
| 1 | 1 | Principal Shorthand Writer (£800 from 1 June, 1884) | 759 | 800 | |
| 1 | 1 | Second Shorthand Writer (£600 from 1 June, 1884) ... | 579 | 600 | |
| 4 | 4 | Shorthand Writers, (£500 from 1 June, 1884) ... | 1,917 | 2,000 | |
| ... | 1 | Sessional Shorthand Writer ... | ..... | 300 | |
| 1 | 1 | Additional Shorthand Writer at £450 from 1st August 1884, ... | 188 | 450 | |
| | | | | 3,443 | 4,150 |
| | | Incidental Expenses ... | ..... | 10 | 10 |
| 7 | 8 | TOTAL... .. £ | ..... | 3,453 | 4,160 |
| Permanent and Volunteer Military Forces. | | | | | |
| THE GENERAL STAFF. | | | | | |
| 1 | 1 | Commandant | 600 | 600 | |
| 1 | 1 | Brigade-Major | 400 | 400 | |
| 1 | 1 | Brigade Pay and Quartermaster | 366 | 366 | |
| 1 | 1 | Officer Instructor of Musketry | 300 | 300 | |
| 1 | 1 | Brigade Clerk, at 10s. per diem | 183 | 183 | |
| 1 | 1 | Assistant do., at 7s. 6d. per diem | 138 | 137 | |
| 1 | 1 | Pay and Quartermaster's Clerk, at 8s. 6d. per diem | 156 | 156 | |
| 1 | 1 | 1 Assistant do., at 7s. 6d. per diem | 138 | 137 | |
| 1 | 1 | Brigade Quartermaster-sergeant, at 10s. per diem | 183 | 183 | |
| | | | | 2,464 | 2,462 |
| CONTINGENCIES. | | | | | |
| | | Forage Allowance for Commandant (2 horses), Brigade-Major, Pay and Quartermaster, and Instructor of Musketry (1 horse each), at £52 each per annum ... | 260 | 260 | |
| | | Allowance in lieu of Quarters for Commandant ... | 175 | 175 | |
| | | Do. Major of Brigade ... | 160 | 150 | |
| | | Compensation to Staff Sergeants in lieu of Uniforms ... | 25 | 25 | |
| | | | | 610 | 610 |
| 9 | 9 | TOTAL ... .. £ | ..... | 3,074 | 3,072 |
| ARTILLERY FORCE. | | | | | |
| REGIMENTAL OFFICERS. | | | | | |
| 1 | 1 | Colonel Commanding | 500 | 500 | |
| 3 | 3 | Majors, at £385 | 1,155 | 1,155 | |
| 3 | 3 | Captains, at £256 | 768 | 768 | |
| 6 | 6 | Lieutenants, at £238 (13s. per diem each) | 1,428 | 1,428 | |
| 1 | 1 | Staff Surgeon, Sydney | 274 | 274 | |
| 1 | 1 | Do. Newcastle (Civilian) | 75 | 75 | |
| | | | | 4,200 | 4,200 |
| 15 | 15 | | | | |
| NON-COMMISSIONED OFFICERS, TRUMPETERS, AND GUNNERS. | | | | | |
| 1 | 1 | Brigade Sergeant-Major, at 7s. per diem | 129 | 128 | |
| 1 | 1 | Do. Quartermaster Sergeant, at 6s. per diem | 110 | 110 | |
| 1 | 1 | Orderly Room Clerk, at 5s. 6d. per diem | 101 | 101 | |
| 1 | 1 | District Clerk, at 3s. 6d. per diem | 65 | 64 | |
| 1 | 1 | Band Sergeant, at 4s. per diem | 74 | 73 | |
| 1 | 1 | Trumpet Corporal, at 3s. 4d. per diem | 61 | 61 | |
| 3 | 3 | Battery Sergeant-Majors, at 5s. 6d. per diem each | 302 | 302 | |
| 18 | 18 | Sergeants, at 4s. per diem each | 1,318 | 1,314 | |
| 1 | 1 | Hospital Sergeant, at 4s. per diem | 74 | 73 | |
| 1 | 1 | Provost Sergeant, at 4s. per diem | 74 | 73 | |
| 15 | 15 | Corporals, at 3s. 4d. per diem each | 915 | 913 | |
| 13 | 13 | Bombardiers, at 3s. 2d. per diem each | 754 | 752 | |
| 9 | 9 | Trumpeters, at 2s. 3d. per diem each | 371 | 370 | |
| 2 | 2 | Master Gunners, at 7s. | 257 | 256 | |
| 239 | 239 | Gunners, at 2s. 3d. per diem | 9,841 | 9,814 | |
| | | | | 14,446 | 14,404 |
| 307 | 307 | Carried forward... .. £ | ..... | 18,646 | 18,604 |
| 322 | 322 | | | | |

ESTIMATES OF EXPENDITURE—1885.

17

No. III.—COLONIAL SECRETARY.

| No. of Persons. | | Permanent and Volunteer Military Forces—continued. | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|--|-----------------------------|-------|---------------------------|--------|
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| | | | | | | |
| | | ARTILLERY RESERVE FORCE. | | | | |
| 2 | ... | Sergeants, at £25 | 50 |  | ..... |  |
| 2 | ... | Corporals, at £23 | 46 |  | ..... |  |
| 2 | ... | Bombardiers, at £22 | 44 |  | ..... |  |
| 50 | ... | Gunners at £20 | 1,000 |  | ..... |  |
| | | CONTINGENCIES. | | 1,140 |  | ..... |
| | | Uniform for the Force | 250 |  | ..... |  |
| | | Rations during training | 30 |  | ..... |  |
| | | Incidental Expenses | 100 |  | ..... |  |
| | | | | 380 |  | ..... |
| 56 | ... | TOTAL | £ | 1,520 | ..... | ..... |
| | | | | | | |
| | | Works of Defence. | | | | |
| | | To meet cost of removing and Mounting of Ordnance... | 1,000 | | 1,000 | |
| | | Repairs to Batteries, &c., at the Heads | 500 | | 500 | |
| | | Completing Road from Middle Harbour to Cobblers' Beach ... .. | ..... |  | 300 | |
| | | Erection of Armoury ... .. | ..... |  | 1,350 | |
| | | | | 1,500 | | 3,150 |
| | | TOTAL | £ | 1,500 | ..... | 3,150 |
| | | | | | | |
| | | VOLUNTEER FORCE. | | | | |
| | | <i>Volunteer Permanent Staff, unattached.</i> | | | | |
| 1 | 1 | Brigade Sergeant-Major, at 10s. per diem | 183 | | 183 | |
| 1 | 1 | Sergeant Instructor of Musketry, at 8s. 6d. per diem | 156 | | 156 | |
| 7 | 7 | Sergeant Instructors, at 8s. per diem | 1,025 | | 1,022 | |
| 1 | 1 | Armourer-Sergeant, at 8s. per diem | 147 | | 146 | |
| 1 | 1 | Assistant, 6s. per diem | 110 | | 110 | |
| 1 | 1 | Gunnery Instructor, at 3s. per diem | 55 | | 55 | |
| 1 | 1 | Bugle-Major and Messenger, 8s. per diem | 147 | | 146 | |
| 1 | 1 | Sergeant in charge of Paddington Rifle Range and Government Properties, at 8s. per diem | 147 | | 146 | |
| | | Compensation to Staff-Sergeants, in lieu of Uniform | 65 | | 65 | |
| | | | | 2,035 | | 2,029 |
| 14 | 14 | | | | | |
| | | <i>Artillery.</i> | | | | |
| 1 | 1 | Lieut.-Colonel | 70 | | 70 | |
| 1 | 2 | Majors at £50 | 50 | | 100 | |
| 6 | 8 | Captains, at £40 | 240 | | 320 | |
| 6 | 8 | 1st Lieutenants, at £30 | 180 | | 240 | |
| 6 | 8 | 2nd Lieutenants, at £25 | 150 | | 200 | |
| 1 | 1 | *Adjutant Pay and Quarter-master | 250 | | 250 | |
| 1 | 1 | *Regimental Sergeant-Major, at 10s. per diem | 183 | | 183 | |
| 1 | 1 | *Regimental Quarter-Master Sergeant, at 8s. per diem | 147 | | 146 | |
| ... | 1 | Orderly Room Clerk, at 8s. per diem ... .. | ..... |  | 146 | |
| 1 | 1 | Trumpet-Major | 17 | | 17 | |
| 6 | 8 | Battery Sergeant-Majors, at £17 | 102 | | 136 | |
| 12 | 24 | Sergeants, at £15 | 180 | | 360 | |
| 18 | 32 | Corporals, at £14 | 252 | | 448 | |
| ... | 24 | Bombardiers, at £13 ... .. | ..... |  | 312 | |
| 6 | 16 | Trumpeters, at £10 | 60 | | 160 | |
| 300 | 514 | Gunners, at £12 | 3,600 | | 6,168 | |
| | | Reserve | 240 |  | ..... |  |
| | | Command Pay | 30 | | 30 | |
| 366 | 650 | | | 5,751 | | 9,286 |
| 380 | 664 | Carried forward | £ | 7,786 | ..... | 11,315 |

* Volunteer Permanent Staff Instructors.

| No. of Persons. | | No. III.—COLONIAL SECRETARY. | | | |
|-----------------|------|---|--------|---------------------------|--------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | Permanent and Volunteer Military Forces—continued. | | | |
| | | VOLUNTEER FORCE—continued. | | | |
| | | £ | | £ | |
| 380 | 664 | Brought forward | 7,786 | ..... | 11,315 |
| | | <i>Artillery—continued.</i> | | | |
| | | Uniforms | 1,400 | | 974 |
| | | Forage Allowance for Commanding Officer, 2 Majors, and Adjutant, at £52 per annum each | 156 | | 208 |
| | | Horse Allowance for the 3 Officers of the Field Battery | 75 | | 75 |
| | | Allowances in lieu of Quarters to Adjutant, at £90 per annum, if of rank of Captain; £60, if Lieutenant | 90 | | 90 |
| | | Compensation to 2 Staff-Sergeants, in lieu of Uniform | 10 | | 15 |
| | | | 1,731 | | 1,362 |
| | | <i>Engineers.</i> | | | |
| 1 | 1 | Major Commanding | 50 | | 50 |
| 1 | 1 | Captain | 40 | | 40 |
| 1 | 2 | Lieutenants, at £30 | 30 | | 60 |
| 1 | 1 | Company Sergeant-Major and Staff Instructor, at 8s. per diem | 147 | | 146 |
| 1 | 1 | Quartermaster-Sergeant | 17 | | 17 |
| 2 | 3 | Sergeants, at £15 | 30 | | 45 |
| 3 | 4 | First Corporals, at £14 | 42 | | 56 |
| 3 | 4 | Second Corporals, at £13... .. | 39 | | 52 |
| 2 | 2 | Buglers, at £10 | 20 | | 20 |
| 55 | 66 | Sappers, at £12 | 660 | | 792 |
| | | Command Pay | 20 | | 20 |
| | | | 1,095 | | 1,298 |
| | | Uniform | 200 | | 160 |
| | | Compensation to Staff Sergeant, in lieu of uniform | 5 | | 5 |
| | | | 205 | | 165 |
| 70 | 85 | | | | |
| | | <i>Torpedo and Signalling Corps.</i> | | | |
| 1 | 1 | Major Commanding | 150 | | 150 |
| 1 | 1 | Captain | 100 | | 100 |
| 2 | 2 | Lieutenants (1st), at £60 | 120 | | 120 |
| 2 | 2 | Do. (2nd), at £40 | 80 | | 80 |
| 1 | 1 | Company Sergeant-Major and Staff Instructor, at 8s. 6d. per diem | 156 | | 156 |
| 1 | 1 | Colour-Sergeant | 30 | | 30 |
| 5 | 5 | Sergeants, at £25 | 125 | | 125 |
| 5 | 5 | Corporals (1st), at £20 | 100 | | 100 |
| 5 | 5 | Do. (2nd), at £15 | 75 | | 75 |
| 2 | 2 | Buglers, at £10 | 20 | | 20 |
| 75 | 75 | Privates, at £12 | 900 | | 900 |
| 1 | 1 | Caretaker and Labourer for Torpedo Stores | 147 | | 146 |
| | | Command Pay | 50 | | 50 |
| | | | 2,053 | | 2,052 |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Rent of Store | 110 | | 110 |
| | | Uniform for the Corps | 100 | | 150 |
| | | Compensation in lieu of uniform for 1 Staff Sergeant | 5 | | 5 |
| | | Stores for experimental and instructional purposes | 660 | | 300 |
| | | | 875 | | 565 |
| 101 | 101 | | | | |
| 551 | 850 | Carried forward £ | 13,745 | ..... | 16,757 |

* Volunteer Permanent Staff Instructors.

ESTIMATES OF EXPENDITURE—1885.

19

No. III.—COLONIAL SECRETARY.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|---|------|--|--------|---------------------------|--|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Permanent and Volunteer Military Forces—continued. | | | | | |
| VOLUNTEER FORCE—continued. | | | | | |
| 551 | 850 | Brought forward | 13,745 | 16,757 | |
| <i>Infantry.</i> | | | | | |
| 4 | 4 | Lieutenant-Colonels, at £70 | 280 | 280 | |
| 4 | 8 | Majors, at £50 | 200 | 400 | |
| 20 | 32 | Captains, at £40 | 800 | 1,280 | |
| 20 | 32 | 1st Lieutenants, at £30 | 600 | 960 | |
| 20 | 32 | 2nd Lieutenants, at £25 | 500 | 800 | |
| 4 | 4 | *Adjutants Pay and Quartermasters at £250 | 1,000 | 1,000 | |
| 4 | 4 | *Regimental Sergeant-Majors, at 8s. 6d. per diem | 623 | 621 | |
| 4 | 4 | *Quarter-master Sergeants, at 8s. per diem | 586 | 584 | |
| 4 | 4 | Bugle-Majors, at £17 | 68 | 68 | |
| 20 | 32 | Colour-Sergeants, at £17 | 340 | 544 | |
| 61 | 96 | Sergeants, at £15 | 915 | 1,440 | |
| 81 | 128 | Corporals, at £14 | 1,134 | 1,792 | |
| 40 | 64 | Buglers, at £10 | 400 | 640 | |
| 1467 | 1717 | Privates, at £12 | 17,604 | 20,604 | |
| | | Reserve | 600 | | |
| | | Command Pay, 4 Officers, at £30 | 120 | 120 | |
| | | Uniforms | 2,300 | 3,246 | |
| | | Forage Allowance for 4 Commanding Officers, 8 Majors, and 4 Adjutants, at £52 | 624 | 832 | |
| | | Allowance in lieu of Quarters for 4 Adjutants; if rank of Captain, £90; if Lieutenant, £60 | 300 | 300 | |
| | | Compensation to 12 Staff Sergeants in lieu of uniform, at £5 | 40 | 60 | |
| 1753 | 2161 | | 29,034 | 35,571 | |
| <i>Medical Staff.</i> | | | | | |
| 1 | 1 | Principal Medical Officer | 60 | 60 | |
| 1 | 1 | Surgeon | 40 | 40 | |
| | | Horse allowance at £25 each per annum | 50 | 50 | |
| | | Inspection of Recruits in Country Districts by local Practitioners | 75 | 75 | |
| 2 | 2 | | 125 | 125 | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| <i>Miscellaneous.</i> | | | | | |
| 2 | 2 | Markers, Rifle Range, 6s. per diem each | 220 | 219 | |
| | | Badges for Marksmen | 160 | 160 | |
| | | Hire of Horses for Field Guns | 400 | 400 | |
| | | Instructor, Brigade Band | 46 | 46 | |
| | | Contribution to Band | 150 | 150 | |
| | | Contribution to Bands—Volunteer Artillery, Third and Fourth Regiments of Volunteer Infantry, at £50 each | | 150 | |
| | | Rifle Association, for Prizes | 700 | 700 | |
| | | Armoury Repairs and Materials, Freight and Cartage of Ammunition, and Incidental Expenses | 800 | 800 | |
| | | Constructing New Butts, and keeping in repair the several Rifle Ranges of Corps | 500 | 500 | |
| | | Travelling Expenses for Officers and Non-commissioned Officers on duty | 700 | 700 | |
| | | Encampment and Expenses incidental to Training and Exercise | 2,300 | 2,300 | |
| | | Rent of Brigade Office | 350 | 350 | |
| | | Rent of Regimental Offices, Head Quarters | 175 | 175 | |
| | | Hire of 2 Offices for Country Corps | 30 | 30 | |
| | | Office-keeper, Brigade Office | 32 | 32 | |
| 2 | 2 | | 6,563 | 6,712 | |
| 2306 | 3013 | Carried forward... | 43,004 | 52,553 | |

| | | No. III.—COLONIAL SECRETARY. | | | |
|-----------------|------|---|--------|---------------------------|--|
| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| 2306 | 3013 | Permanent and Volunteer Military Forces—continued. | | | |
| | | <i>VOLUNTEER FORCE—continued.</i> | | | |
| | | £ | | £ | |
| | | Brought forward | 43,004 | 52,558 | |
| 2 | 2 | <i>Miscellaneous—continued.</i> | | | |
| | | Brought forward | 6,563 | 6,712 | |
| 2 | 2 | Office-keeper, Regimental Offices | 16 | 16 | |
| | | Labourers at Victoria Barracks, at 6s. per diem each | 220 | 219 | |
| | | Forage allowance for water-cart horses, at 2s. 6d. per diem | 46 | 46 | |
| | | Small Armouries for Country Corps, cleaning spare arms, &c. | 175 | 175 | |
| 1 | 1 | Labourer in charge of Artillery Stores, at 6s. per diem | 110 | 110 | |
| 1 | 1 | Master Tailor, at 8s. per diem | 147 | 146 | |
| | | Allowance for Uniform to Master Tailor | 5 | 5 | |
| | | Incidental Expenses connected with Tailor's Shop | 200 | 200 | |
| | | Completing Recreation Ground for Defence Force | 100 | | |
| | | Towards formation of New Corps and Drill Instruction in country places | 2,500 | | |
| | | For formation of Bands for 3rd and 4th Regiments of Volunteer Infantry | 300 | | |
| | | For purchase of Instruments for do. | 400 | | |
| | | To provide for change in uniforms of Volunteer Force | 500 | | |
| | | For improvement of Rifle Range | 500 | | |
| | | To cover cost of Rifles, Carbines, and Ammunition for Reserve Supplies | | 30,000 | |
| 6 | 6 | | 11,782 | 37,629 | |
| 2312 | 3019 | TOTAL | 54,786 | 90,182 | |
| | | <i>VOLUNTEER NAVAL ARTILLERY.</i> | | | |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Expenses of Instruction | 300 | 300 | |
| | | Incidental expenses | 200 | 200 | |
| | | | 500 | 500 | |
| | | Naval Brigade. | | | |
| 1 | 1 | Captain Commanding, at 5s. per diem | 92 | 92 | |
| 1 | 1 | Clerk and Accountant, at 3s. 6d. do. | 64 | 64 | |
| 1 | 1 | Gunnery Instructor, Sydney | 201 | 201 | |
| 1 | 1 | Do. Newcastle | 52 | 52 | |
| 8 | 8 | Commanders and Lieutenants, at 4s. per diem | 586 | 584 | |
| 5 | 5 | Sub-Lieutenants, at 2s. per diem | 183 | 183 | |
| 7 | 7 | Midshipmen, at 1s. per diem | 128 | 128 | |
| 1 | 1 | Bugler and Bandmaster | 75 | 75 | |
| 10 | 10 | Warrant Officers, at £18 each per annum | 180 | 180 | |
| 10 | 10 | Petty Officers, at £15 each do. | 150 | 150 | |
| 230 | 230 | A.B.'s, at £12 each do. | 2,760 | 2,760 | |
| 53 | 53 | Newcastle Company of Naval Brigade | 746 | 746 | |
| | | | 5,217 | 5,215 | |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Uniforms for Warrant and Petty Officers and A.B.'s of the Brigade | 350 | 350 | |
| | | Incidental Expenses | 250 | 250 | |
| | | | 600 | 600 | |
| 328 | 328 | TOTAL | 5,817 | 5,815 | |
| | | Training Ship "Wolverene." | | | |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | To meet the probable expense of the maintenance of the "Wolverene" (pending future arrangements in regard to her) | 4,200 | 4,200 | |

No. III.—COLONIAL SECRETARY.

| No. of Persons. | | | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|--|-----------------------------|---------|---------------------------|---------|
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| | | Police. | | | | |
| | | GENERAL ESTABLISHMENT. | | | | |
| 1 | 1 | Inspector General | 900 | | 900 | |
| 1 | 1 | Chief Clerk and Accountant | 450 | | 450 | |
| 1 | 1 | First Clerk, Account Branch | 225 | | 225 | |
| 1 | 1 | Clerk | 225 | | 225 | |
| 1 | 1 | Clerk | 200 | | 200 | |
| 1 | 1 | Do. | 150 | | 150 | |
| 1 | 1 | Do. | 150 | | 150 | |
| 1 | 1 | Office-keeper | 40 | | 40 | |
| 8 | 8 | | | 2,340 | | 2,340 |
| | | CONSTABULARY. | | | | |
| 3 | 3 | Superintendents, at £500 | 1,500 | | 1,500 | |
| 3 | 3 | Do. at £450 | 1,350 | | 1,350 | |
| 3 | 3 | Do. at £400 | 1,200 | | 1,200 | |
| 6 | 6 | Inspectors, at £325 | 1,950 | | 1,950 | |
| 10 | 10 | Sub-inspectors, at £275 | 2,750 | | 2,750 | |
| 16 | 18 | Do. at £250 | 4,000 | | 4,500 | |
| 1 | 1 | Sub-inspector and Drill Instructor | 220 | | 250 | |
| 52 | 53 | Sergeants, 1st Class, at 10s. 6d. per diem | | | | |
| 85 | 87 | Sergeants, 2nd Class, at 9s. 3d. do. | | | | |
| 215 | 225 | Senior Constables, at 8s. do. | | | | |
| 390 | 420 | Constables, 1st Class, at 7s. 6d. do. | | 177,552 | | 186,994 |
| 430 | 460 | Ordinary Constables, at 7s. do. | | | | |
| 90 | 90 | Probationary Constables, at 6s. do. | | | | |
| 50 | 50 | Trackers, at 3s. and 4s. do. | | | | |
| 1 | 1 | Police Storekeeper | 250 | | 250 | |
| ... | 1 | Senior Sergeant and Armourer, at 12s. per diem ... .. | ..... |  | 219 | |
| 1355 | 1431 | | | 190,772 | | 200,963 |
| | | DETECTIVES. | | | | |
| 1 | 1 | Inspector of Police | 325 | | 325 | |
| 4 | 4 | Detectives, 1st Class, at 12s. per diem | | | | |
| 3 | 3 | Do. do., at 11s. do. | | 3,221 | | 3,212 |
| 5 | 5 | Do. 2nd Class, at 10s. do. | | | | |
| 5 | 5 | Do. 3rd Class, at 9s. do. | | | | |
| 18 | 18 | | | 3,546 | | 3,537 |
| | | Police Surgeon | ^a | | ^a | |
| | | TOTAL SALARIES... | £ | 196,658 | ..... | 206,840 |
| | | <i>(Irrespective of date of claims.)</i> | | | | |
| | | Allowance to Members of the Police Force, when absent from their Quarters on duty | 7,600 | | 7,600 | |
| | | Provisions for Prisoners in Lock-ups | 1,800 | | 1,800 | |
| | | Fuel, Light, and Water, to Lock-ups and Police Stations | 2,400 | | 2,400 | |
| | | Rent of Premises for Police purposes | 3,000 | | 3,500 | |
| | | Forage | 23,000 | | 23,000 | |
| | | Remount Horses | 2,700 | | 2,700 | |
| | | Shoeing, Veterinary Attendance, and Medicine... .. | 2,000 | | 2,000 | |
| | | Medical Attendance | ^a | | ^a | |
| | | Conveyance of Prisoners and Police | 7,500 | | 7,500 | |
| | | Fencing Paddocks | 1,500 | | 1,500 | |
| | | Incidental Expenses—Boats, New Vehicles, Repairs to Saddlery and Carts; and for destroying Dogs | 2,600 | | 2,600 | |
| | | Allowances to Members of the Force unprovided with Quarters, at 1s. per diem | 7,800 | | 9,000 | |
| | | Special temporary allowance to Police in certain districts in consideration of high price of provisions | 2,000 | | 1,500 | |
| | | Extra Police protection as required | 3,000 | | 3,000 | |
| | | | | 66,900 | | 68,100 |
| 1381 | 1457 | TOTAL... | £ | 263,558 | | 274,940 |
| | | Government Analyst. | | | | |
| 1 | 1 | Government Analyst | 500 | | 500 | |
| 2 | 2 | Assistants | 350 | | 350 | |
| | | <i>(Irrespective of date of claims.)</i> | | | | |
| | | Allowance for Apparatus, Chemicals, and other materials, &c. | 100 | | 100 | |
| 3 | 3 | | | 950 | | 950 |

^a See Medical Vote.

| No. of Persons. | | No. III.—COLONIAL SECRETARY. | | | |
|---------------------------------------|------|--|--------|---------------------------|--------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Lunacy. | | | | | |
| OFFICIAL VISITORS. | | | | | |
| | | Allowances | 450 | 450 | |
| | | Clerical Assistance | 50 | 50 | |
| | | | | | 500 |
| HOSPITALS FOR THE INSANE GENERALLY. | | | | | |
| 1 | 1 | Inspector General | 1,000 | 1,000 | |
| 1 | 1 | Clerk and Accountant | 350 | 350 | |
| 1 | 1 | Messenger and Boatman | 108 | 118 | |
| | | (Irrespective of date of claims.) | | | 1,468 |
| | | Travelling Expenses | 150 | 150 | |
| | | Incidental Expenses | 60 | 60 | |
| 3 | 3 | | | | 210 |
| HOSPITAL FOR THE INSANE, GLADESVILLE. | | | | | |
| 1 | 1 | Medical Superintendent | 600 | 600 | |
| 1 | 1 | Chaplain, Church of England | 50 | 50 | |
| 1 | 1 | Do. Roman Catholic | 50 | 50 | |
| 1 | 1 | Assistant Medical Officer | 375 | 375 | |
| 1 | 1 | Assistant Superintendent | 350 | 350 | |
| 1 | 1 | Clerk | 170 | 170 | |
| 1 | 1 | Assistant Clerk | 100 | 100 | |
| 1 | 1 | Dispenser | 150 | 150 | |
| 1 | 1 | Matron | 150 | 150 | |
| 1 | 1 | Chief Attendant | 150 | 150 | |
| 3 | 3 | Artisan Attendants—1 at 7s. 6d., and 2 at 7s. per diem | 394 | 394 | |
| 1 | 1 | Needlewoman | 60 | 60 | |
| 1 | 1 | Grounds Attendant | 90 | 90 | |
| 8 | 8 | Senior Male Attendants, at £102 | 816 | 816 | |
| 8 | 8 | Do. do. at £90 | 720 | 720 | |
| 8 | 8 | Junior do. at £84 | 672 | 672 | |
| 7 | 7 | Do. do. at £78 | 546 | 546 | |
| 1 | 1 | Nurse-in-Charge | 72 | 72 | |
| 6 | 6 | Senior Nurses, at £60 | 360 | 360 | |
| 5 | 5 | Do. do. at £50 | 250 | 250 | |
| 14 | 14 | Junior do. at £46 | 644 | 644 | |
| 14 | 14 | Servants—2 at £102, 1 at £90, 3 at £84, 2 at £78, 4 at £50, and 2 at £46 | 978 | 994 | |
| 86 | 86 | | | | 7,747 |
| BRANCH ESTABLISHMENT. | | | | | |
| 1 | 1 | Attendant-in-charge | 120 | 130 | |
| 2 | 2 | Senior Attendants, at £102 | 204 | 204 | |
| 3 | 3 | Do. at £90 | 270 | 270 | |
| 2 | 2 | Junior Attendants, at £84 | 168 | 168 | |
| 5 | 4 | Do. at £78 | 390 | 312 | |
| 2 | 2 | Servants—1 at £96, 1 at £78 | 168 | 174 | |
| | | (Irrespective of date of claims.) | | | 1,320 |
| 15 | 14 | Allowance in lieu of Provisions, Fuel, and Light, to the Medical Superintendent, Assistant Medical Officer, and Assistant Superintendent, at £45 each | 135 | 135 | |
| | | Allowance in lieu of Provisions, Fuel, and Light, to Junior Officers, at £30 each | 150 | 150 | |
| | | Allowance towards House Rent to Married Attendants— 24 at £12 each | 288 | 288 | |
| | | Engine-drivers and Fuel | 700 | 700 | |
| | | Provisions, Medical Comforts, Fuel, Light, Forage, Medicines and Surgical Instruments | 12,500 | 11,000 | |
| | | For the maintenance of Steam-launch "Mabel" | 500 | 500 | |
| | | Books and Periodicals and to provide Amusement for Inmates | 250 | 250 | |
| | | Incidental Expenses | 400 | 400 | |
| | | For purchase of Timber, Paint, and Materials, for employment of Patients, &c., upon minor repairs | 500 | 500 | |
| | | | | | 15,423 |
| | | | | | 13,923 |
| 104 | 103 | Carried forward | £ | | 26,658 |
| | | | | | 25,122 |

No. III.—COLONIAL SECRETARY.

| No. of Persons. | | | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|--|-----------------------------|--------|---------------------------|--------|
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| 104 | 103 | | £ | | £ | |
| | | | | | | |
| | | Lunacy—continued. | | | | |
| | | Brought forward | | 26,658 | | 25,122 |
| | | HOSPITAL FOR THE INSANE, PARRAMATTA. | | | | |
| | | Medical Superintendent | 600 | | 600 | |
| | | Chaplain, Church of England | 50 | | 50 | |
| | | Do. Roman Catholic | 50 | | 50 | |
| | | Assistant Medical Officer | 375 | | 375 | |
| | | Assistant Superintendent | 300 | | 300 | |
| | | Medical Visitor | ^a | | ^a | |
| | | Clerk | 175 | | 175 | |
| | | Assistant Clerk | 125 | | 125 | |
| | | Matron | 150 | | 150 | |
| | | Dispenser | 150 | | 150 | |
| | | Chief Attendant | 150 | | 150 | |
| 21 | 21 | Senior Attendants—9 at £102, and 12 at £90 | 1,998 | | 1,998 | |
| 26 | 26 | Junior Attendants—18 at £84, and 8 at £78 | 2,136 | | 2,136 | |
| 1 | 1 | Nurse-in-Charge | 72 | | 72 | |
| 13 | 13 | Senior Nurses—8 at £60, and 5 at £50 | 730 | | 730 | |
| 15 | 14 | Junior Nurses, at £46 | 690 | | 644 | |
| 18 | 19 | Servants—1 at £102, 1 at £96, 2 at £90, 1 at £84, 6 at £78, 1 at £72, 1 at £66, 3 at £50, 2 at £46, 1 at £38 per annum | 1,272 | | 1,348 | |
| 3 | 3 | Artisan Attendants, 1 at 7s. 6d., and 2 at 7s. per diem | 398 | | 394 | |
| 1 | 1 | Needlewoman | 60 | | 60 | |
| 1 | 1 | Grounds Attendant | 90 | | 90 | |
| 2 | 2 | Engine-drivers, 1 at 10s., and 1 at 8s. per diem .. | 330 | | 330 | |
| | | | | 9,901 | | 9,927 |
| | | <i>(Irrespective of date of claims.)</i> | | | | |
| | | Allowance in lieu of Provisions, Fuel, and Light, to the Medical Superintendent, Assistant Medical Officer, and Assistant Superintendent, at £45 each | 135 | | 135 | |
| | | Allowance to Junior Officers in lieu of Provisions, Fuel, and Light, at £30 each | 120 | | 120 | |
| | | Allowance towards House Rent to married Attendants, 48 at £12 each | 576 | | 576 | |
| | | Allowance to Patients for Special Services in the Wards | 50 | | 30 | |
| | | Books, Periodicals, and Newspapers, and to provide Amusement for Inmates | 250 | | 250 | |
| | | Provisions, Medical Comforts, Medicines, Surgical Instruments, Fuel and Light, and Forage | 14,500 | | 13,500 | |
| | | Materials, &c., for employment of Patients, &c., upon minor repairs | 500 | | 500 | |
| 111 | 111 | Incidental Expenses | 400 | | 400 | |
| | | | | 16,531 | | 15,511 |
| | | RECEPTION-HOUSE FOR THE INSANE, DARLINGHURST. | | | | |
| 1 | 1 | Superintendent | 200 | | 200 | |
| 1 | 1 | Matron | 60 | | 60 | |
| ... | ... | Medical Visitor | ^a | | ^a | |
| 2 | 2 | Senior Attendants—1 at £102, and 1 at £96 | 198 | | 198 | |
| 2 | 2 | Junior Attendants—1 at £90, and 1 at £84 | 174 | | 174 | |
| 1 | 1 | Senior Nurse | 56 | | 56 | |
| 3 | 3 | Nurses at £50 | 150 | | 150 | |
| 1 | 1 | Night Attendant | 90 | | 90 | |
| | | | | 928 | | 928 |
| | | <i>(Irrespective of date of claims.)</i> | | | | |
| | | Clerical Assistance | 50 | | 50 | |
| | | Occasional additional Attendants when required, at 5s. per diem | 60 | | 60 | |
| | | Provisions for Patients and Attendants | 600 | | 600 | |
| | | Medicine and Medical Comforts, and Fuel and Light | 60 | | 60 | |
| | | Transferring Patients to Asylums | 60 | | 60 | |
| | | Fees for certifying Sanity of Patients | 60 | | 60 | |
| | | Allowance to Gaol Dispenser | 25 | | 25 | |
| | | Allowance towards House Rent to married Attendants, 3 at £12 each... .. | 36 | | 36 | |
| | | Allowance to Gaol Messenger employed as Messenger... .. | 12 | | 12 | |
| | | Incidental Expenses | 20 | | 20 | |
| 11 | 11 | | | 923 | | 923 |
| 226 | 225 | Carried forward | £ | 54,941 | | 52,411 |

^a See Medical Vote.

| No. of Persons. | | No. III.—COLONIAL SECRETARY. | | | |
|-----------------|------|---|--------------------|---------------------------|--------------------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| 226 | 225 | £ | | £ | |
| | | Lunacy—continued. | | | |
| | | Brought forward | | | |
| | | | 54,941 | | 52,411 |
| | | HOSPITAL FOR THE INSANE, NEWCASTLE. | | | |
| 1 | 1 | Superintendent | 250 | | 250 |
| 1 | 1 | Chaplain, Church of England | 30 | | 30 |
| 1 | 1 | Do. Roman Catholic | 30 | | 30 |
| ... | ... | Visiting Medical Officer | ^a | | ^a |
| 1 | 1 | Storekeeper and Chief Attendant | 140 | | 140 |
| 1 | 1 | Matron | 75 | | 75 |
| 2 | 2 | Senior Attendants, at £102 | 204 | | 204 |
| 1 | 1 | Senior Attendant | 90 | | 90 |
| 2 | 2 | Junior Attendants, at £84 | 168 | | 168 |
| 2 | 2 | Do. £78 | 156 | | 156 |
| 1 | 1 | Senior Nurse | 60 | | 60 |
| 4 | 4 | Do. Nurses, 2 at £55, and 2 at £50 | 210 | | 210 |
| 4 | 4 | Junior Nurses, at £46 | 184 | | 184 |
| 1 | 1 | Junior Nurse | 40 | | 40 |
| 2 | 2 | Artisan Attendants—1 at 7s. 6d., and 1 at 7s. per diem... .. | 266 | | 266 |
| 1 | 1 | Needlewoman | 50 | | 50 |
| 7 | 7 | Servants—1 at £84, 2 at £78, 1 at £66, 2 at £50, and 1 at £46 | 452 | | 452 |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Allowance towards House Rent to Married Attendants—6 at £12 | 72 | | 72 |
| | | Provisions, Medical Comforts, Fuel, Light, Medicines, Surgical Instruments, and Forage | 3,600 | | 3,600 |
| | | Amusements, Books, Periodicals, Newspapers, &c. | 100 | | 100 |
| | | For the purchase of Timber, Paints, and Materials, &c., for the employment of Patients upon minor Repairs | 150 | | 150 |
| | | Incidental Expenses | 200 | | 200 |
| 32 | 32 | | 4,122 | | 4,122 |
| | | HOSPITAL FOR THE INSANE, CALLAN PARK. | | | |
| 1 | 1 | Medical Superintendent | 600 | | 600 |
| 1 | 1 | Chaplain, Church of England | 30 | | 30 |
| 1 | 1 | Do. Roman Catholic | 30 | | 30 |
| 1 | 1 | Assistant Superintendent... .. | 300 | | 300 |
| ... | 1 | Assistant Medical Officer... .. | ..... |  | 375 |
| 1 | 1 | Clerk | 150 | | 150 |
| 1 | 1 | Chief Attendant | 140 | | 140 |
| ... | 1 | Dispenser ... .. | ..... |  | 200 |
| 6 | 13 | Senior Attendants—6 at £102, and 7 at £90 | 576 | | 1,242 |
| 6 | 18 | Junior Attendants—8 at £84, and 10 at £78 | 486 | | 1,452 |
| 1 | 1 | Nurse in charge | 80 | | 80 |
| 1 | 2 | Senior Nurses, at £60 | 60 | | 120 |
| 3 | 3 | Do. at £50 | 150 | | 150 |
| 4 | 6 | Junior Nurses, at £46 | 184 | | 276 |
| 4 | ... | Senior Attendants—1 at £102, 1 at £90, 1 at £84, and 1 at £78—for six months | 177 |  | ..... |
| 2 | 2 | Artisan Attendants, 1 at 7s. 6d., and 2 at 7s. per diem... .. | 266 | | 394 |
| 9 | 13 | Servants—2 at £102, 2 at £84, 4 at £78, 1 at £72, 2 at £50, and 2 at £46 | 572 | | 948 |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Allowance in lieu of Provisions, Fuel, and Light, to the Medical Superintendent and Assistant Superintendent, at £45 each... .. | 90 | | 90 |
| | | Do. do. do. to Junior Officers, £30 each | 60 | | 60 |
| | | Allowance towards House Rent to Married Attendants—6 at £12 | 72 | | 72 |
| | | Provisions, Medical Comforts, Fuel and Light, Forage, Medicines, and Surgical Instruments | 3,500 | | 5,000 |
| | | Books and Periodicals and to provide amusements for Patients | 100 | | 100 |
| | | For purchase of Timber, Paint, and Materials for employment of Patients, &c., upon minor repairs... .. | 250 | | 400 |
| | | Incidental Expenses | 250 | | 250 |
| 42 | 66 | | 4,322 | | 5,972 |
| 300 | 323 | Carried forward | £ 69,591 | | 71,397 |

| No. of Persons. | | No. III.—COLONIAL SECRETARY. | | | | SALARIES AND CONTINGENCIES. | | | | |
|-----------------|------|---|--|--|--|-----------------------------|--------|---------------------------|--------|--------|
| 1884 | 1885 | | | | | Amount Voted for 1884. | | Amount Required for 1885. | | |
| | | | | | | £ | | £ | | |
| 300 | 923 | Lunacy—continued. | | | | | | | | |
| | | Brought forward ... .. |  |  |  | ..... | 69,591 | ..... | 71,397 | |
| | | TEMPORARY HOSPITAL FOR THE INSANE, COOMA. | | | | | | | | |
| | | (For six months in 1884.) | | | | | | | | |
| 1 | 1 | Superintendent | | | | 125 |  | ..... |  |  |
| 1 | 1 | Church of England Chaplain | | | | 13 |  | ..... |  |  |
| 1 | 1 | Roman Catholic Chaplain... .. | | | | 13 |  | ..... |  |  |
| ... | ... | Visiting Medical Officer | | | | ^a |  | ..... |  |  |
| 1 | 1 | Chief Attendant | | | | 60 |  | ..... |  |  |
| 1 | 1 | Senior Attendant | | | | 51 |  | ..... |  |  |
| 3 | 3 | Senior Attendants, at £90 | | | | 135 |  | ..... |  |  |
| 2 | 2 | Junior Attendants, at £84 | | | | 84 |  | ..... |  |  |
| 2 | 2 | Servants, at £56 each | | | | 56 |  | ..... |  |  |
| 12 | 12 | | | | | | 587 |  | ..... |  |
| | | (Irrespective of date of claims.) | | | | | | | | |
| | | Allowance to Attendants and Servants | | | | 50 |  | ..... |  |  |
| | | Provisions, Medical Comforts, Fuel, Light, Forage, and Medicines | | | | 850 |  | ..... |  |  |
| | | Amusements, Books, and Periodicals | | | | 25 |  | ..... |  |  |
| | | For purchase of Timber, Paint, and Materials for employment of Patients, &c., upon minor Repairs | | | | 38 |  | ..... |  |  |
| | | Incidental Expenses | | | | 25 |  | ..... |  |  |
| | | Allowance towards House Rent to married attendants, 4 at £12 | | | | 24 |  | ..... |  |  |
| | | | | | | | 1,012 |  | ..... |  |
| | | MISCELLANEOUS. | | | | | | | | |
| | | Other Services ... .. |  |  |  | ..... | 674 | ..... | ..... |  |
| | | LUNATIC PATIENTS. | | | | | | | | |
| | | (Irrespective of date of claims.) | | | | | | | | |
| | | For maintenance of Patients transferred to Licensed Houses or maintained in temporary or Branch Establishments, for the supply of Furniture and minor fittings thereto, and to supplement the Votes for the existing Asylums in the event of the increase of Patients, pending erection of new Establishments | | | | 10,000 | | 9,000 | | |
| | | For maintenance of Patients in Public Hospitals and under the care of friends, under sections 48 and 89 of the Lunacy Act | | | | 300 | | 300 | | |
| | | | | | | | 10,300 | | 9,300 | |
| 312 | 335 | | | | | | | | | |
| | | | | | | | | | | |
| | | TOTAL | | | | £ | | 82,114 | | 80,697 |
| | | Master in Lunacy. | | | | | | | | |
| 1 | 1 | Master in Lunacy | | | | 250 | | 250 | | |
| 1 | 1 | Chief Clerk | | | | 450 | | 450 | | |
| 1 | 1 | Second Clerk | | | | 250 | | 250 | | |
| 1 | 1 | Third Clerk... .. | | | | 150 | | 150 | | |
| | | | | | | | 1,100 | | 1,100 | |
| | | (Irrespective of date of claims.) | | | | | | | | |
| | | Contingencies ... .. |  |  |  | ..... | 100 | ..... | 100 | |
| 4 | 4 | | | | | | | | | |
| | | | | | | | | | | |
| | | TOTAL | | | | £ | | 1,200 | | 1,200 |
| | | Medical Board. | | | | | | | | |
| 1 | 1 | Clerk to Board ... .. |  |  |  | ..... | 100 | ..... | 100 | |

^a See Medical Vote.

| No. of Persons. | | No. III.—COLONIAL SECRETARY. | | | |
|-----------------|------|---|-------|---------------------------|--|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| | | Medical Adviser, Vaccination, Medical Officers, &c. | | | |
| 1 | 1 | Medical Adviser | 400 | 400 | |
| ... | 1 | Secretary | 75 | 75 | |
| 1 | ... | Clerk | 240 | 240 | |
| 1 | 1 | Vaccinator, Sydney | 20 | 20 | |
| 1 | 1 | Office-keeper, Sydney | | | |
| | | (Irrespective of date of claims.) | | | |
| | | Fees to Vaccinators (say for 20,000) at the respective rates of 2s. 6d. and 3s. 6d. each | 2,500 | 2,500 | |
| | | Fees for examination, care, &c., of lunatics | 450 | 450 | |
| | | Incidental Expenses | 40 | 40 | |
| 4 | 4 | | 735 | 735 | |
| | | | 2,990 | 2,990 | |
| 1 | 1 | Police Surgeon | 200 | 200 | |
| 1 | 1 | Medical Visitor to Hospital for the Insane, Parramatta | 50 | 50 | |
| 1 | 1 | Do. Temporary Hospital for the Insane, Cooma | 50 | 50 | |
| 1 | 1 | Do. Hospital for the Insane, Newcastle | 75 | 75 | |
| 1 | 1 | Visiting Surgeon, N.S.S. "Vernon" | 50 | 50 | |
| 1 | 1 | Do. Industrial School and Reformatory, Biloea | 50 | 50 | |
| 1 | 1 | Surgeon and Dispenser, Hyde Park Asylum | 200 | 200 | |
| 1 | 1 | Dispenser at Asylum for Infirm and Destitute, Parramatta | 50 | 50 | |
| 1 | 1 | Visiting Ophthalmic Surgeon to Asylums for Infirm and Destitute at Parramatta and Liverpool | 200 | 200 | |
| 1 | 1 | *Visiting Surgeon, Sydney Gaol | 350 | 350 | |
| 1 | 1 | Dispenser, Sydney Gaol | 150 | 150 | |
| 1 | 1 | Visiting Surgeon, Parramatta Gaol | 100 | 100 | |
| 1 | 1 | Visiting Surgeon to Asylum for Infirm and Destitute, Parramatta, and Orphan Schools | 150 | 150 | |
| 1 | 1 | Parramatta Gaol—Dispenser | 100 | 100 | |
| 1 | 1 | Bathurst Gaol—Visiting Surgeon | 65 | 65 | |
| 1 | 1 | Do. Dispenser | 100 | 100 | |
| 1 | 1 | Maitland Gaol—Visiting Surgeon | 100 | 100 | |
| 1 | 1 | Do. Dispenser | 100 | 100 | |
| 1 | 1 | Goulburn Gaol—Visiting Surgeon | 65 | 65 | |
| 1 | 1 | Do. Dispenser | 100 | 100 | |
| 1 | 1 | Berrima Gaol—Visiting Surgeon and Dispenser | 200 | 200 | |
| 1 | 1 | Albury Gaol—do. | 40 | 40 | |
| 1 | 1 | Mudgee Gaol—do. | 50 | 50 | |
| 1 | 1 | Armidale Gaol—do. | 40 | 40 | |
| 1 | 1 | Wagga Wagga Gaol—do. | 40 | 40 | |
| 1 | 1 | Yass Gaol—do. | 40 | 40 | |
| 1 | 1 | Deniliquin Gaol—do. | 40 | 40 | |
| 1 | 1 | Young—do. | 40 | 40 | |
| 1 | 1 | Grafton—do. | 40 | 40 | |
| 1 | 1 | Hay Gaol—do. | 40 | 40 | |
| 1 | 1 | Tamworth Gaol—do. | 40 | 40 | |
| ... | 1 | Wollongong Gaol—do. | 40 | 40 | |
| 1 | 1 | Visiting Surgeon, Reformatory, Shaftesbury | 100 | 100 | |
| | | (Irrespective of date of claims.) | | | |
| | | For payment of fees to Medical Officers, Country Districts,—Fees to Medical Practitioners in Lunacy Cases and Coroners' Inquests,—Fees for attendances on Aborigines, and expenses contingent on the outbreak of disease in the country districts. | 2,725 | 2,725 | |
| 32 | 33 | | 5,740 | 5,780 | |
| 36 | 37 | TOTAL | 9,435 | 9,505 | |
| | | Convalescent and Fever Hospital, Little Bay. | | | |
| | | (Irrespective of date of claims.) | | | |
| | | For Maintenance of Patients, including Staff | 4,000 | 4,000 | |
| | | Repairs, Alterations, and Planting and Laying out Grounds | 3,000 | 4,000 | |
| | | | 7,000 | 4,000 | |

* Also Visiting Surgeon to Lunatic Reception House and Shaftesbury Reformatory.

No. III.—COLONIAL SECRETARY.

| No. of Persons. | | | SALARIES AND CONTINGENCIES. | | | | |
|-----------------|------|---|-----------------------------|-------|---------------------------|-------|--|
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | | |
| | | | £ | | £ | | |
| | | Department of Audit. | | | | | |
| 1 | 1 | Auditor-General. (Provided for in Schedule.) | | | | | |
| 1 | 1 | Inspector of Accounts | 600 | | 600 | | |
| 1 | 1 | Assistant Inspector | 450 | | 450 | | |
| | | | | 1,050 | | 1,050 | |
| | | <i>1. Appropriation Audit.</i> | | | | | |
| 1 | 1 | Principal Ledger-keeper | 350 | | 350 | | |
| 1 | 1 | Assistant do. | 300 | | 300 | | |
| 1 | 1 | Clerk | 250 | | 250 | | |
| 2 | 2 | Clerks, at £175 | 350 | | 350 | | |
| 1 | 1 | Clerk | 150 | | 150 | | |
| 1 | 1 | Do. | 125 | | 125 | | |
| 2 | 2 | Clerks, at £100 | 200 | | 200 | | |
| | | | | 1,725 | | 1,725 | |
| | | <i>2. Revenue Audit.</i> | | | | | |
| 1 | 1 | Examiner in charge of Branch | 350 | | 350 | | |
| 1 | 1 | Assistant Examiner—Land Branch | 325 | | 325 | | |
| 1 | 1 | Do. Customs Branch | 275 | | 275 | | |
| 1 | 1 | Clerk | 225 | | 225 | | |
| 2 | 2 | Clerks, at £200 | 400 | | 400 | | |
| 2 | 2 | Do. at £150 | 300 | | 300 | | |
| 1 | 1 | Clerk | 125 | | 125 | | |
| 2 | 2 | Clerks, at £100 | 200 | | 200 | | |
| | | | | 2,200 | | 2,200 | |
| | | <i>3. Railway Revenue Audit.</i> | | | | | |
| 1 | 1 | Assistant Inspector | 400 | | 400 | | |
| 2 | 2 | Junior Inspectors, at £300 | 600 | | 600 | | |
| 1 | 1 | Clerk | 175 | | 175 | | |
| | | | | 1,175 | | 1,175 | |
| | | <i>4. Expenditure Audit.</i> | | | | | |
| 1 | 1 | Examiner in charge of Branch | 350 | | 350 | | |
| 1 | 1 | Assistant Examiner | 300 | | 300 | | |
| 1 | 1 | Clerk | 250 | | 250 | | |
| 1 | 1 | Do. | 225 | | 225 | | |
| 1 | 1 | Do. | 175 | | 175 | | |
| 1 | 1 | Do. | 150 | | 150 | | |
| 2 | 2 | Clerks, at £125 | 250 | | 250 | | |
| | | | | 1,700 | | 1,700 | |
| | | <i>5. Records and Correspondence.</i> | | | | | |
| 1 | 1 | Clerk | 275 | | 275 | | |
| 1 | 1 | Do. | 100 | | 100 | | |
| 1 | 1 | Messenger | 150 | | 150 | | |
| 1 | 1 | Housekeeper | 75 | | 75 | | |
| 1 | 1 | Officekeeper, Railway Branch | 20 | | 20 | | |
| | | | | 620 | | 620 | |
| | | | | 8,470 | | 8,470 | |
| | | <i>(Irrespective of date of claims.)</i> | | | | | |
| | | For the employment of Probationary Clerks | 150 | | 300 | | |
| | | Rent of Offices | 400 | | 400 | | |
| | | Rent of Branch Office for Railway Revenue Branch | 150 | | 150 | | |
| | | Travelling Expenses, Railway Revenue Audit | 300 | | 300 | | |
| | | Incidental Expenses | 25 | | 25 | | |
| | | | | 1,025 | | 1,175 | |
| 40 | 40 | TOTAL | £ | 9,495 | ..... | 9,645 | |

| No. of Persons. | | No. III.—COLONIAL SECRETARY. | | | |
|-----------------|------|--|--------|---------------------------|--------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| | | Registrar-General. | | | |
| 1 | 1 | Registrar-General | 750 | 750 | 750 |
| | | STATISTICAL BRANCH. | | | |
| 1 | 1 | Compiler of General Statistics | 350 | 350 | 350 |
| 1 | 1 | Accountant and Compiler of Vital Statistics | 350 | 350 | 350 |
| 1 | 1 | Corresponding and Record Clerk... .. | 275 | 275 | 275 |
| 1 | 1 | Chief Clerk, Births, Deaths, and Marriages | 250 | 250 | 250 |
| 1 | 1 | Clerk | 175 | 175 | 175 |
| 1 | 1 | Do. | 175 | 175 | 175 |
| 1 | 1 | Do. | 150 | 150 | 150 |
| 1 | 1 | Do. | 75 | 75 | 75 |
| 1 | 1 | Do. | 50 | 50 | 50 |
| 1 | 1 | Messenger | 125 | 125 | 125 |
| | | | 1,975 | | 1,975 |
| | | DEEDS BRANCH. | | | |
| 1 | 1 | Deputy Registrar-General | 400 | 400 | 400 |
| 1 | 1 | Deputy Registrar of Deeds | 300 | 300 | 300 |
| 1 | 1 | Cashier | 250 | 250 | 250 |
| 1 | 1 | Clerk | 200 | 200 | 200 |
| 1 | 1 | Do. | 175 | 175 | 175 |
| 1 | 1 | Do. | 100 | 100 | 100 |
| 1 | 1 | Do. | 100 | 100 | 100 |
| 1 | 1 | Do. | 100 | 100 | 100 |
| 1 | 1 | Do. | 50 | 50 | 50 |
| 1 | 1 | Book Porter | 120 | 120 | 120 |
| | | | 1,795 | | 1,795 |
| | | LAND TITLES BRANCH. | | | |
| 3 | 3 | Examiners of Titles, at £800 each | 2,400 | 2,400 | 2,400 |
| 1 | 1 | Deputy Registrar-General | 500 | 500 | 500 |
| 1 | 1 | Principal Draftsman | 600 | 600 | 600 |
| 2 | 2 | 1 Draftsman at £200 and 1 at £100 per annum, (from 1st May, 1884) | 200 | 300 | 300 |
| 1 | 1 | Assistant Draftsman | 350 | 350 | 350 |
| 1 | 1 | Do. | 275 | 275 | 275 |
| 10 | 10 | Junior Assistant Draftsmen, 1 at £225, 1 at £200, 3 at £175, 4 at £150, and 1 at £100 | 1,650 | 1,650 | 1,650 |
| 1 | 1 | Clerk to Examiners | 350 | 350 | 350 |
| 1 | 1 | Search Clerk | 350 | 350 | 350 |
| 1 | 1 | Counter Clerk | 300 | 300 | 300 |
| 1 | 1 | Do. | 250 | 250 | 250 |
| 1 | 1 | Do. | 225 | 225 | 225 |
| 1 | 1 | Corresponding and Indexing Clerk | 225 | 225 | 225 |
| 1 | 1 | Clerk | 200 | 200 | 200 |
| 3 | 3 | Clerks, at £150 | 450 | 450 | 450 |
| 1 | 1 | Clerk | 125 | 125 | 125 |
| 6 | 7 | Clerks, 4 at £100, 1 at £75, and 2 at £50 | 525 | 575 | 575 |
| 1 | 2 | Book Porters | 100 | 200 | 200 |
| 1 | 1 | Assistant Book Porter | 50 | 50 | 50 |
| 1 | 1 | Messenger | 50 | 50 | 50 |
| 1 | 1 | Officekeeper | 100 | 100 | 100 |
| | | | 9,275 | | 9,475 |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Allowances to District Registrars | 5,000 | 5,000 | 5,000 |
| | | Cost of Binding and Repairing Books | 500 | 600 | 600 |
| | | Preparation of General Indexes of Births, Marriages, and Deaths | 350 | 350 | 350 |
| | | Incidental Expenses | 800 | 800 | 800 |
| | | Incidental Expenses, Land Titles Branch | 50 | 50 | 50 |
| | | Expenses connected with the preparation of Agricultural and Live Stock Returns | 250 | 250 | 250 |
| | | Copying Real Property Index | 400 | 400 | 400 |
| | | Extra Clerical Assistance | 300 | 300 | 300 |
| | | | 7,650 | | 7,750 |
| 61 | 62 | TOTAL £ | 21,445 | 21,745 | 21,745 |

| No. of Persons. | | No. III.—COLONIAL SECRETARY. | | | |
|-----------------|------|--|--------|---------------------------|--------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | Agent-General for the Colony. | | | |
| 1 | 1 | £ | | £ | |
| | | 2,000 | | 2,000 | |
| | | 250 | | 250 | |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | 250 | | 250 | |
| 1 | 1 | 800 | | 800 | |
| 1 | 1 | 300 | | 300 | |
| 1 | 1 | 300 | | 300 | |
| 1 | 1 | 150 | | 150 | |
| 1 | 1 | 50 | | 50 | |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | 235 | | 235 | |
| | | 25 | | 25 | |
| | | 20 | | 20 | |
| | | 100 | | 100 | |
| | | | 4,480 | | 4,480 |
| | | EMIGRATION BRANCH. | | | |
| 1 | 1 | 425 | | 425 | |
| 1 | 1 | 150 | | 150 | |
| 1 | 1 | 225 | | 225 | |
| 1 | 1 | 200 | | 200 | |
| 1 | 1 | 130 | | 130 | |
| 3 | 3 | 191 | | 191 | |
| 2 | 2 | 76 | | 76 | |
| | | | 1,397 | | 1,397 |
| 16 | 16 | | | | |
| | | TOTAL | £ | 5,877 | 5,877 |
| | | Immigration. | | | |
| | | 50,000 | | 50,000 | |
| 1 | 1 | 500 | | 500 | |
| 1 | 1 | | | | |
| | | 350 | | †450 | |
| 1 | 1 | 150 | | 150 | |
| 1 | 1 | 150 | | 150 | |
| 1 | 1 | 50 | | 50 | |
| 1 | 1 | 78 | | †125 | |
| 1 | 1 | 36 | | 36 | |
| | | | 51,314 | | 51,461 |
| 7 | 7 | | | | |
| | | TOTAL | £ | 51,314 | 51,461 |
| | | City of Sydney Improvement Board. | | | |
| 1 | 1 | 200 | | 200 | |
| | | 110 | | 110 | |
| | | 50 | | 50 | |
| | | | | | |
| 1 | 1 | | 360 | | 360 |
| | | Charitable Institutions. | | | |
| 1 | 1 | 600 | | 600 | |
| 1 | 1 | 200 | | 200 | |
| ... | 1 | | | 100 | |
| ... | 1 | | | 30 | |
| | | 250 | | 200 | |
| | | | | 200 | |
| 2 | 4 | | | | |
| | | TOTAL | £ | 1,050 | 1,330 |

* The other half is taken from Emigration Fund. † An additional £100 on the Supplementary Estimates for this officer, from 1 September, 1884.
 ‡ Salary of £125 provided on Supplementary Estimates for this officer, from 1 July, 1884.

| No. of Persons. | | No. III.—COLONIAL SECRETARY. | | | |
|--|------|--|--------------------|---------------------------|--------------------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Fisheries Commission. | | | | | |
| ... | 1 | Chief Inspector of Fisheries and Secretary | ..... | 400 | ..... |
| 1 | ... | Secretary | 400 | ..... | ..... |
| 1 | 1 | Clerk | 250 | 250 | 250 |
| 1 | 1 | Clerk | 100 | 100 | 100 |
| 3 | 3 | Inspectors, at £200 | 600 | 600 | 600 |
| 8 | 9 | Assistant Inspectors, at £150. | 1,200 | 1,350 | 1,350 |
| 1 | 2 | Do. do. £75 | 50 | 150 | 150 |
| 10 | 12 | Do. do. £20 | 200 | 240 | 240 |
| ... | 7 | 7 Assistant Inspectors and Boatmen at £108 | ..... | 756 | 756 |
| 2 | 2 | Boatmen, at £120 | 240 | 240 | 240 |
| ... | 1 | Engineer, at £150 | ..... | 150 | 150 |
| 1 | 1 | Messenger | 104 | 104 | 104 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Travelling Expenses | 400 | 400 | 400 |
| | | Incidental Expenses | 100 | 100 | 100 |
| | | For purchase of Fisheries Library | 100 | ..... | ..... |
| | | Rent of Offices | 104 | 104 | 104 |
| | | Rewards for destruction of Cormorants or Shags | 50 | 50 | 50 |
| | | Extra Clerical Assistance | ..... | 200 | 200 |
| | | Repairs to Launch | ..... | 50 | 50 |
| | | Improvement of Oyster Beds | 300 | ..... | ..... |
| | | For the collection and preservation of samples of Food Fishes of the Colony, and of the Birds destructive to Fish | 150 | ..... | ..... |
| | | For rewards for the two best Essays on the Cultivation of Oysters in the waters of New South Wales | 50 | ..... | ..... |
| | | Charter of Tasmanian Well-boat for experiment | 61 | ..... | ..... |
| | | For the purchase of a Steam Launch | 300 | ..... | ..... |
| 28 | 40 | TOTAL | £ 4,759 | ..... | 5,244 |
| Asylums for the Infirm and Destitute. | | | | | |
| 1 | 1 | Manager | 500 | 500 | 500 |
| 1 | 1 | Clerk and Accountant | 175 | 175 | 175 |
| 1 | 1 | Do. | 100 | 100 | 100 |
| 1 | 1 | Clerk | *100 | 100 | 100 |
| 1 | 1 | Messenger | 100 | 100 | 100 |
| 1 | 1 | Office-keeper | 60 | 60 | 60 |
| SYDNEY. | | | | | |
| ... | ... | Surgeon and Dispenser | ^a | ^a | ^a |
| 1 | 1 | Matron | 200 | 200 | 200 |
| 1 | 1 | Sub-Matron | 75 | 75 | 75 |
| PARRAMATTA. | | | | | |
| ... | ... | Surgeon | ^a | ^a | ^a |
| ... | ... | Dispenser | ^a | ^a | ^a |
| 1 | 1 | Matron | 200 | 200 | 200 |
| 1 | 1 | Sub-Matron | 75 | 75 | 75 |
| ... | ... | Visiting Ophthalmic Surgeon to Asylums at Parramatta and Liverpool | ..... | .....^a | ^a |
| BRANCH ASYLUM, MACQUARIE-STREET, PARRAMATTA. | | | | | |
| 1 | 1 | Surgeon | 200 | 200 | 200 |
| 1 | 1 | Dispenser | 50 | 50 | 50 |
| 1 | 1 | Matron | 150 | 150 | 150 |
| 1 | 1 | Nurse | 50 | 50 | 50 |
| LIVERPOOL. | | | | | |
| 1 | 1 | Surgeon-Superintendent | 400 | 400 | 400 |
| 1 | 1 | Matron | 200 | 200 | 200 |
| 1 | 1 | Sub-Matron | 75 | 75 | 75 |
| 1 | 1 | Chaplain, Church of England | 26 | 26 | 26 |
| 1 | 1 | Do. Roman Catholic | 26 | 26 | 26 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Allowances to Cooks, Warders, Nurses, and other Servants Rations, Medical Comforts, Medicines, Travelling Expenses, and other Contingencies | 1,950 | 2,000 | 2,000 |
| | | For the treatment of cases other than paupers | 500 | 500 | 500 |
| 19 | 19 | TOTAL | £ 22,350 | ..... | 22,400 |
| | | | 25,112 | ..... | 25,162 |

* Paid hitherto from Vote for Contingencies. ^a See Medical Vote.

ESTIMATES OF EXPENDITURE—1885.

31

No. III.—COLONIAL SECRETARY.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|--|--------|---------------------------|--------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| State Children's Relief Board. | | | | | |
| 1 | 1 | Chief Inspector and Boarding-out Officer | 400 | 400 | |
| 1 | 1 | Secretary and Assistant Inspector | 200 | 200 | |
| ... | 1 | Inspector | ..... | 250 | |
| ... | 1 | Matron | ..... | 100 | |
| ... | 1 | Sub-Matron | ..... | 75 | |
| | | | 600 | | 1,025 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Maintenance, additional inspection, &c., of 1,400 children | 9,475 | 15,860 | |
| | | Outfits | 1,000 | 1,000 | |
| | | Incidental Expenses | 300 | 300 | |
| | | Medical Attendance | 100 | 100 | |
| | | Travelling Expenses | 250 | 250 | |
| | | Rent | 300 | ..... |  |
| | | Repairs | 700 | ..... |  |
| | | | 12,125 | | 17,510 |
| 2 | 5 | TOTAL | £ | 12,725 | 18,535 |
| Fire Brigades. | | | | | |
| ... | 1 | Superintendent | ..... | 500 | |
| FIRE BRIGADES BOARD:— | | | | | |
| ... | 1 | Chairman | ..... | 200 | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Allowance in lieu of house, fuel, and light to Superintendent | ..... | 200 | |
| | | Incidental Expenses | ..... | 20 | |
| | | Additional Plant and Working Expenses in connection with Fire Brigades | 6,000 | 6,000 | |
| | | | 6,000 | | 6,220 |
| ... | 2 | TOTAL | £ | 6,000 | 6,920 |
| Botanic Gardens. | | | | | |
| 1 | 1 | Director | 500 | 500 | |
| 1 | 1 | Clerk and Librarian | 225 | 225 | |
| 1 | 1 | Overseer | 200 | 175 | |
| 1 | 1 | Sub-Overseer | 150 | ..... |  |
| 1 | 1 | Bailiff | 120 | 120 | |
| | | | 1,195 | | 1,020 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Wages to Gardeners and Labourers | 3,245 | 3,245 | |
| | | Travelling and other Expenses of collecting | 100 | 100 | |
| | | Forage for one Horse | 50 | 50 | |
| | | Cases for Plants, and expenses of transmission | 50 | 50 | |
| | | Towards the formation of a Public Botanical Library | 50 | 50 | |
| | | Coals and Manure | 50 | 50 | |
| | | Preparing Ground for New Plantations | 100 | 100 | |
| | | Cost of Aviary | 200 | 150 | |
| | | Painting and additional Seats | 100 | 100 | |
| | | Labelling and lettering the names of the Plants and Shrubs | 50 | 50 | |
| | | Pots for Plants | 60 | 60 | |
| | | Incidental Expenses | 150 | 150 | |
| | | Timber for Repairs | 60 | 60 | |
| | | Asphalting walks | 150 | 150 | |
| | | Other Services, 1884 | 1,574 | ..... |  |
| | | | 5,989 | | 4,365 |
| 5 | 5 | TOTAL | £ | 7,184 | 5,385 |
| Nursery Garden—Campbelltown. | | | | | |
| 1 | 1 | Superintendent | 180 | 160 | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Wages to workmen and incidental expenses | 620 | 620 | |
| | | Pots for plants, and cases for packing | 50 | 50 | |
| | | Plant Frames | 100 | ..... |  |
| | | | 950 | | 830 |

| No. of Persons. | | Amount Voted for 1884. | | Amount Required for 1885. | |
|--|------|---|---------|---------------------------|--------|
| 1884 | 1885 | £ | | £ | |
| No. III.—COLONIAL SECRETARY. | | | | | |
| Government Domains. | | | | | |
| 1 | 1 | Overseer (£150 from July, 1884) | 125 | 150 | |
| 1 | 1 | Bailiff | 120 | 120 | |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Wages to Labourers | 1,363 | 1,363 | |
| | | Forage for one Horse | 50 | 50 | |
| | | Material to keep in repair Roads and Paths | 200 | 250 | |
| | | Repair of Gates and Fences, and additional Seats | 50 | 50 | |
| | | To trench and fence in Ground for additional Plantations | 50 | 50 | |
| | | Soil and Manure | 25 | 50 | |
| | | To keep in order Plantations at Court House, Darlinghurst, and at other Public Buildings in Sydney | 150 | 150 | |
| | | Asphalting Paths | 200 | 150 | |
| | | Incidental Expenses | 50 | 50 | |
| | | Water-cart with hose and stand-pipe complete | 36 | ..... |  |
| | | | | 2,174 | 2,163 |
| 2 | 2 | TOTAL | £ | 2,419 | 2,433 |
| Garden Palace Grounds. | | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Wages to Gardener and Labourers | 950 | 950 | |
| | | Bailiff | 120 | 120 | |
| | | Incidental Expenses | 50 | 50 | |
| | | For making additional Plantations | 50 | 50 | |
| | | | | 1,170 | 1,170 |
| | | TOTAL... .. | £ | 1,170 | 1,170 |
| Charitable Allowances. | | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | For the support of Paupers in the Sydney Hospital, Prince Alfred Hospital, and other Hospitals | 7,000 | 7,000 | |
| | | Salaries of Lady Superintendent and five Nursing Sisters... .. | 650 | 650 | |
| | | In aid of the Sydney Hospital, on condition of an equal amount being raised by private contributions | 4,000 | 4,000 | |
| | | In aid of the Prince Alfred Hospital, on condition of an equal amount being raised by private contributions | 4,000 | 4,000 | |
| | | For the support of Women and Children in the Benevolent Asylum, Sydney | 4,208 | 4,208 | |
| | | In aid of the Funds of the Benevolent Society, Sydney, on condition of an equal amount being raised by voluntary contributions | 500 | 500 | |
| | | In aid of the Asylum for Destitute Children at Randwick, on condition of a similar amount being raised by private contributions | 2,000 | 2,000 | |
| | | For the support of Infants removed from the Benevolent Asylum, Sydney, to the Asylum for Destitute Children at Randwick... .. | 5,000 | 5,000 | |
| | | In aid of the Deaf, Dumb and Blind Institution, on condition of an equal amount being raised by private contributions | 450 | 450 | |
| | | In aid of Charitable Institutions, on condition that an equal amount be raised by private annual contributions, and also that the Government, through Police Magistrates or other approved Officers, have the right of admission of Patients | 25,000 | 25,000 | |
| | | In aid of the building funds of Country Hospitals—on the usual conditions | 6,000 | 6,000 | |
| | | Taree Hospital—special grant ... .. | ..... | 1,000 | |
| | | Nymagee Hospital—special grant ... .. | ..... | 750 | |
| | | Molong Hospital—special grant ... .. | ..... | 500 | |
| | | Moruya Hospital—special grant ... .. | ..... | 500 | |
| | | Maitland Hospital—special grant towards reimbursement of expenses incurred in the erection of detached building for treatment of infectious diseases ... .. | ..... | 150 | |
| | | Infants' Home, Ashfield—aid, on the usual conditions | 1,000 | 1,000 | |
| | | Hospital for Sick Children, Sydney—on the usual conditions | 1,000 | 1,000 | |
| | | Lock Hospital | 2,000 | 2,000 | |
| | | Benevolent Asylums—further towards out-door relief | 500 | 500 | |
| | | For the maintenance of 50 children (removed from the Benevolent Asylum) at the Sanatorium, Little Bay | 1,000 | 1,000 | |
| | | Other Votes of 1884 | 14,921 | ..... |  |
| | | | | 79,229 | 67,208 |
| | | TOTAL | £ | 79,229 | 67,208 |

No. III.—COLONIAL SECRETARY.

| | Amount Voted for 1884. | | Amount Required for 1885. | |
|---|------------------------|----------------|---------------------------|----------------|
| | £ | | £ | |
| Miscellaneous Services. | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | |
| For defraying Expenses of the Returning Officers of the several Electoral Districts | 600 | | 600 | |
| Expense of compiling and printing Electoral Lists and Electoral Rolls | 3,000 | | 3,000 | |
| Newspapers, Almanacs, Books, &c. | 400 | | 400 | |
| Burial of destitute persons in cases where inquests are not held | 500 | | 500 | |
| Maintenance of deserted children, paupers taken charge of for protection, expenses of transmission, &c. | 1,000 | | 1,000 | |
| Rewards for apprehension of Offenders | 500 | | 500 | |
| Rent of furnished House for the Commodore commanding the Naval Squadron on this Station | 700 | | 700 | |
| Goodenough Royal Naval House | 200 | | 200 | |
| In aid of the funds of the Animals Protection Society, on condition of an equal amount being raised by private contributions | 300 | | 300 | |
| In aid of the funds of the New South Wales Zoological Society, on condition of an equal amount being raised by private subscriptions | 2,000 | | 2,000 | |
| New South Wales Zoological Society—(further special grant for purchase of animals and providing of necessary accommodation) | 1,000 | | 1,000 | |
| In aid of the Royal Humane Society of Australasia | 250 | | 250 | |
| Lord Howe Island—Expenses in connection with | 500 | | 500 | |
| To pay Municipal Rates on Government Buildings | 12,000 | | 12,000 | |
| Towards publication of Work on Orchids | 100 | | 100 | |
| Wages for Gardener for East Maitland Gaol Reserve | 128 | | 128 | |
| For improving the Rifle Range at Paddington | 200 | | 200 | |
| For quarterly Revision of Mr. Percy Dove's Plans of Sydney | 25 | | 25 | |
| For formation and maintenance of Gardens at Railway Stations | 300 | | 300 | |
| For the erection of a Band Stand in the Botanical Gardens | | | 400 | |
| Special grant to the Geographical Society of Australasia, towards the expenses of an exploratory expedition to New Guinea | | | 1,000 | |
| Rent of property at Sutton Forest taken as a temporary residence for His Excellency the Governor | 500 | | 500 | |
| Rent of "Moorcliff," Miller's Point, in connection with the Sydney Hospital | 300 | | 300 | |
| In aid of the Agricultural Societies of the Colony, in the proportion of £1 for every £1 raised by private contributions | 12,000 | | 12,000 | |
| Albury Agricultural Society—Special grant for improvement of Show Ground | | | 500 | |
| For planting sand-drift at Wollongong, further sum | 1,000 | | 1,000 | |
| Cooma Pastoral and Agricultural Association—Special grant | | | 600 | |
| Bombala Exhibition Society—Special grant | | | 500 | |
| Orange Agricultural Society—Special grant | | | 750 | |
| Hay Agricultural Society—Special grant | | | 300 | |
| Molong Agricultural Society—Special grant for improvement of Show Ground | | | 200 | |
| Picton and Camden Agricultural and Horticultural Society—Special grant | | | 100 | |
| Relief to and Relief Works for the unemployed | 4,000 | | 1,000 | |
| Special grant to Country and Suburban Municipalities, equal to 10s. per £ of the total amount of the ordinary rates collected for the Municipal year ended 4th February, 1885 | 61,662 | | 65,000 | |
| Protectorate of New Guinea—Proportion of the Colony's share of expense of—as agreed at the Convention | | | 5,000 | |
| Other Votes of 1884 | 23,267 | | | |
| | | 126,432 | | 112,853 |
| TOTAL | £ | 126,432 | | 112,853 |

IV.

Treasurer and Secretary for Finance and Trade.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|-------|--|--------------------|-----------------------|
| | | £ | £ |
| 36 | Treasury | 20,545 | 20,695 |
| 37 | Stamp Duties | 3,700 | 3,700 |
| 37-40 | Customs | 58,289 | 55,978 |
| 41 | Colonial Distilleries and Refineries | 4,414 | 4,414 |
| 41 | Gold Receivers | 265 | 225 |
| 41 | Gold and Escort | 2,300 | 2,000 |
| 42 | Government Printer's Department | 55,395 | 55,395 |
| 43 | Stores and Stationery | 111,621 | 111,621 |
| 43-44 | Ordnance and Barrack Department | 18,813 | 19,040 |
| 44 | Board of Health | 6,413 | 6,008 |
| 45 | Board of Pharmacy | 100 | 100 |
| 45 | Shipping Masters | 2,405 | 2,405 |
| 45 | Glebe Island Abattoir | 8,925 | 8,328 |
| 46-49 | Marine Board of New South Wales | 45,817 | 43,845 |
| 49 | Life-boats | 700 | 700 |
| 49 | Public Wharves | 1,993 | 1,993 |
| 50 | Miscellaneous Services | 114,468 | 107,771 |
| 50 | Advance to Treasurer | 100,000 | 100,000 |
| | | 555,663 | 544,218 |
| | Deduct Advances to Treasurer which do not form permanent charges ... | 100,000 | 100,000 |
| | TOTAL | £ 455,663 | 444,218 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

GEORGE R. DIBBS,
Treasurer.

| No. of Persons. | | No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | |
|--------------------------------------|------|--|--------|---------------------------|--------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Treasury. | | | | | |
| 1 | 1 | Secretary for Finance and Trade. (Provided in Schedule.) | | | |
| 1 | 1 | | 900 | | 900 |
| ACCOUNT BRANCH. | | | | | |
| 1 | 1 | 650 | | 650 | |
| 1 | 1 | 400 | | 400 | |
| 2 | 2 | 700 | | 700 | |
| 1 | 1 | 275 | | 275 | |
| 4 | 4 | 995 | | 995 | |
| 8 | 8 | 1,365 | | 1,365 | |
| 1 | 1 | 100 | | 100 | |
| | | | 4,485 | | 4,485 |
| REVENUE BRANCH. | | | | | |
| 1 | 1 | 650 | | 650 | |
| 1 | 1 | 400 | | 400 | |
| 1 | 1 | 350 | | 350 | |
| 3 | 3 | 775 | | 775 | |
| 5 | 5 | 1,100 | | 1,100 | |
| 5 | 5 | 675 | | 675 | |
| 4 | 4 | 630 | | 630 | |
| 1 | 1 | 225 | | 225 | |
| | | | 4,805 | | 4,805 |
| PAY BRANCH. | | | | | |
| 1 | 1 | 650 | | 650 | |
| 1 | 1 | 350 | | 350 | |
| 6 | 6 | 1,150 | | 1,150 | |
| | | | 2,150 | | 2,150 |
| EXAMINING BRANCH. | | | | | |
| 1 | 1 | 500 | | 500 | |
| 1 | 1 | 300 | | 300 | |
| 1 | 1 | 165 | | 165 | |
| 1 | 1 | 150 | | 150 | |
| | | | 1,115 | | 1,115 |
| CORRESPONDENCE AND CONTRACTS. | | | | | |
| 1 | 1 | 450 | | 450 | |
| 1 | 1 | 225 | | 225 | |
| 2 | 2 | 275 | | 275 | |
| | | | 950 | | 950 |
| RECORDS. | | | | | |
| 1 | 1 | 350 | | 350 | |
| 3 | 3 | 625 | | 625 | |
| | | | 975 | | 975 |
| MESSENGERS, &c. | | | | | |
| 1 | 1 | 175 | | 175 | |
| 2 | 2 | 200 | | 200 | |
| 2 | 2 | 140 | | 140 | |
| | | | 515 | | 515 |
| 66 | 66 | | 250 | | 400 |
| | | | 16,145 | | 16,295 |
| INSPECTING BRANCH. | | | | | |
| 1 | 1 | 750 | | 750 | |
| 4 | 4 | 2,350 | | 2,350 | |
| | | 1,300 | | 1,300 | |
| | | | 4,400 | | 4,400 |
| 71 | 71 | | 20,545 | | 20,695 |
| | | TOTAL | | | |

| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | | | |
|--|------|--|-----------------------------|--------|---------------------------|--------|
| No. of Persons. | | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| | | Stamp Duties. | | | | |
| | | STAMP DUTIES. | | | | |
| 1 | 1 | Commissioner | 600 | | 600 | |
| 1 | 1 | Accountant | 300 | | 300 | |
| 1 | 1 | Entry and Issue Clerk | 300 | | 300 | |
| 1 | 1 | Clerk of Correspondence and Recorder of Wills | 250 | | 250 | |
| 1 | 1 | Cashier | 200 | | 200 | |
| 1 | 1 | Clerk | 150 | | 150 | |
| 1 | 1 | Clerk | 150 | | 150 | |
| 2 | 2 | Junior Clerks—1 at £125, and 1 at £50 | 175 | | 175 | |
| 1 | 1 | Foreman of Stampers | 250 | | 250 | |
| 1 | 1 | Stamper | 150 | | 150 | |
| 6 | 6 | Assistant Stampers, at £120 | 720 | | 720 | |
| 1 | 1 | Messenger | 120 | | 120 | |
| 1 | 1 | Officekeeper | 45 | | 45 | |
| | | <i>(Irrespective of date of claims.)</i> | | | | |
| | | Rent of Office | 220 | 3,410 | 220 | 3,410 |
| | | Assistance in cleaning offices | 50 | | 50 | |
| | | Incidental Expenses | 20 | | 20 | |
| 19 | 19 | | | 290 | | 290 |
| | | TOTAL | £ | 3,700 | | 3,700 |
| | | Customs. | | | | |
| | | <i>Sydney.</i> | | | | |
| 1 | 1 | Collector and Registrar of Shipping | | 1,000 | | 1,000 |
| | | INDOOR BRANCH. | | | | |
| 1 | ... | Chief Clerk | 600 | | | |
| 1 | 1 | Cashier | 600 | | 600 | |
| ... | 1 | First Clerk | | | 400 | |
| 1 | 1 | Second do. | 450 | | 400 | |
| 1 | 1 | Third do. | 400 | | 400 | |
| 1 | 1 | Fourth do. | 400 | | 350 | |
| 1 | 1 | Fifth do. | 350 | | 300 | |
| 1 | 1 | Sixth do. | 300 | | 300 | |
| 1 | 1 | Seventh do. | 250 | | 250 | |
| 1 | 1 | Eighth do. | 250 | | 250 | |
| 1 | 1 | Ninth do. | 250 | | 250 | |
| 9 | 9 | Clerks—3 at £250, 3 at £225, 3 at £200 | 2,025 | | 2,025 | |
| 12 | 12 | Do. 3 at £170, 3 at £150, 2 at £125, and 2 at £100, 1 at £75, and 1 at £60 | 1,675 | | 1,545 | |
| | | LANDING BRANCH. | | | | |
| 1 | 1 | Landing Surveyor | 620 | 7,550 | 620 | 7,070 |
| 5 | 5 | Gaugers, Examining Officers, and Timber Measurers— 2 at £365, and 3 at £350 | 1,780 | | 1,780 | |
| 2 | 2 | Temporary Examining Officers, at £165 | 330 | | 330 | |
| 1 | 1 | First Landing Waiter | 415 | | 415 | |
| 1 | 1 | Second do. | 415 | | 390 | |
| 1 | 1 | Third do. | 390 | | 365 | |
| 1 | 1 | Fourth do. | 365 | | 315 | |
| 1 | 1 | Fifth do. | 315 | | 315 | |
| 1 | 1 | Sixth do. | 315 | | 315 | |
| 1 | 1 | Seventh do. | 315 | | 315 | |
| 1 | 1 | Eighth do. | 315 | | 315 | |
| 1 | 1 | Ninth do. | 315 | | 315 | |
| 1 | 1 | Tenth do. | 315 | | 315 | |
| 1 | 1 | Eleventh do. | 315 | | 315 | |
| 1 | 1 | Twelfth do. | 315 | | 315 | |
| 1 | 1 | Thirteenth do. | 315 | | 315 | |
| 1 | 1 | Fourteenth do. | 315 | | 315 | |
| 1 | 1 | Fifteenth do. | 315 | | 315 | |
| 1 | 1 | Sixteenth do. | 315 | | 275 | |
| 1 | 1 | Seventeenth do. | 250 | | 250 | |
| 1 | 1 | Eighteenth do. | 250 | | 250 | |
| 1 | 1 | Nineteenth do. | 250 | | 250 | |
| 1 | 1 | Twentieth do. | 250 | | 250 | |
| 1 | 1 | Twenty-first do. | 250 | | 250 | |
| 1 | 1 | Twenty-second do. | 250 | | 250 | |
| 2 | 2 | Temporary Officers, at £200 | | 9,595 | 400 | 9,855 |
| 62 | 62 | Carried forward | £ | 18,145 | | 17,925 |

| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | | | | |
|--|------|--|--|-----------------------------|--------|---------------------------|--------|
| No. of Persons. | | | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | | £ | | £ | |
| | | Customs—continued. | | | | | |
| | | Brought forward ... .. |  | ..... | 18,145 | ..... | 17,925 |
| | | TIDE BRANCH. | | | | | |
| 1 | 1 | Tide Surveyor | | 375 | | 375 | |
| 1 | 1 | Assistant do. | | 375 | | 300 | |
| | | | | | 750 | | 675 |
| | | WAREHOUSE BRANCH. | | | | | |
| 1 | 1 | Warehouse Keeper and Inspector of Warehouses | | 500 | | 500 | |
| 1 | 1 | Assistant Warehouse Keeper | | 250 | | 250 | |
| 1 | 1 | First Locker | | 275 | | 275 | |
| 1 | 1 | Second do. | | 275 | | 275 | |
| 1 | 1 | Third do. | | 275 | | 275 | |
| 1 | 1 | Fourth do. | | 275 | | 250 | |
| 1 | 1 | Fifth do. | | 250 | | 250 | |
| 1 | 1 | Sixth do. | | 250 | | 250 | |
| 1 | 1 | Seventh do. | | 250 | | 250 | |
| 1 | 1 | Eighth do. | | 250 | | 250 | |
| 1 | 1 | Ninth do. | | 250 | | 225 | |
| 1 | 1 | Tenth do. | | 225 | | 225 | |
| 1 | 1 | Eleventh do. | | 225 | | 225 | |
| 1 | 1 | Twelfth do. | | 200 | | 200 | |
| 1 | 1 | Thirteenth do. | | 200 | | 200 | |
| 1 | 1 | Fourteenth do. | | 200 | | 200 | |
| 1 | 1 | Fifteenth do. | | 200 | | 200 | |
| 1 | 1 | Sixteenth do. | | 200 | | 200 | |
| 1 | 1 | Seventeenth do. | | 200 | | 200 | |
| 1 | 1 | Eighteenth do. | | 200 | | 200 | |
| 1 | 1 | Nineteenth do. | | 200 | | 200 | |
| 1 | 1 | Twentieth do. | | 200 | | 200 | |
| 3 | 3 | Assistant Lockers at £165 | | 495 | | 495 | |
| | | | | | 5,845 | | 5,795 |
| | | TOBACCO FACTORIES. | | | | | |
| 1 | 1 | Inspector of Tobacco Factories, at £400, (from 1st March, 1884) | | 334 | | 400 | |
| 1 | 1 | Assistant Inspector of Tobacco Factories, at £350, (from 1st April, 1884) | | 262 | | 350 | |
| 5 | 5 | Lockers at Tobacco Factories, at £175 each, (from 1st April, 1884) | | 656 | | 875 | |
| | | | | | 1,252 | | 1,625 |
| | | MISCELLANEOUS. | | | | | |
| 1 | 1 | Secretary to the Commissioners of Customs | | 50 | | 50 | |
| 1 | 1 | Messenger | | 150 | | 150 | |
| 1 | 1 | Warrant Messenger | | 160 | | 160 | |
| 1 | 1 | Porter, Queen's Warehouse | | 135 | | 135 | |
| 11 | 11 | Boy Messengers—5 at £50, and 6 at £40 | | 505 | | 490 | |
| 1 | 1 | Watchman | | 114 | | 114 | |
| 1 | 1 | Housekeeper | | 70 | | 70 | |
| 2 | 2 | Coxswains, at £120 | | 240 | | 240 | |
| 6 | 6 | Boatmen, at £108 | | 648 | | 648 | |
| | | | | | 2,072 | | 2,057 |
| | | OUTPORT BRANCH. | | | | | |
| | | <i>Botany Bay.</i> | | | | | |
| 1 | 1 | Preventive Officer | | 146 | 28,064 | 146 | 28,077 |
| | | <i>Broken Bay.</i> | | | | | |
| 1 | 1 | Coast Waiter | | 250 | | 250 | |
| 2 | 2 | Boatmen, at £108 | | 216 | | 216 | |
| | | <i>Newcastle.</i> | | | | | |
| 1 | 1 | Sub-Collector | | 500 | | 500 | |
| 1 | 1 | Tide Surveyor | | 350 | | 350 | |
| 1 | 1 | Landing Waiter | | 275 | | 250 | |
| 1 | 1 | Locker | | 250 | | 250 | |
| 1 | 1 | Clerk | | 250 | | 250 | |
| 1 | 1 | Do. | | 200 | | 200 | |
| 1 | 1 | Do. | | 170 | | 170 | |
| 1 | 1 | Messenger | | 108 | | 108 | |
| | | Carried forward | | £ 2,715 | | 2,690 | |
| 133 | 133 | Carried forward | | £ | 28,064 | ..... | 28,077 |

ESTIMATES OF EXPENDITURE—1885.

39

| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | | |
|--|------|----------------------------------|--------|---------------------------|--------|
| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | Customs—continued. | | | |
| 133 | 133 | £ | 28,064 | £ | 28,077 |
| | | | | | |
| | | Brought forward | | | |
| | | | 2,715 | | 2,690 |
| | | <i>OUTPORT BRANCH—continued.</i> | | | |
| | | Brought forward | | | |
| | | | 50 | | 50 |
| 1 | 1 | | 144 | | 144 |
| 1 | 1 | | 324 | | 324 |
| | | <i>Newcastle—continued.</i> | | | |
| | | | 350 | | 350 |
| 1 | 1 | | 120 | | 120 |
| | | <i>Morpeth.</i> | | | |
| | | | 275 | | 275 |
| 1 | 1 | | 52 | | 52 |
| 1 | 1 | | 65 | | 65 |
| | | <i>Grafton.</i> | | | |
| | | | 250 | | 250 |
| 1 | 1 | | 216 | | 216 |
| | | <i>Tweed River.</i> | | | |
| | | | 146 | | 146 |
| 1 | 1 | | 52 | | 52 |
| 2 | 2 | | 146 | | 146 |
| | | <i>Port Stephens.</i> | | | |
| | | | 52 | | 52 |
| 1 | 1 | | 52 | | 52 |
| | | <i>Richmond River.</i> | | | |
| | | | 52 | | 52 |
| 1 | 1 | | 146 | | 146 |
| | | <i>Wollongong and Bellambi.</i> | | | |
| | | | 52 | | 52 |
| 1 | 1 | | 52 | | 52 |
| | | <i>Eden.</i> | | | |
| | | | 52 | | 52 |
| 1 | 1 | | 52 | | 52 |
| | | <i>Kiama.</i> | | | |
| | | | 52 | | 52 |
| 1 | 1 | | 52 | | 52 |
| | | <i>Shoalhaven.</i> | | | |
| | | | 52 | | 52 |
| 1 | 1 | | 52 | | 52 |
| | | <i>Bateman's Bay.</i> | | | |
| | | | 25 | | 25 |
| 1 | 1 | | 25 | | 25 |
| | | <i>M^cLeay River.</i> | | | |
| | | | 25 | | 25 |
| 1 | 1 | | 25 | | 25 |
| | | <i>Tathra.</i> | | | |
| | | | 25 | | 25 |
| 1 | 1 | | 25 | | 25 |
| | | <i>Port Macquarie.</i> | | | |
| ... | 1 | | 5,163 | | 5,163 |
| | | | | | |
| | | BORDER BRANCH. | | | |
| | | <i>Moama.</i> | | | |
| | | | 350 | | 350 |
| 1 | 1 | | 250 | | 250 |
| 1 | 1 | | 175 | | 175 |
| 1 | 1 | | 120 | | 120 |
| 1 | 1 | | 96 | | 96 |
| ... | 1 | | 50 | | 50 |
| | | <i>Albury.</i> | | | |
| | | | 350 | | 350 |
| 1 | 1 | | 450 | | 450 |
| 2 | 2 | | 25 | | 25 |
| | | | 120 | | 120 |
| 1 | 1 | | 52 | | 52 |
| | | <i>Wentworth.</i> | | | |
| | | | 350 | | 350 |
| 1 | 1 | | 125 | | 125 |
| 1 | 1 | | 96 | | 96 |
| | | <i>Swan Hill.</i> | | | |
| | | | 250 | | 250 |
| 1 | 1 | | 250 | | 250 |
| | | <i>Euston.</i> | | | |
| | | | 250 | | 250 |
| 1 | 1 | | 200 | | 200 |
| | | <i>Howlong.</i> | | | |
| | | | 3,259 | | 3,809 |
| | | Carried forward | | | |
| 172 | 174 | £ | 33,227 | £ | 33,240 |

ESTIMATES OF EXPENDITURE—1885.

| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | | | |
|--|------|---|-----------------------------|--------|---------------------------|--------|
| No. of Persons. | | Customs—continued. | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| 172 | 174 | Brought forward ... .. | ..... | 33,227 | ..... | 33,240 |
| | | <i>BORDER BRANCH—continued.</i> | | | | |
| | | Brought forward... | 3,259 | | 3,309 | |
| | | <i>Corowa.</i> | | | | |
| 1 | 1 | Sub-Collector | 300 | | 300 | |
| 1 | 1 | Clerk | 200 | | 200 | |
| | | <i>Tocumwall.</i> | | | | |
| 1 | 1 | Sub-Collector | 250 | | 250 | |
| | | <i>Silverton and Thackaringa.</i> | | | | |
| 1 | 1 | Acting Sub-Collector at £250 (from 9th January, 1884) | 245 | | 250 | |
| ... | 1 | Assistant Officer ... .. | ..... |  | 250 | |
| | | <i>Queensland Border.</i> | | | | |
| 1 | 1 | Sub-Collector (<i>Bogabilla</i>) | 225 | | 225 | |
| 1 | 1 | Do. (<i>Stanthorpe</i>) | 250 | | 250 | |
| | | | | 4,729 | | 5,034 |
| | | <i>INLAND BONDED WAREHOUSES.</i> | | | | |
| | | <i>Bourke.</i> | | | | |
| 1 | 1 | Locker | 250 | | 250 | |
| ... | 1 | Assistant Officer ... .. | ..... |  | 52 | |
| | | <i>Deniliquin.</i> | | | | |
| 1 | 1 | Locker | 250 | | 250 | |
| 1 | 1 | Assistant Officer of Customs | 165 | | 165 | |
| | | <i>Wilcannia.</i> | | | | |
| 1 | 1 | Sub-Collector | 250 | | 250 | |
| | | <i>Hay.</i> | | | | |
| 1 | 1 | Sub-Collector | 250 | | 250 | |
| | | <i>Brewarrina.</i> | | | | |
| 1 | 1 | Sub-Collector | 250 | | 250 | |
| | | <i>Cobar.</i> | | | | |
| 1 | 1 | Locker | 250 | | 250 | |
| | | <i>Tenterfield.</i> | | | | |
| 1 | 1 | Locker | 250 | | 250 | |
| | | <i>Barrington.</i> | | | | |
| 1 | 1 | Locker | 250 | | 250 | |
| | | <i>Louth.</i> | | | | |
| 1 | 1 | Locker | 250 | | 250 | |
| | | <i>Walgett.</i> | | | | |
| 1 | 1 | Locker | 250 |  | ..... |  |
| | | | | 2,665 | | 2,467 |
| | | | | 40,621 | | 40,741 |
| | | (Irrespective of date of claims.) | | | | |
| | | Allowances to extra Tide Waiters, and for occasional Clerical Assistance | 10,500 | | 10,500 | |
| | | Rent | 525 | | 496 | |
| | | Allowance in lieu of Quarters | 1,089 | | 1,191 | |
| | | Allowance for Forage for horses | 650 | | 750 | |
| | | New Boats | 150 | | 150 | |
| | | Gauging Instruments, &c. | 100 | | 200 | |
| | | Rewards to Seizing Officers in lieu of share of proceeds of goods seized | 200 | | 350 | |
| | | Additional Lockers at Tobacco Factories, and travelling charges | 1,000 | | 1,000 | |
| | | Incidental Expenses | 400 | | 600 | |
| | | Other Services | 3,054 |  | ..... |  |
| | | | | 17,668 | | 15,237 |
| 189 | 193 | TOTAL | £ | ..... | 58,289 | ..... |
| | | | | | | 55,978 |

ESTIMATES OF EXPENDITURE—1885.

41

No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|---|---------|---------------------------|---------------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Colonial Distilleries and Refineries. | | | | | |
| DISTILLERIES. | | | | | |
| 1 | 1 | Chief Inspector of Distilleries and Refineries | 675 | 675 | |
| 1 | 1 | Senior Inspector of Distilleries | 450 | 450 | |
| 2 | 2 | Inspectors at £450 and £400 | 850 | 850 | |
| 1 | 1 | Inspector | 350 | 350 | |
| 1 | 1 | Boatman at Harwood Island Distillery | 120 | 120 | |
| 6 | 6 | | 2,445 | | 2,445 |
| REFINERIES. | | | | | |
| 1 | 1 | Senior Inspector | 300 | 300 | |
| 1 | 1 | Inspector | 250 | 250 | |
| 1 | 1 | Gatekeeper | 120 | 120 | |
| 1 | 1 | Night Watchman | 108 | 108 | |
| 4 | 4 | | 778 | | 778 |
| GENERAL SERVICE. | | | | | |
| 1 | 1 | Clerk and Acting Inspector | 200 | 200 | |
| 1 | 1 | Messenger | 90 | 90 | |
| 2 | 2 | | 290 | | 290 |
| <i>(Irrespective of date of service.)</i> | | | | | |
| | | Occasional Assistance | 200 | 200 | |
| | | Instruments and Books | 40 | 40 | |
| | | Cleaning Offices | 96 | 96 | |
| | | Porterage | 15 | 15 | |
| | | Incidental Expenses | 100 | 100 | |
| | | Rent of Office | 120 | 120 | |
| | | Expense of procuring information in regard to Illicit Distillation | 60 | 60 | |
| | | Allowance in lieu of Quarters to Inspectors | 150 | 150 | |
| | | Travelling Expenses | 120 | 120 | |
| | | | 901 | | 901 |
| 12 | 12 | TOTAL | £ | 4,414 | * 4,414 |
| Gold Receivers. | | | | | |
| | | Receivers at Goulburn, Orange, Gundagai, Forbes, Tumut, Adelong, Sofala, Braidwood, Carcoar, Temora, Copeland, Hill End, Wilcannia, Mount McDonald, Cootamundra, and Tumberumba, at £10 each, and 1 at Bathurst, at £15, and to meet new appointments as required, £50 ... .. | ..... | 265 | 225 |
| Gold and Escort. | | | | | |
| | | Freight and Conveyance of Gold and Escorts ... .. | ..... | 2,300 | † 2,000 |

* To meet the expenditure in connection with the Refineries Branch the Colonial Sugar Company are assessed at the rate of £1,500 per annum on the working capabilities of their Refinery.

† This expenditure will be reimbursed in part by the Gold Escort charges.

| No. of Persons. | | No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | |
|--|------|--|--------|---------------------------|--------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Government Printer's Department. | | | | | |
| 1 | 1 | Government Printer and Inspector of Stamps | 600 | 600 | |
| 1 | 1 | Superintendent | 500 | 500 | |
| | | | 1,100 | | 1,100 |
| CLERICAL AND ACCOUNT BRANCH. | | | | | |
| 1 | 1 | Chief Clerk and Cashier | 350 | 350 | |
| 1 | 1 | Accountant | 300 | 300 | |
| 1 | 1 | Clerk of Records | 250 | 250 | |
| 1 | 1 | Receiving and Sales Clerk | 250 | 250 | |
| 1 | 1 | Clerk | 150 | 150 | |
| | | | 1,300 | | 1,300 |
| PRINTING, BOOKBINDING, AND PUBLISHING. | | | | | |
| 2 | 2 | Overseers, at £350 each (Night and Day) | 700 | 700 | |
| 1 | 1 | Foreman of Bookbinding Branch | 325 | 325 | |
| 1 | 1 | Overseer of Machine Branch | 325 | 325 | |
| 1 | 1 | Publisher | 275 | 275 | |
| 202 | 222 | Sub-Overseers, Readers, Compositors, Machinists, Pressmen, Bookbinders, Assistants, and others | 21,300 | 22,150 | |
| 105 | 105 | Extra Hands and Overtime | 9,700 | 9,700 | |
| | | Improvers, Apprentices, Folders and Sewers, and others | 7,890 | 7,040 | |
| | | | 40,515 | | 40,515 |
| POSTAGE STAMPS AND TRAMWAY TICKETS. | | | | | |
| 1 | 1 | Foreman | 300 | 300 | |
| 8 | 11 | Sub-Overseer, Printers, and Assistants | 1,667 | 1,667 | |
| | | | 1,967 | | 1,967 |
| RAILWAY TICKETS. | | | | | |
| 1 | 1 | Foreman | 300 | 300 | |
| 5 | 5 | Ticket Printer and Assistants | 610 | 610 | |
| | | | 910 | | 910 |
| PHOTO-LITHOGRAPHY, PHOTOGRAPHY, AND PHOTO-TYPE PRINTING. | | | | | |
| 1 | 1 | Manager of the Branch | 350 | 350 | |
| 1 | 1 | First Photographic Operator | 250 | 250 | |
| 5 | 5 | Photo-mechanical and Photographic Operators and Printers | 835 | 835 | |
| 13 | 13 | Assistants and Apprentices | 1,272 | 1,272 | |
| | | | 2,707 | | 2,707 |
| 1 | 1 | LITHOGRAPHIC DRAFTSMAN | ..... | ..... | 275 |
| LITHOGRAPHING Drawings connected with Patents | | | | | |
| | | Do. Plans and Illustrations connected with Parliamentary and other printed Public Documents | 150 | 150 | |
| | | | 350 | 350 | |
| | | | 500 | | 500 |
| ENGRAVING, ELECTRO', STEREO', TYPE-FOUNDING, AND MECHANICAL BRANCH. | | | | | |
| 1 | 1 | Foreman | 300 | 300 | |
| 16 | 16 | Assistants | 2,271 | 2,271 | |
| | | | 2,571 | | 2,571 |
| PARLIAMENTARY REPORTS. | | | | | |
| | | Printing Weekly Reports of Debates of Parliament | ..... | ..... | 2,500 |
| MISCELLANEOUS. | | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Repairs to Machinery and Incidental Expenses | 350 | 350 | |
| | | Binding for Free Public Library | 200 | 200 | |
| | | Rent of Store for Printed Public Documents, &c. | 500 | 500 | |
| | | | 1,050 | | 1,050 |
| 372 | 395 | TOTAL | ..... | ..... | 55,395 |

No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|---|-----------|---------------------------|-----------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Stores and Stationery. | | | | | |
| 1 | 1 | Superintendent and Inspector of Stores... | 400 | 400 | 400 |
| <i>Clerical Branch</i> | | | | | |
| 1 | 1 | Accountant.. | 350 | 350 | |
| 1 | 1 | Chief Clerk | 200 | 200 | |
| 5 | 5 | Clerks at £175 | 875 | 875 | |
| 1 | 1 | Clerk | 150 | 150 | |
| 1 | 1 | Clerk | 125 | 125 | |
| <i>Store Branch.</i> | | | | | |
| 1 | 1 | Stockkeeper | 250 | 250 | |
| 1 | 1 | Clerk | 200 | 200 | |
| 1 | 1 | Stationer | 200 | 200 | |
| 1 | 1 | Foreman | 150 | 150 | |
| 1 | 1 | Packer | 150 | 150 | |
| 1 | 1 | Assistant Stockkeeper | 150 | 150 | |
| 1 | 1 | Messenger | 110 | 110 | |
| 2 | 2 | Carters at £130 | 260 | 260 | |
| 3 | 3 | Labourers, at £117 | 351 | 351 | |
| | | | 1,700 | 1,700 | 1,700 |
| | | | 1,821 | 1,821 | 1,821 |
| | | | 3,921 | 3,921 | 3,921 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Stores and Stationery for the Public Service generally... | 100,000 | 100,000 | |
| | | Fuel and Light for Departments within the District of Sydney... | 5,000 | 5,000 | |
| | | Conveyance of Stores | 1,500 | 1,500 | |
| | | Packing and other Expenses | 200 | 200 | |
| | | Rent (Stores and Shipping Offices) | 1,000 | 1,000 | |
| | | | 107,700 | 107,700 | 107,700 |
| 22 | 22 | TOTAL | £ 111,621 | £ 111,621 | £ 111,621 |
| Ordnance and Barrack Department. | | | | | |
| <i>Sydney—</i> | | | | | |
| 1 | 1 | Ordnance Storekeeper and Barrack Master | 400 | 400 | |
| 1 | 1 | Assistant do. | 225 | 225 | |
| 1 | 1 | Inspector of Magazines | 200 | 200 | |
| 1 | 1 | Armourer | 175 | 175 | |
| 1 | 1 | Visiting Surgeon | 50 | 50 | |
| 3 | 3 | Clerks, at £175, £150, and £125 | 450 | 450 | |
| 2 | 2 | Junior Clerks, at £100 and £75 | 175 | 175 | |
| 3 | 3 | Foremen of Magazines, 2 at £200 and 1 at £175 | 575 | 575 | |
| 1 | 1 | Master of Steam Launch | 150 | 150 | |
| 1 | 1 | Engineer and Driver of do. | 150 | 150 | |
| 1 | 1 | Overseer of Magazine, Middle Harbour | 150 | 150 | |
| 1 | 1 | Cooper, at 8s. per diem | 147 | 146 | |
| 1 | 1 | Overseer of Stores, at 7s. per diem | 129 | 128 | |
| 18 | 20 | Magazine Warders, at 7s. per diem | 2,306 | 2,555 | |
| 7 | 7 | Ordnance and Barrack Labourers, at 7s. per diem | 897 | 895 | |
| 1 | 1 | Messenger | 50 | 50 | |
| 1 | 1 | Lamp-lighter, Victoria Barracks, at 1s. per diem | 19 | 19 | |
| 2 | 2 | Boatmen for Powder Barges, at 8s. per diem | 293 | 292 | |
| 1 | 1 | Night Watchman, Goat Island, at 8s. per diem | 147 | 146 | |
| | | | 6,688 | 6,931 | 6,931 |
| <i>Newcastle—Floating Magazine—</i> | | | | | |
| 1 | 1 | Supervising Officer | 50 | 50 | |
| 5 | 5 | Warders, at 7s. per diem | 641 | 637 | |
| 1 | 1 | Working Overseer and Clerk | 172 | 172 | |
| | | | 863 | 859 | 859 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Rations, Fuel, Light, Medicines for Island Residents, and Forage for horses | 850 | 850 | |
| | | Extra Labour and Incidental Expenses | 200 | 200 | |
| | | Allowance of 1s. per diem, to two Boatmen at Newcastle, for conveying Powder to and from the Magazine | 37 | | |
| | | | 1,087 | 1,050 | |
| 55 | 57 | Carried forward | £ 7,551 | £ 7,790 | £ 7,790 |

| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | |
|--|------|--|---------------------------|---------------|
| No. of Persons. | | SALARIES AND CONTINGENCIES. | | |
| 1884 | 1885 | Amount Voted for 1884. | Amount Required for 1885. | |
| Ordnance and Barrack Department—continued. | | | | |
| | | £ | £ | |
| 55 | 57 | Brought forward | 7,551 | 7,790 |
| | | Brought forward | 1,087 | 1,050 |
| | | Allowance for Quarters to the Magazine Warders at Newcastle | 150 | 150 |
| | | Allowance in lieu of Quarters to one Foreman of Magazines | | 50 |
| | | Allowance in lieu of Quarters to Inspector of Magazines | 50 | 50 |
| | | Do. do. to Master of Steam Launch... .. | 25 | |
| | | Travelling Expenses of Inspector... .. | 200 | 200 |
| | | Hire of Lighters and Horses for conveyance of Powder | 150 | 150 |
| | | Fuel, Oil, Repairs, &c., for Steam Launch | 200 | 200 |
| | | For the maintenance of Powder Magazine, Grafton | 400 | 400 |
| | | | 2,262 | 2,250 |
| | | (Irrespective of date of claims.) | | |
| | | Warlike Stores—Annual Supply... .. | 8,000 | 8,000 |
| | | Floating Magazines, Middle Harbour and Broken Bay, probable expenses | 1,000 | 1,000 |
| | | | 9,000 | 9,000 |
| 55 | 57 | TOTAL £ | 18,813 | 19,040 |
| Board of Health. | | | | |
| <i>Sydney.</i> | | | | |
| 1 | 1 | Health and Emigration Officer | 600 | 600 |
| | | Fees to Medical Members | 200 | 200 |
| 1 | 1 | Secretary | 225 | 225 |
| ... | 2 | Clerks—1 at £75, and 1 at £70 | | 145 |
| 1 | ... | Messenger | 50 | |
| | | | 1,075 | 1,170 |
| <i>Watson's Bay.</i> | | | | |
| 1 | 1 | Assistant Health Officer | 500 | 500 |
| 1 | 1 | Coxswain of Boat | 120 | 120 |
| 3 | 3 | Boatmen, at £108 | 324 | 324 |
| | | | 944 | 944 |
| <i>Quarantine Station.</i> | | | | |
| 1 | 1 | Superintendent and Overseer of Stores | 192 | 192 |
| 1 | 1 | Wardsman, in charge of Hospital | 120 | 120 |
| 5 | 5 | Quarantine Officers, at £108 | 540 | 540 |
| 1 | 1 | Coxswain of Quarantine Tender | 108 | 108 |
| 1 | 1 | Engineer | 120 | 120 |
| | | | 1,080 | 1,080 |
| <i>Newcastle.</i> | | | | |
| 1 | 1 | Health Officer | 200 | 200 |
| <i>Contingencies.</i> | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | |
| | | To meet Expenses of Vessels in Quarantine; also to meet Expenses connected with the treatment of Infectious Diseases at the Quarantine Station, &c. | 2,500 | 2,000 |
| | | Rent of Offices | 250 | 250 |
| | | Rent of Quarters for Assistant Health Officer and Boat's Crew, Watson's Bay | 214 | 214 |
| | | Incidental Expenses | 150 | 150 |
| | | | 3,114 | 2,614 |
| 18 | 19 | TOTAL £ | 6,413 | 6,008 |

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|---|------|--|---------|---------------------------|--|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | | |
| Board of Pharmacy. | | | | | |
| 1 | 1 | Secretary | 100 | 100 | |
| Shipping Masters. | | | | | |
| <i>Sydney.</i> | | | | | |
| 1 | 1 | Shipping Master | 425 | 425 | |
| 1 | 1 | Deputy Shipping Master | 250 | 250 | |
| 1 | 1 | First Clerk and Accountant | 225 | 225 | |
| 1 | 1 | Cashier | 175 | 175 | |
| 2 | 2 | Clerks, at £150 | 300 | 300 | |
| 1 | 1 | Clerk | 100 | 100 | |
| 1 | 1 | Cadet | 75 | 75 | |
| 1 | 1 | Messenger | 150 | 150 | |
| 1 | 1 | Office-keeper | 60 | 60 | |
| | | | 1,760 | 1,760 | |
| <i>Newcastle.</i> | | | | | |
| 1 | 1 | Shipping Master | 350 | 350 | |
| 1 | 1 | Cashier and Accountant | 200 | 200 | |
| 1 | 1 | Clerk | 75 | 75 | |
| | | | 625 | 625 | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Incidental Expenses | 20 | 20 | |
| | | | 20 | 20 | |
| 13 | 13 | TOTAL | £ 2,405 | 2,405 | |
| Glebe Island Abattoir. | | | | | |
| <i>Abattoir.</i> | | | | | |
| 1 | 1 | Inspector | 300 | 225 | |
| 1 | 1 | Assistant Inspector | 175 | *227 | |
| 1 | 1 | Overseer, &c. | 150 | 150 | |
| 4 | 4 | Labourers—2 at £100, and 2 at £80 | 360 | 360 | |
| 1 | 1 | Jobbing Carpenter | 110 | 110 | |
| 1 | 1 | Veterinarian | 70 | 70 | |
| | | | 1,165 | 1,142 | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Forage Allowance for Inspector | 50 | 50 | |
| | | Coals | 70 | 70 | |
| | | Gas | 50 | 50 | |
| | | Forage for Cart Horses | 80 | 80 | |
| | | Fresh Water supply | 200 | 200 | |
| | | Wages for labour of a temporary character... .. | 610 | 500 | |
| | | Incidental Expenses | 400 | 400 | |
| | | | 1,460 | 1,350 | |
| <i>Refrigerating Process.</i> | | | | | |
| | | To meet probable expenses (Irrespective of date of claims) | 2,000 | 2,000 | |
| <i>Desiccating Process.</i> | | | | | |
| | | To meet probable expenses (Do.) | 4,300 | 3,836 | |
| 9 | 9 | TOTAL | £ 8,925 | 8,328 | |

| No. of Persons. | | No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | |
|---|------|--|---------|---------------------------|-------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Marine Board of New South Wales. | | | | | |
| MARINE BOARD, SYDNEY. | | | | | |
| 1 | 1 | President | 650 | 650 | |
| 6 | 6 | Fees to the Wardens | 656 | 656 | |
| 1 | 1 | Secretary | 400 | 400 | |
| 1 | 1 | Clerk and Accountant | 250 | 250 | |
| 1 | 1 | Engineer Surveyor, Inspector, and Examiner | 550 | 550 | |
| 1 | 1 | Assistant Engineer Surveyor | 350 | 350 | |
| 1 | 1 | Shipwright Surveyor and Inspector | 300 | 300 | |
| 1 | 1 | { Examiner in Navigation and Pilotage | 300 | 300 | |
| | | { Examiner in Seamanship and Pilotage | | | |
| 1 | 1 | Inspector | 50 | 50 | |
| 1 | 1 | Water Bailiff | 200 | 200 | |
| 1 | 1 | Messenger | 125 | 125 | |
| ... | ... | Surveyors at the Outports | 250 | 350 | |
| 16 | 16 | | 4,081 | | 4,181 |
| LOCAL MARINE BOARD, NEWCASTLE. | | | | | |
| 1 | 1 | Harbour Master and Chairman | 450 | 450 | |
| 4 | 4 | Fees to Members | 250 | 250 | |
| 1 | 1 | Secretary and Inspector | 300 | 300 | |
| 1 | 1 | Inspector | 50 | 50 | |
| 1 | 1 | Inspector and Surveyor | 250 | 250 | |
| 1 | 1 | Boatman | 120 | 120 | |
| 1 | 1 | Messenger and Office-keeper | 120 | 120 | |
| 10 | 10 | | 1,540 | | 1,540 |
| HARBOUR MASTERS. | | | | | |
| 1 | 1 | Harbour Master, Sydney | 350 | 350 | |
| 1 | 1 | Do. Twofold Bay | 250 | 250 | |
| 1 | 1 | Assistant Harbour Master, Newcastle | 300 | 300 | |
| 1 | 1 | Clerk, Sydney | 200 | 200 | |
| 4 | 4 | | 1,100 | | 1,100 |
| COLONIAL LIGHT-HOUSES. | | | | | |
| <i>Principal Light-keepers.</i> | | | | | |
| 1 | 1 | Port Jackson—Macquarie Light | 180 | 180 | |
| 1 | 1 | Do. Hornby Light | 180 | 180 | |
| 1 | 1 | Newcastle (acting also as Signal Master) | 250 | 250 | |
| 1 | 1 | Cape St. George | 180 | 180 | |
| 1 | 1 | Port Stephens | 180 | 180 | |
| 1 | 1 | Seal Rock Point | 180 | 180 | |
| 1 | 1 | Solitary Islands | 180 | 180 | |
| 1 | 1 | Montague Island | 180 | 180 | |
| 1 | 1 | Green Cape | 180 | 180 | |
| 1 | 1 | Broken Bay—Stewart's Light | 180 | 180 | |
| 1 | 1 | Light-ship "Bramble," Sydney Harbour | 180 | 180 | |
| 1 | 1 | Light-ship, Newcastle | 120 | 120 | |
| 1 | 1 | Fort Denison Light | 120 | 120 | |
| 1 | 1 | Ulladulla | 144 | 144 | |
| 1 | 1 | Nelson's Bay, Port Stephens | 120 | 120 | |
| <i>First Assistant Light-keepers.</i> | | | | | |
| 1 | 1 | Port Jackson—Macquarie Light | 120 | 120 | |
| 1 | 1 | Do. Hornby Light | 120 | 120 | |
| 1 | 1 | Newcastle | 120 | 120 | |
| 1 | 1 | Cape St. George | 120 | 120 | |
| 1 | 1 | Port Stephens | 120 | 120 | |
| 1 | 1 | Seal Rock Point | 120 | 120 | |
| 1 | 1 | Solitary Islands | 120 | 120 | |
| 1 | 1 | Montague Island | 120 | 120 | |
| 1 | 1 | Green Cape | 120 | 120 | |
| 1 | 1 | Light-ship "Bramble,"—Mate | 120 | 120 | |
| 1 | 1 | Broken Bay—Stewart's Light | 120 | 120 | |
| 2 | 2 | Wollongong (also to perform the duties of Boatmen to the Pilot), at £120 | 240 | 240 | |
| 28 | 28 | Carried forward | £ 4,114 | 4,114 | |
| 30 | 30 | Carried forward | £ | 6,721 | 6,821 |

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|-----------------------------|--------|---------------------------|--------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | | |
| Marine Board of New South Wales—continued. | | | | | |
| 30 | 30 | | 6,721 | | 6,821 |
| COLONIAL LIGHT-HOUSES—continued. | | | | | |
| 28 | 28 | | 4,114 | | 4,114 |
| Brought forward | | | | | |
| <i>Second Assistant Light-keepers.</i> | | | | | |
| 1 | 1 | | 108 | | 108 |
| 1 | 1 | | 108 | | 108 |
| 1 | 1 | | 108 | | 108 |
| 1 | 1 | | 108 | | 108 |
| 1 | 1 | | 108 | | 108 |
| 1 | 1 | | 108 | | 108 |
| 1 | 1 | | 108 | | 108 |
| 1 | 1 | | 108 | | 108 |
| 1 | 1 | | 108 | | 108 |
| 1 | 1 | | 108 | | 108 |
| 3 | 3 | | 324 | | 324 |
| | | | 5,518 | | 5,518 |
| SEA AND RIVER PILOTS. | | | | | |
| <i>Port Jackson.</i> | | | | | |
| 2 | 2 | | 550 | | 550 |
| 4 | 4 | | 432 | | 432 |
| | | | 982 | | 982 |
| <i>Pilot Service of Port Jackson—</i> | | | | | |
| <i>Pilot Steamer "Captain Cook"</i> | | | | | |
| 1 | 1 | | 400 | | 400 |
| 1 | 1 | | 200 | | 200 |
| 1 | 1 | | 175 | | 175 |
| 1 | 1 | | 240 | | 240 |
| 1 | 1 | | 168 | | 168 |
| 4 | 4 | | 528 | | 528 |
| 6 | 6 | | 648 | | 648 |
| 4 | 4 | | 432 | | 432 |
| 2 | 2 | | 216 | | 216 |
| 1 | 1 | | 108 | | 108 |
| 5 | 5 | | 1,750 | | 1,750 |
| | | | 4,865 | | 4,865 |
| 6 | 6 | | 1,800 | | 1,800 |
| <i>Newcastle.</i> | | | | | |
| <i>Pilots, at £300</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Manning River.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>M'Leay River.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Clarence River.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Richmond River.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Port Macquarie.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Moruya.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Bellinger River.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Tweed River.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Shoalhaven.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Wollongong.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Nambucca.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Camden Haven.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Lake Macquarie.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| <i>Cape Hawke.</i> | | | | | |
| 1 | 1 | | 175 | | 175 |
| 53 | 53 | | 4,250 | | 4,250 |
| 71 | 71 | | 18,086 | | 18,186 |
| Carried forward | | | | | |
| Carried forward | | | | | |

| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | | | |
|--|------|--|-----------------------------|--------|---------------------------|--------|
| No. of Persons. | | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| | | Marine Board of New South Wales—continued. | | | | |
| 71 | 71 | Brought forward ... .. | ..... | 18,086 | ..... | 18,186 |
| | | SEA AND RIVER PILOTS—continued. | | | | |
| 53 | 53 | Brought forward | 4,250 | | 4,250 | |
| 1 | 1 | <i>Kiama.</i> | | | | |
| | | Pilot in charge of the Light, Port and Moorings | 150 | | 150 | |
| 1 | 1 | <i>Jerringong.</i> | | | | |
| | | Person in charge of the Port and Moorings | 25 | | 25 | |
| 1 | 1 | <i>Shellharbour.</i> | | | | |
| | | Person in charge of Port and Moorings | 25 | | 25 | |
| 1 | 1 | <i>Tathra.</i> | | | | |
| | | Person in charge of Moorings | 25 | | 25 | |
| 57 | 57 | | | 4,475 | | 4,475 |
| | | BOATMEN. | | | | |
| | | <i>Port Jackson. (Boatswain's Yard.)</i> | | | | |
| 1 | 1 | Boatswain in charge | 150 | | 150 | |
| 4 | 4 | Coxswains, at £120 | 480 | | 480 | |
| 10 | 10 | a Boatmen, at £108 | 1,080 | | 1,080 | |
| | | <i>Newcastle.</i> | | | | |
| 24 | 24 | Boatmen, 22 at £120, and 2 at £144 | 2,928 | | 2,928 | |
| 1 | 1 | Carpenter | 152 | | 152 | |
| 1 | ... | Floating Light-keeper | 120 |  | ..... |  |
| | | <i>Manning River.</i> | | | | |
| 5 | 5 | Boatmen, at £108 | 540 | | 540 | |
| | | <i>M'Leay River.</i> | | | | |
| 4 | 4 | Boatmen, at £108 | 432 | | 432 | |
| | | <i>Clarence River.</i> | | | | |
| 5 | 5 | Boatmen, at £108 | 540 | | 540 | |
| | | <i>Richmond River.</i> | | | | |
| 1 | 1 | Coxswain | 120 | | 120 | |
| 5 | 5 | Boatmen, at £108 | 540 | | 540 | |
| | | <i>Port Macquarie.</i> | | | | |
| 5 | 5 | Boatmen, at £108 | 540 | | 540 | |
| | | <i>Moruya.</i> | | | | |
| 2 | 2 | Boatmen, at £108 | 216 | | 216 | |
| | | <i>Bellinger River.</i> | | | | |
| 4 | 4 | Boatmen, at £108 | 432 | | 432 | |
| | | <i>Tweed River.</i> | | | | |
| 5 | 5 | Boatmen, at £108 | 540 | | 540 | |
| | | <i>Shoalhaven.</i> | | | | |
| 4 | 4 | Boatmen, at £108 | 432 | | 432 | |
| | | <i>Twofold Bay.</i> | | | | |
| 4 | 4 | Boatmen, at £108 | 432 | | 432 | |
| | | <i>Nambucca.</i> | | | | |
| 2 | 2 | Boatmen, at £108 | 216 | | 216 | |
| | | <i>Camden Haven.</i> | | | | |
| 2 | 2 | Boatmen, at £108 | 216 | | 216 | |
| | | <i>Lake Macquarie.</i> | | | | |
| 2 | 2 | Boatmen, at £108 | 216 | | 216 | |
| | | <i>Cape Hawke.</i> | | | | |
| 2 | 2 | Boatman, at £108 | 216 | | 216 | |
| 93 | 92 | | | 10,538 | | 10,418 |
| | | TELEGRAPH STATIONS. | | | | |
| 1 | 1 | Signal Master, Fort Phillip | 200 | | 200 | |
| 1 | 1 | Signal Master's Assistant | 108 | | 108 | |
| 1 | 1 | Signal Master, South Head | 200 | | 200 | |
| 1 | ... | Signal Master, Cape Hawke | 100 |  | ..... |  |
| 1 | 1 | Night Look-out-man, Signal Hill, Newcastle | 132 | | 132 | |
| ... | 1 | 2nd Night Look-out-man, Newcastle ... .. | ..... |  | 108 | |
| 1 | 1 | Signal Man, Newcastle | 120 | | 120 | |
| 1 | 1 | Signal Man, Brunswick River | 52 | | 52 | |
| 1 | 1 | Junior Operating Clerk, South Head | 125 | | 125 | |
| 1 | 1 | Operator, Nelson's Bay | 52 | | 52 | |
| 1 | 1 | Do. Port Stephens | 26 | | 26 | |
| 1 | 1 | Do. Port Office, Sydney | 52 | | 52 | |
| 11 | 11 | | | 1,167 | | 1,175 |
| 232 | 231 | Carried forward | £ | 34,266 | ..... | 34,254 |

a To provide for the services of the Marine Board, Health and Emigration Officer, Post Office, and Government Stores.

ESTIMATES OF EXPENDITURE—1885.

49

No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE.

| No. of Persons. | | | Amount Voted for 1884. | | Amount Required for 1885. | |
|-----------------|------|---|------------------------|--------|---------------------------|--------|
| 1884 | 1885 | | £ | | £ | |
| 232 | 231 | | | | | |
| | | Marine Board of New South Wales—continued. | | | | |
| | | Brought forward ... .. | ..... | 34,266 | ..... | 34,254 |
| | | AUSTRALIAN COAST LIGHT-HOUSES. (Irrespective of date of claims.) | | | | |
| | | Contribution towards the maintenance of Lights on Gabo Island, Wilson's Promontory, King's Island, Kent's Group, and Lady Elliott's Island ... .. | ..... | 2,500 | ..... | 2,500 |
| | | MISCELLANEOUS. (Irrespective of date of claims.) | | | | |
| | | Travelling Expenses | | 150 | | 150 |
| | | New Boats and repairs, and repairs to Boat sheds and Pilot Stations | | 500 | | 500 |
| | | Forage and Farriery for Light-house horses | | 150 | | 150 |
| | | Expense of Communication | | 100 | | 100 |
| | | For the maintenance of the Leading Lights in the Eastern Channel, Port Jackson | | 60 | | 60 |
| | | For the maintenance of the four Leading Lights on the Beacons erected in the Port of Newcastle... .. | | 48 | | 48 |
| | | For the maintenance of the Breakwater and Tide Lights, Newcastle | | 72 | | 72 |
| | | For the purchase and maintenance of Buoys, Beacons, and Moorings for the Department generally | | 700 | | 700 |
| | | Coals and other contingent Expenses connected with the Steam Pilot Service, Port Jackson | | 2,000 | | 2,000 |
| | | To erect Boatmen's Quarters at Newcastle and other Outports | | 300 | | 300 |
| | | Allowance in lieu of Quarters to Harbour Master and Pilots, Newcastle, and Rent of Offices, Sydney | | 311 | | 311 |
| | | Gas for engine, New Light-house, South Head, Port Jackson | | 200 | | 200 |
| | | Engineer and other Expenses in connection with the new Electric Light, South Head, Port Jackson... .. | | 500 | | 500 |
| | | Incidental Expenses | | 2,000 | | 2,000 |
| | | Other Services | | 1,460 |  | ..... |
| | | | | 8,551 | | 7,091 |
| 232 | 231 | TOTAL | £ | 45,317 | ..... | 43,845 |
| | | Life-boats. | | | | |
| | | Gratuities to Coxswains and Crews of Life-boats, and Life-saving Apparatus and other expenses in connection therewith ... .. | ..... | 700 | ..... | 700 |
| | | Public Wharves. | | | | |
| | | Circular Quay— | | | | |
| 1 | 1 | Manager and Collector | | 425 | | 425 |
| 1 | 1 | Assistant Manager | | 250 | | 250 |
| 1 | 1 | Clerk | | 150 | | 150 |
| 1 | 1 | Officer in charge of Landing Stage | | 130 | | 130 |
| | | (Irrespective of date of claims.) | | | | |
| | | Commissions and Rebates | | 170 | | 170 |
| | | Labour and Cartage of Stages, Spars, and Planks... .. | | 300 | | 300 |
| | | Incidental expenses | | 50 | | 50 |
| | | | | 1,475 | | 1,475 |
| | | Woolloomooloo Wharf— | | | | |
| 1 | 1 | Wharfinger | | 200 | | 200 |
| | | Incidental expenses | | 60 | | 60 |
| | | | | 260 | | 260 |
| | | Darling Harbour Wharf— | | | | |
| 1 | 1 | Wharfinger | | 208 | | 208 |
| | | Allowance for Rent | | 50 | | 50 |
| | | | | 258 | | 258 |
| 6 | 6 | TOTAL | £ | 1,993 | ..... | 1,993 |

| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | |
|--|---------------------------|---------|------------------------------|---------|
| | Amount Voted for 1884. | | Amount Required for 1885. | |
| | £ | | £ | |
| Miscellaneous Services. | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | |
| Postage of Public Departments | 16,000 | | 16,000 | |
| Advertising for the Public Service | 15,000 | | 15,000 | |
| For the transmission of Telegraphic Messages | 12,000 | | 12,000 | |
| Commission on Payments in England, by the Government Financial Agents Insurance, &c., on English Shipments | 4,500 | | 4,500 | |
| To meet the expense of issuing new Loans in England in the form of Inscribed Stock, and converting old Loans into the same descrip- tion of Stock | 5,000 | | 5,000 | |
| Exchange on Remittances within and beyond the Colony | 4,000 | | 10,000 | |
| Allowance for Postage and Stationery to Clerks of Petty Sessions, Land Agents, and Registrars of District Courts | 2,000 | | 4,000 | |
| For the relief and conveyance of distressed Seamen belonging to the Colony from Foreign Ports, or from Wrecked Vessels, &c. | 550 | | 2,000 | |
| In aid of the Sailors' Home, Newcastle | 350 | | 550 | |
| To subsidize Tug-boats for Northern Rivers and Harbours | 7,000 | | 350 | |
| To subsidize a Tug-boat at the rate of £69 per month for Wollongong Harbour and Port Kembla | 828 | | 7,000 | |
| For interest on Funds in the temporary possession of the Government belonging to Suitors in Equity and Lunacy Patients (estimate only) | 7,000 | | 828 | 996 |
| To meet Unforeseen Expenses, to be hereafter accounted for | 3,000 | | 7,000 | |
| Interest on Overdraft on the Public Account, Bank of New South Wales, Sydney | 20,000 | | 3,000 | |
| Other Services, 1884 | 11,865 | | 20,000 | |
| | | 114,093 | | 107,896 |
| To meet the following expenses connected with payment of Imperial Military and Naval Pensioners in the Colony:— | | | | |
| Clerk in Charge | 350 | | 350 | |
| Incidental expenses | 25 | | 25 | |
| | | 375 | | *375 |
| TOTAL ... .. £ | ..... | 114,468 | ..... | 107,771 |
| Advance to Treasurer. | | | | |
| To enable the Treasurer to make Advances to Public Officers, and on account of other Governments, and to pay expenses of an unforeseen nature, which will afterwards be submitted for Parliamentary appropriation. The whole amount to be adjusted not later than the 31st December, 1886 ... .. | ..... | 100,000 | ..... | 100,000 |

* This expenditure will be covered by the Commission allowed by the Imperial Government to the Colonial Government for this particular Service.

V.

Public Instruction.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|-------|---|--------------------|-----------------------|
| | | £ | £ |
| 52-55 | Public Instruction | 717,818 | 722,400 |
| 55 | Public Schools Cadet Corps | 550 | 744 |
| 56 | Industrial Schools | 7,787 | 7,845 |
| 56 | Orphan Schools, Parramatta | 6,810 | 5,500 |
| 57 | Observatory | 3,930 | 3,890 |
| 57 | Museum | 6,550 | 5,900 |
| 57 | Technological Museum | 4,400 | 4,400 |
| 58 | Free Public Library | 7,460 | 7,440 |
| 58 | Church and School Lands | 2,580 | 2,580 |
| 59 | Grants in aid of Public Institutions | 54,374 | 64,150 |
| | TOTAL | £ 812,259 | 824,849 |
| | <i>Deduct Church and School Lands Estimate, as the amount is payable out of the moneys at the credit of the Church and School Lands Account Trust Fund</i> | 2,580 | 2,580 |
| | | 809,679 | 822,269 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

GEORGE R. DIBBS,
Treasurer.

| No. of Persons. | | No. V.—PUBLIC INSTRUCTION. | | | | SALARIES AND CONTINGENCIES. | | | | |
|--|------|--|-----|-----|-----|-----------------------------|-------|---------------------------|-------|--------|
| 1884 | 1885 | | | | | Amount Voted for 1884. | | Amount Required for 1885. | | |
| | | | | | | £ | | £ | | |
| Public Instruction, under the Act 43 Vic. No. 23. | | | | | | | | | | |
| 1 | 1 | Minister of Public Instruction | ... | ... | ... | 1,500 | | 1,500 | | |
| 1 | 1 | Under Secretary | ... | ... | ... | 900 | | 900 | | |
| | | | | | | | 2,400 | | 2,400 | |
| MINISTERIAL OFFICE. | | | | | | | | | | |
| 1 | 1 | Chief Clerk... | ... | ... | ... | 600 | | 600 | | |
| 1 | 1 | First Clerk... | ... | ... | ... | 400 | | 400 | | |
| 1 | 1 | Clerk, Statistical | ... | ... | ... | 350 | | 350 | | |
| 4 | 4 | Clerks, at £325 | ... | ... | ... | 1,300 | | 1,300 | | |
| 1 | 1 | Clerk | ... | ... | ... | 275 | | 275 | | |
| 3 | 3 | Clerks, 3 at £225 | ... | ... | ... | 675 | | 675 | | |
| 1 | 1 | Clerk | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Clerk | ... | ... | ... | 175 | | 175 | | |
| 1 | 1 | Do. | ... | ... | ... | 125 | | 125 | | |
| 11 | 11 | Junior Clerks, 9 at £75, 2 at £50 | ... | ... | ... | 775 | | 775 | | |
| 1 | 1 | Messenger | ... | ... | ... | 140 | | 140 | | |
| 1 | 1 | Do. | ... | ... | ... | 125 | | 125 | | |
| 1 | 1 | Do. | ... | ... | ... | 60 | | 70 | | |
| ... | ... | Wages for male and female servants employed to clean offices of the Department | ... | ... | ... | 300 | | 300 | | |
| | | | | | | | 5,500 | | 5,510 | |
| ACCOUNT BRANCH. | | | | | | | | | | |
| 1 | 1 | Accountant... | ... | ... | ... | 500 | | 500 | | |
| 1 | 1 | Assistant Accountant | ... | ... | ... | 350 | | 350 | | |
| 1 | 1 | First Clerk... | ... | ... | ... | 300 | | 300 | | |
| 1 | 1 | Clerk | ... | ... | ... | 275 | | 275 | | |
| 3 | 3 | Clerks—2 at £175, 1 at £150 | ... | ... | ... | 500 | | 500 | | |
| 1 | 1 | Clerk | ... | ... | ... | 125 | | 125 | | |
| 4 | 5 | Junior Clerks, 3 at £75, 2 at £50 | ... | ... | ... | 275 | | 325 | | |
| | | | | | | | 2,325 | | 2,375 | |
| PAY BRANCH. | | | | | | | | | | |
| 1 | 1 | Cashier | ... | ... | ... | 475 | | 475 | | |
| 1 | 1 | Assistant Cashier | ... | ... | ... | 225 | | 225 | | |
| 2 | 2 | Junior Clerks, at £75 | ... | ... | ... | 150 | | 150 | | |
| | | | | | | | 850 | | 850 | |
| EXAMINERS' BRANCH. | | | | | | | | | | |
| 1 | 1 | Chief Examiner | ... | ... | ... | 700 | | 700 | | |
| 1 | 1 | Examiner | ... | ... | ... | 600 | | 600 | | |
| 1 | 1 | Do. | ... | ... | ... | 600 | | 600 | | |
| 1 | 1 | Clerk | ... | ... | ... | 175 | | 175 | | |
| | | | | | | | 2,075 | | 2,075 | |
| 50 | 51 | Carried forward | | | | £ | | 13,150 | | 13,210 |

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|--|--------|---------------------------|--------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| No. V.—PUBLIC INSTRUCTION. | | | | | |
| Public Instruction, under the Act 43 Vic. No. 23—continued. | | | | | |
| 50 | 51 | Brought forward | | 13,150 | 13,210 |
| INSPECTOR-GENERAL'S BRANCH. | | | | | |
| 1 | 1 | Inspector-General of Schools | 700 | 700 | |
| 1 | 1 | Chief Inspector | 600 | 600 | |
| 1 | 1 | Chief Clerk... .. | 500 | 500 | |
| 1 | 1 | Clerk | 300 | 300 | |
| 1 | 1 | Do. | 250 | 250 | |
| 1 | 1 | Do. | 225 | 225 | |
| 2 | 2 | Clerks, at £200 | 400 | 400 | |
| 3 | 3 | Do., at £125 | 375 | 375 | |
| 3 | 3 | Junior Clerks, at £75 | 225 | 225 | |
| 3 | 3 | Do. at £50 | 150 | 150 | |
| 1 | 1 | Metropolitan District Inspector | 600 | 600 | |
| 8 | 8 | District Inspectors, at £550 | 4,400 | 4,400 | |
| 2 | 2 | Inspectors, at £500 | 1,000 | 1,000 | |
| 7 | 7 | Do. at £475 | 3,325 | 3,325 | |
| 6 | 6 | Inspectors, Second-class, at £450 | 2,700 | 2,700 | |
| 8 | 8 | Assistant Inspectors, at £350 | 2,800 | 2,800 | |
| | | | 18,550 | | 18,550 |
| FORT-STREET TRAINING SCHOOL. | | | | | |
| 1 | 1 | Principal | 500 | 500 | |
| 1 | 1 | Assistant | 400 | 400 | |
| 1 | 1 | Do. | 300 | 300 | |
| 1 | 1 | Teacher of French... .. | 150 | 150 | |
| 1 | 1 | Teacher of Drawing | 100 | 100 | |
| 1 | 1 | Teacher of Music | 400 | 200 | |
| 1 | 1 | Superintendent of Drill | 100 | 100 | |
| 1 | 1 | Drill Instructor | 180 | 180 | |
| 1 | 1 | Messenger, Fort-street | 140 | 140 | |
| | | | 2,270 | | 2,070 |
| HURLSTONE TRAINING COLLEGE. | | | | | |
| 1 | 1 | Lady Principal | 300 | 300 | |
| 1 | 1 | Assistant | 200 | 200 | |
| 1 | 1 | Do. | 100 | 200 | |
| ... | 1 | Teacher of Music | ... | 200 | |
| 1 | 1 | Matron | 125 | 125 | |
| ... | ... | Visiting Teachers | 350 | 350 | |
| ... | ... | Servants' Wages | 250 | 250 | |
| 1 | 1 | Gardener and Caretaker | 100 | 100 | |
| | | | 1,425 | | 1,725 |
| 113 | 115 | Carried forward | | £ 35,395 | 35,555 |

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|---|------|--|---------|---------------------------|--------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| No. V.—PUBLIC INSTRUCTION. | | | | | |
| Public Instruction, under the Act 43 Vic. No. 23—continued. | | | | | |
| 113 | 115 | Brought forward | | 35,395 | 35,555 |
| ARCHITECT'S BRANCH. | | | | | |
| 1 | 1 | Architect for Public Schools | 600 | 600 | |
| 1 | 1 | Principal Draftsman | 350 | 350 | |
| 4 | 4 | Draftsmen, at £225 | 900 | 900 | |
| 2 | 2 | Draftsmen, 1 at £200, and 1 at £175 | 375 | 375 | |
| 1 | 1 | Clerk | 225 | 225 | |
| 4 | 4 | Clerks, 1 at £150, 3 at £100 | 450 | 450 | |
| ... | 1 | Junior Clerk | 50 | 50 | |
| 6 | 6 | Junior Draftsmen, at £100, £90, £74, 2 at £63, and 1 at £50 | 440 | 440 | |
| 2 | 2 | Clerks of Works, at £350 | 700 | 700 | |
| 1 | 1 | Do. at £275 | 275 | 275 | |
| 3 | 3 | Do. at £250 | 750 | 750 | |
| 5 | 6 | Do. at £200 | 1,000 | 1,200 | |
| | | | 6,065 | 6,315 | |
| SCHOOL ATTENDANCE BRANCH. | | | | | |
| 1 | 1 | Principal School Attendance and Payments Officer ... | 400 | 400 | |
| 2 | 2 | Clerks, 1 at £300 and 1 at £200 | 500 | 500 | |
| 1 | 1 | Do., Junior | 50 | 50 | |
| 50 | 50 | School Attendance and Payments Officers, at £200 ... | 10,000 | 10,000 | |
| ... | 2 | Do. do. at £150 | 300 | 300 | |
| | | | 10,950 | 11,250 | |
| TEACHERS' SALARIES. | | | | | |
| (Irrespective of date of claims, and subject to reclassification in accordance with the Rules and Regulations of the Department.) | | | | | |
| 24 | 24 | Teachers—1st Class Schools, at £400 | 9,600 | 9,600 | |
| 20 | 20 | Do. 2nd do. at £336 | 6,720 | 6,720 | |
| 30 | 30 | Do. 3rd do. at £252 | 7,560 | 7,560 | |
| 45 | 45 | Do. 4th do. at £240 | 10,800 | 10,800 | |
| 125 | 125 | Do. 5th do. at £228 | 28,500 | 28,500 | |
| 275 | 275 | Do. 6th do. at £216 | 59,400 | 59,400 | |
| 180 | 180 | Do. 7th do. at £180 | 32,400 | 32,400 | |
| 275 | 275 | Do. 8th do. at £156 | 42,900 | 42,900 | |
| 420 | 420 | Do. 9th do. at £132 | 55,440 | 55,440 | |
| 100 | 125 | Do. 10th do. at £108 | 10,800 | 13,500 | |
| 48 | 48 | Mistresses 1st do. at £300 | 14,400 | 14,400 | |
| 40 | 40 | Do. 2nd do. at £252 | 10,080 | 10,080 | |
| 60 | 60 | Do. 3rd do. at £204 | 12,240 | 12,240 | |
| 45 | 45 | Do. 4th do. at £192 | 8,640 | 8,640 | |
| 30 | 30 | Do. 5th do. at £180 | 5,400 | 5,400 | |
| | | Assistant Teachers | 32,000 | 32,000 | |
| | | Probationers in charge of small schools... .. | 23,000 | 23,000 | |
| | | Pupil Teachers | 26,000 | 27,500 | |
| | | Sewing Mistresses | 7,000 | 8,000 | |
| | | Cookery Instruction | 500 | 500 | |
| | | Kindergarten Instruction | 500 | ..... |  |
| 1 | ... | Drill Instructor | 144 | ..... |  |
| 1 | ... | Assistant Singing Master | 150 | ..... |  |
| | | Evening Schools, in addition to fees payable to Teachers | 500 | 500 | |
| | | For additional Teachers, as may be found necessary ... | 4,000 | 4,000 | |
| | | | 408,674 | 413,080 | |
| | | SALARIES | 461,084 | 466,200 | |
| | | High Schools | 7,000 | 7,000 | |
| 1916 | 1945 | | 468,084 | 473,200 | |

| No. of Persons. | | No. V.—PUBLIC INSTRUCTION. | | | |
|-----------------|------|---|--|------------------------|---------------------------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Public Instruction, under the Act 43 Vic. No. 23—continued. | | Amount Voted for 1884. | Amount Required for 1885. |
| 1916 | 1945 | | | £ | £ |
| | | | Brought forward | 468,084 | 473,200 |
| | | | (Irrespective of date of claims and nature of service.) | | |
| | | | Examiners and Training Branch— | | |
| | | | Rent | 100 | 100 |
| | | | Examination Fees, Drawing, Music, French | 200 | 200 |
| | | | Inspector-General's Branch— | | |
| | | | Inspectors' Travelling Expenses | 5,000 | 5,000 |
| | | | Rent of District Offices | 250 | 250 |
| | | | Allowances to Students in Training, Fort-street | 3,000 | 3,000 |
| | | | Expenses of Hurlstone Training College | 2,500 | 2,500 |
| | | | Contingencies | 400 | 400 |
| | | | Architect's Branch— | | |
| | | | Architects' and Clerk of Works' Travelling Expenses | 3,000 | 3,000 |
| | | | School Attendance Branch— | | |
| | | | Officers' Travelling Expenses | 3,500 | 4,000 |
| | | | Miscellaneous, including Law Costs | 500 | 500 |
| | | | School Books, Printing, Stationery, &c. | 8,000 | 10,000 |
| | | | New Public School Buildings and Residences | 120,000 | 120,000 |
| | | | Additions and Repairs to Schools and Teachers' Residences, Furniture for Schools, and Weather-Sheds | 40,000 | 40,000 |
| | | | Sites for Schools | 20,000 | 20,000 |
| | | | Allowance for cleaning schools | 9,500 | 9,500 |
| | | | Rent of Premises for Schools and Teachers' Residences | 20,000 | 20,000 |
| | | | Teachers' Forage Allowance | 750 | 750 |
| | | | Teachers' Travelling Expenses | 2,500 | 2,500 |
| | | | Fuel Allowance | 1,000 | 1,000 |
| | | | Advertising | 1,000 | 1,500 |
| | | | Extra Clerical Assistance | 800 | 1,000 |
| | | | Contingencies | 1,500 | 2,000 |
| | | | Cookery Instruction—Miscellaneous | 500 | 500 |
| | | | Retiring Allowance for Aged and Infirm Teachers | 2,500 | 1,500 |
| | | | Other Services | 3,284 | ..... |
| | | | | 249,734 | 249,200 |
| 1916 | 1945 | | TOTAL £ | 717,818 | 722,400 |
| | | | Public Schools Cadet Corps. | | |
| | | | <i>(Transferred from Colonial Secretary's Department.)</i> | | |
| 1 | 1 | | Officer in Charge | 250 | 250 |
| 1 | 1 | | Instructor to Artillery Cadet Corps | 46 | 46 |
| ... | 1 | | Do Public School Cadet Corps ... .. | ..... | 144 |
| | | | | 296 | 440 |
| | | | <i>(Irrespective of date of claims.)</i> | | |
| | | | Allowance in lieu of Forage for Officer in Charge | 64 | 64 |
| | | | Incidental Expenses | 100 | 150 |
| | | | Allowance in lieu of Quarters for Officer in Charge | 90 | 90 |
| | | | | 254 | 304 |
| 2 | 3 | | TOTAL £ | 550 | 744 |

| No. of Persons. | | No. V.—PUBLIC INSTRUCTION. | | | | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|--|-----|-----|--------------------|-----------------------------|--------------------|---------------------------|--------------|
| 1884 | 1885 | Industrial Schools. | | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | NAUTICAL SCHOOL SHIP "VERNON." | | | | | | | |
| | | | | | £ | | £ | | |
| 1 | 1 | Commander and Superintendent ... | ... | ... | 400 | | 400 | | |
| ... | ... | Visiting Surgeon ... | ... | ... | ^a | | ^a | | |
| 1 | 1 | Mate and Clerk ... | ... | ... | 175 | | 175 | | |
| 1 | 1 | Schoolmaster ... | ... | ... | 168 | | 168 | | |
| 1 | 1 | Do Assistant ... | ... | ... | 100 | | 100 | | |
| 1 | 1 | Second Mate ... | ... | ... | 144 | | 144 | | |
| 1 | 1 | Carpenter ... | ... | ... | 144 | | 144 | | |
| 1 | 1 | Boatswain ... | ... | ... | 108 | | 108 | | |
| 1 | 1 | Senior Seaman ... | ... | ... | 90 | | 90 | | |
| 3 | 3 | Seamen, at £84 ... | ... | ... | 252 | | 252 | | |
| 1 | 1 | Barber and General Assistant ... | ... | ... | 90 | | 90 | | |
| 1 | 1 | Cook and Steward ... | ... | ... | 120 | | 120 | | |
| 1 | 1 | Tailor ... | ... | ... | 168 | | 168 | | |
| 1 | 1 | Bandmaster ... | ... | ... | 50 | | 50 | | |
| 15 | 15 | | | | 2,009 | | 2,009 | | |
| | | <i>(Irrespective of date of claims.)</i> | | | | | | | |
| | | Rations for 250 Boys, at 7d. each per diem ... | ... | ... | 2,670 | | 2,662 | | |
| | | Rations for 13 (Ship's Company), at 7d. each per diem... | ... | ... | 140 | | 139 | | |
| | | School Books ... | ... | ... | 30 | | 30 | | |
| | | Ship's Stores, including a new boat ... | ... | ... | 150 | | 150 | | |
| | | Gratuities to Good Conduct Boys, and for recreative purposes ... | ... | ... | 50 | | 50 | | |
| | | Incidental Expenses and Contingencies generally ... | ... | ... | 50 | | 50 | | |
| | | Water ... | ... | ... | 100 | | 100 | | |
| | | Travelling Expenses, Inspector of Apprentices ... | ... | ... | ..... |  | 50 | | |
| | | | | | 3,190 | | 3,231 | | |
| | | | | | | 5,199 | | 5,240 | |
| | | BILOELA INDUSTRIAL SCHOOL FOR GIRLS, PARRAMATTA RIVER. | | | | | | | |
| 1 | 1 | Superintendent ... | ... | ... | 200 | | 200 | | |
| ... | ... | Visiting Surgeon ... | ... | ... | ^a | | ^a | | |
| 1 | 1 | Teacher ... | ... | ... | 125 | | 125 | | |
| 1 | 1 | House Matron ... | ... | ... | 125 | | 125 | | |
| 2 | 2 | Assistant Matrons, at £60 ... | ... | ... | 120 | | 120 | | |
| 1 | 1 | Clerk and Storekeeper ... | ... | ... | 50 | | 50 | | |
| 1 | 1 | Laundress ... | ... | ... | 30 | | 30 | | |
| 1 | 1 | Messenger and Carter ... | ... | ... | 75 | | 75 | | |
| 1 | 1 | Cook ... | ... | ... | 30 | | 30 | | |
| 1 | 1 | Day Watchman, at £100 per annum, (from 1st April, 1884) ... | ... | ... | 75 | | 100 | | |
| | | | | | 830 | | 855 | | |
| | | <i>(Irrespective of date of claims.)</i> | | | | | | | |
| | | Rations ... | ... | ... | 1,600 | | 1,600 | | |
| | | School Books, Stationery, and Stamps ... | ... | ... | 30 | | 30 | | |
| | | Incidental Expenses ... | ... | ... | 100 | | 100 | | |
| | | Good Conduct Gratuities ... | ... | ... | 20 | | 20 | | |
| | | Allowance for conveyance to and from the Island, at (£10 per annum, from 1st April, 1884) ... | ... | ... | 8 |  | ..... |  |  |
| 10 | 10 | | | | 1,758 | | 1,750 | | |
| | | | | | | 2,588 | | 2,605 | |
| 25 | 25 | TOTAL ... .. £ |  |  |  | ..... | 7,787 | ..... | 7,845 |
| | | Orphan Schools, Parramatta. | | | | | | | |
| | | <i>(Irrespective of date of claims.)</i> | | | | | | | |
| | | Maintenance of Orphan Schools, Parramatta (pending decision as to their future organization) ... | ... | ... | ..... |  | 6,810 | ..... | 5,500 |

| No. of Persons. | | No. V.—PUBLIC INSTRUCTION. | | | | SALARIES AND CONTINGENCIES. | | | | |
|-----------------|------|---|-----|-----|-----|-----------------------------|-------|---------------------------|-------|-------|
| 1884 | 1885 | | | | | Amount Voted for 1884. | | Amount Required for 1885. | | |
| | | | | | | £ | | £ | | |
| | | Observatory. | | | | | | | | |
| 1 | 1 | Astronomer | ... | ... | ... | 700 | | 700 | | |
| 1 | 1 | Astronomical Assistant | ... | ... | ... | 400 | | 400 | | |
| 1 | 1 | Meteorological Assistant | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Meteorological Observer | ... | ... | ... | 125 | | 125 | | |
| 1 | 1 | Observer (Astronomical) | ... | ... | ... | 250 | | 250 | | |
| 1 | 1 | Map Compiler | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Compositor | ... | ... | ... | 130 | | 130 | | |
| 1 | 1 | Instrument-maker | ... | ... | ... | 200 | | 200 | | |
| 30 | 30 | Meteorological Observers—30 at £12 | ... | ... | ... | 360 | | 360 | | |
| 1 | 1 | Messenger | ... | ... | ... | 100 | | 100 | | |
| | | Person in charge of Newcastle Time Ball | ... | ... | ... | 75 | | 75 | | |
| | | | | | | | 2,740 | | 2,740 | |
| | | <i>(Irrespective of date of claims.)</i> | | | | | | | | |
| | | Purchase of Books... | ... | ... | ... | 50 | | 50 | | |
| | | Expenses of Magnetical Survey | ... | ... | ... | 100 | | 100 | | |
| | | Purchase and maintenance of Instruments | ... | ... | ... | 350 | | 400 | | |
| | | Incidental Expenses | ... | ... | ... | 200 | | 200 | | |
| | | Extra Clerical assistance as required | ... | ... | ... | 100 | | 200 | | |
| | | For conducting experiments upon evaporation | ... | ... | ... | 300 | | 200 | | |
| | | New South Wales share of cost of determining difference in longitude, England and Australia | ... | ... | ... | 90 |  | ..... |  |  |
| | | | | | | | 1,190 | | 1,150 | |
| 39 | 39 | TOTAL | | | | £ | | 3,930 | | 3,890 |
| | | Museum. | | | | | | | | |
| 1 | 1 | Curator | ... | ... | ... | 600 | | 600 | | |
| 1 | 1 | Assistant | ... | ... | ... | 175 | | 175 | | |
| 1 | 1 | Do. | ... | ... | ... | 175 | | 175 | | |
| | | <i>(Irrespective of date of claims.)</i> | | | | | | | | |
| | | To meet the expense of opening the Museum on Sundays | ... | ... | ... | 200 | | 200 | | |
| | | Searching for and collecting Specimens of Natural History | ... | ... | ... | 300 | | 500 | | |
| | | For purchase of Specimens, including Ethnological Specimens | ... | ... | ... | 500 | | 750 | | |
| | | For purchase of Books | ... | ... | ... | 250 | | 250 | | |
| | | Scientific Descriptive Catalogue of the Collections in the Museum | ... | ... | ... | 500 | | 500 | | |
| | | Additional Endowment for General purposes | ... | ... | ... | 1,000 | | 1,000 | | |
| | | Purchase of Show Cases | ... | ... | ... | 1,500 | | 1,000 | | |
| | | Travelling Expenses | ... | ... | ... | 100 | | 100 | | |
| | | Furniture | ... | ... | ... | 100 | | 100 | | |
| | | Night Watchman | ... | ... | ... | 100 | | 100 | | |
| | | Specimen Bottles | ... | ... | ... | 200 | | 250 | | |
| | | Ticket-writer and Lithographer | ... | ... | ... | 200 | | 200 | | |
| | | For purchase of collection of Ethnological Specimens to replace those lost in fire at Garden Palace | ... | ... | ... | 500 |  | ..... |  |  |
| | | Searching for and collecting remains of extinct Australian Mammals | ... | ... | ... | 100 |  | ..... |  |  |
| | | Towards House-rent of Curator | ... | ... | ... | 50 |  | ..... |  |  |
| 3 | 3 | TOTAL | | | | £ | | 6,550 | | 5,900 |
| | | Technological Museum. | | | | | | | | |
| 1 | 1 | Curator, Lecturer, and Secretary... | ... | ... | ... | 300 | | 300 | | |
| | | <i>(Irrespective of date of claims.)</i> | | | | | | | | |
| | | Towards formation of Technological and Industrial Collection | ... | ... | ... | 2,500 | | 2,500 | | |
| | | Towards cost of Teachers (in addition to fees) and for Classes... | ... | ... | ... | 500 |  | ..... |  |  |
| | | Purchase of Show and other Cases | ... | ... | ... | 1,000 | | 1,000 | | |
| | | Night Watchman | ... | ... | ... | 100 | | 100 | | |
| | | Models; Apparatus, Chemicals, &c. | ... | ... | ... | ..... |  | 500 | | |
| 1 | 1 | TOTAL | | | | £ | | 4,400 | | 4,400 |

| No. of Persons. | | No. V.—PUBLIC INSTRUCTION. | | | |
|--|------|--|---------|---------------------------|-------|
| 1884 | 1885 | SALARIES AND CONTINGENCIES. | | | |
| | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Free Public Library. | | | | | |
| REFERENCE LIBRARY. | | | | | |
| 1 | 1 | a Principal Librarian and Secretary | 600 | 600 | |
| 1 | 1 | Assistant Librarian and Compiler | 390 | 390 | |
| 1 | 1 | Cataloguing Clerk | 200 | 200 | |
| <i>Day.</i> | | | | | |
| 1 | 1 | First Attendant | 148 | 148 | |
| 1 | 1 | Second do. | 148 | 148 | |
| 1 | 1 | Third do. | 120 | 120 | |
| 1 | 1 | Cleaner and Messenger | 160 | 160 | |
| <i>Night.</i> | | | | | |
| 1 | 1 | Overseer | 180 | 180 | |
| 1 | 1 | Chief Attendant (and Printer) | 168 | 168 | |
| 1 | 1 | Fourth do. | 120 | 120 | |
| 1 | 1 | Boy Messenger | 50 | 50 | |
| | | | 2,284 | | 2,284 |
| 11 | 11 | <i>(Irrespective of date of claims.)</i> | | | |
| | | Books, Periodicals, &c. | 1,000 | 1,000 | |
| | | Incidental Expenses | 163 | 163 | |
| | | Fire Insurance | 20 | 27 | |
| | | | 1,183 | | 1,190 |
| LENDING BRANCH. | | | | | |
| <i>Day.</i> | | | | | |
| 1 | 1 | Librarian | 350 | 350 | |
| 1 | 1 | Entry Clerk | 216 | 216 | |
| 1 | 1 | Registrar for Country Libraries | 180 | 180 | |
| 1 | 1 | Third Attendant | 120 | 120 | |
| 1 | 1 | Boy Messenger | 50 | 50 | |
| <i>Night.</i> | | | | | |
| 1 | 1 | Assistant Librarian | 220 | 220 | |
| 1 | 1 | First Attendant | 140 | 140 | |
| 1 | 1 | Second do. | 167 | 140 | |
| 1 | 1 | Boy Messenger | 50 | 50 | |
| | | | 1,493 | | 1,466 |
| 9 | 9 | <i>(Irrespective of date of claims.)</i> | | | |
| | | Books, &c. | 1,000 | 1,000 | |
| | | Books for Country Libraries | 1,000 | 1,000 | |
| | | Furniture | 250 | 250 | |
| | | Incidental Expenses, including Occasional Assistance (as required), Freight, and Insurances | 250 | 250 | |
| | | | 2,500 | | 2,500 |
| 20 | 20 | TOTAL | £ | 7,460 | 7,440 |
| Church and School Lands. | | | | | |
| 1 | 1 | Officer-in-charge | 450 | 450 | |
| 1 | 1 | Inspector and Surveyor | 350 | 350 | |
| 1 | 1 | Draftsman | 260 | 260 | |
| 1 | 1 | Second-class Draftsman | 170 | 170 | |
| 1 | 1 | Clerk | 150 | 150 | |
| | | | 1,380 | | 1,380 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Rent | 150 | 150 | |
| | | Survey Fees | 300 | 300 | |
| | | Travelling Expenses | 300 | 300 | |
| | | Commission on Sales | 300 | 300 | |
| | | Incidental Expenses | 150 | 150 | |
| | | | 1,200 | | 1,200 |
| 5 | 5 | TOTAL | £ | 2,580 | 2,580 |

a Allowed quarters, fuel, and light.

No. V.—PUBLIC INSTRUCTION.

| | Amount Voted for 1884. | | Amount Required for 1885. | |
|---|---------------------------|-------|------------------------------|--------|
| | £ | | £ | |
| Grants in aid of Public Institutions. | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | |
| Sydney University— | | | | |
| Appliances for School of Mining and Metallurgy | 500 | | 500 | |
| Apparatus for Medical School | 500 | | 500 | |
| Inspector, School of Anatomy | 100 |  | ..... |  |
| Scientific Apparatus | 1,500 | | 1,500 | |
| For Additions, Repairs, and Furniture... .. | 1,500 | | 1,500 | |
| For Additional Endowment | 7,000 | | 7,000 | |
| To provide for the establishment of Evening Lectures | 1,000 | | 2,000 | |
| Technical Education | 15,000 | | 15,000 | |
| Technical Education—Re-vote to meet expenses on account of engagements arranged for in 1883 but not actually contracted for before the beginning of 1884 | 2,100 |  | ..... |  |
| Towards the establishment of a National Art Gallery | 3,000 | | 5,000 | |
| Towards the maintenance of do. | 1,500 | | 2,000 | |
| Towards the maintenance of the Art Society of New South Wales | 250 | | 250 | |
| Towards the erection of an Art Gallery on the Domain Site, in pursuance of Resolution of Legislative Assembly ... .. | ..... |  | 10,000 | |
| Linnean Society | 100 | | 100 | |
| Royal Society—Amount in proportion of £1 to every £2 raised by private contributions | 400 | | 400 | |
| Sydney Grammar School—Towards cost of repairs | 1,000 |  | ..... |  |
| Sydney Grammar School—Towards increase of Salaries of Junior Teachers | 500 | | 500 | |
| Towards the support of a Zoological Station near Sydney, on condition of an equal amount being subscribed by the Public | 300 | | 300 | |
| Instruction to the Blind—Amount in proportion of £2 to every £1 raised by private contributions | 500 | | 500 | |
| For providing Mechanics' Institutes and kindred Institutions with Maps, &c. | 500 | | 500 | |
| In aid of certain Educational Institutions, in the proportion of £1 to every £2 raised by private contributions... .. | 12,000 | | 12,000 | |
| In aid of buildings (Educational Institutions) on like conditions... .. | 4,000 | | 4,000 | |
| Orange School of Arts—Special Vote ... .. | ..... |  | 600 | |
| Other Services of 1884 | 1,124 |  | ..... |  |
| TOTAL ... .. | £ | ..... | 54,374 | ..... |
| | | | | 64,150 |

VI.

Administration of Justice.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|-------|--------------------------------------|--------------------|-----------------------|
| | | £ | £ |
| 62 | Department of Justice | 5,860 | 5,860 |
| 63 | Master in Equity's Department | 2,674 | 2,474 |
| 63 | Prothonotary | 14,502 | 14,602 |
| 64 | Sheriff | 20,705 | 21,905 |
| 64 | Insolvency Court | 2,597 | 2,764 |
| 65-67 | District Courts | 10,452 | 9,337 |
| 67 | Coroners' Inquests | 4,225 | 4,400 |
| 68-80 | Petty Sessions | 84,896 | 85,446 |
| 81-85 | Prisons | 97,607 | 98,832 |
| 86 | Reformatory for Girls | 873 | 873 |
| 86 | Registrar of Copyright | 220 | 220 |
| 86 | Miscellaneous Services | 9,520 | 5,688 |
| | TOTAL | £ 254,131 | 252,401 |

*The Treasury, New South Wales,
Sydney, 19th November, 1884.*

GEORGE R. DIBBS,
Treasurer.

| No. of Persons. | | No. VI.—ADMINISTRATION OF JUSTICE. | | | |
|--|------|--|-------|---------------------------|-------|
| 1884 | 1885 | SALARIES AND CONTINGENCIES. | | | |
| | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Department of Justice. | | | | | |
| 1 | 1 | Minister of Justice | 1,500 | | 1,500 |
| 1 | 1 | Under Secretary | 900 | | 900 |
| 1 | 1 | Chief Clerk... | 500 | | 500 |
| 1 | 1 | First Clerk (in charge of Records) | 400 | | 400 |
| 1 | 1 | Second Clerk (in charge of Correspondence) | 300 | | 300 |
| 1 | 1 | Third do. ... | 200 | | 200 |
| 1 | 1 | Fourth do. ... | 200 | | 200 |
| 1 | 1 | Fifth do. ... | 200 | | 200 |
| 1 | 1 | Sixth do. ... | 150 | | 150 |
| 1 | 1 | Seventh do.... | 125 | | 125 |
| ... | 1 | Junior do.... | ..... |  | *100 |
| ... | 2 | Extra Clerks, at £200 | ..... |  | *400 |
| 1 | 1 | Accountant... | 300 | | 300 |
| 1 | 1 | Assistant do. | 215 | | 215 |
| 1 | 1 | Messenger ... | 120 | | 120 |
| 1 | 1 | Assistant Messenger | 75 | | 75 |
| 1 | 1 | Housekeeper | 75 | | 75 |
| | | | 5,260 | | 5,760 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Extra Clerical Assistance, as required | 400 |  | ..... |
| | | Incidental Expenses | 200 | | 100 |
| | | | 600 | | 100 |
| 15 | 18 | TOTAL... | £ | 5,860 | 5,860 |

* Paid hitherto from Vote for Contingencies.

ESTIMATES OF EXPENDITURE—1885.

63

No. VI.—ADMINISTRATION OF JUSTICE.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|---|---------|---------------------------|-------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Their Honors the Judges. | | | | | |
| 1 | 1 | The Chief Justice } (Provided for in Schedule A, and | | | |
| 4 | 4 | The Puisne Judges } by Colonial Acts, <i>ante</i> (page 6). | | | |
| 5 | 5 | | | | |
| Master in Equity. | | | | | |
| 1 | 1 | a Master in Equity | 1,000 | 1,000 | |
| 1 | 1 | Chief Clerk | 500 | 500 | |
| 1 | 1 | Second Clerk | 250 | 250 | |
| 1 | 1 | Third Clerk | 160 | 160 | |
| 1 | 1 | Accountant | 300 | 300 | |
| 1 | 1 | Messenger | 114 | 114 | |
| | | | 2,324 | | 2,324 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Shorthand writing for Equity Court | 100 | 100 | |
| | | Drafting and revising Equity Rules | 200 | ..... |  |
| | | Incidental expenses | 50 | 50 | |
| | | | 350 | | 150 |
| 6 | 6 | TOTAL | £ | 2,674 | ..... |
| Prothonotary. | | | | | |
| 1 | 1 | b Prothonotary | 700 | 700 | |
| 1 | 1 | Curator of Intestate Estates | 400 | 400 | |
| 1 | 1 | Clerk in charge, Ecclesiastical Branch | 300 | 300 | |
| 1 | 1 | c Chief Clerk | 400 | 400 | |
| 1 | 1 | Second Clerk | 325 | 325 | |
| 1 | 1 | Third Clerk | 250 | 250 | |
| 1 | 1 | Fourth Clerk | 175 | 175 | |
| 1 | 1 | Fifth Clerk | 100 | 100 | |
| 1 | 1 | Cashier and Accountant | 300 | 300 | |
| 2 | 2 | Clerks to examine Probates and Administration of Wills at £100 | 200 | 200 | |
| 1 | ... | Extra Clerk for six months, to superintend removal of old Records, &c., and to prepare proper Index to same, at £200 a year... .. | 100 | ..... |  |
| ... | 1 | d Record Clerk ... .. | ..... | 200 | |
| 1 | 1 | Custodian of Wills | 50 | 50 | |
| 1 | 1 | Clerk to Index Wills | 150 | 150 | |
| 5 | 5 | Clerks Associate to the Judges—1 at £275, 1 at £260, 1 at £245, and 2 at £200 | 1,180 | 1,180 | |
| 1 | 1 | French, German, and Italian Interpreter (including Minor Courts) | 300 | 300 | |
| 1 | 1 | Oriental Interpreter (including Minor Courts)... .. | 150 | 150 | |
| 1 | 1 | Messenger | 120 | 120 | |
| 1 | 1 | Office Cleaner | 52 | 52 | |
| | | | 5,252 | | 5,352 |
| 1 | 1 | Clerk of the Divorce Court ... .. | ..... | 50 | 50 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Travelling Expenses of the Judges | 2,000 | 2,000 | |
| | | Allowance to Witnesses attending the Supreme and Circuit Courts | 6,400 | 6,400 | |
| | | Incidental Expenses | 200 | 200 | |
| | | Towards the formation of a Law Library for the use of the Supreme Court | 100 | 100 | |
| | | Towards copying of Wills into Books of Reference for public use | 500 | 500 | |
| | | | 9,200 | | 9,200 |
| 24 | 24 | TOTAL | £ | 14,502 | ..... |

a. The Master in Equity acts also as Master in Lunacy, with salary of £250 per annum, provided on Estimates of Colonial Secretary.
b, c. The Prothonotary of the Supreme Court acts also as Registrar, the Chief Clerk as Deputy Registrar.
d. Paid hitherto from Contingencies.

| No of Persons. | | No. VI.—ADMINISTRATION OF JUSTICE. | | | | SALARIES AND CONTINGENCIES. | | | |
|--|------|--|-----|-----|-----|-----------------------------|--------|---------------------------|--------|
| 1884 | 1885 | | | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | | | | £ | | £ | |
| Sheriff. | | | | | | | | | |
| 1 | 1 | Sheriff | ... | ... | ... | 750 | | 750 | |
| 1 | 1 | Under Sheriff | ... | ... | ... | 450 | | 450 | |
| 1 | 1 | Chief Clerk | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Second Clerk | ... | ... | ... | 250 | | 250 | |
| 1 | 1 | Third Clerk | ... | ... | ... | 200 | | 200 | |
| 1 | 1 | Fourth Clerk | ... | ... | ... | 150 | | 150 | |
| 1 | 1 | Fifth Clerk | ... | ... | ... | 125 | | 125 | |
| 1 | 1 | Sixth Clerk | ... | ... | ... | 75 | | 75 | |
| 1 | 1 | Chief Sheriff's Officer | ... | ... | ... | 250 | | 250 | |
| 1 | 1 | Sheriff's Officer | ... | ... | ... | 200 | | 200 | |
| 2 | 2 | Sheriff's Officers, at £200 | ... | ... | ... | 400 | | 400 | |
| 1 | 1 | Sheriff's Officer | ... | ... | ... | 175 | | 175 | |
| 35 | 35 | Sheriff's Officers, at £150 | ... | ... | ... | 5,250 | | 5,250 | |
| 1 | 1 | Messenger and Crier | ... | ... | ... | 100 | | 100 | |
| 1 | 1 | Office-cleaner | ... | ... | ... | 52 | | 52 | |
| 1 | 1 | Crier and Tipstaff | ... | ... | ... | 162 | | 162 | |
| 4 | 4 | Tipstaves to Supreme Court Judges at £150 | ... | ... | ... | 600 | | 600 | |
| 1 | 1 | Court-keeper, King-street... | ... | ... | ... | 125 | | 125 | |
| 3 | 3 | Court-cleaners, do. | ... | ... | ... | 130 | | 130 | |
| 1 | 1 | Court-cleaner, Darlinghurst | ... | ... | ... | 114 | | 114 | |
| 1 | 1 | Court-cleaner, do. | ... | ... | ... | 72 | | 72 | |
| 1 | 1 | Court-keeper, do. | ... | ... | ... | 50 | | 50 | |
| | | Court-keepers, Circuit Towns | ... | ... | ... | 1,200 | | 1,400 | |
| | | | | | | | 11,180 | | 11,380 |
| <i>(Irrespective of date of claims.)</i> | | | | | | | | | |
| | | Travelling Expenses of the Sheriff or Under Sheriff | ... | ... | ... | 150 | | 150 | |
| | | Allowances to Jurors attending the Supreme and Circuit Courts, and for Contingencies | ... | ... | ... | 7,000 | | 8,000 | |
| | | Forage Allowance | ... | ... | ... | 25 | | 25 | |
| | | Allowances for preparing and serving Jury Summonses, and for Assistant Bailiffs; travelling and other Contingent Expenses... | ... | ... | ... | 1,300 | | 1,300 | |
| | | For planting and improving the grounds around Court Houses... | ... | ... | ... | 1,000 | | 1,000 | |
| | | Incidental Expenses | ... | ... | ... | 50 | | 50 | |
| | | | | | | | 9,525 | | 10,525 |
| 62 | 62 | TOTAL | ... | ... | £ | ..... | 20,705 | ..... | 21,905 |
| Insolvency Court. | | | | | | | | | |
| 1 | 1 | Chief Commissioner (Provided for by Act 46 Vic. No. 16.) | ... | ... | ... | | | | |
| 1 | 1 | Registrar and Accountant... | ... | ... | ... | 450 | | 450 | |
| 1 | 1 | Chief Clerk... | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Second Clerk | ... | ... | ... | 250 | | 250 | |
| 1 | 1 | Third Clerk... | ... | ... | ... | 200 | | 200 | |
| 1 | 1 | Fourth Clerk | ... | ... | ... | 100 | | 100 | |
| ... | 1 | Extra Clerk... | ... | ... | ... | ..... |  | 150 | |
| 1 | 1 | Bailiff and Messenger | ... | ... | ... | 180 | | 180 | |
| 1 | 1 | Messenger | ... | ... | ... | 87 ^a | | 104 | |
| 1 | 1 | Court-keeper, Crier, and Attendant | ... | ... | ... | 120 | | 120 | |
| 1 | 1 | Court-cleaner | ... | ... | ... | 26 | | 26 | |
| | | | | | | | 1,713 | | 1,880 |
| ... | ... | Rent of premises, Phillip-street, for temporary Insolvent Court | ... | ... | ... | ..... | 884 | ..... | 884 |
| 10 | 11 | TOTAL | ... | ... | £ | ..... | 2,597 | ..... | 2,764 |

^a From 1st March, 1884, at £104 per annum.

ESTIMATES OF EXPENDITURE—1885.

65

No. VI.—ADMINISTRATION OF JUSTICE.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|---|---------|---------------------------|-------------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| District Courts. | | | | | |
| METROPOLITAN AND HUNTER DISTRICT. | | | | | |
| | | Judges (provided for by Act 46 Vic., No. 16). | | | |
| 1 | 1 | Registrar, Sydney | 500 | 500 | |
| 1 | 1 | Clerk and Accountant | 350 | 350 | |
| 1 | 1 | Do. | 275 | 275 | |
| 1 | 1 | Do. | 250 | 250 | |
| 1 | 1 | Do. | 200 | 200 | |
| 1 | 1 | Head Bailiff and Crier, Sydney | 200 | 200 | |
| 3 | 3 | Assistant Bailiffs, Sydney, at £104 | 312 | 312 | |
| 1 | 1 | Messenger, do. | 120 | 120 | |
| 1 | 1 | Office-keeper, do. | 50 | 50 | |
| 1 | 1 | Assistant, do. do. | 50 | 50 | |
| 1 | 1 | Bailiff, Parramatta | 50 | 50 | |
| 1 | 1 | Do. Windsor | 50 | 50 | |
| 1 | 1 | Do. Penrith | 50 | 50 | |
| 1 | 1 | Do. Campbelltown | 60 | 60 | |
| 1 | 1 | Do. Newcastle | 60 | 60 | |
| 1 | 1 | ^a Do. Maitland | 100 | 100 | |
| 1 | 1 | Do. Singleton | 40 | 40 | |
| 1 | 1 | Do. Muswellbrook | 40 | 40 | |
| 1 | 1 | Do. Scone | 30 | 30 | |
| | | | 2,787 | | 2,787 |
| 21 | 21 | | | | |
| SOUTHERN DISTRICT. | | | | | |
| | | Judge (provided for by Act 46 Vic. No. 16). | | | |
| 1 | 1 | Bailiff, Kiama | 40 | 40 | |
| 1 | 1 | Do. Nowra | 40 | 40 | |
| 1 | 1 | Do. Milton | 30 | 30 | |
| 1 | 1 | Do. Bega | 50 | 50 | |
| 1 | 1 | Do. Bombala | 45 | 45 | |
| 1 | 1 | Do. Moss Vale | 40 | 40 | |
| 1 | 1 | Do. Goulburn | 80 | 80 | |
| 1 | 1 | Do. Yass | 60 | 60 | |
| 1 | 1 | Do. Queanbeyan | 40 | 40 | |
| 1 | 1 | Do. Cooma | 60 | 60 | |
| 1 | 1 | Do. Braidwood | 40 | 40 | |
| 1 | 1 | Do. Moruya | 30 | 30 | |
| 1 | 1 | Do. Eden | 20 | 20 | |
| 1 | 1 | Do. Wollongong | 40 | 40 | |
| 1 | 1 | Do. Gunning | 40 | 40 | |
| | | | 655 | | 655 |
| 15 | 15 | | | | |
| SOUTH-WESTERN DISTRICT. | | | | | |
| | | Judge (provided for by Act 46 Vic. No. 16). | | | |
| 1 | 1 | Bailiff, Burrowa | 25 | 25 | |
| 1 | 1 | Do. Young | 40 | 40 | |
| 1 | 1 | Do. Gundagai | 35 | 35 | |
| 1 | 1 | Do. Tumut | 25 | 25 | |
| 1 | 1 | Do. Wagga Wagga | 50 | 50 | |
| 1 | 1 | Do. Albury | 50 | 50 | |
| 1 | 1 | Do. Deniliquin | 50 | 50 | |
| 1 | 1 | Do. Corowa | 25 | 25 | |
| 1 | 1 | Do. Grenfell | 25 | 25 | |
| 1 | 1 | Do. Hay | 50 | 50 | |
| 1 | 1 | Do. Moama | 25 | 25 | |
| 1 | 1 | Do. Cootamundra | 25 | 25 | |
| 1 | 1 | Do. Narrandera | 25 | 25 | |
| 1 | 1 | Do. Temora | 40 | 40 | |
| | | | 490 | | 490 |
| 14 | 14 | | | | |
| 50 | 50 | Carried forward | £ | 3,932 | 3,932 |

^a Allowance of £25 per annum for Forage, &c.

| No. VI.—ADMINISTRATION OF JUSTICE. | | | | | | | |
|---|------|---|-------|---------------------------|-------|-------|-------|
| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | | | |
| | | £ | | £ | | | |
| District Courts—continued. | | | | | | | |
| 50 | 50 | Brought forward | | | 3,932 | | 3,932 |
| WESTERN DISTRICT. | | | | | | | |
| 1 | 1 | Judge (provided for by Act 46 Vic. No 16.) | | | | | |
| 1 | 1 | Registrar, Carcoar | ..... | 40 | 40 | | |
| 1 | 1 | Bailiff, Hartley | ..... | 30 | 30 | | |
| 1 | 1 | Do. Bathurst | ..... | 50 | 50 | | |
| 1 | 1 | Do. Carcoar | ..... | 25 | 25 | | |
| 1 | 1 | Do. Cowra | ..... | 30 | 30 | | |
| 1 | 1 | Do. Orange | ..... | 45 | 45 | | |
| 1 | 1 | Do. Forbes | ..... | 45 | 45 | | |
| 1 | 1 | Do. Molong | ..... | 40 | 40 | | |
| 1 | 1 | Do. Wellington | ..... | 40 | 40 | | |
| 1 | 1 | Do. Dubbo | ..... | 30 | 30 | | |
| 1 | 1 | Do. Mudgee | ..... | 40 | 40 | | |
| 1 | 1 | Do. Hill End | ..... | 40 | 40 | | |
| 1 | 1 | Do. Merriwa | ..... | 40 | 40 | | |
| 1 | 1 | Do. Warren | ..... | a 30 | 40 | | |
| 14 | 14 | | | 525 | 535 | | |
| NORTH-WESTERN DISTRICT. | | | | | | | |
| 1 | 1 | Judge (Provided for by Act 46 Vic. No. 16.) | | | | | |
| 1 | 1 | Bailiff, Murrurundi | ..... | 40 | 40 | | |
| 1 | 1 | Do. Gunnedah | ..... | 40 | 40 | | |
| 1 | 1 | Do. Narrabri | ..... | 40 | 40 | | |
| 1 | 1 | Do. Walgett | ..... | 40 | 40 | | |
| 1 | 1 | Do. Coonamble | ..... | 40 | 40 | | |
| 1 | 1 | Do. Coonabarabran | ..... | 40 | 40 | | |
| 1 | 1 | Do. Bourke | ..... | 50 | 50 | | |
| 1 | 1 | Do. Cobar | ..... | 40 | 40 | | |
| 1 | 1 | Do. Wilcannia | ..... | 40 | 40 | | |
| 1 | 1 | Do. Menindie | ..... | 40 | 40 | | |
| 1 | 1 | Do. Wentworth | ..... | 40 | 40 | | |
| 1 | 1 | Do. Balranald | ..... | 40 | 40 | | |
| 1 | 1 | Do. Hillston | ..... | 40 | 40 | | |
| 13 | 13 | | | 530 | 530 | | |
| NORTHERN DISTRICT. | | | | | | | |
| Judge (Provided for by Act 46 Vic. No. 16.) | | | | | | | |
| 77 | 77 | Carried forward | | £ | 4,987 | | 4,997 |

a From 1st April, 1884, at £40 per annum.

ESTIMATES OF EXPENDITURE—1885.

67

| No. of Persons. | | No. VI.—ADMINISTRATION OF JUSTICE. | | | |
|-----------------|------|---|--|------------------------|---------------------------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | District Courts—continued. | | Amount Voted for 1884. | Amount Required for 1885. |
| | | | | £ | £ |
| 77 | 77 | Brought forward... | | 4,987 | 4,997 |
| | | NORTHERN DISTRICT—continued. | | | |
| | | Brought forward | | | |
| 1 | 1 | Bailiff, Inverell | | 40 | 40 |
| 1 | 1 | Do. Tamworth | | 40 | 40 |
| 1 | 1 | Do. Armidale | | 40 | 40 |
| 1 | 1 | Do. Glen Innes | | 45 | 45 |
| 1 | 1 | Do. Tenterfield | | 35 | 35 |
| 1 | 1 | Do. Bingera | | 40 | 40 |
| 1 | 1 | Do. Warialda | | 40 | 40 |
| 1 | 1 | Do. Emmaville | | 35 | 35 |
| 1 | 1 | Do. Kempsey | | 40 | 40 |
| 1 | 1 | Do. Port Macquarie | | 40 | 40 |
| 1 | 1 | Do. Grafton | | 45 | 45 |
| 1 | 1 | Do. Casino | | 40 | 40 |
| 1 | 1 | Do. Maclean | | 40 | 40 |
| 1 | 1 | Do. Lismore | | 40 | 40 |
| 1 | 1 | Do. Taree | | 40 | 40 |
| 1 | 1 | Do. Moree | | 40 | 40 |
| | | | | 640 | 640 |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Fees to Acting District Court Judges | | 500 | 500 |
| | | Travelling Expenses of Judges | | 2,000 | 2,000 |
| | | Allowances to Jurors, and Mileage to Bailiffs | | 550 | 550 |
| | | Incidental and Unforeseen Expenses | | 600 | * 600 |
| | | Towards the formation of a Law Library for Sydney District Court | | 50 | 50 |
| | | Other services, 1884 | | 1,125 | |
| 16 | 16 | | | 4,825 | 3,700 |
| 93 | 93 | TOTAL | | 10,452 | 9,337 |
| | | Coroners' Inquests. | | | |
| 1 | 1 | Coroner for the Metropolitan District (a Magistrate) | | 600 | 600 |
| 1 | 1 | Clerk, do. | | 200 | 200 |
| 1 | 1 | Office-cleaner | | 25 | 30 |
| | | | | 825 | 830 |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Fees to Coroners and Magistrates for Inquests and Inquiries, at 20s. each | | 1,500 | 1,500 |
| | | Travelling Expenses of Coroners and Magistrates | | 700 | 700 |
| | | Burials and Incidental Expenses | | 700 | 700 |
| | | Jurors' Fees attending Murder and Manslaughter Inquests | | 200 | 200 |
| | | Jurors' and Witnesses' Fees attending Inquests on Fires | | 200 | 200 |
| | | Allowance to Keeper of New Morgue, South Sydney | | 100 | 120 |
| | | Rent of Temporary Premises | | | 150 |
| | | | | 3,400 | 3,570 |
| 3 | 3 | TOTAL | | 4,225 | 4,400 |

* £25 payable from this item for Forage Allowance to District Court Bailiff, Maitland.

| No. of Persons. | | No. VI.—ADMINISTRATION OF JUSTICE. | | | |
|-----------------|------|--|--------|---------------------------|--------|
| | | PETTY SESSIONS. | | | |
| 1884 | 1885 | SALARIES AND CONTINGENCIES. | | | |
| | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | Petty Sessions. | | | |
| | | POLICE MAGISTRATES, CLERKS OF PETTY SESSIONS, &C. | | | |
| | | <i>Sydney.</i> | | | |
| 6 | 6 | £ | | £ | |
| 1 | 1 | 4,800 | | 4,800 | |
| ... | ... | | | | |
| ... | ... | 200 |  | ..... |  |
| ... | ... | 1,000 | | 1,000 | |
| ... | ... | | 6,000 | | 5,800 |
| | | <i>Central Police Office.</i> | | | |
| 1 | 1 | 500 | | 500 | |
| 1 | 1 | | | | |
| 1 | 1 | 450 | | 450 | |
| 1 | 1 | 300 | | 300 | |
| 1 | 1 | 200 | | 200 | |
| 1 | 1 | 175 | | 175 | |
| 1 | 1 | 125 | | 125 | |
| 1 | 1 | 105 | | 105 | |
| 1 | 1 | 104 | | 104 | |
| 1 | 1 | 104 | | 104 | |
| 1 | 1 | 100 | | 100 | |
| 1 | 1 | 200 | | 200 | |
| 1 | 1 | 183 | | 183 | |
| 1 | 1 | 115 | | 115 | |
| 1 | 1 | 50 | | 50 | |
| ... | ... | | 2,711 | | 2,711 |
| | | <i>Water Police Office.</i> | | | |
| 1 | 1 | 500 | | 500 | |
| 1 | 1 | 400 | | 400 | |
| 1 | 1 | 250 | | 250 | |
| 1 | 1 | 200 | | 200 | |
| 1 | 1 | 175 | | 175 | |
| 1 | 1 | 150 | | 150 | |
| 1 | 1 | 100 | | 100 | |
| 1 | 1 | 100 | | 100 | |
| 1 | 1 | 100 | | 100 | |
| 1 | 1 | 50 | | 50 | |
| ... | ... | | 2,025 | | 2,025 |
| | | <i>Suburban Courts.</i> | | | |
| 2 | ... | 600 | |† | |
| ... | ... | | 600 |  | ..... |
| | | <i>Adelong.</i> | | | |
| ... | ... |* | |* | |
| | | <i>Albury.</i> | | | |
| 1 | 1 | 500 | | 500 | |
| 1 | 1 | 300 | | 300 | |
| ... | ... | | 800 | | 800 |
| | | <i>Angledool.</i> | | | |
| ... | ... |* | |* | |
| | | <i>Armidale.</i> | | | |
| 1 | 1 | 500 | | 500 | |
| 1 | 1 | 400 | | 400 | |
| 1 | 1 | 100 | | 100 | |
| ... | ... | | 1,000 | | 1,000 |
| | | <i>Araluen.</i> | | | |
| ... | ... |* | |* | |
| | | <i>Ashford.</i> | | | |
| ... | ... |* | |* | |
| | | <i>Balranald.</i> | | | |
| 1 | 1 | 400 | | 400 | |
| 1 | 1 | 50 | | 50 | |
| ... | ... | | 450 | | 450 |
| | | <i>Ballina.</i> | | | |
| ... | ... |* | |* | |
| | | <i>Balmain.</i> | | | |
| ... | 1 | | | 300 | |
| ... | 1 | | | 150 | |
| ... | ... | | | | 450 |
| 40 | 40 | £ | 13,586 | ..... | 13,236 |

* Allowances of £10. See Contingencies.

† See Balmain and St. Leonards.

ESTIMATES OF EXPENDITURE—1885.

69

No. VI.—ADMINISTRATION OF JUSTICE.

| No. of Persons. | | Petty Sessions—continued. | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|---|-----------------------------|--------|---------------------------|--------|
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| 40 | 40 | <i>Barraba.</i> Brought forward ... .. | ..... | 13,586 | ..... | 13,236 |
| | | (See <i>Bingera.</i>) | | | | |
| 1 | 1 | Clerk of Petty Sessions | 175 | | 175 | |
| | | <i>Baradine.</i> | | 175 | | 175 |
| | | (See <i>Coonabarabran.</i>) | | | | |
| ... | ... | Police Acting Clerk of Petty Sessions |* | |* | |
| | | <i>Barmedman.</i> | | | | |
| | | (See <i>Temora.</i>) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Barrington.</i> | | | | |
| | | (See <i>Brewarrina.</i>) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Bathurst.</i> | | | | |
| 1 | 1 | Police Magistrate (visiting Oberon and Rockley) | 500 | | 500 | |
| 1 | 1 | Clerk of Petty Sessions | 400 | | 400 | |
| 1 | 1 | Assistant do. | 100 | | 100 | |
| | | <i>Bateman's Bay.</i> | | 1,000 | | 1,000 |
| | | (See <i>Moruya.</i>) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Bega.</i> | | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Candelo and Cebargo) | 400 | | 400 | |
| | | <i>Bendemeer.</i> | | 400 | | 400 |
| | | (See <i>Armidale.</i>) | | | | |
| 1 | 1 | Police acting Clerk of Petty Sessions | 150 | |* | |
| | | <i>Berrima.</i> | | 150 | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Moss Vale and Mittagong) | 500 | | 500 | |
| 1 | 1 | Assistant Clerk | 150 | | 150 | |
| | | <i>Binalong.</i> | | 650 | | 650 |
| | | (See <i>Yass.</i>) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Bingera.</i> | | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Barraba) | 400 | | 400 | |
| | | <i>Blackville.</i> | | 400 | | 400 |
| | | (See <i>Gunnedah.</i>) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Blayney.</i> | | | | |
| | | (See <i>Carcoar.</i>) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Boat Harbour (Bellinger River).</i> | | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Nambucca and Kempsey) | 300 | | 300 | |
| | | <i>Boggabri.</i> | | 300 | | 300 |
| | | (See <i>Gunnedah.</i>) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Bombala.</i> | | | | |
| 1 | 1 | Clerk of Petty Sessions; a Magistrate (visiting Nimity-belle) | 350 | | 350 | |
| | | <i>Booligal.</i> | | 350 | | 350 |
| | | (See <i>Hay.</i>) | | | | |
| ... | ... | Police acting as Clerk of Petty Sessions |* | |* | |
| | | <i>Bourke.</i> | | | | |
| 1 | 1 | Police Magistrate | 500 | | 500 | |
| 1 | 1 | Clerk of Petty Sessions | 300 | | 300 | |
| ... | 1 | Assistant do. ... .. | ..... |  | 150 | |
| | | <i>Braidwood.</i> | | 800 | | 950 |
| 1 | 1 | Police Magistrate | 375 | | 375 | |
| 1 | 1 | Clerk of Petty Sessions | 350 | | 350 | |
| | | <i>Branxton.</i> | | 725 | | 725 |
| | | (See <i>Singleton.</i>) | | | | |
| 1 | 1 | Clerk of Petty Sessions | 200 | | 200 | |
| | | <i>Brewarrina.</i> | | 200 | | 200 |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Goodooga and Barrington) | 400 | | 400 | |
| | | | | 400 | | 400 |
| 57 | 58 | Carried forward | £ | 19,136 | ..... | 18,786 |

*Allowance of £10. See Contingencies.

ESTIMATES OF EXPENDITURE—1885.

71

| No. of Persons. | | No. VI.—ADMINISTRATION OF JUSTICE. | | | | | |
|-----------------|-------|---|--|---------------------------|--------|----------|--------|
| | | SALARIES AND CONTINGENCIES. | | | | | |
| 1884. | 1885. | Amount Voted for 1884. | | Amount Required for 1885. | | | |
| | | £ | | £ | | | |
| | | Petty Sessions—continued. | | | | | |
| 68 | 69 | Brought forward | | £ | 22,536 | £ | 22,186 |
| | | <i>Cobar.</i> | | | | | |
| 1 | 1 | Police Magistrate (visiting Louth and Nymagee) ... | | 450 | | 450 | |
| 1 | 1 | Clerk of Petty Sessions | | 300 | | 300 | |
| | | <i>Cobargo.</i> | | | 750 | | 750 |
| | | (See Bega.) | | | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* | |* | |
| | | <i>Collarendibri.</i> | | | | | |
| | | (See Walgett) | | | | | |
| ... | ... | Police acting Clerk of Petty Sessions ... .. |  | ..... |  | .....* |  |
| | | <i>Collector.</i> | | | | | |
| | | (See Goulburn.) | | | | | |
| 1 | 1 | Clerk of Petty Sessions | | 150 | | <i>a</i> | |
| | | <i>Condobolin.</i> | | | 150 | | |
| | | (See Forbes.) | | | | | |
| 1 | 1 | Clerk of Petty Sessions | | 250 | | 250 | |
| | | <i>Cootamundra.</i> | | | 250 | | 250 |
| | | (See Yass.) | | | | | |
| 1 | 1 | Clerk of Petty Sessions | | 400 | | 400 | |
| | | <i>Coolah.</i> | | | 400 | | 400 |
| | | (See Coonabarabran.) | | | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* | |* | |
| | | <i>Coonamble.</i> | | | | | |
| 1 | 1 | Police Magistrate (visiting Gilgandra) | | 350 | | 350 | |
| 1 | ... | Assistant Clerk of Petty Sessions | | 150 | | 150 | |
| | | <i>Coonabarabran.</i> | | | 500 | | 500 |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Denison Town and Baradine) | | 350 | | 350 | |
| | | <i>Cooranbong.</i> | | | 350 | | 350 |
| | | (See Gosford.) | | | | | |
| ... | ... | Acting Clerk of Petty Sessions ... .. |  | .....* |  | ..... |  |
| | | <i>Cooma.</i> | | | | | |
| 1 | 1 | Police Magistrate (visiting Seymour and Buckley's Crossing and Kiandra) | | 450 | | 450 | |
| 1 | 1 | Clerk of Petty Sessions | | 350 | | 350 | |
| | | <i>Copeland (Barrington River).</i> | | | 800 | | 800 |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Gloucester) | | 400 | | 400 | |
| | | <i>Coraki.</i> | | | 400 | | 400 |
| | | (See Casino.) | | | | | |
| ... | ... | Police Acting Clerk of Petty Sessions | |* | |* | |
| | | <i>Corowa.</i> | | | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Mulwala) | | 350 | | 350 | |
| | | <i>Cowra.</i> | | | 350 | | 350 |
| | | (See Young.) | | | | | |
| 1 | 1 | Clerk of Petty Sessions | | 350 | | 350 | |
| | | <i>Crookwell.</i> | | | 350 | | 350 |
| | | (See Goulburn.) | | | | | |
| 1 | 1 | Clerk of Petty Sessions (attends also at Binda) ... | | 250 | | 250 | |
| | | <i>Cudgellico.</i> | | | 250 | | 250 |
| | | (See Hillston.) | | | | | |
| ... | ... | Police acting Clerk of Petty Sessions ... .. |  | ..... |  | .....* |  |
| | | <i>Cudgen.</i> | | | | | |
| | | (See Tweed River.) | | | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* | |* | |
| | | <i>Cundletown.</i> | | | | | |
| | | (See Taree.) | | | | | |
| ... | ... | Clerk of Petty Sessions, Taree, attends ... .. |  | ..... |  | ..... |  |
| | | <i>Dandaloo.</i> | | | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* | |* | |
| | | <i>Darlington Point.</i> | | | | | |
| | | (See Hay.) | | | | | |
| ... | ... | Police acting Clerk of Petty Sessions ... .. |  | ..... |  | .....* |  |
| | | <i>Delegate.</i> | | | | | |
| ... | ... | Police acting Clerk of Petty Sessions ... .. |  | ..... |  | .....* |  |
| 82 | 82 | Carried forward | | £ | 27,086 | £ | 26,586 |

* Allowance of £10. See Contingencies. *a* Provided for Marulan

| No. of Persons. | | No. VI.—ADMINISTRATION OF JUSTICE. | | | |
|-----------------|------|---|--|---------------------------|----------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| | | Petty Sessions—continued. | | | |
| 82 | 82 | Brought forward | | £ 27,086 | £ 26,586 |
| | | <i>Deniliquin.</i> | | | |
| 1 | 1 | Police Magistrate (visiting Jerilderie) | | 500 | 500 |
| 1 | 1 | Clerk of Petty Sessions | | 250 | 250 |
| | | <i>Denison Town.</i> | | | |
| | | (See Coonabarabran.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Denman.</i> | | | |
| | | (See Merriwa.) | | | |
| 1 | 1 | Clerk of Petty Sessions | | 150 | 150 |
| | | <i>Dungog.</i> | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Clarence Town) | | 300 | 300 |
| | | <i>Dubbo.</i> | | | |
| 1 | 1 | Police Magistrate (visiting Cannonbar, Obley, Warren, Girilambone, and Nyngan) | | 500 | 500 |
| 1 | 1 | Clerk of Petty Sessions | | 350 | 350 |
| 1 | 1 | Assistant Clerk of Petty Sessions | | 100 | 100 |
| | | <i>Eden.</i> | | | |
| 1 | 1 | Police Magistrate | | 400 | 400 |
| 1 | 1 | Clerk of Petty Sessions | | 250 | 250 |
| | | <i>Ellalong.</i> | | | |
| | | (See Wollombi.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Emmaville.</i> | | | |
| | | (See Glen Innes.) | | | |
| 1 | 1 | Clerk of Petty Sessions | | 250 | 250 |
| | | <i>Euabalong.</i> | | | |
| | | (See Hillston.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Eurobodalla.</i> | | | |
| | | (See Moruya) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Euston.</i> | | | |
| | | (See Balranald.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Forbes.</i> | | | |
| 1 | 1 | Police Magistrate (visiting Condobolin, Grenfell, Parkes, and Marsdens) | | 450 | 450 |
| 1 | 1 | Clerk of Petty Sessions | | 300 | 300 |
| | | <i>Forster.</i> | | | |
| | | (See Bulladelah.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Frogmore.</i> | | | |
| | | (See Yass) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Germanton.</i> | | | |
| | | (See Albury.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Gilgandra.</i> | | | |
| | | (See Coonamble.) | | | |
| 1 | 1 | Visiting Magistrate | | 50 | 50 |
| | | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Girilambone.</i> | | | |
| | | (See Dubbo.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Gladstone.</i> | | | |
| | | (See Kempsey West.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| | | <i>Glen Innes.</i> | | | |
| 1 | 1 | (a) Police Magistrate (visiting Emmaville) | | 450 | 450 |
| 1 | 1 | Clerk of Petty Sessions | | 250 | 250 |
| | | <i>Gloucester.</i> | | | |
| | | (See Copland.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | |* |* |
| 97 | 97 | Carried forward | | £ 31,636 | £ 31,136 |

* Allowance of £10. See Contingencies. a Acts also as Warden, without salary.

ESTIMATES OF EXPENDITURE—1885.

73

No. VI.—ADMINISTRATION OF JUSTICE.

| No. of Persons. | | | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|---|-----------------------------|--------|---------------------------|--------|
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| | | Petty Sessions—continued. | | | | |
| 97 | 97 | Brought forward | £ | 31,636 | £ | 31,136 |
| | | <i>Goodooga.</i> | | | | |
| | | (See Breewarrina.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |† | |† | |
| | | <i>Gosford.</i> | | | | |
| 1 | 1 | Police Magistrate (visiting Cooranbong) | 350 | | 350 | |
| 1 | 1 | Clerk of Petty Sessions | 250 | | 250 | |
| | | <i>Goulburn.</i> | | 600 | | 600 |
| 1 | 1 | Police Magistrate (visiting Collector, Gunning, and Crookwell) | 500 | | 500 | |
| 1 | 1 | Clerk of Petty Sessions | 350 | | 350 | |
| 1 | 1 | Assistant Clerk | 100 | | 100 | |
| | | <i>Grafton.</i> | | 950 | | 950 |
| 1 | 1 | Police Magistrate (visiting Lawrence and Maclean) | 500 | | 500 | |
| 1 | 1 | Clerk of Petty Sessions | 450 | | 450 | |
| 1 | 1 | Assistant Clerk | 100 | | 100 | |
| | | <i>Grenfell.</i> | | 1,050 | | 1,050 |
| | | (See Forbes.) | | | | |
| 1 | 1 | Clerk of Petty Sessions | 450 | | 450 | |
| | | <i>Gresford.</i> | | 450 | | 450 |
| ... | ... | Clerk of Petty Sessions from Paterson attends... .. | ..... |  | ..... |  |
| | | <i>Greta.</i> | | | | |
| | | (See Singleton.) | | | | |
| ... | ... | Clerk of Petty Sessions from Branxton attends ... .. | .....* |  | ..... |  |
| | | <i>Gulgong.</i> | | | | |
| 1 | 1 | (a) Police Magistrate | 400 | | 400 | |
| 1 | 1 | Clerk of Petty Sessions | 200 | | 200 | |
| | | <i>Gundagai.</i> | | 600 | | 600 |
| 1 | 1 | Police Magistrate (visiting Jugiong) | 450 | | 450 | |
| 1 | 1 | Clerk of Petty Sessions | 400 | | 400 | |
| | | <i>Gunnedah.</i> | | 850 | | 850 |
| 1 | 1 | Police Magistrate (visiting Boggabri, Tamba Springs, Blackville, and Quirindi) | 400 | | 400 | |
| 1 | 1 | Clerk of Petty Sessions | 150 | | 150 | |
| | | <i>Gunning.</i> | | 550 | | 550 |
| 1 | 1 | Clerk of Petty Sessions | 350 | | 350 | |
| | | <i>Gundaroo.</i> | | 350 | | 350 |
| | | (See Queanbeyan.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Hartley.</i> | | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Rydal, Lithgow, and Wallerawang)... .. | 400 | | 400 | |
| | | <i>Hargraves.</i> | | 400 | | 400 |
| | | (See Hill End.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Hay.</i> | | | | |
| 1 | 1 | Police Magistrate (visiting Booligal, Mossgiel, Darlington Point, and Carrathool) | 450 | | 450 | |
| 1 | 1 | Clerk of Petty Sessions | 350 | | 350 | |
| | | <i>Hill End.</i> | | 800 | | 800 |
| 1 | 1 | (a) Police Magistrate (visiting Tambaroora, Hargraves, and Sofala) | 450 | | 450 | |
| 1 | 1 | Clerk of Petty Sessions | 250 | | 250 | |
| | | <i>Hillston.</i> | | 700 | | 700 |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Euabalong and Mount Hope and Cudgellico) | 350 | | 350 | |
| 1 | 1 | Assistant Clerk of Petty Sessions | 100 | | 100 | |
| | | <i>Howlong.</i> | | 450 | | 450 |
| | | (See Albury.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Inverell.</i> | | | | |
| 1 | 1 | Police Magistrate (visiting Tingha, Ashford and Bundarra) | 450 | | 450 | |
| 1 | 1 | Clerk of Petty Sessions | 400 | | 400 | |
| ... | ... | (b) Assistant ditto ... .. | ..... | 850 | ..... | 850 |
| 122 | 122 | Carried forward | £ | 40,236 | £ | 39,736 |

* Allowance of £10 from Contingencies. † Allowance of £15. See Contingencies.
 † Also Assistant Land Agent, salary provided on Estimates of Lands Department.

ESTIMATES OF EXPENDITURE—1885.

75

No. VI.—ADMINISTRATION OF JUSTICE.

| No. of Persons. | | Petty Sessions - continued. | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|--|-----------------------------|--------|---------------------------|--------|
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| | | Brought forward ... .. | ..... | 42,961 | ..... | 42,811 |
| 132 | 184 | <i>Menindie.</i> | | | | |
| 1 | ... | Police Magistrate and Clerk of Petty Sessions (visiting Umberumberka) | 400 | | ^a | |
| ... | ... | Police acting Clerk of Petty Sessions ... .. | ..... |  | .....* |  |
| | | <i>Merrivale.</i> | | 400 | | |
| 1 | 1 | Police Magistrate (visiting Cassilis and Denman) | 400 | | 400 | |
| 1 | 1 | Clerk of Petty Sessions | 200 | | 200 | |
| | | <i>Micalago.</i> | | 600 | | 600 |
| | | (See Queanbeyan.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Milton.</i> | | | | |
| 1 | 1 | Clerk of Petty Sessions | 300 | | 300 | |
| | | <i>Milparinka.</i> | | 300 | | 300 |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Tiboburra) | 500 | | 500 | |
| | | <i>Mitchell's Creek.</i> | | 500 | | 500 |
| | | (See Trunkey.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions ... .. | ..... |  | .....* |  |
| | | <i>Mittagong.</i> | | | | |
| | | (See Berrima.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Moama.</i> | | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Mathoura) | 350 | | 350 | |
| 1 | 1 | Assistant Clerk of Petty Sessions | 100 | | 100 | |
| | | <i>Mogil Mogil.</i> | | 450 | | 450 |
| | | (See Walgett.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Molong.</i> | | | | |
| 1 | 1 | Clerk of Petty Sessions | 300 | | 300 | |
| | | <i>Moree.</i> | | 300 | | 300 |
| | | (See Warialda.) | | | | |
| 1 | 1 | Clerk of Petty Sessions | 350 | | 350 | |
| | | <i>Morpeth.</i> | | 350 | | 350 |
| | | (See Maitland) | | | | |
| | | <i>Moruya.</i> | | | | |
| 1 | 1 | Police Magistrate (visiting Nelligen, Bateman's Bay, and Eurobodalla) | 450 | | 450 | |
| 1 | 1 | Clerk of Petty Sessions | 300 | | 300 | |
| | | <i>Morangarell.</i> | | 750 | | 750 |
| | | (See Temora.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Mossgiel.</i> | | | | |
| | | (See Hay.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Moss Vale.</i> | | | | |
| | | (See Berrima.) | | | | |
| 1 | 1 | Clerk of Petty Sessions | 200 | | 200 | |
| | | <i>Moulamein.</i> | | 200 | | 200 |
| | | (See Balranald.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Mount Hope.</i> | | | | |
| | | (See Hillston.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Mount M'Donald.</i> | | | | |
| | | (See Trunkey Creek.) | | | | |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Mudgee.</i> | | | | |
| 1 | 1 | Police Magistrate (visiting Wollar) | 500 | | 500 | |
| 1 | 1 | Clerk of Petty Sessions | 400 | | 400 | |
| | | <i>Mulwala.</i> | | 900 | | 900 |
| ... | ... | Police acting Clerk of Petty Sessions |* | |* | |
| | | <i>Murrurundi.</i> | | | | |
| | | (See Scone.) | | | | |
| 1 | 1 | Clerk of Petty Sessions (a Magistrate) | 400 | | 400 | |
| | | | | 400 | | 400 |
| 147 | 148 | Carried forward | £ | 48,111 | ..... | 47,561 |

* Allowance of £10. See Contingencies.

^a Transferred to Silverton.

ESTIMATES OF EXPENDITURE—1885.

77

No. VI.—ADMINISTRATION OF JUSTICE.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|-----------------------------|--|---------------------------|--------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| | | Petty Sessions—continued. | | | |
| | | | | | |
| 166 | 168 | | Brought forward | 53,621 | 53,221 |
| | | | <i>Paterson.</i> (See Maitland.) | | |
| 1 | 1 | 250 | Clerk of Petty Sessions | 250 | 250 |
| | | | <i>Penrith.</i> | | |
| 1 | 1 | 350 | Clerk of Petty Sessions | 350 | 350 |
| | | | <i>Pictou.</i> | | |
| 1 | 1 | 150 | Clerk of Petty Sessions | 150 | 150 |
| | | | <i>Pilliga.</i> | | |
| ... | ... |* | Police acting Clerk of Petty Sessions |* |* |
| | | | <i>Pooncairie.</i> (See Wentworth.) | | |
| ... | ... |† | Police acting Clerk of Petty Sessions |† |† |
| | | | <i>Port Macquarie.</i> | | |
| 1 | 1 | 300 | Police Magistrate and Clerk of Petty Sessions (visiting Camden Haven)... .. | 300 | 300 |
| | | | <i>Queanbeyan.</i> | | |
| 1 | 1 | 450 | Police Magistrate (visiting Bungendore, Gundaroo and Micalago) | 450 | 450 |
| 1 | 1 | 300 | Clerk of Petty Sessions | 300 | 300 |
| | | | <i>Quirindi.</i> (See Gunnedah.) | | |
| ... | 1 |* | Clerk of Petty Sessions | 100 | 100 |
| | | | <i>Raymond Terrace.</i> | | |
| 1 | 1 | 300 | Police Magistrate and Clerk of Petty Sessions | 300 | 300 |
| | | | <i>Redfern.</i> | | |
| 1 | 1 | 300 | Clerk of Petty Sessions (a Magistrate) | 300 | 300 |
| ... | 1 | ..... | Assistant do | 150 | 150 |
| | | | <i>Richmond.</i> (See Windsor.) | | |
| 1 | 1 | 75 | Acting Clerk of Petty Sessions | 75 | 75 |
| | | | <i>Richmond River.</i> (See Casino) | | |
| ... | ... | | | | |
| | | | <i>Rockley.</i> (See Bathurst.) | | |
| ... | ... |* | Police acting Clerk of Petty Sessions |* |* |
| | | | <i>Rylstone.</i> | | |
| 1 | 1 | 300 | Clerk of Petty Sessions | 300 | 300 |
| | | | <i>Ryde.</i> (See Parramatta.) | | |
| 1 | 1 | 200 | Clerk of Petty Sessions | 200 | 200 |
| | | | <i>Rydal.</i> (See Hartley.) | | |
| ... | ... |* | Police acting Clerk of Petty Sessions |* |* |
| | | | <i>Scone.</i> | | |
| 1 | 1 | 450 | Police Magistrate (visiting Muswellbrook and Murrurundi) | 450 | 450 |
| 1 | 1 | 200 | Clerk of Petty Sessions | 200 | 200 |
| | | | <i>Seymour.</i> (See Cooma.) | | |
| ... | ... |* | Police acting Clerk of Petty Sessions |* |* |
| | | | <i>Shellharbour.</i> (See Kiama) | | |
| ... | ... | | |* |* |
| | | | <i>Silverton.</i> | | |
| ... | 1 | ..... | a Police Magistrate and Clerk of Petty Sessions (visiting Menindie) | 400 | 400 |
| | | | <i>Singleton.</i> | | |
| 1 | 1 | 450 | Police Magistrate (visiting St. Alban's, Branxton, Greta, Broke, and Jerry's Plains) | 450 | 450 |
| 1 | 1 | 300 | Clerk of Petty Sessions | 300 | 300 |
| | | | <i>Sofala.</i> (See Hill End) | | |
| ... | ... |* | Police Acting Clerk of Petty Sessions |* |* |
| | | | <i>St. Alban's (Macdonald River).</i> (See Wollombi) | | |
| ... | ... |* | Police acting Clerk of Petty Sessions |* |* |
| 181 | 186 | | Carried forward | 57,996 | 58,246 |

* Allowance of £10. See Contingencies. † Allowance of £15. See Contingencies. a Transferred from Menindie.

| No. of Persons. | | No. VI.—ADMINISTRATION OF JUSTICE. | | | |
|-----------------|------|--|--------|---------------------------|--------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| | | Petty Sessions—continued. | | | |
| 212 | 218 | | | | |
| | | <i>Wollar.</i> | | | |
| | | (See Mudgee.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | .....* | .....* | ..... |
| | | <i>Wollombi.</i> | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Cessnock, Ellalong, and St. Alban's) | 350 | 350 | 350 |
| | | <i>Wollongong.</i> | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Bulli) | 450 | 450 | |
| 1 | 1 | Assistant Clerk of Petty Sessions | 100 | 100 | |
| | | | 550 | | 550 |
| | | <i>Woodburn.</i> | | | |
| | | (See Lismore.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | .....* | .....* | ..... |
| | | <i>Yass.</i> | | | |
| 1 | 1 | Police Magistrate and Clerk of Petty Sessions (visiting Binalong, Cootamundra, and Frogmore) | 500 | 500 | |
| 1 | 1 | Assistant Clerk of Petty Sessions | 150 | 150 | |
| | | | 650 | | 650 |
| | | <i>Yetman.</i> | | | |
| | | (See Warialda.) | | | |
| ... | ... | Police acting Clerk of Petty Sessions | .....* | .....* | ..... |
| | | <i>Young.</i> | | | |
| 1 | 1 | Police Magistrate (visiting Burrowa, Murrumburrah, Cowra, and Marango) | 500 | 500 | |
| 1 | 1 | Clerk of Petty Sessions | 350 | 350 | |
| | | | 850 | | 850 |
| | | TOTAL SALARIES | £ | 71,446 | 71,996 |
| | | CONTINGENCIES. | | | |
| | | (Irrespective of date of claims.) | | | |
| | | Travelling Expenses of Police Magistrates | 4,500 | 4,500 | |
| | | Inspector of Weights and Measures, Central Police Office | 200 | 200 | |
| | | Allowances to Court House Keepers | 2,000 | 2,000 | |
| | | Fees to Interpreters | 150 | 150 | |
| | | Rent of Court Houses | 1,000 | 1,000 | |
| | | Fuel, Light, and Water | 500 | 500 | |
| | | Bailiffs, Small Debts Courts | 400 | 400 | |
| | | Allowances to Police, acting as Clerks of Petty Sessions | 1,200 | 1,200 | |
| | | Incidental Expenses | 2,000 | 2,000 | |
| | | Extra Clerical assistance as required | 500 | 500 | |
| | | Allowance for Forage to the Police Magistrate, Waratah, for visiting Lambton and Wallsend | 50 | 50 | |
| | | Allowance for Forage to Police Magistrate, Berrima, for visiting Moss Vale and Mittagong | 50 | 50 | |
| | | Allowance to Witnesses attending Courts of Petty Sessions | 600 | 600 | |
| | | Emergency Clerk of Petty Sessions | 300 | 300 | |
| | | | 13,450 | | 13,450 |
| 219 | 225 | TOTAL | £ | 84,896 | 85,446 |

* Allowance of £10. See Contingencies.

No. VI.—ADMINISTRATION OF JUSTICE.

| No. of Persons. | | | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|---|-----------------------------|-------|---------------------------|-------|
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| | | Prisons. | | | | |
| 1 | 1 | Comptroller General | 800 | | 800 | |
| 1 | 1 | Deputy Comptroller and Chief Clerk | 400 | | 400 | |
| 1 | 1 | First Clerk | 300 | | 300 | |
| 1 | 1 | Second Clerk and Accountant | 250 | | 250 | |
| 1 | 1 | Third Do. | 200 | | 200 | |
| 1 | 1 | Fourth Do. | 125 | | 125 | |
| 1 | 1 | Fifth Do. | 110 | | 110 | |
| 1 | 1 | Messenger | 120 | | 120 | |
| 1 | 1 | Housekeeper | 25 | | 25 | |
| 9 | 9 | | | 2,330 | | 2,330 |
| | | SYDNEY GAOL. | | | | |
| 1 | 1 | Governor | 550 | | 550 | |
| 1 | 1 | Visiting Justice | 200 | | 200 | |
| ... | ... | Visiting Surgeon |a | |a | |
| ... | ... | Dispenser |a | |a | |
| 1 | 1 | Clerk | 300 | | 300 | |
| 1 | 1 | Do. | 158 | | 158 | |
| 1 | 1 | Schoolmaster | 200 | | 200 | |
| ... | ... | Chief Warder |* | |* | |
| ... | ... | Senior Warder |* | |* | |
| ... | ... | Warders in charge... .. |* | |* | |
| ... | ... | Warders |* | |* | |
| ... | ... | Do. |* | |* | |
| ... | ... | Overseer |* | |* | |
| ... | ... | Do. |* | |* | |
| ... | ... | Messenger |* | |* | |
| 1 | 1 | Matron | 150 | | 150 | |
| ... | ... | Female Warders |* | |* | |
| 1 | 1 | Chaplain, Church of England | 120 | | 120 | |
| 1 | 1 | Do. Roman Catholic... .. | 120 | | 120 | |
| 1 | 1 | Do. Presbyterian | 50 | | 50 | |
| 9 | 9 | | | 1,848 | | 1,848 |
| | | PARRAMATTA GAOL. | | | | |
| 1 | 1 | Visiting Justice | 100 | | 100 | |
| 1 | 1 | Gaoler | 375 | | 375 | |
| 1 | 1 | Matron | 20 | | 20 | |
| ... | ... | Visiting Surgeon |a | |a | |
| 1 | 1 | Schoolmaster and Storekeeper | 225 | | 225 | |
| 1 | 1 | Clerk | 169 | | 169 | |
| ... | ... | Dispenser |a | |a | |
| ... | ... | Chief Warder |* | |* | |
| ... | ... | Senior Warder |* | |* | |
| ... | ... | Warders |* | |* | |
| ... | ... | Trade Overseers |* | |* | |
| 1 | 1 | Chaplain, Church of England | 60 | | 60 | |
| 1 | 1 | Do. Presbyterian | 40 | | 40 | |
| 1 | 1 | Do. Roman Catholic | 60 | | 60 | |
| ... | ... | Messenger |* | |* | |
| ... | ... | Carter |* | |* | |
| 8 | 8 | | | 1,049 | | 1,049 |
| 26 | 26 | Carried forward | £ | 5,227 | ..... | 5,227 |

a See Medical Vote.

| No. of Persons. | | No. VI.—ADMINISTRATION OF JUSTICE. | | | |
|-----------------|------|------------------------------------|----------------|---------------------------|-------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| | | Prisons—continued. | | | |
| 26 | 26 | Brought forward... | | 5,227 | 5,227 |
| | | BATHURST GAOL. | | | |
| 1 | 1 | Gaoler | 225 | 225 | |
| 1 | 1 | Matron | 48 | 48 | |
| ... | ... | Visiting Surgeon | <i>a</i> | <i>a</i> | |
| 1 | 1 | Clerk and Schoolmaster | 158 | 158 | |
| ... | ... | Chief Warder |* |* | |
| ... | ... | Warders |* |* | |
| ... | ... | Female Warder |* |* | |
| 1 | 1 | Chaplain, Church of England | 30 | 30 | |
| 1 | 1 | Do. Roman Catholic... | 30 | 30 | |
| | | | 491 | | 491 |
| 5 | 5 | MAYFLAND GAOL. | | | |
| 1 | 1 | Gaoler | 250 | 250 | |
| 1 | 1 | Matron | 68 | 68 | |
| ... | ... | Visiting Surgeon | <i>a</i> | <i>a</i> | |
| 1 | 1 | Clerk and Schoolmaster | 180 | 180 | |
| ... | ... | Chief Warder |* |* | |
| ... | ... | Senior Warder |* |* | |
| ... | ... | Warders |* |* | |
| ... | ... | Female Warders |* |* | |
| 1 | 1 | Chaplain, Church of England | 30 | 30 | |
| 1 | 1 | Do. Roman Catholic... | 30 | 30 | |
| | | | 558 | | 558 |
| 5 | 5 | GOULBURN GAOL. | | | |
| 1 | 1 | Gaoler | 225 | 300 | |
| 1 | 1 | Matron | 48 | 48 | |
| ... | ... | Visiting Surgeon | <i>a</i> | <i>a</i> | |
| 1 | 1 | Clerk | 158 | 158 | |
| 1 | 1 | Storekeeper and Schoolmaster | 158 | 158 | |
| ... | ... | Chief Warder |* |* | |
| ... | ... | Warders |* |* | |
| ... | ... | Female Warders |* |* | |
| 1 | 1 | Chaplain, Church of England | 30 | 60 | |
| 1 | 1 | Do. Roman Catholic... | 30 | 60 | |
| | | | 649 | | 784 |
| 6 | 6 | BERBIMA GAOL. | | | |
| 1 | 1 | Gaoler | 300 | 300 | |
| 1 | 1 | Matron | 48 | 48 | |
| ... | ... | Visiting Surgeon and Dispenser | <i>a</i> | <i>a</i> | |
| 1 | 1 | Clerk and Schoolmaster | 158 | 158 | |
| ... | ... | Chief Warder |* |* | |
| ... | ... | Senior Warder |* |* | |
| ... | ... | Warders |* |* | |
| 1 | 1 | Chaplain, Church of England | 100 | 100 | |
| 1 | 1 | Do. Roman Catholic... | 100 | 100 | |
| | | | 706 | | 706 |
| 5 | 5 | ALBURY GAOL. | | | |
| 1 | 1 | Gaoler | 200 | 200 | |
| 1 | 1 | Matron | 48 | 48 | |
| ... | ... | Warders |* |* | |
| ... | ... | Visiting Surgeon | <i>a</i> | <i>a</i> | |
| 1 | 1 | Chaplain, Church of England | 20 | 20 | |
| 1 | 1 | Do. Roman Catholic... | 20 | 20 | |
| | | | 288 | | 288 |
| 4 | 4 | WOLLONGONG GAOL. | | | |
| ... | 1 | Gaoler | ..... | 200 | |
| ... | 1 | Matron | ..... | 48 | |
| ... | ... | Warders | ..... | .....* |  |
| ... | ... | Visiting Surgeon | ..... | .....<i>a</i> | |
| ... | 1 | Chaplain, Church of England | ..... | 20 | |
| ... | 1 | Do. Roman Catholic... | ..... | 20 | |
|  |  |  | ..... |  | 288 |
| 51 | 55 | Carried forward | | 7,919 | 8,342 |

* See Gaols generally.

a See Medical Vota.

ESTIMATES OF EXPENDITURE—1885.

83

No. VI.—ADMINISTRATION OF JUSTICE.

| No. of Persons. | | | | | | | | SALARIES AND CONTINGENCIES. | | | |
|-------------------|------|-----------------------------|-----|-----|-----|-----|-------|-----------------------------|-------|---------------------------|--------|
| 1884 | 1885 | | | | | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| 51 | 55 | Prisons—continued. | | | | | | £ | | £ | |
| | | Brought forward | | | | | | | 7,919 | | 8,342 |
| GRAFTON GAOL. | | | | | | | | | | | |
| 1 | 1 | Gaoler | ... | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Matron | ... | ... | ... | ... | 48 | | 48 | | |
| ... | ... | Visiting Surgeon | ... | ... | ... | ... | ..... | a | ..... | a | |
| 1 | 1 | Chaplain, Church of England | ... | ... | ... | ... | 20 | | 20 | | |
| 1 | 1 | Do. Roman Catholic | ... | ... | ... | ... | 20 | | 20 | | |
| 4 | 4 | | | | | | | | 288 | | 288 |
| MUDGEE GAOL. | | | | | | | | | | | |
| 1 | 1 | Gaoler | ... | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Matron | ... | ... | ... | ... | 48 | | 48 | | |
| ... | ... | Visiting Surgeon | ... | ... | ... | ... | ..... | a | ..... | a | |
| ... | ... | Warders | ... | ... | ... | ... | ..... | * | ..... | * |  |
| 1 | 1 | Chaplain, Church of England | ... | ... | ... | ... | 20 | | 20 | | |
| 1 | 1 | Do. Roman Catholic | ... | ... | ... | ... | 20 | | 20 | | |
| 4 | 4 | | | | | | | | 288 | | 288 |
| ARMIDALE GAOL. | | | | | | | | | | | |
| 1 | 1 | Gaoler | ... | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Matron | ... | ... | ... | ... | 48 | | 48 | | |
| ... | ... | Visiting Surgeon | ... | ... | ... | ... | ..... | a | ..... | a | |
| ... | ... | Warders | ... | ... | ... | ... | ..... | * | ..... | * |  |
| 1 | 1 | Chaplain, Church of England | ... | ... | ... | ... | 20 | | 20 | | |
| 1 | 1 | Do. Roman Catholic | ... | ... | ... | ... | 20 | | 20 | | |
| 4 | 4 | | | | | | | | 288 | | 288 |
| WAGGA WAGGA GAOL. | | | | | | | | | | | |
| 1 | 1 | Gaoler | ... | ... | ... | ... | 180 | | 180 | | |
| 1 | 1 | Matron | ... | ... | ... | ... | 48 | | 48 | | |
| ... | ... | Visiting Surgeon | ... | ... | ... | ... | ..... | a | ..... | a | |
| ... | ... | Warders | ... | ... | ... | ... | ..... | * | ..... | * |  |
| 1 | 1 | Chaplain, Church of England | ... | ... | ... | ... | 20 | | 20 | | |
| 1 | 1 | Do. Roman Catholic | ... | ... | ... | ... | 20 | | 20 | | |
| 4 | 4 | | | | | | | | 268 | | 268 |
| YASS GAOL. | | | | | | | | | | | |
| 1 | 1 | Gaoler | ... | ... | ... | ... | 180 | | 180 | | |
| 1 | 1 | Matron | ... | ... | ... | ... | 48 | | 48 | | |
| ... | ... | Visiting Surgeon | ... | ... | ... | ... | ..... | a | ..... | a | |
| ... | ... | Warders | ... | ... | ... | ... | ..... | * | ..... | * |  |
| 1 | 1 | Chaplain, Church of England | ... | ... | ... | ... | 20 | | 20 | | |
| 1 | 1 | Do. Roman Catholic | ... | ... | ... | ... | 20 | | 20 | | |
| 4 | 4 | | | | | | | | 268 | | 268 |
| DENILQUIN GAOL. | | | | | | | | | | | |
| 1 | 1 | Gaoler | ... | ... | ... | ... | 180 | | 180 | | |
| 1 | 1 | Matron | ... | ... | ... | ... | 48 | | 48 | | |
| ... | ... | Visiting Surgeon | ... | ... | ... | ... | ..... | a | ..... | a | |
| ... | ... | Warders | ... | ... | ... | ... | ..... | * | ..... | * |  |
| 1 | 1 | Chaplain, Church of England | ... | ... | ... | ... | 20 | | 20 | | |
| 1 | 1 | Do. Roman Catholic | ... | ... | ... | ... | 20 | | 20 | | |
| 4 | 4 | | | | | | | | 268 | | 268 |
| YOUNG GAOL. | | | | | | | | | | | |
| 1 | 1 | Gaoler | ... | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Matron | ... | ... | ... | ... | 48 | | 48 | | |
| ... | ... | Visiting Surgeon | ... | ... | ... | ... | ..... | a | ..... | a | |
| 1 | 1 | Chaplain, Church of England | ... | ... | ... | ... | 20 | | 20 | | |
| 1 | 1 | Do. Roman Catholic | ... | ... | ... | ... | 20 | | 20 | | |
| 4 | 4 | | | | | | | | 288 | | 288 |
| 79 | 83 | Carried forward | | | | | | £ | 9,875 | | 10,298 |

* See Gaols generally.

a See Medical Vote.

| No. of Persons. | | No. VI.—ADMINISTRATION OF JUSTICE. | | | |
|--|------|--|--|------------------------|---------------------------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Prisons—continued. | | Amount Voted for 1884. | Amount Required for 1885. |
| 79 | 83 | | | £ | £ |
| | | Brought forward | | 9,875 | 10,298 |
| TAMWORTH GAOL. | | | | | |
| 1 | 1 | Gaoler | | 200 | 200 |
| 1 | 1 | Matron | | 48 | 48 |
| ... | ... | Visiting Surgeon | | ^a | ^a |
| 1 | 1 | Chaplain, Church of England | | 20 | 20 |
| 1 | 1 | Do. Roman Catholic | | 20 | 20 |
| 4 | 4 | | | 288 | 288 |
| HAY GAOL. | | | | | |
| 1 | 1 | Gaoler | | 200 | 200 |
| 1 | 1 | Matron | | 48 | 48 |
| ... | ... | Visiting Surgeon | | ^a | ^a |
| 1 | 1 | Chaplain, Church of England | | 20 | 20 |
| 1 | 1 | Do. Roman Catholic | | 20 | 20 |
| 4 | 4 | | | 288 | 288 |
| POLICE GAOLS, COUNTRY DISTRICTS. | | | | | |
| 31 | 32 | Acting Gaolers—10 at £20, 22 at £15 | | 515 | 530 |
| 30 | 32 | Acting Matrons—25 at £10, 7 at £5 per annum... .. | | 285 | 285 |
| 6 | 6 | Chaplains, Church of England, at £10 each | | 60 | 60 |
| 6 | 6 | Do. Roman Catholic, at £10 each | | 60 | 60 |
| 73 | 76 | | | 920 | 935 |
| GAOLS GENERALLY. | | | | | |
| 1 | 1 | Chief Warder | | 250 | 250 |
| 1 | 2 | Chief Warders, at £200 | | 200 | 400 |
| 2 | 2 | Do. at 10s. per diem | | 366 | 365 |
| 2 | 1 | Chief Warder, at 9s. 6d. do. | | 348 | 174 |
| 4 | 6 | Senior Warders, 1st Class, 1 at 10s., 1 at 9s. 9d., and 4 at 9s. 6d. per diem | | 710 | 1,054 |
| 12 | 10 | Senior Warders, 2nd Class, at 9s. 3d. do. | | 2,032 | 1,639 |
| 26 | 26 | Warders, 1st Class, at 9s. do. | | 4,284 | 4,271 |
| 21 | 21 | Do. 2nd Class, at 8s. 3d. do. | | 3,171 | 3,162 |
| 184 | 200 | Do. 3rd Class, at 8s. do. | | 26,938 | 29,200 |
| 2 | 2 | Principal Female Warders, at £105 | | 210 | 210 |
| 19 | 19 | Female Warders—1 at £72, and 18 at £62 | | 1,188 | 1,188 |
| 1 | 1 | Superintendent of Prisons' Industries | | 250 | 300 |
| ... | 1 | Storekeeper ... .. |  | ..... | 250 |
| 2 | 1 | Overseer | | 450 | 225 |
| 3 | 3 | Do. at £179 do. | | 537 | 537 |
| 10 | 10 | Do. at 11s. 6d. per diem | | 2,105 | 2,099 |
| 4 | 4 | Foremen, at 9s. do. | | 659 | 657 |
| 1 | 1 | Messenger, at 8s. do. | | 147 | 146 |
| 1 | 1 | Do. at 7s. do. | | 129 | 128 |
| 3 | 3 | Carters, at 7s. do. | | 386 | 384 |
| ... | ... | Extra Warders, at 8s. do. | | 350 | 350 |
| 299 | 315 | | | 44,710 | 47,039 |
| <i>(Irrespective of date of Claims.)</i> | | | | | |
| | | Books for Prison Libraries | | 150 | 150 |
| | | For conveyance of Prisoners | | 2,200 | 2,200 |
| | | For gratuities to Prisoners on their discharge from Gaols | | 1,550 | 1,750 |
| | | For incidental expenses connected with employment of Prisoners in Gaols | | 1,500 | 1,500 |
| | | Photography in Prisons | | 30 | 30 |
| | | Unforeseen expenses, including travelling expenses and sustenance allowance to Gaol Officers | | 550 | 650 |
| | | Provisions, Medical Comforts, Medicinal attendance, Fuel, Light, and Water, Incidental Expenses, Removal of Night-soil, and Allowance in lieu of Quarters | | 24,200 | 25,400 |
| | | Rent of Office | | 175 | 175 |
| | | Other Services, 1884 | | 3,031 | ..... |
| | | | | 33,386 | 31,855 |
| 459 | 482 | Carried forward | | 89,467 | 90,703 |

* See Gaols generally. ^a See Medical Vote.

No. VI.—ADMINISTRATION OF JUSTICE.

| No. of Persons. | | | | | | SALARIES AND CONTINGENCIES. | | | | |
|---|------|-----------------------------------|-----|-----|-----|-----------------------------|--------|---------------------------|--------|--|
| 1884 | 1885 | | | | | Amount Voted for 1884. | | Amount Required for 1885. | | |
| | | | | | | £ | | £ | | |
| Prisons—continued. | | | | | | | | | | |
| 459 | 482 | Brought forward | | | | | 89,467 | | 90,708 | |
| PUBLIC WORKS PRISON, TRIAL BAY. | | | | | | | | | | |
| 1 | 1 | Superintendent | ... | ... | ... | 450 | | 450 | | |
| 1 | 1 | Assistant do. | ... | ... | ... | 250 | | 250 | | |
| 1 | 1 | Clerk and Schoolmaster | ... | ... | ... | 165 | | 165 | | |
| 1 | 1 | Dispenser | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Chief Warder, 10s. per diem | ... | ... | ... | 183 | | 183 | | |
| 2 | 2 | First-class Warders, 9s. per diem | ... | ... | ... | 330 | | 329 | | |
| 2 | 2 | Second do. do. 8s. 3d. " | ... | ... | ... | 302 | | 302 | | |
| 25 | 25 | Third do. do. 8s. " | ... | ... | ... | 3,660 | | 3,650 | | |
| VISITING OFFICERS. | | | | | | | | | | |
| 1 | 1 | Visiting Justice | ... | ... | ... | 100 | | 100 | | |
| 1 | 1 | Do. Surgeon | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Church of England Chaplain | ... | ... | ... | 100 | | 100 | | |
| 1 | 1 | Roman Catholic Chaplain... | ... | ... | ... | 100 | | 100 | | |
| | | | | | | 6,040 | | 6,029 | | |
| CONTINGENCIES. | | | | | | | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | | | | | | |
| Provisions, medical comforts, medicines and surgical instruments, fuel, light, and water, incidental expenses | | | | | | 1,600 | | 1,600 | | |
| Unforeseen expenses | | | | | | 500 | | 500 | | |
| 38 | 38 | | | | | 2,100 | | 2,100 | | |
| 497 | 520 | TOTAL | | | | £ | 97,607 | ..... | 98,832 | |

DISTRIBUTION of Staff provided under Vote for "Gaols generally," 1884.

| Established Gaols. | Chief Warders. | | | | Senior Warders. | | Warders. | | | Female Warders. | | | Overseers. | | | | Foremen. | Messengers. | | | Carters. |
|--------------------|----------------|-------|------|-----|-----------------|-----|----------|-----|-----|-----------------|------|------|------------|-------|------|-------|----------|-------------|-----|-----|----------|
| | £ 250 | £ 200 | 10/- | 9/6 | 10/-9/9 & 9/6 | 9/3 | 1st | 2nd | 3rd | £ 105 | £ 72 | £ 02 | £ 250 | £ 225 | 11/6 | £ 179 | 9/- | 8/- | 7/- | 7/- | |
| | | | | | | | 9/- | 8/3 | 8/- | | | | | | | | | | | | |
| Sydney | 1 | | | | 3 | 1 | 7 | 9 | 29 | 1 | 1 | 9 | 1 | 1 | 5 | 1 | 1 | 1 | | | 1 |
| Parramatta | | 1 | | | 1 | | 5 | 2 | 28 | | | | | 1 | 8 | | | | | | 1 |
| Berrima | | | 1 | | | 1 | 3 | | 13 | | | | | | | 1 | | | | | |
| Maitland | | | 1 | | | 1 | 3 | 2 | 11 | | | 2 | | | | | | | | | |
| Bathurst | | | | 1 | | 1 | | | 9 | | | 2 | | | | | | 1 | | | |
| Goulburn | | | | 1 | | 2 | 5 | 3 | 23 | 1 | | 4 | | | | | | 2 | | | 1 |
| Albury | | | | | | | | | 6 | | | | | | | | | 1 | | | |
| Armidale | | | | | | 1 | | 1 | 4 | | | | | | | | | | | | |
| Deniliquin | | | | | | | | | 5 | | | | | | | | | | | | |
| Mudgee | | | | | | 1 | | | 7 | | | | | | | | | 1 | | | |
| Wagga Wagga | | | | | | | | | 4 | | | | | | | | | | | | |
| Yass | | | | | | | 1 | | 4 | | | | | | | | | | | | |
| Young | | | | | | 1 | | 1 | 5 | | | | | | | | | | | | |
| Grafton | | | | | | | 1 | | 3 | | | | | | | | | | | | |
| Tamworth | | | | | | 1 | | 1 | 5 | | | | | | | | | | | | |
| Ray | | | | | | 1 | | | 4 | | | | | | | | | | | | |
| Wollongong | | | | | | | | | 8 | | | | | | | | | | | | |
| Total | 1 | 1 | 2 | 2 | 4 | 11 | 26 | 18 | 161 | 2 | 1 | 17 | 1 | 2 | 8 | 2 | 6 | 1 | 1 | 1 | 3 |

| Police Gaols. | Warders. | | Police Gaols. | Warders. | | Police Gaols. | Warders. | |
|---------------|------------|--|----------------|------------|--|---------------|------------|--|
| | 3rd class. | | | 3rd class. | | | 3rd class. | |
| | 8/- | | | 8/- | | | 8/- | |
| Bega | 1 | | Glen Innes | 1 | | Walgett | 1 | |
| Bourke | 3 | | Gundagai | 1 | | Wellington | 2 | |
| Braidwood | 2 | | Gunnedah | 2 | | Wentworth | 2 | |
| Casino | 1 | | Inverell | 1 | | Wilcannia | 2 | |
| Coonabarabran | 1 | | Narrabri | 2 | | Windsor | 1 | |
| Coonamble | 1 | | Orange* | 1 | | | | |
| Cooma | 1 | | Port Macquarie | 1 | | | | |
| Dubbo | 4 | | Queenbeyan | 1 | | | | |
| Forbes | 1 | | Tenterfield | 1 | | | | |
| Total | | | | | | | 34 | |

* Orange has also a 1st class Warden at 9/-.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|---|------|---|--------------------|---------------------------|-------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| The Shaftesbury Reformatory for Girls. | | | | | |
| 1 | 1 | Matron | 168 | 168 | |
| 1 | 1 | Sub-Matron | 85 | 85 | |
| ... | ... | Visiting Surgeon | ^a | ^a | |
| 1 | 1 | Chaplain, Church of England | 25 | 25 | |
| 1 | 1 | Do. Roman Catholic | 25 | 25 | |
| 1 | 1 | Gardener and Caretaker | 120 | 120 | |
| | | | 423 | 423 | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Clothing, Rations, Medical Comforts, Fuel, Light, and Incidental Expenses ... .. | ..... | 450 | 450 |
| 5 | 5 | TOTAL | £ | 873 | 873 |
| Registrar of Copyright. | | | | | |
| 1 | 1 | Registrar | 150 | 150 | |
| 1 | 1 | Assistant Registrar | 50 | 50 | |
| | | Incidental Expenses | 20 | 20 | |
| | | | 220 | 220 | |
| 2 | 2 | TOTAL | £ | 220 | 220 |
| Miscellaneous Services. | | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Necropolis—For improving, draining, trenching, and planting ... | 1,500 | 1,500 | |
| | | Do. Travelling expenses of General Committee | 50 | 50 | |
| | | Towards improvement of Cemetery, Long Bay Road | 200 | 200 | |
| | | Towards improvement of Cemetery, Gore's Hill, St. Leonards ... | 250 | 250 | |
| | | Allowances to Inspectors and Sub-Inspectors under Licensing Act, 45 Vic., No. 14 | 2,000 | 2,000 | |
| | | Almanacs for Country Benches of Magistrates, Newspapers, Law Books, &c. | 100 | 200 | |
| | | New Circuit Courts—Fees to Presiding Judges | 900 | 900 | |
| | | Allowances to Clerks to same | 100 | 100 | |
| | | Charge and preparation of Books for binding in Law Library ... | 50 | 50 | |
| | | In aid of Discharged Prisoners' Aid Society | 50 | 50 | |
| | | For preparation of Boundaries for New Court and Police Districts as required | 150 | 150 | |
| | | Index to Letters of Registration | 50 | 50 | |
| | | For purchase of 100 copies of Foster's District Court Practice (new edition) ... .. | ..... | 188 | |
| | | Other Services, 1884 | 4,120 | ..... |  |
| | | | 9,520 | 5,688 | |
| | | TOTAL | £ | 9,520 | 5,688 |

^a See Medical Vote.

VII.

The Attorney-General.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|-------|--------------------------------|--------------------|-----------------------|
| | | £ | £ |
| 88 | The Attorney-General | 5,665 | 5,665 |
| 88 | Parliamentary Draftsman | 2,050 | 2,060 |
| 89 | Crown Solicitor | 4,081 | 4,181 |
| 89 | Quarter Sessions | 26,422 | 30,250 |
| | TOTAL | £ 38,218 | 42,156 |

ESTIMATES OF EXPENDITURE—1885.

| No. of Persons. | | No. VII.—ATTORNEY-GENERAL. | | | |
|-----------------|------|---|-------|---------------------------|-------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| | | The Attorney General. | | | |
| 1 | 1 | Attorney General. (Provided for in Schedule A.) | | | |
| 1 | 1 | | | 650 | 650 |
| 1 | 1 | | | 156 | 156 |
| 1 | 1 | | | 104 | 104 |
| | | | 910 | | 910 |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | | | 2,500 | 2,500 |
| | | | | 650 | 650 |
| | | | | 250 | 250 |
| | | | | 75 | 75 |
| | | | | 50 | 50 |
| | | | | 100 | 100 |
| | | | | 500 | 500 |
| | | | | 630 | 630 |
| | | | 4,755 | | 4,755 |
| 4 | 4 | | | 5,665 | 5,665 |
| | | Parliamentary Draftsman. | | | |
| 1 | 1 | | | 1,000 | 1,000 |
| 1 | 1 | | | 300 | 300 |
| 1 | 1 | | | *90 | *100 |
| | | | 1,390 | | 1,400 |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | | | 600 | 600 |
| | | | | 50 | 50 |
| | | | | 10 | 10 |
| | | | 660 | | 660 |
| 3 | 3 | | | 2,050 | 2,060 |

* In consequence of a clerical error the sum of £90 only was voted for 1884 instead of £100.

ESTIMATES OF EXPENDITURE—1885.

89

| No. of Persons. | | No. VII.—ATTORNEY-GENERAL. | | | | | | SALARIES AND CONTINGENCIES. | | | | |
|--|------|--|-----|-----|-----|-----|-----|-----------------------------|--------|---------------------------|--------|--------|
| 1884 | 1885 | | | | | | | Amount Voted for 1884. | | Amount Required for 1885. | | |
| | | | | | | | | £ | | £ | | |
| Crown Solicitor. | | | | | | | | | | | | |
| 1 | 1 | Crown Solicitor | ... | ... | ... | ... | ... | 1,000 | | 1,000 | | |
| 1 | 1 | Chief Clerk | ... | ... | ... | ... | ... | 500 | | 500 | | |
| 1 | 1 | Chief Clerk, Criminal Branch | ... | ... | ... | ... | ... | 400 | | 400 | | |
| 1 | 1 | Clerk | ... | ... | ... | ... | ... | 350 | | 350 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 300 | | 300 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 150 | | 150 | | |
| 1 | 1 | Conveyancing Clerk | ... | ... | ... | ... | ... | 300 | | 300 | | |
| 1 | 1 | Clerk | ... | ... | ... | ... | ... | 156 | | 156 | | |
| 1 | ... | Clerk, at £200 (from 1 January to 30 June, 1884) | ... | ... | ... | ... | ... | 100 |  | ..... |  |  |
| 1 | 1 | Clerk | ... | ... | ... | ... | ... | 150 | | 150 | | |
| 2 | 2 | Messengers at £150 and £75 | ... | ... | ... | ... | ... | 225 | | 225 | | |
| | | | | | | | | | 3,831 | | 3,731 | |
| | | | | | | | | 200 | | 400 | | |
| | | | | | | | | 50 | | 50 | | |
| | | | | | | | | | 250 | | 450 | |
| 13 | 12 | TOTAL | | | | | | £ | | 4,081 | | 4,181 |
| Quarter Sessions. | | | | | | | | | | | | |
| 1 | 1 | Clerk of the Peace for the Colony | ... | ... | ... | ... | ... | 800 | | 800 | | |
| 1 | 1 | Chief Clerk | ... | ... | ... | ... | ... | 400 | | 400 | | |
| 1 | 1 | First Clerk and Accountant | ... | ... | ... | ... | ... | 250 | | 250 | | |
| 1 | 1 | Second Clerk | ... | ... | ... | ... | ... | 225 | | 225 | | |
| 1 | 1 | Third do. | ... | ... | ... | ... | ... | 175 | | 175 | | |
| 1 | 1 | Fourth do. | ... | ... | ... | ... | ... | 175 | | 175 | | |
| ... | 3 | *Clerks, at £200, £175, and £156 | ... | ... | ... | ... | ... | ..... |  | *531 | | |
| 1 | 1 | Messenger | ... | ... | ... | ... | ... | 120 | | 120 | | |
| | | | | | | | | | 2,145 | | 2,676 | |
| 1 | 1 | Crown Prosecutor for Sydney | ... | ... | ... | ... | ... | 800 | | 800 | | |
| 6 | 6 | Crown Prosecutors, at £500 | ... | ... | ... | ... | ... | 3,000 | | 3,000 | | |
| | | | | | | | | 99 |  | ..... |  |  |
|  |  |  |  |  |  |  |  | ..... |  | 52 | | |
| 2 | 2 | Proportion of Salary, at the rate of £500 per annum, payable to 2 additional Crown Prosecutors, from 3 September to 31 December, 1884... | ... | ... | ... | ... | ... | 328 |  | ..... |  |  |
|  |  |  |  |  |  |  |  | ..... |  | 172 | | |
| | | | | | | | | | 4,227 | | 4,024 | |
| Contingencies— | | | | | | | | | | | | |
| <i>(Irrespective of date of claims)—</i> | | | | | | | | | | | | |
| | | | | | | | | 1,850 | | 1,850 | | |
| | | | | | | | | 17,600 | | 21,000 | | |
| | | | | | | | | 200 | | 200 | | |
| | | | | | | | | 400 | | 500 | | |
| | | | | | | | | | 20,050 | | 23,550 | |
| 16 | 19 | TOTAL | | | | | | £ | | 26,422 | | 30,250 |

* These Clerks were paid last year from Contingencies.

VIII.

Secretary for Lands.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|-------|---|--------------------|-----------------------|
| | | £ | £ |
| 92-93 | Department of Lands | 20,023 | 61,951 |
| 93 | Conditional Land Sales Branch | 32,771 | ..... |
| 94 | Land Agents, Appraisers, and others... .. | 17,200 | 29,200 |
| 94-95 | Survey of Lands | 317,724 | 322,694 |
| 96 | Triangulation and General Survey of the Colony | 42,145 | 30,475 |
| 97 | Miscellaneous Services | 27,921 | 54,831 |
| | TOTAL | £ 457,784 | 499,151 |
| | | | |

*The Treasury, New South Wales,
Sydney, 19th November, 1884.*

GEORGE R. DIBBS,
Treasurer.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | |
|--|------|-----------------------------|---------------------------|
| 1884 | 1885 | Amount Voted for 1884. | Amount Required for 1885. |
| No. VIII.—SECRETARY FOR LANDS. | | | |
| Department of Lands. | | | |
| 1 | 1 | £ 1,500 | £ 1,500 |
| 1 | 1 | 900 | 900 |
| | | 2,400 | 2,400 |
| 2 | 2 | | |
| ... | 1 | | 750 |
| ... | 16 | | 11,300 |
| ... | 17 | | *6,900 |
| | | | 18,950 |
| ... | 34 | | |
| 1 | 1 | 500 | 500 |
| | | 500 | 500 |
| 1 | 1 | | |
| MINISTERIAL BRANCH. | | | |
| 1 | 1 | 400 | 400 |
| 3 | 3 | 900 | 900 |
| 2 | 2 | 500 | 500 |
| 1 | 1 | 200 | 200 |
| 1 | 1 | 150 | 150 |
| 1 | 1 | 60 | 60 |
| | | 2,210 | 2,210 |
| 9 | 9 | | |
| MISCELLANEOUS BRANCH. | | | |
| 1 | 1 | 450 | 450 |
| 2 | 2 | 600 | 600 |
| 1 | 1 | 275 | 275 |
| 6 | 6 | 1,200 | 1,200 |
| 3 | 3 | 450 | 450 |
| 1 | 1 | 100 | 100 |
| 1 | 1 | 60 | 60 |
| | | 3,135 | 3,135 |
| 15 | 15 | | |
| DEEDS BRANCH. | | | |
| 1 | 1 | 350 | 350 |
| 1 | 1 | 275 | 275 |
| 2 | 2 | 400 | 400 |
| | | 1,025 | 1,025 |
| 4 | 4 | | |
| LEASE BRANCH. | | | |
| 1 | 1 | 350 | 350 |
| 1 | 1 | 300 | 300 |
| 3 | 3 | 750 | 750 |
| 1 | 1 | 150 | 150 |
| 3 | 3 | 300 | 300 |
| 2 | 2 | 120 | 120 |
| | | 1,970 | 1,970 |
| 11 | 11 | | |
| AUCTION AND STATISTICAL BRANCH. | | | |
| 1 | 1 | 350 | 350 |
| 1 | 1 | 300 | 300 |
| 2 | 2 | 300 | 300 |
| | | 950 | 950 |
| 4 | 4 | | |
| 46 | 80 | £ | £ 31,140 |

*The positions will be allotted to Officers whose salaries are set down elsewhere in the Estimates of this Department, but which cannot now be specified.

ESTIMATES OF EXPENDITURE—1885.

| No. of Persons. | | No. VIII.—SECRETARY FOR LANDS. | | | | SALARIES AND CONTINGENCIES. | | | |
|--|------|--|--|--|-------|-----------------------------|--------|---------------------------|--------|
| 1884 | 1885 | Department of Lands—continued. | | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | | | £ | | £ | | |
| 46 | 80 | Brought forward | | | | | 12,190 | | 31,140 |
| ACCOUNT BRANCH. | | | | | | | | | |
| 1 | 1 | Accountant | | | 350 | | 350 | | |
| 1 | 1 | Sub-Accountant | | | 250 | | 250 | | |
| 1 | 1 | Clerk | | | 150 | | 150 | | |
| | | | | | | 750 | | 750 | |
| 3 | 3 | MESSENGERS, &C. | | | | | | | |
| 1 | 1 | Principal Messenger | | | 150 | | 150 | | |
| 5 | 5 | Messengers, at £125 | | | 625 | | 625 | | |
| 2 | 2 | Boy Messengers, at £50 | | | 100 | | 100 | | |
| 1 | 1 | Watchman | | | 125 | | 125 | | |
| 1 | 1 | Office-keeper | | | 75 | | 75 | | |
| 4 | 4 | Office-cleaners | | | 272 | | 272 | | |
| 3 | 3 | Constables at 7s. 6d. per diem | | | 411 | | 411 | | |
| | | | | | | 1,758 | | 1,758 | |
| 17 | 17 | CONTINGENCIES. | | | | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | | | | | |
| | | Preparation of Deeds | | | 1,000 | | 1,000 | | |
| | | Extra Clerical Assistance when necessary | | | 4,325 | | 4,325 | | |
| | | | | | | 5,325 | | 5,325 | |
| 66 | | TOTAL | | | | £ | 20,023 | | |
| Conditional Land Sales Branch. | | | | | | | | | |
| 1 | ... | Chief Commissioner | | | 800 |  | ..... |  |  |
| CLERICAL STAFF. | | | | | | | | | |
| 1 | 1 | Clerk in charge | | | 500 | | 500 | | |
| 2 | 2 | Clerks, at £400 | | | 800 | | 800 | | |
| 4 | 4 | Clerks, at £350 | | | 1,400 | | 1,400 | | |
| 4 | 4 | Clerks, at £300 | | | 1,200 | | 1,200 | | |
| 4 | 4 | Clerks, at £250 | | | 1,000 | | 1,000 | | |
| 10 | 10 | Clerks, at £200 | | | 2,000 | | 2,000 | | |
| 14 | 14 | Do. at £150 | | | 2,100 | | 2,100 | | |
| 4 | 4 | Do. at £100 | | | 400 | | 400 | | |
| 4 | 4 | Junior Clerks, at £60 | | | 240 | | 240 | | |
| | | | | | | 10,440 | | 9,640 | |
| 48 | 47 | FIELD STAFF. | | | | | | | |
| 6 | ... | Commissioners of Inquiry under Lands Acts Amendment Act, 1875, or any subsequent Acts, at £500 | | | 3,000 |  | ..... |  |  |
| 18 | 18 | Inspectors of Conditional Purchases, at £350 | | | 6,300 | | 6,300 | | |
| | | | | | | 9,300 | | 6,300 | |
| 24 | 18 | MESSENGERS, &C. | | | | | | | |
| 3 | 3 | Messengers at £132, £100, and £50 | | | 275 | | 282 | | |
| 3 | 3 | Office-cleaners | | | 156 | | 156 | | |
| | | | | | | 431 | | 438 | |
| 6 | 6 | CONTINGENCIES. | | | | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | | | | | |
| | | Temporary Inspectors | | | 1,600 | | 1,600 | | |
| | | Travelling and Incidental Expenses in connection with Inquiry into, and Inspection of Conditional Purchases | | | 6,000 |  | ..... |  |  |
| | | Temporary Extra Clerical Assistance | | | 5,000 | | 5,000 | | |
| 78 | | | | | | 12,600 | | 6,600 | |
| 144 | 171* | TOTAL | | | | £ | 32,771 | | 61,951 |

* The number of officers to be employed will be less than here stated (see foot note on page 92.)

| | | No. VIII.—SECRETARY FOR LANDS. | | | |
|---|------|---|--------|---------------------------|--------|
| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Land Agents, Appraisers, and others. | | | | | |
| ... | 3 | Inspectors of Local Board and Lands Offices ... .. | ..... | £ | 1,800 |
| 2 | ... | Do. of Land Offices | 1,000 | ..... | ..... |
| 1 | 1 | Land Agent, at £400 | 400 | ..... | 400 |
| 6 | 6 | Do. at £350 | 2,100 | ..... | 2,100 |
| 23 | 23 | Land Agents, at £300 | 6,900 | ..... | 6,900 |
| 7 | 7 | Do. at £250 | 1,750 | ..... | 1,750 |
| 5 | 13 | <i>a</i> Assistant Land Agents—5 at £150, 1 at £75, 6 at £50, and 1 at £25 | 750 | ..... | 1,150 |
| 3 | 3 | Emergency Land Agents, at £300 | 900 | ..... | 900 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Travelling Expenses of Members of Local Land Boards, Inspectors, Land Agents, witnesses and others | 1,200 | ..... | 10,000 |
| | | Appraisement Fees | 1,000 | ..... | 1,000 |
| | | Rent of Country Land and Local Board Offices, and Incidental Expenses | 1,200 | ..... | 3,200 |
| 47 | 56 | TOTAL ... .. | £ | ..... | 17,200 |
| Survey of Lands. | | | | | |
| SURVEY STAFF. | | | | | |
| 1 | 1 | Surveyor-General | 1,100 | ..... | 1,100 |
| 1 | 1 | Deputy Surveyor-General | 1,000 | ..... | 1,000 |
| 13 | ... | District Surveyors, at £525 | 6,825 | ..... | ..... |
| ... | 16 | Do. at £600 ... .. | ..... | ..... | 9,600 |
| 22 | 22 | First-class do., 14 at £425, 8 at £375 | 8,950 | ..... | 8,950 |
| 25 | 25 | Second Class do., 19 at £325, 6 at £300 | 7,975 | ..... | 7,975 |
| 46 | 46 | Field Assistants, at various rates... .. | 5,060 | ..... | 5,060 |
| | | Equipment Allowance to 60 Surveyors, at £230 | 13,800 | ..... | 13,800 |
| | | TOTAL ... .. | £ | ..... | 44,710 |
| 108 | 111 | TOTAL ... .. | £ | ..... | 47,485 |
| DRAWING AND LITHOGRAPHIC STAFF. | | | | | |
| 1 | 1 | Chief Draftsman | 650 | ..... | 650 |
| ... | 15 | Chief Draftsmen for Local Survey Offices, at salaries not exceeding £500 each ... .. | ..... | ..... | *7,500 |
| 30 | 30 | 1st Class Draftsmen—1 at £600, 3 at £550, 1 at £500, 16 at £450, 3 at £400, 5 at £375, 1 at £350 | 13,375 | ..... | 13,375 |
| 44 | 44 | 2nd Class Draftsmen—16 at £325, and 28 at £275 | 12,900 | ..... | 12,900 |
| 34 | 34 | 3rd Class Draftsmen—26 at £225, 8 at £175 | 7,250 | ..... | 7,250 |
| 9 | 9 | Lithographic Draftsmen—1 Chief Lithographer at £450, 5 Lithographic Draftsmen at £325, 1 at £225, 1 at £200, 1 at £150 | 2,650 | ..... | 2,650 |
| 1 | 1 | Examiner of Diagrams on Crown Grants | 325 | ..... | 325 |
| 1 | 1 | Assistant do. do. | 275 | ..... | 275 |
| 4 | 4 | Description Writers—1 at £325, 1 at £275, 1 at £225, 1 at £175 | 1,000 | ..... | 1,000 |
| 18 | 18 | Supernumerary Draftsmen, at £75 | 1,350 | ..... | 1,350 |
| 4 | 4 | Lithographic Printers—1 at £300, 1 at £235, 1 at £200, and 1 at £150... .. | 885 | ..... | 885 |
| 1 | 1 | Engraver | 300 | ..... | 300 |
| 1 | 1 | Engraver | 200 | ..... | 200 |
| 2 | 2 | Clerks in Compiling Branch, at £150 each | 300 | ..... | 300 |
| 1 | 1 | Clerk | 150 | ..... | 150 |
| 1 | 1 | Additional Clerk, Auction Branch | 200 | ..... | 200 |
| 2 | 2 | Plan Mounter, at £200, and 1 Assistant do., at £150 | 350 | ..... | 350 |
| 2 | 2 | Custodians of Plans—1 at £250, and 1 at £150 | 400 | ..... | 400 |
| 2 | 2 | Clerks in Charting Branch—1 at £200, and 1 at £150... .. | 350 | ..... | 350 |
| 1 | 1 | Exhibitor and Salesman of Public Maps | 200 | ..... | 200 |
| 3 | 3 | Clerks for Geographical Divisions in Charting Branch, at £200 | 600 | ..... | 600 |
| 1 | 1 | Assistant Exhibitor and Salesman of Public Maps | 150 | ..... | 150 |
| 1 | 1 | Clerk to Surveyor-General | 300 | ..... | 300 |
| | | TOTAL ... .. | £ | ..... | 44,160 |
| 164 | 179 | TOTAL ... .. | £ | ..... | 88,870 |
| 272 | 290 | TOTAL ... .. | £ | ..... | 99,145 |

a Six salaries for Assistant Land Agents voted in Additional Estimates, 1884. Vide Item 343, Appropriation Act.

* These positions will be filled by officers whose salaries are included elsewhere in these Estimates but which cannot now be specified, and the number of officers stated for 1885 will therefore be altered.

ESTIMATES OF EXPENDITURE—1885.

| No. VIII.—SECRETARY FOR LANDS. | | | | | | |
|--|------|--|-----------------------------|---------|---------------------------|---------|
| No. of Persons. | | Survey of Lands—continued. | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | £ | | £ | |
| 272 | 290 | Brought forward ... .. | ..... | 88,870 | ..... | 99,145 |
| CLERICAL STAFF. | | | | | | |
| 1 | 1 | Secretary and Cashier | 450 | | 450 | |
| 1 | 1 | First Clerk | 400 | | 400 | |
| 1 | 1 | Accountant | 400 | | 400 | |
| 1 | 1 | Examiner of Accounts | 325 | | 325 | |
| 1 | 1 | Clerk | 300 | | 300 | |
| 1 | 1 | Do. | 250 | | 250 | |
| 1 | 1 | Pay Clerk | 250 | | 250 | |
| 2 | 2 | Clerks, at £200 | 400 | | 400 | |
| 3 | 3 | Do. at £175 | 525 | | 525 | |
| 4 | 4 | Do. at £150 | 600 | | 600 | |
| 1 | 1 | Clerk | 110 | | 110 | |
| 2 | 2 | Clerks, at £100 | 200 | | 200 | |
| | | | | 4,210 | | 4,210 |
| 19 | 19 | Telephone Operator | 75 | | 75 | |
| 1 | 1 | | | 75 | | 75 |
| MESSENGERS, &C. | | | | | | |
| 2 | 2 | Messengers, at £150 | 300 | | 300 | |
| 1 | 1 | Messenger, at £130 | 130 | | 130 | |
| 1 | 1 | Messenger | 110 | | 110 | |
| 1 | 1 | Boy Messenger | 75 | | 75 | |
| 10 | 10 | Office-cleaners | 652 | | 652 | |
| | | | | 1,267 | | 1,267 |
| 15 | 15 | CONTINGENCIES. | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | | |
| | | Allowance to Surveyor General for the maintenance of two horses and Travelling Equipment | 100 | | 100 | |
| | | Measurements under Volunteer Land Orders | 500 |  | ..... |  |
| | | Fees to Licensed Surveyors | 120,000 | | 120,000 | |
| | | To cover cost of Temporary Increase in Charting, Auction, and Compiling Branches, and for preparation of Parish Maps | 58,300 | | 58,800 | |
| | | To continue increased remuneration to Temporary Staff | 4,000 |  | ..... |  |
| | | Wages and provisions for Surveyors' Laborers to 60 Surveying parties at current rates | 20,637 | | 20,637 | |
| | | Passage and Freight | 1,000 | | 1,000 | |
| | | Extra Forage Allowance in special cases | 1,000 | | 1,000 | |
| | | Surveying and Drawing Instruments, Materials, and Books | 1,500 | | 1,000 | |
| | | Lithographic Drawing, Printing, and Contingencies | 250 | | 250 | |
| | | Miscellaneous Drawings, &c., under Contract | 3,200 | | 3,200 | |
| | | Rent of Rooms for deposit of Records by Surveyors in Country Towns | 900 | | 900 | |
| | | Photo-lithography performed at Government Printing Office | 3,000 | | 3,000 | |
| | | Work performed for other Departments of the Public Service,—not strictly chargeable to Vote for Survey | 500 | | 500 | |
| | | Fees to Draftsmen for drawing Diagrams on Deeds | 1,500 | | 1,500 | |
| | | Rent of Branch Survey Offices | 3,810 | | 3,810 | |
| | | Preparation of Descriptions of Crown Grants and of descriptions under the Amended Land Act, or any subsequent Acts | 900 | | 900 | |
| | | Allowance to Chief Lithographic Printer, for use of his patent process for the production of duplicate copies of maps and other documents | 50 | | 50 | |
| | | Extra Allowance to Surveyors in Charge of Districts west of the River Darling (3 in 1884; 6 in 1885) | 300 | | 600 | |
| | | Incidental Expenses | 500 | | 500 | |
| | | Unforeseen Expenses | 250 | | 250 | |
| | | Other Votes, 1884 | 1,105 |  | ..... |  |
| | | | | 223,302 | | 217,997 |
| 307 | 325* | TOTAL | £ | 317,724 | | 322,694 |

* The number of officers to be employed will be less than here stated (see foot note, page 94).

| No. of Persons. | | No. VIII.—SECRETARY FOR LANDS. | | | |
|--|------|---|----------|---------------------------|--------|
| 1884 | 1885 | SALARIES AND CONTINGENCIES. | | | |
| | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | £ | £ | £ |
| Triangulation and General Survey of the Colony. | | | | | |
| <i>Triangulation of the Colony.</i> | | | | | |
| FIELD STAFF. | | | | | |
| 1 | 1 | Superintendent of Trigonometrical Survey | 600 | 600 | |
| 2 | 2 | First-class Surveyors at £450 | 900 | 900 | |
| 2 | 2 | Second-class Surveyors at £300 | 600 | 600 | |
| 1 | ... | Field Assistant | 110 | ..... |  |
| 1 | 1 | Overseer of Piling Parties | 200 | 200 | |
| | | | 2,410 | | 2,300 |
| OFFICE STAFF. | | | | | |
| 1 | 1 | Chief Computer | 450 | 450 | |
| 1 | 1 | Computer | 275 | 275 | |
| 2 | 2 | Assistant Computers, 1 at £225, and 1 at £175 | 400 | 400 | |
| | | | 1,125 | | 1,125 |
| CONTINGENCIES— | | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Equipment—Horses, Forage, Wages and Provisions for Surveying Parties (5 in 1883; 5 in 1884)... | 6,085 | ..... |  |
| | | Piling Parties, with Wages, Rations, Horses, Forage, &c., 4 for 1884, 3 for 1885 | 4,400 | ..... |  |
| | | Allowance to Government Astronomer for special services in connection with the Triangulation of the Colony | 100 | 100 | |
| | | For the purchase of Instruments | 250 | ..... |  |
| | | Temporary assistance in Computing | 200 | ..... |  |
| | | Miscellaneous Contingencies | 800 | ..... |  |
| | | To erect a shed in the enclosure at the Observatory, to cover a standard measure of 100 feet | 250 | ..... |  |
| | | For Rent of Paddock as a depôt for horses and equipment | 100 | ..... |  |
| | | | 12,185 | | 100 |
| <i>General Survey of the Colony.</i> | | | | | |
| FIELD STAFF. | | | | | |
| ... | 1 | Surveyor ... .. | ..... | 525 | |
| 2 | 2 | 1st Class Surveyors, at £450 | 900 | 900 | |
| 10 | 10 | 2nd Class Surveyors, 4 at £325; 6 at £300 | 3,100 | 3,100 | |
| 6 | 6 | Field Assistants, at 10s. per diem | 1,095 | 1,095 | |
| | | | 5,095 | | 5,620 |
| OFFICE STAFF. | | | | | |
| 1 | 1 | Draftsman in Charge | 500 | 500 | |
| 8 | 8 | Draftsmen and Computers—1 at £375; 3 at £325; 3 at £300; and 1 at £225 | 2,475 | 2,475 | |
| 1 | 1 | Volunteer Draftsman | 75 | 75 | |
| | | | 3,050 | | 3,050 |
| CONTINGENCIES— | | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Equipment—Horses Forage, Wages and Provisions for Surveying Parties (15 in 1884; 15 in 1885) | 7,280 | 7,280 | |
| | | Miscellaneous Contingencies | 400 | 400 | |
| | | Temporary Assistance in Drafting | 600 | 600 | |
| | | | 8,280 | | 8,280 |
| DETAILED SURVEY OF CITY AND SUBURBS. | | | | | |
| | | Continuation of the City of Sydney Survey, and Surveys required for Sewerage purposes (irrespective of date of claims) | 10,000 | 10,000 | |
| 39 | 39 | | 10,000 | | 10,000 |
| | | TOTAL | £ 42,145 | ..... | 30,475 |

ESTIMATES OF EXPENDITURE—1885.

97

No. VIII.—SECRETARY FOR LANDS.

| | SALARIES AND CONTINGENCIES. | | | |
|--|-----------------------------|--------|---------------------------|--------|
| | Amount Voted for 1884. | | Amount Required for 1885. | |
| | £ | | £ | |
| Miscellaneous Services. | | | | |
| <i>(Irrespective of date of claims.)</i> | | | | |
| Public Cemeteries—Purchase of sites for, fencing, clearing, and building, &c., on | 2,500 | | 2,500 | |
| Fees to Commissioners of the Court of Claims, for hearing and reporting on Claims to Grants of Land, in terms of the Act 5 Wm. IV, No. 21... .. | 125 | | 125 | |
| Legal Expenses | 800 | | 1,000 | |
| Recreation Grounds—For fencing, laying out, and improving Public Hyde, Cook, and Phillip Parks—Improvement of | 10,000 | | 10,000 | |
| Scarborough Park—Improvement of | 2,000 | | 2,500 | |
| Parramatta Park—Improvement of | 400 | | 400 | |
| National Park—Improvement of | 500 | | 500 | |
| National Park—For making Road from southernmost end of contract No. 5 to southernmost boundary of the Park, including the Bridge over Bola Creek... .. | 2,000 | | 2,000 | |
| National Park—For a Dam over Port Hacking River, above the Peach Tree | | | 1,200 | |
| Rushcutters' Bay Reserve—Improvement of | 500 | | 300 | |
| Wentworth Park—Improvement of | 1,000 | | 500 | |
| Victoria Park—Improvement, general maintenance and asphaltting walks of | 500 | | 1,000 | |
| Rent of Offices, O'Connell-street, £150; Gresham-street, £125; Exchange, £260 | 535 | | 535 | |
| Public Parks—For improvement and general maintenance of lands purchased or resumed for | | | 5,000 | |
| Smith, John—Cost of removing fencing along the western boundary of portion 139, parish Narrigal, county Gordon | | | 36 | |
| Patrick, John—Compensation and costs in connection with case for trespass on lease No. 80/3, Cassilis | | | 367 | |
| Bayly, C. P.—Cost of removal of fencing on C.P. 79/59, parish Clarke, county Pottinger | | | 40 | |
| Davy, Mrs. Jane—Cost of 12½ perches of land, parish Willoughby, county Cumberland | | | 4 | |
| Brennan, James—Compensation for loss of improvements made on freehold land, county Bathurst, which was erroneously shown as Crown Lands | | | 24 | |
| To meet allowances to and expenses of removal and transfer of Officers, fees to Members of Local Land Boards and other contingencies in connection with the administration of the Crown Lands Act of 1884 | | | 25,000 | |
| Incidental and unforeseen expenses | 425 | | 800 | |
| Other Votes, 1884 | 6,636 | | | |
| | | 27,921 | | 54,831 |
| TOTAL | £ | 27,921 | | 54,831 |

IX.

Secretary for Public Works.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|---------|---------------------------------------|--------------------|-----------------------|
| | | £ | £ |
| 100 | Department of Public Works | 5,685 | 5,685 |
| | Harbours and Rivers Navigation:— | | |
| 100 | Engineer's Department | 4,774 | 7,134 |
| 100 | Fitz Roy Dock | 4,500 | 4,500 |
| 100 | Dredge Service | 76,952 | 78,952 |
| 104 | Public Works | 61,468 | 69,510 |
| | Colonial Architect:— | | |
| 106 | Colonial Architect's Department... .. | 16,642 | 17,667 |
| 107-108 | Public Works and Buildings | 208,078 | 228,435 |
| 108 | Revotes | 54,125 | 18,247 |
| | Roads and Bridges:— | | |
| 110 | General Establishment | 7,330 | 7,680 |
| 110 | Superintendents in Field | 16,878 | 16,878 |
| 110-114 | Construction and Maintenance | 656,790 | 691,453 |
| 114 | Miscellaneous | 627 | ..... |
| | TOTAL | £ 1,113,849 | 1,146,141 |

*The Treasury, New South Wales,
Sydney, 19th November, 1884.*

GEORGE R. DIBBS,
Treasurer.

| | | No. IX.—SECRETARY FOR PUBLIC WORKS. | | | | | | SALARIES AND CONTINGENCIES. | | | | |
|---|------|--|-----|-----|-----|-----|-----|-----------------------------|-------|---------------------------|-------|-------|
| No. of Persons. | | | | | | | | Amount Voted for 1884. | | Amount Required for 1885. | | |
| 1884 | 1885 | | | | | | | £ | | £ | | |
| Department of Public Works. | | | | | | | | | | | | |
| 1 | 1 | Secretary for Public Works | ... | ... | ... | ... | ... | 1,500 | | 1,500 | | |
| 1 | 1 | Under Secretary | ... | ... | ... | ... | ... | 900 | | 900 | | |
| 1 | 1 | Chief Clerk... | ... | ... | ... | ... | ... | 550 | | 550 | | |
| 1 | 1 | First Clerk | ... | ... | ... | ... | ... | 350 | | 350 | | |
| 1 | 1 | Second do. | ... | ... | ... | ... | ... | 300 | | 300 | | |
| 1 | 1 | Third do. | ... | ... | ... | ... | ... | 275 | | 275 | | |
| 1 | 1 | Fourth do. | ... | ... | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Fifth do. | ... | ... | ... | ... | ... | 150 | | 150 | | |
| 1 | 1 | Sixth do. | ... | ... | ... | ... | ... | 125 | | 125 | | |
| 1 | 1 | Principal Messenger | ... | ... | ... | ... | ... | 175 | | 175 | | |
| 1 | 1 | Messenger | ... | ... | ... | ... | ... | 135 | | 135 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 75 | | 75 | | |
| ... | ... | Wages of Male and Female Servants employed cleaning Public Works Department | ... | ... | ... | ... | ... | 350 | | 350 | | |
| | | | | | | | | | 5,085 | | 5,085 | |
| <i>(Irrespective of date of claims.)</i> | | | | | | | | | | | | |
| Rent | | | | | | | | 500 | | 500 | | |
| Incidental Expenses, including Allowance, Messengers, for Quarters | | | | | | | | 100 | | 100 | | |
| | | | | | | | | | 600 | | 600 | |
| 12 | 12 | TOTAL | | | | | | £ | | 5,685 | | 5,685 |

ESTIMATES OF EXPENDITURE—1885.

101

| No. of Persons. | | No. IX.—SECRETARY FOR PUBLIC WORKS. | | | |
|---|------|--|---------|---------------------------|--------|
| 1884 | 1885 | SALARIES AND CONTINGENCIES. | | | |
| | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Harbours and Rivers Navigation. | | | | | |
| ENGINEER'S DEPARTMENT. | | | | | |
| 1 | 1 | Engineer-in-Chief | 1,200 | | 1,200 |
| 1 | 1 | Principal Assistant Engineer | 700 | | 700 |
| 1 | 1 | Chief Draftsman | 450 | | 450 |
| 1 | 1 | Assistant Engineer | 400 | | 400 |
| 1 | 1 | Draftsman | 350 | | 350 |
| 1 | 1 | Chief Clerk and Accountant | 500 | | 500 |
| 1 | 1 | Clerk | 350 | | 350 |
| 1 | 1 | Clerk | 300 | | 300 |
| 2 | 2 | Cadets, at £100 and £75 | 175 | | 175 |
| 2 | 2 | Cadets, at £52 | 104 | | 104 |
| 1 | 1 | Messenger | 100 | | 100 |
| | | | 4,629 | | 4,629 |
| Officers removed from the Temporary to the Permanent Staff:— | | | | | |
| ... | 1 | Assistant Engineer, Hunter River District | | | 600 |
| ... | 1 | District Engineer | | | 400† |
| ... | 1 | Marine Surveyor | | | 360* |
| ... | 1 | Draftsman, Head of Room | | | 300† |
| ... | 1 | Do. do. do. | | | 300† |
| ... | 1 | Cashier and Assistant Accountant | | | 400† |
| | | | | | 2,360 |
| <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Travelling Expenses | 120 | | 120 |
| | | Incidental Expenses | 25 | | 25 |
| | | | | 145 | 145 |
| 13 | 19 | TOTAL | £ | 4,774 | 7,134 |
| FITZ ROY DOCK | | | | | |
| 1 | 1 | Shipwright Superintendent | 350 | | 350 |
| 1 | 1 | Engineer do | 350 | | 350 |
| 1 | 1 | Engineer Mechanic | 220 | | 220 |
| 1 | 1 | Store and Timekeeper | 250 | | 250 |
| 1 | 1 | Assistant Storekeeper | 200 | | 200 |
| 1 | 1 | Clerk | 202 | | 202 |
| 1 | 1 | Storeman | 187 | | 187 |
| 1 | 1 | Assistant Timekeeper | 171 | | 171 |
| 1 | 1 | Fireman | 120 | | 120 |
| 1 | 1 | Watchman | 110 | | 110 |
| | | | | 2,160 | 2,160 |
| | | Contingencies (<i>irrespective of date of claims</i>) | | 2,340 | 2,340 |
| 10 | 10 | TOTAL | £ | 4,500 | 4,500 |
| DREDGE SERVICE. | | | | | |
| Salaries, Wages, and Contingencies (<i>irrespective of date of claims</i>). (See Schedule A) | | | | | |
| | | | | 72,001 | 72,943 |
| Working and other expenses, Grab Dredges, do. do. (See Schedule B.) | | | | | |
| | | | | 4,951 | 6,009 |
| | | TOTAL | £ | 76,952 | 78,952 |

* Paid at the rate of £360 for 1884. † Paid at the rate of £300 for 1884. ‡ Paid at the rate of £400 for 1884.

| | | Amount voted for 1884. | Amount required for 1885. |
|---|--|------------------------|---------------------------|
| Salaries, Wages, and Contingencies (<i>irrespective of date of claims</i>). See Schedule A | | £72,001 | £72,943 |
| Working and other Expenses, Grab Dredges (do.). See Schedule B | | 4,951 | 6,009 |
| Total... .. | | £76,952 | £78,952 |

Dredge Service Estimate, showing probable Expenditure of Vote, but contingent on such alterations (within the limits of the Vote) as the exigencies of the Service may from time to time demand.

NOTE.—Any alterations from the arrangements of 1884 are shown in the notes below. Where there are no references to notes, the rates, &c., for 1884 have been adhered to.

SALARIES AND WAGES.

Dredges.

SCHEDULE A.

| Designation of Office. | Newcastle, working two ladders. | | Samson, working two ladders. | | Hunter, working two ladders. | | Vulcan. | | Hercules. | | Archimedes. | | Titan. | | Fitzroy. | | Pluto. | | Clarence. | | Charon. | | Ulysses. | | Minos. | | Total. | | |
|---|---------------------------------|-----------|------------------------------|-----------|------------------------------|-----------|---------|-----------|-----------|-----------|-------------|-----------|--------|-----------|----------|-----------|--------|-----------|-----------|-----------|---------|-----------|----------|-----------|--------|-----------|--------|--------|--------|
| | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | | | |
| Inspector of Dredges..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | £ 440 | |
| Clerk..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 275 | |
| Masters and Chief Engineers..... | 1 | 557 10 | 1 | 557 10 | 1 | 557 10 | 1 | 330 0 | 1 | 330 0 | 1 | 302 10 | 1 | 302 10 | 1 | 302 10 | 1 | 302 10 | 1 | 302 10 | 1 | 302 10 | 1 | 302 10 | 1 | 302 10 | 1 | 302 10 | 302 10 |
| Mates..... | 1 | 184 16 | 1 | 184 16 | 1 | 184 16 | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 171 12 |
| Coxswains..... | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 1 | 264 0 | 264 0 |
| Seamen..... | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 228 16 |
| Engineers..... | 1 | 171 12 | 1 | 171 12 | 1 | 171 12 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 158 8 |
| Firemen..... | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 132 0 |
| Blacksmiths..... | 1 | 184 16 | 1 | 184 16 | 1 | 184 16 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 158 8 |
| Strikers..... | 1 | 184 16 | 1 | 184 16 | 1 | 184 16 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 132 0 |
| Carpenters..... | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 1 | 158 8 | 158 8 |
| Painters..... | 1 | 146 4 | 1 | 146 4 | 1 | 146 4 | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | ..... |
| Winchman..... | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | ..... |
| Brakemen..... | 2 | 114 8 | 2 | 114 8 | 2 | 114 8 | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | ..... |
| Oiler..... | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | ..... |
| Cooks..... | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 114 8 |
| Watchmen..... | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 1 | 114 8 | 114 8 |
| Leading Boiler-maker..... | 1 | 198 0 | 1 | 198 0 | 1 | 198 0 | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | ..... |
| Boilermaker..... | 1 | 184 16 | 1 | 184 16 | 1 | 184 16 | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | ..... |
| Boilermakers and Engineer's Assistants..... | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | ..... |
| Boys*..... | 2 | 82 10 | 2 | 82 10 | 2 | 82 10 | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 2 | ..... | 165 0 |
| | 25 | 3,059 14 | 17 | 2,484 18 | 17 | 2,511 0 | 14 | 2,142 16 | 14 | 2,015 4 | 12 | 1,999 16 | 12 | 1,754 10 | 12 | 1,789 2 | 10 | 1,483 18 | 12 | 2,273 14 | 12 | 1,683 0 | 12 | 1,785 6 | 12 | 1,720 18 | 27,270 | 2 | |

Tugs.

| Designation of Office. | Ajax. | | Thetis. | | Cyclops. | | Dione. | | Ceres. | | Hopper Barge Neptune. | | Athena. | | Hector. | | Hopper Barge Juno. | | Little Nell. | | Achilles. | | Charybdis. | | Pearl. | | Scylla. | | |
|------------------------|-------|-----------|---------|-----------|----------|-----------|--------|-----------|--------|-----------|-----------------------|-----------|---------|-----------|---------|-----------|--------------------|-----------|--------------|-----------|-----------|-----------|------------|-----------|--------|-----------|---------|-----------|--------|
| | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | No. | £ s. £ s. | |
| Masters..... | 1 | 264 0 | 1 | 264 0 | 1 | 184 16 | 1 | 211 4 | 1 | 237 12 | 1 | 250 16 | 1 | 184 16 | 1 | 184 16 | 1 | 250 16 | 1 | 211 4 | 1 | 211 4 | 1 | 211 4 | 1 | 184 16 | 1 | 158 8 | |
| Leading Seamen..... | 1 | 132 0 | 1 | 132 0 | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... |  |
| Seamen..... | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 3 | 114 8 | 336 24 |
| Engineers..... | 1 | 264 0 | 1 | 264 0 | 1 | 198 0 | 1 | 211 4 | 1 | 237 12 | 1 | 264 0 | 1 | 184 16 | 1 | 168 8 | 1 | 264 0 | 1 | 211 4 | 1 | 211 4 | 1 | 198 0 | 1 | 184 16 | 1 | 158 8 | |
| Leading Firemen..... | 1 | 145 4 | 1 | 145 4 | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... |  |
| Firemen..... | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 1 | 132 0 | 132 0 |
| Cooks..... | 1 | 114 8 | 1 | 114 8 | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... |  |
| Watchman..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... | 1 | ..... |  |
| Boys*..... | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 1 | 82 10 | 82 10 |
| | 9 | 1,304 10 | 8 | 1,230 8 | 6 | 766 14 | 7 | 997 14 | 7 | 1,050 10 | 8 | 1,236 8 | 4 | 567 12 | 4 | 583 12 | 8 | 1,236 8 | 6 | 840 4 | 5 | 751 8 | 4 | 655 12 | 5 | 671 0 | 2 | 316 16 | 12,364 |

For 1883 and 1884 10 per cent. was voted on salaries and wages as a temporary increase. This advance has now been permanently added thereto.

* Boys are interchanged in the Dredges and Tugs as the requirements of the Service or promotion may demand.

NOTE a.—A new master having to be appointed to the "Cyclops," he was put on a lower grade, the salary being reduced from £192 + 10 per cent. to £108 + 10 per cent., and a boy of the highest grade has been substituted for a seaman. The watchman of the "Cyclops" has been transferred to the "Dione," because the latter has now the fire-extinguishing apparatus used at Newcastle which was formerly on the "Cyclops."

40,340 2

SCHEDULE to Dredge Service Estimate—continued.

Contingencies of Dredges and Tugs.

| | "Newcastle" and Tug. | "Samson" and Tug. | "Hunter" and Tug. | "Vulcan" and Tug. | "Hercules" and Tug. | "Archimedes" and Tug. | "Titan" and Tug. | "Fitzroy" and Tug. | "Pluto" and Tug. | "Clarence" and Tug. | "Charon" and Tug. | "Ulysses" and Tug. | "Minos" and Tug. | "Neptune." | "Juno." | "Scylla." | Brought forward ... | £ | s. |
|--|----------------------|-------------------|-------------------|-------------------|---------------------|-----------------------|------------------|--------------------|------------------|---------------------|-------------------|--------------------|------------------|------------|---------|-----------|---------------------|---------|----|
| Coals, stores, renewals, repairs, and all other incidental expenses ... | £ 3,394 | £ 4,000 | £ 3,000 | £ 2,000 | £ 2,000 | £ 2,000 | £ 1,500 | £ 2,000 | £ 1,500 | £ 2,000 | £ 2,000 | £ 1,500 | £ 1,500 | £ 1,000 | £ 1,000 | £ 200 | 40,349 | 2 | |
| To provide for salaries, stores, outfit, and all other incidental expenses for two new steam tugs, which will be in service during 1885, and for emergencies ... | | | | | | | | | | | | | | | | | | 2,000 | 0 |
| | | | | | | | | | | | | | | | | | Total ... | £72,943 | 2 |

The total increase of £941 14s. on last year's Estimates is made up as follows:—

| | £ | s. | d. | £ | s. | d. |
|--|-------|----|----|--------------------|------|-----|
| Increase—To provide for salaries, stores, &c., for two new steam tugs, and for emergencies ... | 2,000 | 0 | 0 | | | |
| Do. Steam tug "Dione"—1 watchman, transferred from "Cyclops" b. ... | 132 | 0 | 0 | | | |
| | | | | 2,132 | 0 | 0 |
| Decrease—Amount voted for one new steam tug and plant for same, not scheduled last year, but which now appears in Schedule ... | 1,000 | 0 | 0 | | | |
| Do. Steam tug "Cyclops," a. ... | 190 | 0 | 0 | | | |
| | | | | 1,190 | 0 | 0 |
| | | | | Total increase ... | £942 | 0 0 |

The Dredges are at present stationed as under:—

| | | | |
|----------------------|--------------------------|---------------------------------------|------------------------------|
| "Samson" } Sydney. | "Newcastle" } Newcastle. | "Pluto" } Shoalhaven River and Heads. | "Archimedes"—Richmond River. |
| "Hercules" } Sydney. | "Hunter" } Newcastle. | "Minos" } Shoalhaven River and Heads. | "Fitzroy"—Macleay River. |
| "Charon" } Sydney. | "Vulcan" } Newcastle. | "Titan"—Myall River. | "Ulysses"—Manning River. |
| | | "Clarence"—Clarence River. | |

SCHEDULE B.—Working Expenses, Small Grab Dredges.

| Dredge "Alpha." | | | | Dredge "Gamma." | | | | | | | | | | | | |
|--------------------------------------|-----|----|-----|-----------------------------|-----|----|---|-----|----|---|---------|----------|-----------|--------|---|---|
| Salaries and Wages. | | | | | | | | | | | | | | | | |
| | £ | s. | d. | £ | s. | d. | £ | s. | d. | | | | | | | |
| *Engineer, 1 at 12s. 1d. per day ... | 221 | 0 | 0 | *Engineer and Master, 1 ... | 237 | 12 | 0 | | | | | | | | | |
| *Fireman, 1 at £132 per annum ... | 132 | 0 | 0 | *Fireman, 1 ... | 132 | 0 | 0 | | | | | | | | | |
| *Labourers, 3 at 7s. 8d. per day ... | 360 | 0 | 0 | *Scamen, 3 at £114 8s. ... | 343 | 4 | 0 | | | | | | | | | |
| *Cook, 1 at 7s. 8d. " ... | 120 | 0 | 0 | | | | | 712 | 16 | 0 | | | | | | |
| | | | 833 | 0 | | | | | | 2,259 | 4 | 0 | | | | |
| | | | | | | | | | | Contingencies. | | | | | | |
| | | | | | | | | | | "Alpha." | "Beta." | "Gamma." | | | | |
| | | | | | | | | | | £ | £ | £ | | | | |
| | | | | | | | | | | 450 | 450 | 450 | | | | |
| | | | | | | | | | | 1,350 | 0 | 0 | | | | |
| | | | | | | | | | | Expenses in connection with two new Dredges, which will be in commission in 1885, and for emergencies ... | | 2,400 | 0 | 0 | | |
| | | | | | | | | | | | | | Total ... | £6,009 | 4 | 0 |

The total increase of £1,058 on last year's Estimates is made up as follows:—

| Increase. | | | Decrease. | | |
|---|-------|---|---|--------|-------|
| | £ | £ | | £ | £ |
| Expenses in connection with two new dredges, which will be in commission in 1885, and for emergencies ... | 2,400 | | Dredge "Beta"—Master's salary ... | 12 | |
| Dredge "Gamma"—Wages as per Schedule ... | 712 | | " " Contingencies ... | 102 | |
| " " "Alpha"—Contingencies ... | 1 | | " " "Alpha"—Salaries and wages ... | 4 | |
| " " "Gamma"—Contingencies ... | 450 | | Amount voted for two new dredges and plant for same, not scheduled last year, one of which now appears in Schedule, viz., the "Gamma" ... | 2,400 | |
| " " "Beta"—Salary of engine-driver and fireman combined ... | 13 | | | | |
| | 3,576 | | | | 2,518 |
| | | | Total increase ... | £1,058 | |

The Dredges are at present stationed as under:—

"Alpha" at Clarence River, "Beta" at Bellinger River, and the "Gamma" intended for the Hastings River.

* For 1883 and 1884 10% was voted on salaries and wages as a temporary increase. This advance has now been permanently added to these salaries.
 † The Engineer and Master of the "Beta" having been transferred to the "Gamma," a new Master has been appointed at a salary of £225 per annum.

| No. IX.—SECRETARY FOR PUBLIC WORKS. | | | | | |
|-------------------------------------|------|---|--------|---------------------------|--------|
| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| | | Harbours and Rivers Navigation—continued. | | | |
| | | PUBLIC WORKS. | | | |
| 2 | 2 | Assistant Engineers employed in superintending the construction of Public Works | 1,100 | 1,100 | |
| | | Master, Launch "Ena," Newcastle | 288 | 288 | |
| | | Driver, do do | | | |
| | | Preliminary Harbour and River Surveys (irrespective of the date of claims) | 3,000 | 3,000 | |
| | | Landing Silt from Dredge, and forming Ground (do.)... | 5,000 | 5,000 | |
| | | Towards expenses connected with, or arising out of, employment of Tugs on Special Service, and for expenses connected with the Rocket Apparatus, Newcastle (do.) | 800 | 800 | |
| | | Incidental and other Expenses in connection with Wharfs, Bridges, and other Public Works (do.) | 20,000 | 15,000 | |
| | | Towards extending and maintaining Main Road through Bullock Island, Newcastle (do.) | 300 | 300 | |
| | | Towards improving and clearing the Darling River, further sum (do.) | 5,000 | 5,000 | |
| | | Breakwater, Shellharbour, further sum (do.) | 1,000 | 1,000 | |
| | | Repairs to Newcastle Wharf (do.) | 2,000 | 1,000 | |
| | | Towards removal of Black Buoy Rock and other obstructions, Wollongong Harbour (do.) | 2,000 | 2,000 | |
| | | Towards clearing Richmond River | 800 | 2,000 | |
| | | Wharf at Chatsworth, Clarence River | | 400 | |
| | | Wharf at King's Creek | | 150 | |
| | | Wharf at Wauchope, Hastings River | | 500 | |
| | | Wharf at Balranald | | 500 | |
| | | Lengthening, &c., Wharf, Eden | | 4,000 | |
| | | Wharf, Pitt Water, on condition that £100 is subscribed by the inhabitants towards the work | | 500 | |
| | | Towards removing obstructions to navigation, South Arm, Clarence River | | 3,000 | |
| | | Towards removing obstructions to navigation, Broughton Creek, on condition that a moiety of the expenditure is subscribed by the inhabitants of the district | | 200 | |
| | | Yanko Creek cutting, on condition that a moiety of the expense is subscribed by the inhabitants of the district | | 3,500 | |
| | | Wharf (Public) Putney | | 600 | |
| | | Wharf at Hunters' Hill | | 500 | |
| | | Wharf, Swan Bay, Richmond River | | 250 | |
| | | Wharf, Long Reach, Macleay River | | 350 | |
| | | Wharf, Yarrahippini, Macleay River | | 350 | |
| | | Wharf, Greenhills, Upper Macleay River | | 350 | |
| | | Wharf between Gladstone and Kinchela Creek, Macleay River | | 300 | |
| | | Wharf, Bellinger River, Cahill's | | 350 | |
| | | Wharf, Bermagui | | 800 | |
| | | Wharf and Shed, Lower Belmore River | | 300 | |
| | | Wharf, Coff's Harbour District, further sum | 1,000 | 500 | |
| | | Steamer's Jetty, Woolloomooloo Bay | | 3,500 | |
| | | Jetty, Trial Bay | | 700 | |
| | | Towards reclamation and dredging Neutral Bay | | 1,000 | |
| | | Dredging and improvements, Double Bay | | 500 | |
| | | Other Votes, 1884 | 19,180 | | |
| | | <i>Revotes, 1883—</i> | | | |
| | | Wharf, Bourke, balance on Vote of £2,000 | | 1,922 | |
| | | Clearing Obstruction, Murrumbidgee River, balance of Vote of £10,000 | | 5,000 | |
| | | Reclamation of White Bay, Exclusive of Compensation of land, if any | | 3,000 | |
| 2 | 2 | TOTAL | £ | 61,468 | 69,510 |

ESTIMATES OF EXPENDITURE—1885.

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No. IX.—SECRETARY FOR PUBLIC WORKS.

SCHEDULE.

Salaries of Officers not on the Permanent Staff which are paid from Votes for the works in connection with which the Officers in question are from time to time engaged, as per Schedule below, but subject to such alterations within the limits of the Votes as the exigencies of the Service from time to time demand.

| No. of Persons. | | | Rate of Pay for 1884. | | | Allowances. | | | Amount Required for 1885. | | | Total. | | | | | |
|-----------------|-------|---|-------------------------------|--------|---------|-------------|--------|---------|-------------------------------|--------|---------|---------|--------|---------|-------|--------|---------|
| 1884. | 1885. | | £ | House. | Forage. | £ | House. | Forage. | £ | House. | Forage. | £ | House. | Forage. | £ | House. | Forage. |
| | | | | | | | | | | | | | | | | | |
| 1 | ... | ^a Assistant Engineer, Hunter River District... | 500 | 50 | 50 | 600 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 | 1 | ⁹ District Engineer | 550 | 50 | 52 | 602 | 0 | 0 | 550 | ..... | 52 | 602 | 0 | 0 | ..... | ..... | ..... |
| 1 | 1 | ¹⁰ Resident Engineer | 500 | ..... | ..... | 500 | 0 | 0 | 500 | ..... | ..... | 500 | 0 | 0 | ..... | ..... | ..... |
| 1 | ... | ^b District Engineer | 400 | 30 | 3s. day | 484 | 15 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 | 1 | ¹¹ Do. | 400 | 50 | ..... | 504 | 15 | 0 | 400 | 50 | 3s. day | 504 | 15 | 0 | ..... | ..... | ..... |
| 1 | 1 | ¹² Do. | 365 | 50 | ..... | 469 | 15 | 0 | 365 | 50 | ..... | 469 | 15 | 0 | ..... | ..... | ..... |
| 1 | 1 | ^c Resident Engineer | 300 | ..... | ..... | 300 | 0 | 0 | 300 | ..... | ..... | 300 | 0 | 0 | ..... | ..... | ..... |
| 1 | 1 | ¹³ Do. | 365 | ..... | 3s. day | 419 | 15 | 0 | 365 | ..... | 3s. day | 419 | 15 | 0 | ..... | ..... | ..... |
| 2 | 2 | ^{14, 15} Do. | 2 @ 300 ea. | ..... | ..... | 709 | 10 | 0 | 2 @ 300 ea. | ..... | ..... | 709 | 10 | 0 | ..... | ..... | ..... |
| 1 | 1 | ^d Do. | 300 | 50 | ..... | 350 | 0 | 0 | 300 | 50 | ..... | 404 | 15 | 0 | ..... | ..... | ..... |
| 1 | 1 | ^e Do. | 25s. \mathcal{P} day | ..... | ..... | 388 | 15 | 0 | 25s. \mathcal{P} day | ..... | ..... | 388 | 15 | 0 | ..... | ..... | ..... |
| 1 | 1 | ^c Do. | 25s. \mathcal{P} day | ..... | ..... | 388 | 15 | 0 | 25s. \mathcal{P} day | ..... | ..... | 388 | 15 | 0 | ..... | ..... | ..... |
| ... | 1 | ^f Do. | ..... | ..... | ..... | ..... | ..... | ..... | 15s. \mathcal{P} day | ..... | 20s. wk | 285 | 5 | 0 | ..... | ..... | ..... |
| ... | 1 | ^g Do. | ..... | ..... | ..... | ..... | ..... | ..... | 300 | ..... | 3s. day | 354 | 15 | 0 | ..... | ..... | ..... |
| 1 | 1 | Superintendent of Works, Darling River | £1 per day | ..... | 52 | 467 | 0 | 0 | £1 \mathcal{P} day | ..... | 52 | 467 | 0 | 0 | ..... | ..... | ..... |
| 1 | 1 | Officer in charge of Works, Trial Bay | £50 ex. sal. | ..... | ..... | ..... | ..... | ..... | £50 ex. sal. | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 | 1 | ^e Do. do. Clarence River | 400 | ..... | ..... | 400 | 0 | 0 | 400 | ..... | ..... | 400 | 0 | 0 | ..... | ..... | ..... |
| 1 | 1 | ^e Do. do. Clarence River | 365 | ..... | ..... | 365 | 0 | 0 | 365 | ..... | ..... | 365 | 0 | 0 | ..... | ..... | ..... |
| 2 | 2 | ^{16, 17} Superintendents of Works | 2 @ 20s. \mathcal{P} d. ea. | ..... | ..... | 730 | 0 | 0 | 2 @ 20s. \mathcal{P} d. ea. | ..... | ..... | 730 | 0 | 0 | ..... | ..... | ..... |
| 1 | ... | ^b Marine Surveyor | 360 | ..... | ..... | 360 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 | 1 | ¹⁸ Assistant to Marine Surveyor | 17s. 6d. \mathcal{P} day | ..... | ..... | 272 | 2 | 6 | 17s. 6d. \mathcal{P} day | ..... | ..... | 272 | 2 | 6 | ..... | ..... | ..... |
| ... | 1 | ⁱ Do. do. | ..... | ..... | ..... | ..... | ..... | ..... | 15s. \mathcal{P} day | ..... | ..... | 233 | 5 | 0 | ..... | ..... | ..... |
| ... | 1 | ¹⁹ Surveyor | 20s. \mathcal{P} day | ..... | ..... | 311 | 0 | 0 | 20s. \mathcal{P} day | ..... | ..... | 311 | 0 | 0 | ..... | ..... | ..... |
| ... | 1 | ^j Do. | ..... | ..... | ..... | ..... | ..... | ..... | 30s. \mathcal{P} day | ..... | ..... | 466 | 10 | 0 | ..... | ..... | ..... |
| 1 | 1 | ^k Do. | 300 | ..... | ..... | 300 | 0 | 0 | 300 | ..... | ..... | 300 | 0 | 0 | ..... | ..... | ..... |
| 1 | ... | ^k Do. | 15s. \mathcal{P} day | ..... | ..... | 233 | 5 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 4 | 1 | ¹ Field Assistants | 4 @ 260 ea. | ..... | 3s. day | 1,259 | 0 | 0 | 260 | ..... | ..... | 260 | 0 | 0 | ..... | ..... | ..... |
| ... | 2 | ^l Do. | ..... | ..... | ..... | ..... | ..... | ..... | 2 @ 260 ea. | ..... | 3s. day | 629 | 10 | 0 | ..... | ..... | ..... |
| ... | 1 | ⁿ Do. | ..... | ..... | ..... | ..... | ..... | ..... | 250 | ..... | 3s. day | 304 | 15 | 0 | ..... | ..... | ..... |
| 3 | ... | ^o Do. | @ 200 ea. | ..... | 3s. day | 764 | 5 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 | 1 | ^p Do. | @ 10s. \mathcal{P} day | ..... | ..... | 311 | 0 | 0 | 12s. \mathcal{P} day | ..... | ..... | 186 | 12 | 0 | ..... | ..... | ..... |
| ... | 1 | ^q Do. | ..... | ..... | ..... | ..... | ..... | ..... | 10s. \mathcal{P} day | ..... | ..... | 155 | 10 | 0 | ..... | ..... | ..... |
| 3 | 1 | ^a Draftsmen | 3 @ 300 ea. | ..... | ..... | 900 | 0 | 0 | 300 | ..... | ..... | 300 | 0 | 0 | ..... | ..... | ..... |
| 1 | 1 | ^r Do. | 275 | ..... | ..... | 275 | 0 | 0 | 300 | ..... | ..... | 300 | 0 | 0 | ..... | ..... | ..... |
| 4 | 3 | ^s Do. | 4 @ 250 ea. | ..... | ..... | 1,000 | 0 | 0 | 3 @ 275 ea. | ..... | ..... | 825 | 0 | 0 | ..... | ..... | ..... |
| ... | 1 | ^t Do. | ..... | ..... | ..... | ..... | ..... | ..... | 250 | ..... | ..... | 250 | 0 | 0 | ..... | ..... | ..... |
| 1 | 1 | ^u Do. | 15s. \mathcal{P} day | ..... | ..... | 233 | 5 | 0 | 275 | ..... | ..... | 275 | 0 | 0 | ..... | ..... | ..... |
| ... | 1 | ^v Do. | ..... | ..... | ..... | ..... | ..... | ..... | 250 | ..... | ..... | 250 | 0 | 0 | ..... | ..... | ..... |
| 1 | ... | ^w Do. | 225 | ..... | ..... | 225 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 3 | 3 | ^x Do. | 3 @ 14s. \mathcal{P} d. ea. | ..... | ..... | 653 | 2 | 0 | 3 @ 14s. \mathcal{P} d. ea. | ..... | ..... | 653 | 2 | 0 | ..... | ..... | ..... |
| 2 | 2 | ^y Do. | 2 @ 12s. \mathcal{P} d. ea. | ..... | ..... | 373 | 4 | 0 | 2 @ 12s. \mathcal{P} d. ea. | ..... | ..... | 373 | 4 | 0 | ..... | ..... | ..... |
| 1 | 1 | ^v Do. | 10s. \mathcal{P} day | ..... | ..... | 155 | 10 | 0 | 200 | ..... | ..... | 200 | 0 | 0 | ..... | ..... | ..... |
| ... | 1 | ^w Do. | ..... | ..... | ..... | ..... | ..... | ..... | 150 | ..... | ..... | 150 | 0 | 0 | ..... | ..... | ..... |
| 4 | 4 | Cadets | 4 @ 100 ea. | ..... | ..... | 400 | 0 | 0 | 4 @ 150 ea. | ..... | ..... | 600 | 0 | 0 | ..... | ..... | ..... |
| ... | 1 | ^r Do. | ..... | ..... | ..... | ..... | ..... | ..... | 150 | ..... | ..... | 150 | 0 | 0 | ..... | ..... | ..... |
| 10 | 6 | ^z Do. | 10 @ £52 | ..... | ..... | 520 | 0 | 0 | 6 @ 100 ea. | ..... | ..... | 600 | 0 | 0 | ..... | ..... | ..... |
| ... | 2 | ^{aa} Do. | ..... | ..... | ..... | ..... | ..... | ..... | 2 @ 52 ea. | ..... | ..... | 104 | 0 | 0 | ..... | ..... | ..... |
| 4 | 4 | Weigh Clerks | 4 @ 15s. \mathcal{P} d. ea. | ..... | ..... | 933 | 0 | 0 | 4 @ 15s. \mathcal{P} d. ea. | ..... | ..... | 933 | 0 | 0 | ..... | ..... | ..... |
| 1 | ... | Timekeeper | 15s. \mathcal{P} day | ..... | ..... | 273 | 15 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 | 1 | ² Do. | 10s. \mathcal{P} day | ..... | ..... | 155 | 10 | 0 | 15s. \mathcal{P} day | ..... | ..... | 233 | 5 | 0 | ..... | ..... | ..... |
| 1 | 1 | ³ Do. and Assistant to District Engineer | 20s. \mathcal{P} day | ..... | ..... | 311 | 0 | 0 | 20s. \mathcal{P} day | ..... | ..... | 311 | 0 | 0 | ..... | ..... | ..... |
| 1 | ... | Clerk to District Engineer | 13s. \mathcal{P} day | ..... | ..... | 202 | 3 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1 | 1 | Clerk to Assistant Engineer | 12s. \mathcal{P} day | ..... | ..... | 186 | 12 | 0 | 12s. \mathcal{P} day | ..... | ..... | 186 | 12 | 0 | ..... | ..... | ..... |
| 1 | 1 | ⁴ Do. | 10s. \mathcal{P} day | ..... | ..... | 155 | 10 | 0 | 185 | ..... | ..... | 185 | 0 | 0 | ..... | ..... | ..... |
| 1 | 1 | ⁵ Do. | 15s. \mathcal{P} day | ..... | ..... | 233 | 5 | 0 | 15s. \mathcal{P} day | ..... | ..... | 233 | 5 | 0 | ..... | ..... | ..... |
| 1 | 1 | Custodian of Plans | 250 | ..... | ..... | 250 | 0 | 0 | 250 | ..... | ..... | 250 | 0 | 0 | ..... | ..... | ..... |
| 1 | 1 | Messenger | 75 | ..... | ..... | 75 | 0 | 0 | 75 | ..... | ..... | 75 | 0 | 0 | ..... | ..... | ..... |
| 75 | 68 | Carried forward... | ..... | ..... | ..... | £19,001 | 8 | 6 | ..... | ..... | ..... | £17,901 | 7 | 6 | ..... | ..... | ..... |

No. IX.—SECRETARY FOR PUBLIC WORKS.

SCHEDULE—continued.

| No. of Persons. | | | Rate of Pay for 1884. | Allowances. | | Total. | Amount Required for 1885. | | | Total. | | | | |
|-----------------|-------|---|-----------------------|-------------|---------|--------|---------------------------|--------|--------------------|--------|----|--------|----|---|
| 1884. | 1885. | | | House. | Forage. | | Rate of Pay. | House. | Forage. | | | | | |
| | | | | £ | £ | | £ | £ | £ | | £ | | | |
| 75 | 68 | Brought forward | | | | 19,001 | 8 | 6 | | 17,901 | 7 | 6 | | |
| 2 | 1 | Overseers of Roads | 2 @ 156 each | | | 312 | 0 | 0 | 156 | | | 156 | 0 | 0 |
| 1 | 1 | Registrar of Gauges, Nepean and Cataract Rivers | 104 | | 10 | 114 | 0 | 0 | 104 | | 10 | 114 | 0 | 0 |
| 1 | ... | Assistant Accountant and Cashier | 400 | | | 400 | 0 | 0 | | | | | | |
| 2 | 2 | Clerks | 2 @ 250 each | | | 500 | 0 | 0 | 2 @ 275 each | | | 550 | 0 | 0 |
| 2 | 2 | Do. | 2 @ 225 each | | | 450 | 0 | 0 | 2 @ 250 each | | | 500 | 0 | 0 |
| 4 | 4 | Do. | 4 @ 200 each | | | 800 | 0 | 0 | 4 @ 225 each | | | 900 | 0 | 0 |
| 2 | 2 | Do. | 2 @ 150 each | | | 300 | 0 | 0 | 1 @ 175 1 @ 150 | | | 325 | 0 | 0 |
| 1 | 1 | Do. | 100 | | | 100 | 0 | 0 | 125 | | | 125 | 0 | 0 |
| 1 | 1 | Do. | 50 | | | 50 | 0 | 0 | 75 | | | 75 | 0 | 0 |
| 1 | 1 | Do. | 8s. day | | | 124 | 8 | 0 | 8s. day | | | 124 | 8 | 0 |
| 1 | 1 | Housekeeper, Branch Office | 52 | | | 52 | 0 | 0 | 52 | | | 52 | 0 | 0 |
| 93 | 84 | Total | | | £ | 22,203 | 16 | 6 | | | | 20,822 | 15 | 6 |

- * Salary increased from £500 to £600 per annum from 1st July, 1884, and an additional forage allowance of £50 granted from 1st September, 1884. This officer's salary now appears under the Head Establishment, at £600 per annum.
- † This officer now appears under the Head Establishment, at a salary of £425 per annum.
- ‡ Granted a forage allowance from 12th January, 1884. Supervising Water-works at Goulburn and Wagga Wagga. Allowed 12s. per day when travelling.
- § Granted a forage allowance from 1st July, 1884. Supervising Water-works at Bathurst.
- ¶ Allowed quarters. Supervising works at Walka Reservoir. Supervising works, Lake Macquarie Harbour Works.
- ‡ Formerly a Surveyor. Appointed Resident Engineer at same salary, with a forage allowance of £52 per annum, from 1st June, 1884. Supervising pipe-laying in connection with Hunter River Water Supply Works.
- § Formerly a Draftsman at 15s. per day. Appointed Resident Engineer at £300 per annum, and forage allowance of 3s. per day. At present supervising Albury Water-works.
- ¶ The salary of this officer now appears under the Head Establishment as Marine Surveyor, at £385 per annum.
- ‡ Appointed Assistant to Marine Surveyor at 15s. per day, from 29th September, 1884.
- § Formerly Resident Engineer at Goulburn. Reappointed to the Survey Staff in January, 1884, at a salary of 30s. per day.
- ¶ Promoted as Resident Engineer. (See F.)
- ‡ Recalled to Head Office; the forage allowance thereby ceasing.
- ¶ Paid at the rate of £250 per annum from 20th August, 1884, being £10 per annum less than the scheduled sum.
- ‡ Rate of pay increased from 10s. to 12s. per day from 1st June, 1884.
- ¶ The salaries of these officers now appear under the Head Establishment as Draftsmen, Head of Room, at £325 per annum respectively.
- ‡ Salary increased from £275 to £300 per annum.
- ¶ Do. do. 15s. per day to £275 per annum, but during part of 1884 this officer was paid at the rate of £250 per annum.
- ‡ Appointed Draftsman at £250 per annum, from 20th February, 1884.
- ¶ Salary increased from 10s. per day to £200 per annum.
- ‡ Removed from Cadet Staff at £52 per annum, and appointed as Draftsman at £150 per annum, from 1st April, 1884.
- ‡ Senior Staff Cadet at £100 per annum, removed to Temporary Staff at a salary of £150 per annum.
- ¶ Salaries increased from £52 to £100 per annum.
- ‡ Do. do. 10s. to 15s. per day, from 1st January, 1884.
- ¶ Do. do. 10s. per day to £185 per annum.
- ‡ The salary of this officer now appears under the Head Establishment as Cashier and Assistant Accountant, at £420 per annum.
- ‡ Salary increased—2 from £250 to £275 per annum each.
- 2 " 225 " 250 " " "
- 4 " 200 " 225 " " "
- 1 " 150 " 175 " " "
- 1 " 100 " 125 " " "
- 1 " 50 " 75 " " "
- ‡ Salary increased from £250 to £275 per annum each.
- 10 At present supervising works at Prospect in connection with Sydney Water Supply.
- 11 " " " new Dock Works, Bilcoala.
- 11 " " " Canal Works, Sydney Water Supply.
- 12 " " " " " "
- 12 " " " " " "
- 12 " " " Section 8 " "
- 14 " " " employed on Sections 9 and 10, " "
- 15 " " " Tunnel Works, " "
- 16 " " " in charge of Clarence, Richmond, and Bellinger Rivers, Clearing Works.
- 17 " " " Snagging Operations, Murrumbidgee River.
- 18 Allowed 12s. per day when away from Sydney on Surveys.
- 19 Allowed 15s. " " " Head Office.
- 20 Allowed Quarters and Fuel.

ESTIMATES OF EXPENDITURE—1885.

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| No. of Persons. | | No. IX.—SECRETARY FOR PUBLIC WORKS. | | | | SALARIES AND CONTINGENCIES. | | | | |
|---|------|---|-----|-----|-----|-----------------------------|--------|---------------------------|--------|--------|
| 1884 | 1885 | | | | | Amount Voted for 1884. | | Amount Required for 1885. | | |
| | | | | | | £ | | £ | | |
| Colonial Architect. | | | | | | | | | | |
| COLONIAL ARCHITECT'S DEPARTMENT. | | | | | | | | | | |
| 1 | 1 | Colonial Architect ... | ... | ... | ... | 1,100 | | 1,100 | | |
| 1 | 1 | First Clerk of Works ... | ... | ... | ... | 650 | | 650 | | |
| 1 | 1 | Clerk of Works ... | ... | ... | ... | 550 | | 550 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 475 | | 475 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 450 | | 450 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 425 | | 425 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 375 | | 375 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 375 | | 375 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 350 | | 350 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 325 | | 325 | | |
| 1 | 1 | First Foreman of Works... | ... | ... | ... | 325 | | 325 | | |
| 1 | 1 | Foreman of Works ... | ... | ... | ... | 300 | | 300 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 275 | | 275 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 250 | | 250 | | |
| 1 | 1 | Chief Draftsman and Instructor of Cadets ... | ... | ... | ... | 450 | | 450 | | |
| 1 | 1 | Draftsman ... | ... | ... | ... | 375 | | 375 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 325 | | 325 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 250 | | 250 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 225 | | 225 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 175 | | 175 | | |
| 1 | 1 | Cadet ... | ... | ... | ... | 100 | | 100 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 75 | | 75 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 62 | | 62 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 52 | | 52 | | |
| 1 | 1 | Chief Clerk... | ... | ... | ... | 500 | | 500 | | |
| 1 | 1 | Clerk ... | ... | ... | ... | 375 | | 375 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 325 | | 325 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 300 | | 300 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 275 | | 275 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 225 | | 225 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 225 | | 225 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 150 | | 150 | | |
| 1 | 1 | Do. ... | ... | ... | ... | 125 | | 125 | | |
| 1 | 1 | Messenger ... | ... | ... | ... | 150 | | 150 | | |
| 1 | 1 | Boatman ... | ... | ... | ... | 108 | | 108 | | |
| 1 | 1 | Housekeeper ... | ... | ... | ... | 60 | | 60 | | |
| | | | | | | | 11,532 | | 11,532 | |
| | | <i>(Irrespective of date of claims.)</i> | | | | | | | | |
| | | Forage allowance for the horses of the Colonial Architect and the First Clerk of Works ... | ... | ... | ... | 200 | | 200 | | |
| | | Travelling Expenses of the Colonial Architect and Officers of the Department, when proceeding to inspect Public Works and Buildings ... | ... | ... | ... | 2,500 | | 2,500 | | |
| | | Cost of Working Lift, Colonial Secretary's and Public Works Offices ... | ... | ... | ... | 360* | | 385 | | |
| | | Professional and other Extra Assistance... | ... | ... | ... | 2,000 | | 3,000 | | |
| | | Incidental Expenses ... | ... | ... | ... | 50 | | 50 | | |
| | | | | | | | 5,110 | | 6,135 | |
| 38 | 38 | TOTAL ... | | | | £ | | 16,642 | | 17,667 |

* Voted under Public Works in 1884.

No. IX.—SECRETARY FOR PUBLIC WORKS.

| | Amount Voted for 1884. | Amount Required for 1885. |
|---|------------------------------|---------------------------------|
| Colonial Architect—continued. | | |
| PUBLIC WORKS AND BUILDINGS. | | |
| | £ | £ |
| Repairs, Alterations, and Additions to Public Buildings generally (irrespective of date of claims) | 20,000 | 20,000 |
| Furniture and Fittings for Public Offices generally (do.) | 10,000 | 15,000 |
| Repairs to Military and Volunteer Buildings (do.) | 1,500 | 1,500 |
| Gaols, Court-houses, and Lock-ups (do.) | 20,000 | 20,000 |
| Police Buildings (do.) | 6,000 | 6,000 |
| Repairs, Furniture, &c., for Post and Telegraph Offices (do.) | 12,000 | 12,000 |
| Hard Labour—To provide Building and other Materials for completion or repair of Gaols and other Public Buildings, by the labour of Prisoners in Gaol (do.) | 6,500 | 6,500 |
| Victoria Barracks, &c.—Lighting Lamps, sweeping Chimneys, emptying Privies, &c. (do.) | 400 | 400 |
| Lighting Government Lamps in streets of Sydney, the Domain, Hyde Park, &c. (do.) | 1,600 | 1,600 |
| Supply of Coffins for Paupers (do.) | 400 | 400 |
| Newcastle Custom-house, gas, &c., for lighting turret clock at (do.)... .. | 150 | 150 |
| University—Lighting lamps (do.) | 150 | 150 |
| Fortifications—Repairs, &c., Barracks at the Heads, &c. ... .. | ..... | 500 |
| Painting Ordnance Carriages, &c., New South Wales Artillery ... .. | ..... | 50 |
| Parliamentary Buildings, attending to the lighting and extinguishing gas | 70 | 70 |
| Macquarie Light-house—gas, &c., for lighting lantern, working gas-engine, &c. (irrespective of date of claims)... .. | 425 | 425 |
| Institutions for the Insane generally for alterations, additions, repairs, furniture, &c. (do.) | 6,000 | 6,000 |
| Parramatta Roman Catholic Orphan School, repairs, &c. | 500 | 500 |
| Parramatta Protestant Orphan School, repairs, &c. | 500 | 500 |
| Post and Telegraph Offices, and purchase of sites | 5,000 | 5,000 |
| Police Stations and Officers' Quarters, &c.—Erection, &c. | 6,000 | 6,000 |
| Hay Court-house—Towards erection of... .. | ..... | 5,000 |
| West Maitland Court-house—Towards erection of and site ... .. | ..... | 7,000 |
| Parramatta Court-house—Towards erection of, including purchase of site ... .. | ..... | 5,000 |
| Nyngan Court-house—Erection of ... .. | ..... | 2,500 |
| University—Curbing, Guttering, &c., the Main Avenue ... .. | ..... | 1,260 |
| Albury Telegraph Office—Erection of, further sum ... .. | ..... | 2,500 |
| Public Instruction Office—Additions, Alterations, &c. ... .. | ..... | 930 |
| Forbes Police Officers' Quarters—Erection of ... .. | ..... | 1,600 |
| Lands and Survey Offices, Dubbo, Cooma, Qucanbeyan, Tamworth, Inverell, Narrabri, and Armidale ... .. | ..... | 18,000 |
| Newcastle Court-house—Towards erection of and site ... .. | ..... | 7,000 |
| Wagga Wagga Lands and Survey Office—Erection of ... .. | ..... | 2,000 |
| Parramatta Public Park Dwarf Wall and Iron Railing ... .. | ..... | 1,000 |
| Lochinvar Lockup and Keeper's Quarters—Erection of ... .. | ..... | 1,200 |
| Gadooga Post and Telegraph Office—Erection of ... .. | ..... | 1,200 |
| Wee Waa Post and Telegraph Office—Erection of ... .. | ..... | 1,200 |
| Tinonee Post and Telegraph Office—Erection of ... .. | ..... | 1,000 |
| Campbelltown Court-house—Erection of ... .. | ..... | 5,000 |
| Berrima Post and Telegraph Office—Erection of ... .. | ..... | 800 |
| Waverley Post and Telegraph Office—Erection of ... .. | ..... | 1,800 |
| Wagga Wagga Post Office—Erection of ... .. | ..... | 3,000 |
| Mudgee Post and Telegraph Office—Additions... .. | ..... | 2,500 |
| Bowral Post and Telegraph Office—Erection of ... .. | ..... | 1,500 |
| Warden's Court and Quarters, Silverton ... .. | ..... | 2,000 |
| Towards enlargement of the Treasury Buildings ... .. | ..... | 15,000 |
| Carried forward | £ 97,195 | 192,735 |

No. IX.—SECRETARY FOR PUBLIC WORKS.

| | Amount Voted for 1884. | Amount Required for 1885. |
|---|------------------------|---------------------------|
| Colonial Architect—continued. | | |
| PUBLIC WORKS AND BUILDINGS—continued. | | |
| | £ | £ |
| Brought forward | 97,195 | 192,735 |
| Towards purchasing Site, new Court-house and Public Buildings, Glen Innes | | 1,500 |
| Gresford Court-house—Erection of | | 1,400 |
| Little Bay Sanatorium—Improvements, &c. | | 5,000 |
| Mount Victoria Police Buildings—Erection of | | 1,300 |
| Wagga Wagga Gaol—Towards Erection of | | 7,000 |
| Macleay River Police Quarters—Erection of | | 1,000 |
| Deniliquin Police Barracks—Erection of, further sum... .. | | 500 |
| Towards Medical School, University of Sydney | | 15,000 |
| Australian Museum—Additions to | | 3,000 |
| Other Works, &c., 1884 | 110,883 | ..... |
| TOTAL | £ 208,078 | 228,435 |
| Revotes. | | |
| Albury Telegraph Office—Erection of | | 3,500 |
| Darlinghurst Court-house—Additions, &c. | | 1,600 |
| Reformatory for Boys—Towards Forming and Erection of | | 10,000 |
| Louth Post and Telegraph Office—Erection of, further sum (Vote of 1879)... .. | | 720 |
| Hospital for Insane, Parramatta—Additional Buildings (Vote of 1881) | | 1,428 |
| Gaol, Walgett—Erection of (Vote of 1881) | | 999 |
| Revotes in 1884 | 54,125 | ..... |
| TOTAL | £ 54,125 | 18,247 |

No. IX.—SECRETARY FOR PUBLIC WORKS.

Colonial Architect.

SALARIES of Officers not on the Permanent Staff, which were formerly paid from Votes for the works connected with which the Officers in question were from time to time engaged, as per Schedule below, but subject to such alterations within the limits of the Votes as the contingencies of the Service from time to time demanded.

| Office. | Salary paid, 1884. | Proposed for 1885. | Office. | Salary paid, 1884. | Proposed for 1885. |
|------------------|--------------------|--------------------|------------------------|--------------------|--------------------|
| | £ | £ | | £ | £ |
| Draftsman | 300 | 300 | Foreman of Works... .. | 300 | 300 |
| " | 250 | 250 | " | 300 | 300 |
| " | 250 | 250 | " | 300 | 300 |
| " | 300 | 300 | " | 300 | 300 |
| " | 250 | 250 | " | 300 | 300 |
| " | 250 | 250 | " | 300 | 300 |
| " | 200 | 200 | " | 250 | 250 |
| " | 200 | 200 | " | 250 | 250 |
| " | 200 | 200 | " | 250 | 250 |
| " | 150 | 150 | " | 250 | 250 |
| " | 10/6 per day. | 10/6 per day. | " | 250 | 250 |
| " | 100 | 100 | " | 200 | 200 |
| " | 200 | 200 | " | 200 | 200 |
| " | 200 | 200 | " | 200 | 200 |
| " | 200 | 200 | " | 200 | 200 |
| Clerk | 350 | 350 | Time-keeper | 200 | 200 |
| " | 250 | 250 | | | |
| " | 200 | 200 | | £ 4,050 | 4,050 |
| " | 125 | 125 | | | |
| " | 150 | 150 | | | |
| | 4,125 | 4,125 | | | |

No. IX.—SECRETARY FOR PUBLIC WORKS.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|--|-----|------------------------|---------------------------|
| 1884 | 1885 | Roads and Bridges. | | Amount Voted for 1884. | Amount Required for 1885. |
| | | GENERAL ESTABLISHMENT. | | £ | £ |
| 1 | 1 | Commissioner and Engineer-in-Chief | ... | 1,100 | 1,100 |
| 1 | 1 | Assistant Engineer | ... | 550 | 550 |
| 1 | 1 | Draftsman | ... | 300 | 300 |
| 1 | 1 | Chief Clerk and Cashier | ... | 450 | 450 |
| 1 | 1 | Supervisor of Accounts and Accountant | ... | 400 | 400 |
| 1 | 1 | Assistant Accountant | ... | 325 | 325 |
| ... | 1 | Clerk | ... | ..... | *350 |
| 2 | 2 | Clerks, at £300 | ... | 600 | 600 |
| 4 | 4 | Clerks—1 at £225, 2 at £185, and 1 at £150 | ... | 745 | 745 |
| 2 | 2 | Cadets—1 at £110, and 1 at £75 | ... | 185 | 185 |
| 1 | 1 | Messenger | ... | 75 | 75 |
| | | | | 4,730 | 5,080 |
| Equipment Allowance to Commissioner and Engineer-in-Chief | | | | 100 | 100 |
| Travelling Expenses, Instruments, Books, and other Incidental Expenses | | | | 1,000 | 1,000 |
| Assistance in Office and Field |  |  |  | ..... | 1,100 |
| | | | | 1,500 | 1,500 |
| 15 | 16 | TOTAL | | £ 7,380 | 7,680 |
| SUPERINTENDENTS IN FIELD. | | | | | |
| 5 | 2 | Assistant Engineers, at £650 | ... | } 2,500 | *1,300 |
| 5 | 3 | Do. Do. £500 | ... | | 1,500 |
| 5 | 5 | Superintendents, 1st class, at £400 | ... | * 2,000 | 2,000 |
| 7 | 7 | Do. do. at £375 | ... | 2,625 | 2,625 |
| 2 | 2 | Do. do. at £340 | ... | 680 | 680 |
| 6 | 6 | Do. 2nd class, at £300 | ... | 1,800 | 1,800 |
| 3 | 3 | Do. do. at £250 | ... | 750 | 750 |
| 4 | 4 | Do. 3rd class, at £200 | ... | 800 | 800 |
| 4 | 4 | Cadets, at £156 | ... | 624 | 624 |
| 4 | 4 | Cadets—2 at £100, and 2 at £52 | ... | 304 | 304 |
| | | | | 12,083 | 12,383 |
| Travelling Allowance to 3 Assistant Engineers and 14 Superintendents, 1st class, at £150 | | | | 2,850 | 2,550 |
| Do. 13 Superintendents, 2nd and 3rd class, at £125 | | | | 1,625 | 1,625 |
| Do. 4 Cadets, at £80 | | | | 320 | 320 |
| | | | | 4,795 | 4,495 |
| 40 | 40 | TOTAL | | £ 16,878 | 16,878 |
| CONSTRUCTION AND MAINTENANCE. | | | | | |
| <i>Main Northern Road (outside Municipal limits).</i> | | | | | |
| West Maitland to Armidale, 233 miles at £25 per mile | | | | †5,825 | 5,825 |
| <i>Main Southern Road (outside Municipal limits).</i> | | | | 5,825 | 5,825 |
| Sydney to Bowning, 183 miles, at £25 a mile | | | | †4,575 | 4,575 |
| Bowning to Adelong Crossing, 66 miles, at £50 per mile | | | | 3,300 | 3,300 |
| Adelong Crossing to Albury, 103 miles, at £25 per mile | | | | 2,575 | 2,575 |
| <i>Main Western Road (outside of Municipal limits).</i> | | | | 10,450 | 10,450 |
| Sydney to Dubbo, 231 miles, at £25 per mile | | | | †5,775 | 5,775 |
| Dubbo to Warren, 85 miles, at £25 per mile | | | | 2,125 | 2,125 |
| <i>Other Main Roads.</i> | | | | | |
| Grafton, <i>via</i> Glen Innes to Inverell, 142 miles, at £50 per mile | | | | *7,100 | 7,100 |
| Tolls, Grafton Punt | | | | 1,400 | 1,400 |
| Armidale to Maryland, 155½ miles at £25 a mile | | | | *3,887 | 3,887 |
| Wallerawang to Mudgee, 66 miles, at £25 a mile | | | | *1,650 | 1,650 |
| Bombala to Tantawangalo to Merimbula, 54 miles, at £75 per mile | | | | 4,050 | 4,050 |
| Orange by Boree to Forbes, 74 miles, at £50 per mile | | | | *3,700 | 3,700 |
| Goulburn to Cooma, 69 miles at £50 per mile | | | | *3,450 | 3,450 |
| Do 50 miles at £25 do | | | | *1,250 | 1,250 |
| * Carried forward | | | | £ 26,487 | 26,487 |
| Carried forward | | | | £ 24,175 | 24,175 |

* Formerly voted under "Roads under Trustees."

† Exclusive of amount voted "Within Municipal Limits," for which see page

| No. IX.—SECRETARY FOR PUBLIC WORKS. | | | | |
|---|------------------------|---------|---------------------------|---------|
| | Amount Voted for 1884. | | Amount Required for 1885. | |
| | £ | | £ | |
| Roads and Bridges—continued. | | | | |
| Brought forward | £ | 24,175 | £ | 24,175 |
| CONSTRUCTION AND MAINTENANCE—continued. | | | | |
| Brought forward | | 26,487 | | 26,487 |
| <i>Other Main Roads—continued.</i> | | | | |
| Tarago to Braidwood, 36 miles, at £50 per mile | | 1,800 | | 1,800 |
| Bathurst to Blayney, 22 miles, at £25 per mile | | 550 | | 550 |
| Blayney <i>via</i> Cowra to Grenfell, 73 miles, at £50 per mile ... | | *3,650 | | 3,650 |
| Port Jackson to Peat's Ferry (not within Municipal limits), proportion of vote | | *1,200 | | 1,200 |
| Main South Coast Road, 29 miles, at £50 a mile | | *1,450 | | 1,450 |
| Amount in lieu of Tolls for repair of the portion of undermentioned not within Municipal limits:— | | | | |
| Rocky Point Road to Road from Tom Ugly's Point to Burwood Railway Station | | *2,000 | | 2,000 |
| | | 37,137 | | 37,137 |
| <i>Roads and Bridges generally.</i> | | | | |
| Contingent works on Roads under Department, irrespective of date of claims | | 13,000 | | 15,000 |
| Expenses of working Punts and maintaining Approaches (do.) ... | | 6,000 | | 8,000 |
| Repair and painting Bridges... .. (do.) | | 12,000 | | 12,000 |
| Conveyance of officers, equipment, and materials by railway (do.) ... | | 4,000 | | 6,000 |
| Rent of offices in country districts | | 1,000 | | 1,000 |
| Minor Roads under Department, as per Schedule, irrespective of date of claims, not including any road within Municipal limits | | 310,000 | | 310,000 |
| Unclassified Roads | | 24,000 | | 25,000 |
| Minor Roads under Trustees, as per Schedule | | 26,000 | | 25,000 |
| Cost of obtaining Reports and other contingent expenses... .. | | 1,000 | | 1,500 |
| Bridge over Hoskisson's Creek, Barraba | | | | 600 |
| Bridge over Mehi, at Telegirah | | | | 2,000 |
| Bridge, Parishes of Redbank and Pappenburra | | | | 800 |
| Bridge, Tarbuc Creek, Road Bungwall to Foster | | | | 300 |
| Bridge, Dunmore to Clarence Town | | | | 800 |
| Bridge, Wallarobbee Creek | | | | 800 |
| Bridge, Johnson's Creek | | | | 400 |
| Bridge, Morpeth Lagoon | | | | 400 |
| Bridge, Black Stump Creek | | | | 300 |
| Bridge, Binaway Creek | | | | 500 |
| Bridge, Weetalibah Creek, near Binaway | | | | 400 |
| Bridge, Bomera Creek near Bomera House... .. | | | | 500 |
| Bridge, Castlereagh River, near Merrygoen | | | | 2,500 |
| Bridge, Reedy Creek, Road Cudgegong to Cassilis | | | | 750 |
| Bridge, Carwell Creek, between Cudgegong Village and Rylstone | | | | 650 |
| Bridge, Oakey Creek do. do. | | | | 500 |
| Bridge over Bogan River at Dandaloo | | | | 1,000 |
| Bridge over Barwon River, Cato Creek, at Brewarrina | | | | 5,000 |
| Bridge, Mandagery Creek, at Windred's Road, from Cudal to Coates Creek | | | | 500 |
| Bridge, Brown's Creek, on Road Bowenfels to Wallerawang | | | | 300 |
| Bridge, Blackman's Creek, on Road Hartley to Lithgow | | | | 300 |
| Bridge, South Creek, on Road from Carne's Hill to Bringelly ... | | | | 370 |
| Bridge, Head of navigation, Lane Cove River | | | | 3,000 |
| Bridge, Bunberry, Curran Creek, on Road Approach Ingham Platform | | | | 1,550 |
| Bridge over Gunrock Creek, on Road Moss Vale and Shoal-Road <i>via</i> Meryla Creek to Wallenderry Road | | | | 150 |
| Bridge over Bredbo River, on Road Goulburn to Cooma | | | | 2,500 |
| Bridge on Bibbenluke River, on Holt's Flat to Railway Bridge ... | | | | 600 |
| Bridge, Ouranie to Walleragang | | | | 1,200 |
| Bridge, Jellat Jellat Creek, on Road Merimbula to Jellat Jellat... | | | | 700 |
| Bridge over Old Man's or Burke Creek, on Road Wagga to Rock Railway Station | | | | 475 |
| Bridge, Little Tarreni Creek, Road Moama to Moulamein | | | | 1,000 |
| Bridge, Eldgudgerie Creek, on Road Jerilderie to Tocumwall ... | | | | 300 |
| Bridge, George's River, Liverpool | | | | 3,000 |
| Bridge across the Devil's Elbow, between Adelong and Gundagai. | | | | 500 |
| Carried forward... .. | £ | 397,000 | | 438,145 |
| Carried forward | £ | | | 61,312 |
| | | | | 61,312 |

* Exclusive of amounts voted within Municipal limits, for which see page

ESTIMATES OF EXPENDITURE—1885.

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| NO. IX.—SECRETARY FOR PUBLIC WORKS. | | | | |
|--|---------------------------|---------|------------------------------|---------|
| | Amount Voted for 1884. | | Amount Required for 1885. | |
| | £ | | £ | |
| Roads and Bridges—continued. | | | | |
| Brought forward | | 61,312 | ..... | 61,312 |
| CONSTRUCTION AND MAINTENANCE—continued. | | | | |
| Brought forward | 397,000 | | 438,145 | |
| <i>Roads and Bridges generally—continued.</i> | | | | |
| Bridges on Road Balranald to Punt at Swan Hill | | | 800 | |
| Bridge, Sportsman's Creek, Clarence River—further sum... .. | | | 2,000 | |
| Bridge, Cooperbrook and Approaches—further sum | | | 1,086 | |
| Bridge, Dingo Creek, Tetsells—further sum | | | 670 | |
| Polygonum Swamp, Bridge, Bourke, to complete and Approaches | | | 5,000 | |
| Bridge, Two-Mile Creek, Warrambool—further sum | | | 537 | |
| Bridge, Burrowa River at Coffey's—further sum | | | 624 | |
| Bridge, Erina Creek, East Gosford—further sum | | | 1,307 | |
| Bridge, Cataract River, further sum... .. | | | 565 | |
| Brogo Bridge—further sum | | | 704 | |
| Dolphin's Guide Piles and strengthening Swing Piers, Parramatta River Bridge | | | 7,000 | |
| Culvert and Approaches, Flyer's Creek Road, Bulladelah to Upper Myall | | | 200 | |
| Culvert over Johnson's Creek Road to new Wharf, Clarence Town | | | 350 | |
| Culverts on Road Bulli, <i>via</i> Coal Cliff, to Bluegum Forest | | | 1,500 | |
| Approaches Palmer's Channel Bridge | | | 400 | |
| Approaches to Harwood Steam Punt, Clarence River | | | 500 | |
| Punt, Oyster Channel Ferry, Clarence River | | | 500 | |
| Punt, Books' Ferry | | | 400 | |
| Punt at Bateman's Bay | | | 300 | |
| Main-street, Emmaville | | | 400 | |
| Main Road through Bega | | | 1,500 | |
| Road, Manx Hill to Bourke's Crossing | | | 250 | |
| Roads in the Colliery Townships and Lower Hunter | | | 11,000 | |
| Gresford Deviation, Upper Paterson Road | | | 400 | |
| Road, Raymond Terrace, northwards | | | 4,000 | |
| For the repair of the Great Northern Road in the District of Waratah | | | 2,000 | |
| Road, Coal Cliff | | | 1,000 | |
| Road, Lithgow to Vale of Clwydd | | | 500 | |
| Metalling Road from Lanc Cove Road to Figtree Bridge... .. | | | 1,500 | |
| Road, Field of Mars Common | | | 2,500 | |
| Road, Manly to Pittwater | | | 1,000 | |
| Pyrmont Bridge Road | | | 3,000 | |
| Road round Wentworth Park, Blackwattle Bay | | | 3,500 | |
| Ben Boyd Road, completion to Neutral Bay Wharf Road | | | 400 | |
| Road, east side of Botany Road | | | 1,500 | |
| Road, Ryde to Pitt Water | | | 2,724 | |
| Gardener's Road, Botany | | | 800 | |
| Anabell's Lane, do. | | | 600 | |
| Walsh's Road, do. | | | 500 | |
| King-street, do. | | | 400 | |
| Cutting at Kopps' Mountain, Windsor | | | 800 | |
| Completion of works at Gee's Rock... .. | | | 350 | |
| Cutting Colo Rock (Bulga Side) | | | 1,080 | |
| Improvement of Sherwin's Range, on Bibbenluka and Bobbun- darrah Road | | | 800 | |
| Tanks and Wells as per special schedule | | | 40,000 | |
| Fencing special leases at 100 tanks, at £200 each | | | 20,000 | |
| Building or providing caretakers' huts at 130 tanks, at £100 | | | 13,000 | |
| Votes of 1884 | 175,352 |  | ..... |  |
| <i>Works for Railways.</i> | | 572,352 | | 578,092 |
| Approach, Auburn Platform | | | 580 | |
| Macdonaldtown subway under Railway | | | 3,050 | |
| <i>Miscellaneous.</i> | | | | 3,630 |
| Allowance to J. Single, Road Superintendent, blind from exposure on duty | | | 500 | |
| Revenue, Hay Bridge, to be refunded to Council | | | 612 | |
| | | | | 1,112 |
| Re-votes, 1882. | | | | |
| Bridge, One-mile Creek, on road Ballina to Tintenbar | | | 200 | |
| Bridge, Nambuccra S. Arm, near Bowra | | | 850 | |
| Road, Upper Wattagan to Cooranbong | | | 948 | |
| | | | | 1,998 |
| Carried forward... .. | £ | 633,664 | ..... | 646,144 |

| No. IX.—SECRETARY FOR PUBLIC WORKS. | | | | |
|--|------------------------|---------|---------------------------|---------|
| Roads and Bridges—continued. | Amount Voted for 1884. | | Amount Required for 1885. | |
| | £ | | £ | |
| Brought forward ... .. | ..... | 633,664 | ..... | 646,144 |
| CONSTRUCTION AND MAINTENANCE—continued. | | | | |
| Brought forward ... .. | ..... |  | ..... |  |
| WITHIN MUNICIPALITIES. | | | | |
| <i>Main Northern Road.</i> | | | | |
| Within limits of Morpeth, East and West Maitland, Muswellbrook, Singleton and Armidale, 12 miles, at £25 per mile | 300 | | 300 | |
| In lieu of Tolls | 1,019 | | 1,019 | |
| <i>Main Southern Road.</i> | | | | |
| Within limits of Ashfield, Burwood, Liverpool, Goulburn, Yass, and Albury, 33 miles, at £25 per mile | 825 | | 825 | |
| In lieu of Tolls | 1,687 | | 1,687 | |
| <i>Main Western Road.</i> | | | | |
| Within limits of Camperdown, Leichhardt, Ashfield, Burwood, Granville, Parramatta, Penrith, Bathurst, Orange, Wellington, and Dubbo Municipalities, 22 miles, at £25 per mile | 550 | | 550 | |
| In lieu of Tolls | 2,306 | | 2,306 | |
| <i>Grafton, via Glen Innes to Inverell.</i> | | | | |
| Within limits of Grafton and Glen Innes, 3 miles, at £25 per mile | 75 | | 75 | |
| <i>Armidale to Maryland.</i> | | | | |
| Within limits of Armidale, Glen Innes, and Tenterfield, 4½ miles, at £25 per mile | 112 | | 112 | |
| <i>Wallerawang to Mudgee.</i> | | | | |
| Within limits of Cudgong and Mudgee Municipalities, 9 miles, at £25 per mile | 225 | | 225 | |
| <i>Orange, by Boree, to Forbes.</i> | | | | |
| Within limits of Forbes Municipality, 7 miles, at £25 per mile | 175 | | 175 | |
| <i>Goulburn to Cooma.</i> | | | | |
| Within limits of Goulburn, Queanbeyan, and Cooma, 4 miles, at £25 per mile | 100 | | 100 | |
| <i>Blayney, via Cowra, to Grenfell.</i> | | | | |
| Within limits of Blayney, Cowra, and Grenfell, 3 miles at £25 per mile | 75 | | 75 | |
| <i>Main South Coast Road.</i> | | | | |
| Within limits of Campbelltown, North Illawarra, Wollongong, Central Illawarra, Kiama, 71 miles, at £50 per mile | 3,550 | | 3,550 | |
| <i>Sydney and Cook's River Road.</i> | | | | |
| Within limits of Newtown, Marrickville, and St. Peter's | 3,000 | | 3,000 | |
| <i>Port Jackson to Peat's Ferry.</i> | | | | |
| Within limits of St. Leonards, East St. Leonards, and North Willoughby, proportion of vote... .. | ..... |  | 800 | |
| Bridge, Coonamble Creek... .. . | ..... |  | 1,700 | |
| Bridge, Burrangong Creek, Young .. .. . | ..... |  | 1,000 | |
| Filling up Coal Workings, Newcastle .. .. . | ..... |  | 400 | |
| Sharp-street, Cooma .. .. . | ..... |  | 700 | |
| Road between Abattoirs and "White Bay Hotel" .. .. . | ..... |  | 1,300 | |
| South Head Roads... .. . | ..... |  | 5,000 | |
| Re-vote of 1880, deviation Jamberoo Mountain... .. . | ..... |  | 1,000 | |
| Roads within Colliery Municipalities .. .. . | ..... |  | 3,400 | |
| Lighting Belmore Bridge... .. . | ..... |  | 60 | |
| | | 13,999 | 29,359 | |
| <i>Sewerage.</i> | | | | |
| Extension of Collecting Sewer from Liverpool-street to Comber-street .. .. . | ..... |  | 3,500 | |
| Storm-water channel, Blackwattle Bay .. .. . | ..... |  | 7,000 | |
| Extension of drain from Eveleigh Railway Yard, along Alexander-street to Creek .. .. . | ..... |  | 3,065 | |
| Votes of 1884 | 4,375 |  | ..... |  |
| | | 4,375 | 13,565 | |
| Revote. | | | | |
| SEWERAGE DEPARTMENT. | | | | |
| <i>Vote in 1883.</i> | | | | |
| Cost of Survey Reports, &c., for drainage of Country and Suburban Towns .. .. . | ..... |  | 2,385 | |
| Votes in 1884 .. .. . | ..... | 4,752 | 2,385 | |
| TOTAL | | £ | 656,790 | 691,453 |
| Miscellaneous. | | | | |
| Retiring Allowances, &c. .. .. . | ..... |  | 627 | ..... |

No. IX.—SECRETARY FOR PUBLIC WORKS.

Roads and Bridges.

SALARIES of Officers not on the Permanent Staff which are paid from Votes for the works in connection with which the Officers in question are from time to time engaged, as per Schedule below.

| No. of Persons. | | Position. | Rate of pay for 1884. | | Total. | Rate of pay for 1885. | | Total. |
|-----------------|-------|---------------------------------------|--------------------------|-----------------------|--------|--------------------------|-----------------------|--------|
| 1884. | 1885. | | Salary. | Travelling Allowance. | | Salary. | Travelling Allowance. | |
| 1 | 1 | Assistant Engineer ... | £ 550 | £ | £ 550 | £ 550 | ..... | £ 550 |
| ... | 2 | Road Superintendents ... | ..... | ..... | ..... | 400 ea. | 150 ea. | 1,100 |
| 2 | 2 | Do. ... | 340 ea. | 150 ea. | 980 | 340 ea. | 150 ea. | 980 |
| 1 | 1 | Do. ... | 300 | 225 | 525 | 300 | 225 | 525 |
| 1 | 1 | Do. ... | 300 | 125 | 425 | 300 | 125 | 425 |
| 2 | 2 | Do. ... | 250 ea. | 125 ea. | 750 | 250 ea. | 125 ea. | 750 |
| 1 | 1 | Do. ... | 200 | 200 | 400 | 200 | 200 | 400 |
| 18 | 18 | Do. ... | 200 ea. | 125 ea. | 5,825 | 200 ea. | 125 ea. | 5,825 |
| 11 | 11 | Field Cadets ... | 156 ea. | 80 ea. | 2,596 | 156ea. | 80 ea. | 2,596 |
| 1 | 1 | Do. ... | 12s. 4 ^d diem | ..... | 188 | 12s. 4 ^d diem | 80 ea. | 188 |
| 4 | 4 | Do. ... | ..... | 86 ea. | 344 | ..... | 86 ea. | 344 |
| 1 | 1 | Draftsman ... | 250 | ..... | 250 | 250 | ..... | 250 |
| 2 | 2 | Do. ... | 200 ea. | ..... | 400 | 200 ea. | ..... | 400 |
| 1 | 1 | Do. ... | 156 | ..... | 156 | 156 | ..... | 156 |
| 1 | 1 | Do. ... | 150 | ..... | 150 | 150 | ..... | 150 |
| .. | 1 | Clerk ... | ..... | ..... | ..... | 250 | ..... | 250 |
| 1 | 1 | Do. ... | 210 | ..... | 210 | 210 | ..... | 210 |
| 1 | 1 | Do. ... | 185 | ..... | 185 | 185 | ..... | 185 |
| 1 | 3 | Do. ... | 175 | ..... | 175 | 525 | ..... | 525 |
| 4 | 1 | Do. ... | 150 | ..... | 600 | 150 | ..... | 150 |
| 1 | 1 | Do. ... | 100 | ..... | 100 | 100 | ..... | 100 |
| 1 | 1 | Medical Officer, Roads Department ... | 100 | ..... | 100 | 100 | ..... | 100 |
| 1 | 1 | Cadet ... | 75 | ..... | 75 | 75 | ..... | 75 |
| 1 | 1 | Do. ... | 52 | ..... | 52 | 52 | ..... | 52 |
| 1 | 1 | Messenger ... | 75 | ..... | 75 | 75 | ..... | 75 |
| 1 | 1 | Do. ... | 25 | ..... | 25 | 25 | ..... | 25 |
| 60 | 62 | | | | 15,136 | | | 16,386 |

| No. IX.—SECRETARY FOR PUBLIC WORKS. | | | | | | | | | |
|-------------------------------------|-------|------------------------------------|------------------------|------------|--------|------------------------|------------|--------|--|
| Sewerage Department. | | | | | | | | | |
| No. of Persons. | | Position. | Salary, 1884. | | Total. | Salary, 1885. | | Total. | |
| 1884. | 1885. | | Salary. | Allowance. | | Salary. | Allowance. | | |
| PROFESSIONAL BRANCH. | | | | | | | | | |
| 1 | 1 | Chief Assistant Engineer | £ 650 | £ | £ 650 | £ 650 | £ | £ 650 | |
| 1 | 1 | Assistant Engineer in Field | 450 | 55 | 505 | 450 | 55 | 505 | |
| 1 | 1 | Assistant Engineer | 400 | 65 | 465 | 400 | 65 | 465 | |
| 1 | 1 | Surveyor and Draughtsman | 250 | 55 | 305 | 250 | 55 | 305 | |
| 1 | 1 | Do | 15s. $\frac{1}{2}$ day | 55 | 290 | 15s. $\frac{1}{2}$ day | 55 | 290 | |
| 1 | 1 | Do | do | ..... | 235 | do | ..... | 235 | |
| 1 | 1 | Draughtsman | 10s. $\frac{1}{2}$ day | ..... | 157 | 10s. $\frac{1}{2}$ day | ..... | 157 | |
| 1 | 1 | Do | do | ..... | 157 | do | ..... | 157 | |
| 1 | 1 | Cadet | £75 | ..... | 75 | 75 | ..... | 75 | |
| 1 | 1 | Do | 7s. $\frac{1}{2}$ day | ..... | 110 | 7s. $\frac{1}{2}$ day | ..... | 110 | |
| CLERICAL BRANCH. | | | | | | | | | |
| 1 | 1 | Clerk and Accountant | 225 | ..... | 225 | 225 | ..... | 225 | |
| 1 | 1 | Clerk | 100 | ..... | 100 | 100 | ..... | 100 | |
| SUBURBAN SEWERAGE. | | | | | | | | | |
| 1 | 1 | Assistant Engineer | 400 | 55 | 455 | 400 | 55 | 455 | |
| 1 | 1 | Surveyor | 10s. $\frac{1}{2}$ day | ..... | 157 | 10s. $\frac{1}{2}$ day | ..... | 157 | |
| 14 | 14 | | | £ | 3,886 | ..... |  | 3,886 | |

IX.

Railways.

SUMMARY.

| Page. | HEAD OF SERVICE. | Revenue Appropriations | | Loans. | |
|---------|--|------------------------|-----------------------|--|---|
| | | Voted for 1884. | Required for 1885. | Salaries voted for 1884, to be paid from Loan Votes. | Salaries required for 1885, to be paid from Loan Votes. |
| | Railways :— | £ | £ | £ | £ |
| 118 | General Establishment | 8,415 | 8,690 | ..... | ..... |
| 119 | Engineering Establishment—Works in Progress | 11,013 | 21,422 | ..... | ..... |
| 120-121 | Engineering Establishment—Works in Pro- gress—Construction Staff ... .. | ..... | ..... | 32,087 | 27,842 |
| 122 | Engineering Establishment—Works in Pro- gress—Railway Survey ... .. | ..... | ..... | 22,287 | 21,437 |
| 123-124 | Existing Lines—Working Expenses | 1,508,372 | 1,808,940 | ..... | ..... |
| 125 | Miscellaneous | 4,151 | 3,200 | ..... | ..... |
| | TOTAL | £ 1,531,951 | 1,842,252 | 54,374 | 49,279 |

*The Treasury, New South Wales,
Sydney, 19th November, 1884.*

GEORGE R. DIBBS,
Treasurer.

| No. of Persons. | | No. IX.—RAILWAYS. | | | | | | SALARIES AND CONTINGENCIES. | | | |
|-----------------|------|---|-----|-----|-----|-----|---------|-----------------------------|-------|---------------------------|--|
| 1884 | 1885 | Railways. | | | | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | | | | | | £ | | £ | |
| | | GENERAL ESTABLISHMENT. | | | | | | | | | |
| 1 | 1 | Commissioner | ... | ... | ... | ... | 1,250 | | 1,250 | | |
| 1 | 1 | Secretary | ... | ... | ... | ... | 700 | | 700 | | |
| 1 | 1 | Chief Clerk | ... | ... | ... | ... | 400 | | 400 | | |
| 1 | 1 | Clerk in charge of Records | ... | ... | ... | ... | 300 | | 300 | | |
| 1 | 1 | Clerk and Shorthand Writer | ... | ... | ... | ... | 325 | | 325 | | |
| 1 | 1 | Clerk | ... | ... | ... | ... | 225 | | 225 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | 175 | | 175 | | |
| 1 | 1 | Junior Clerk | ... | ... | ... | ... | 125 | | 125 | | |
| 1 | 1 | Messenger and Housekeeper | ... | ... | ... | ... | 125 | | 125 | | |
| | | Travelling and Incidental Expenses | ... | ... | ... | ... | 250 | 3,625 | 250 | 3,625 | |
| | | | | | | | | 250 | | 250 | |
| | | <i>Account Branch.</i> | | | | | | | | | |
| 1 | 1 | Accountant... | ... | ... | ... | ... | 550 | | 550 | | |
| 1 | 1 | Assistant Accountant | ... | ... | ... | ... | 400 | | 400 | | |
| 1 | 1 | Paymaster | ... | ... | ... | ... | 450 | | 450 | | |
| 1 | 1 | Chief Cashier | ... | ... | ... | ... | 400 | | 400 | | |
| 1 | 1 | Cashier, North | ... | ... | ... | ... | 225 | | 225 | | |
| 1 | 1 | Principal Bookkeeper | ... | ... | ... | ... | 350 | | 350 | | |
| 1 | 1 | Assistant do. | ... | ... | ... | ... | 300 | | 300 | | |
| 1 | 1 | Clerk | ... | ... | ... | ... | 225 | | 225 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | 225 | | 225 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | 200 | 3,325 | 200 | 3,325 | |
| | | <i>Examining Branch—(Wages and Accounts.)</i> | | | | | | | | | |
| 1 | 1 | Examiner | ... | ... | ... | ... | 375 | | 375 | | |
| ... | 1 | Assistant Examiner | ... | ... | ... | ... | ..... |  | *275 | | |
| 1 | 1 | Clerk | ... | ... | ... | ... | 225 | | 225 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | 200 | | 200 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | 175 | | 175 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | 130 | | 130 | | |
| 1 | 1 | Do. | ... | ... | ... | ... | 110 | | 110 | | |
| | | | | | | | | 1,215 | | 1,490 | |
| 25 | 26 | TOTAL | ... | ... | ... | ... | £ | 8,415 | ..... | 8,690 | |

* New appointment. Paid from working expenses in 1884.

ESTIMATES OF EXPENDITURE—1885.

119

| No. of Persons. | | No. IX.—RAILWAYS. | | | | | | SALARIES AND CONTINGENCIES. | | | | |
|-----------------|------|--|-----|-----|-----|-----|-------|-----------------------------|--------|---------------------------|--------|--|
| 1884 | 1885 | | | | | | | Amount Voted for 1884. | | Amount Required for 1885. | | |
| | | Engineering Establishment. | | | | | | £ | | £ | | |
| | | WORKS IN PROGRESS. | | | | | | | | | | |
| 1 | 1 | Engineer-in-Chief ... | ... | ... | ... | ... | 1,800 | | 1,800 | | | |
| | | <i>Office Staff.</i> | | | | | | | | | | |
| 1 | 1 | Assistant Engineer... | ... | ... | ... | ... | 700 | | 700 | | | |
| 1 | 1 | Chief Clerk... | ... | ... | ... | ... | 500 | | 500 | | | |
| 1 | 1 | Chief Draftsman ... | ... | ... | ... | ... | 475 | | 475 | | | |
| 1 | 1 | Draftsman ... | ... | ... | ... | ... | 425 | | 425 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 400 | | 400 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 340 | | 340 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 340 | | 340 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 275 | | 275 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 225 | | 225 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 300 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 300 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 300 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 250 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 200 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 200 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 200 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 200 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 200 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 200 | | | |
| ... | 1 | *Do. ... | ... | ... | ... | ... | ..... |  | 200 | | | |
| ... | 1 | *Custodian of Plans | ... | ... | ... | ... | ..... |  | 125 | | | |
| ... | 1 | *Record Clerk | ... | ... | ... | ... | ..... |  | 250 | | | |
| ... | 1 | *Examiner of Accounts | ... | ... | ... | ... | ..... |  | 250 | | | |
| ... | 1 | *Book-keeper | ... | ... | ... | ... | ..... |  | 250 | | | |
| ... | 1 | *Correspondence Clerk | ... | ... | ... | ... | ..... |  | 250 | | | |
| 1 | 1 | Clerk ... | ... | ... | ... | ... | 175 | | 175 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 150 | | 150 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 150 | | 150 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 120 | | 120 | | | |
| ... | 1 | *Probationer... | ... | ... | ... | ... | ..... |  | 72 | | | |
| 1 | 1 | Messenger ... | ... | ... | ... | ... | 100 | | 100 | | | |
| ... | 1 | *Inspecting Engineer of Railway Contracts | ... | ... | ... | ... | ..... |  | 800 | | | |
| ... | 1 | *Assistant Engineer for Railway Surveys | ... | ... | ... | ... | ..... |  | 700 | | | |
| | | | | | | | | 6,175 | | 11,622 | | |
| | | Travelling Expenses | ... | ... | ... | ... | 600 | | 1,200 | | | |
| | | Forage and Equipment Allowance to Engineer-in-Chief | ... | ... | ... | ... | 146 | | 150 | | | |
| | | Equipment Allowance for Inspecting Engineer... | ... | ... | ... | ... | ..... |  | 150 | | | |
| | | Do. for Assistant Engineer for Surveys | ... | ... | ... | ... | ..... |  | 150 | | | |
| | | Contingent sum to provide further Assistance as required | ... | ... | ... | ... | ..... |  | 4,000 | | | |
| | | Drawing Paper and Stores for Draughting Office and incidental expenses | ... | ... | ... | ... | 500 | | 1,000 | | | |
| | | Other Services, 1884 | ... | ... | ... | ... | 942 | | | | | |
| 15 | 35 | | | | | | | | 2,188 | | 6,650 | |
| | | <i>Valuation of Land.</i> | | | | | | | 8,363 | | 18,272 | |
| 1 | 1 | Valuator ... | ... | ... | ... | ... | 700 | | 700 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 550 | | 550 | | | |
| 1 | 1 | Surveyor and Draftsman | ... | ... | ... | ... | 400 | | 400 | | | |
| 1 | 1 | Draftsman ... | ... | ... | ... | ... | 300 | | 300 | | | |
| 1 | 1 | Clerk ... | ... | ... | ... | ... | 250 | | 250 | | | |
| 1 | 1 | Do. ... | ... | ... | ... | ... | 150 | | 150 | | | |
| | | Travelling Expenses | ... | ... | ... | ... | 300 | | 300 | | | |
| | | †To provide further assistance, as required | ... | ... | ... | ... | ..... |  | 500 | | | |
| 6 | 6 | | | | | | | | 2,650 | | 3,150 | |
| 21 | 41 | TOTAL | | | | | | £ | 11,013 | | 21,422 | |

* Transferred from Temporary Staff.

† Paid in 1884 from working expenses.

No. IX.—RAILWAYS.

| No. of Persons. | | | SALARIES AND CONTINGENCIES. | |
|-----------------|------|---|-----------------------------|-----------------|
| 1884 | 1885 | | Amount Required for | |
| | | | 1884. | 1885. |
| | | | £ | £ |
| | | Existing Lines—Working Expenses. | | |
| 1 | 1 | Engineer for Existing Lines | 1,000 | 1,000 |
| 1 | 1 | Assistant Engineer | 700 | 700 |
| 1 | 1 | Locomotive Engineer | 750 | 750 |
| 4 | 4 | District Engineers—3 at £500 ; 1 at £350 | 1,850 | 1,850 |
| 1 | 1 | Traffic Manager, Southern and Western Lines | 650 | 650 |
| 1 | 1 | Assistant do. do. do. | 550 | 550 |
| 1 | 1 | Traffic Manager, Northern Line | 500 | 500 |
| 1 | 1 | Superintendent, Permanent Way Branch, North | 500 | 500 |
| 1 | 1 | General Overseer, Locomotive Branch | 500 | 500 |
| 1 | 1 | Chief Clerk do. | 450 | 450 |
| 1 | 1 | Do. Permanent Way Branch | 400 | 400 |
| 1 | 1 | Traffic Auditor | 450 | 450 |
| 1 | 1 | Assistant Auditor, Northern Line | 325 | 325 |
| 1 | 1 | Chief Clerk, Audit Branch | 350 | 350 |
| 1 | 1 | Superintendent of Stores | 450 | 450 |
| 1 | 1 | Locomotive Foreman, Northern Line | 450 | 450 |
| 1 | 1 | Draftsman, Permanent Way Branch | 400 | 400 |
| 1 | 1 | Tramway Superintendent (Traffic) | 500 | 500 |
| 1 | 1 | Tramway Superintendent (Locomotive Branch and Rolling Stock) | 500 | 500 |
| | | Salaries and Wages of General Staff, with cost of Stores and Supplies for all Branches (as detailed in Schedule on page 128) Irrespective of date of claims | 1,497,097 | 1,797,665 |
| 22 | 22 | TOTAL | £ 1,508,372 | 1,808,940 |

No. IX.—RAILWAYS.

Working Expenses Schedule.

SHOWING the proposed expenditure of the Vote for 1885, contingent upon such alterations (within the limits of the Vote) as the exigencies of the Service may from time to time demand. (Irrespective of date of claims.)

| No. of Persons. | | Details of Vote. | Amount Appropriated for 1884. | Amount Required for 1885. |
|----------------------|-------|--|-------------------------------|---------------------------|
| 1884. | 1885. | | | |
| 3 | 2 | Traffic Superintendents (Goods and Coaching) | £ 1,450 | £ 900 |
| 8 | 8 | Traffic Inspectors (5 South and West, 3 North) | 3,000 | 3,000 |
| 12 | 11 | Inspectors, Permanent Way Branch | 3,430 | 3,118 |
| 9 | 10 | Do Locomotive Branch (1 previously paid from General Vote)... | 2,613 | 2,896 |
| 1 | 1 | Foreman of Shops | 350 | 350 |
| 1 | 1 | Running Foreman | 400 | 400 |
| 1 | 1 | Paymaster—North | 300 | 300 |
| 1 | 1 | First Clerk—Traffic Branch (South and West) | 225 | 225 |
| ... | 1 | Do do (North. Previously paid from General Vote) | 300 | 300 |
| 5 | 5 | Inspectors of Station Accounts | 1,400 | 1,350 |
| 2 | 3 | Storekeepers (1 previously paid from General Vote) | 800 | 800 |
| 1 | ... | Wharfinger | 300 | ..... |
| 1 | 1 | Berthing Master | 275 | 275 |
| ... | 2 | Assistant do ... .. | ..... | 350 |
| 7 | 8 | Surveyors—Permanent Way Branch (1 previously paid from General Vote) | 2,226 | 2,226 |
| 1 | ... | Surveyor—Land Valuers Branch (now put under Works in progress) | 300 | ..... |
| 14 | 20 | Draftsmen—Permanent Way Branch (6 previously paid from General Vote)... | 4,398 | 4,398 |
| 8 | 9 | Do Locomotive Branch (1 Do do do) | 1,734 | 2,134 |
| ... | 9 | Cadets (Previously paid from General Vote) | 478 | 478 |
| ... | 1 | Carriage and Waggon Superintendent ... .. | ..... | 350 |
| 125 | ... | Station-masters—1 at £350, 4 at £300, 13 at £275, 14 at £250, 16 at £225, 20 at £200, 29 at £175, 30 at £150 | 25,800 | ..... |
| ... | 134 | Do 1 at £350, 4 at £300, 13 at £275, 14 at £250, 16 at £225, 20 at £200, 32 at £175, 31 at £150 ... .. | ..... | 26,475 |
| 117 | ... | Clerks—1 at £350, 1 at £300, 3 at £275, 2 at £250, 1 at £234, 5 at £225, 1 at £205, 11 at £200, 1 at £196, 1 at £195, 1 at £190, 2 at £183, 1 at £180, 9 at £175, 1 at £173, 5 at £165, 1 at £162, 2 at £157, 6 at £156, 7 at £150, 2 at £140, 2 at £130, 1 at £126, 6 at £125, 6 at £120, 8 at £110, 1 at £108, 1 at £106, 2 at £104, 4 at £100, 2 at £90, 4 at £78, 6 at £75, 7 at £152, 1 at £39, 1 at £26, 1 at £141 | 17,261 | ..... |
| ... | 135 | Do 1 at £350, 2 at £300, 2 at £275, 5 at £250, 1 at £234, 5 at £225, 1 at £205, 12 at £200, 1 at £196, 1 at £195, 2 at £190, 4 at £188, 12 at £175, 1 at £173, 6 at £165, 1 at £157, 9 at £156, 8 at £150, 2 at £141, 2 at £140, 4 at £135, 4 at £130, 2 at £126, 4 at £125, 4 at £120, 8 at £110, 1 at £105, 1 at £104, 1 at £96, 2 at £90, 4 at £78, 5 at £75, 2 at £65, 7 at £52, 3 at £50, 3 at £39, 2 at £26. (18 paid previously from General Vote) ... .. | ..... | 19,980 |
| 3 | 3 | Medical Officers. (Paid previously from General Vote) | 450 | 450 |
| 1 | 13 | Messengers and Housekeepers. (12 paid previously from General Vote) | 1,021 | 1,021 |
| ... | ... | Allowances for House-rent | 990 | 785 |
| ... | ... | Salaries of Working Staff, Wages of Employés generally, Running Expenses, Repairs and Renewals, Maintenance, Materials, and Supplies for all Branches | 1,250,988 | 1,510,337 |
| ... | ... | To provide for increase to employés under classification ... .. | ..... | 10,000 |
| GOVERNMENT TRAMWAYS. | | | 1,321,474 | 1,592,898 |
| 1 | 1 | Locomotive Foreman | 364 | 364 |
| 17 | ... | Clerks—2 at £250, 1 at £172, 3 at £156, 1 at £150, 1 at £141, 1 at £125, 3 at £117; 1 at £104, 1 at £100, 1 at £95, 1 at £78, 1 at £75 | 2,359 | ..... |
| ... | 17 | Do 1 at £275, 1 at £250, 1 at £182, 1 at £175, 1 at £164, 1 at £156, 2 at £150, 2 at £136, 1 at £117, 1 at £104, 1 at £100, 1 at £95, 1 at £91, 1 at £75, 1 at £50 ... .. | ..... | 2,406 |
| 3 | 3 | Draftsmen (previously paid from General Vote) | 628 | 628 |
| 1 | 1 | Messenger and Housekeeper | 100 | 100 |
| ... | ... | Rent of Offices | 700 | 700 |
| ... | ... | Wages and Contingencies, Running Expenses, Repairs and Renewals, Maintenance, Stores, and Supplies for all Branches | 171,472 | 200,569 |
| 343 | 401 | | 1,497,097 | 1,797,665 |

* NOTE.—The Salaries paid to Station-masters and Officers of the Working Staff, are under classification as follows:—

Station-masters.

The stations are divided into seven classes, with salaries attached, as follows:—Head station-masters, £400; 1st class, £300; 2nd class, £275; 3rd class, £250; 4th class, £225; 5th class, £200; 6th class, £175; 7th class, £150 per annum, with residence or allowance in lieu of ditto in all cases. Increase is only obtainable by promotion.

Relieving Station-masters.

| | | |
|---------------|-----------------|-----------------|
| | 2nd Class. | 1st Class. |
| Minimum..... | £150 per annum. | £215 per annum. |
| Maximum | 200 " | 275 " |

The maximum is obtained in the second class by yearly increases of £25, and in the first class by increases of £15.

Goods and Station Clerks.

| | | | |
|---------------|----------------|-----------------|-----------------|
| | 3rd Class. | 2nd Class. | 1st Class. |
| Minimum..... | £50 per annum. | £120 per annum. | £175 per annum. |
| Maximum | 110 " | 165 " | 250 " |

The maximum in each Class is obtained by yearly increases of £15 a year.

Telegraph Operators.

| | | | |
|---------------|----------------|-----------------|-----------------|
| | 3rd Class. | 2nd Class. | 1st Class. |
| Minimum..... | £60 per annum. | £120 per annum. | £156 per annum. |
| Maximum | 108 " | 144 " | 180 " |

The maximum in each Class is obtained by yearly increases of £12 a year.

Increases of salary and promotion are dependent upon efficiency and good conduct.

| No. IX.—RAILWAYS. | | | | |
|---|-----------------------------|-------|------------------------------|-------|
| | SALARIES AND CONTINGENCIES. | | | |
| | Amount Voted for 1884. | | Amount Required for 1885. | |
| Miscellaneous. | £ | | £ | |
| Advances to Contractors. Vote to be recouped as Advances are recovered | 3,000 | | 3,000 | |
| Gratuity to Mrs. Atkinson, widow of Charles Atkinson, porter, Macdonaldtown, who was killed while in performance of his duty ... .. | ..... |  | 100 | |
| Gratuity to family of William Toose, who was killed at Werris Creek, while in performance of his duty ... .. | ..... |  | 100 | |
| Other Votes of 1884 | 1,151 |  | ..... |  |
| TOTAL | £ | 4,151 | ..... | 3,200 |

X.

The Postmaster-General.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|---------|--|--------------------|-----------------------|
| | | £ | £ |
| 128-129 | Post Office | 356,587 | 371,883 |
| 130 | Money Order and Government Savings Bank Department ... | 15,720 | 17,420 |
| 131-132 | Electric Telegraphs | 165,587 | 171,471 |
| 133 | Telephones | 6,260 | 7,243 |
| 133 | Electric Lights | 3,309 | 6,481 |
| 133 | British and Australian Cable Subsidy | 12,618 | 12,618 |
| 133 | New Zealand Cable Subsidy | 2,500 | 2,500 |
| | TOTAL | £ 562,581 | 589,616 |

*The Treasury, New South Wales,
Sydney, 19th November, 1884.*

GEORGE R. DIBBS,
Treasurer.

| No. of Persons. | | No. X.—THE POSTMASTER-GENERAL. | | | |
|-----------------|------|---|---------|---------------------------|--|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Post Office. | | | | | |
| 1 | 1 | Postmaster-General | 1,500 | 1,500 | |
| 1 | 1 | Secretary | 900 | 900 | |
| 1 | 1 | Chief Clerk | 550 | 550 | |
| 1 | 1 | Superintendent, Mails | 550 | 550 | |
| 1 | 1 | Accountant... | 500 | 500 | |
| 1 | 1 | Cashier | 400 | 400 | |
| 1 | 1 | Assistant Superintendent of Mail Branch | 450 | 450 | |
| 3 | 3 | Senior Clerks, at £350 | 1,050 | 1,050 | |
| 10 | 10 | Clerks, at £300 | 3,000 | 3,000 | |
| 26 | 26 | Do. 11 at £250, 5 at £225, and 10 at £200 | 5,875 | 5,875 | |
| 13 | 13 | Clerks, at £175 | 2,275 | 2,275 | |
| 44 | 46 | Do. 8 at £150, 14 at £132, and 24 at £100 | 5,248 | 5,448 | |
| 9 | 15 | Letter Sorters, 1 at £132, 1 at £120, and 13 at £100 | 952 | 1,552 | |
| 1 | 1 | Shipping Clerk | 200 | 200 | |
| 1 | 1 | Shipping Clerk's Assistant | 150 | 150 | |
| 8 | 8 | Mail Guards, at £175 | 1,400 | 1,400 | |
| 7 | 9 | Do. at £150 | 1,050 | 1,350 | |
| 4 | 4 | Assistant Mail Guards, at £132 | 528 | 528 | |
| 6 | 6 | Railway Sorters, at £175 | 1,050 | 1,050 | |
| 8 | 8 | Do. at £150 | 1,200 | 1,200 | |
| 2 | 2 | Do. at £132 | 264 | 264 | |
| 3 | 3 | Stamper and Sorters, at £200 | 600 | 600 | |
| 8 | 8 | Do. at £175 | 1,400 | 1,400 | |
| 11 | 11 | Do. at £150 | 1,650 | 1,650 | |
| 10 | 10 | Do. at £132 | 1,320 | 1,320 | |
| 2 | 5 | Do. at £120 | 240 | 600 | |
| 1 | 1 | Overseer of Letter-carriers | 168 | 168 | |
| 12 | 12 | Letter-carriers (1st Class), at £156 | 1,872 | 1,872 | |
| 12 | 12 | Do. do. (2nd Class), at £144 | 1,728 | 1,728 | |
| 35 | 35 | Do. do. (3rd Class), at £132 | 4,620 | 4,620 | |
| 45 | 45 | Do. do. (4th Class), at £120 | 5,400 | 5,400 | |
| 45 | 53 | Do. do. (5th Class), at £108 | 4,860 | 5,724 | |
| ... | 20 | Country and Suburban Carriers, at £104 | ... | 2,080 | |
| 1 | 1 | Mail Cart Driver, at £120 | 120 | 120 | |
| 4 | 4 | Do. at £108 | 432 | 432 | |
| 1 | 1 | Messenger | 150 | 150 | |
| 6 | 6 | Messengers—1 at £132, 2 at £120, and 3 at £108 | 696 | 696 | |
| 2 | 1 | Messenger, at £75 | 150 | 75 | |
| 1 | 1 | Groom | 104 | 104 | |
| ... | 1 | Do. Assistant | ... | 78 | |
| 10 | 10 | Mail Boys, at £78 | 780 | 780 | |
| 19 | 22 | Do. at £50 | 950 | 1,100 | |
| 1 | 1 | Storekeeper's Assistant | 150 | 150 | |
| 1 | 1 | Storeman | 120 | 120 | |
| ... | 1 | Caretaker | ... | 108 | |
| ... | 1 | Do. Assistant | ... | 104 | |
| 1 | 1 | Office-keeper | 61 | 61 | |
| 1 | ... | Mechanic | 175 | ... | |
| ... | 1 | Engine-driver | ... | 156 | |
| 2 | 2 | Gate-keepers, at 5s. per diem (Sundays excepted) | 156 | 156 | |
| 1 | 1 | 1st Class Detective, at 12s. 6d. per diem | 229 | 229 | |
| 3 | 3 | Constables, at 7s. per diem | 383 | 383 | |
| 1 | 1 | Postal Inspector for Missing Letter and Irregularity Branch | 500 | 500 | |
| 4 | 4 | Postal Inspectors, at £450 | 1,800 | 1,800 | |
| | | | 59,906 | 64,656 | |
| | | COUNTRY AND BRANCH POSTMASTERS | 46,000 | 47,500 | |
| 392 | 438 | Carried forward | 105,906 | 112,156 | |

| No. X.—THE POSTMASTER-GENERAL. | | | | | | |
|--------------------------------|------|---|------------------------|---------|---------------------------|---------|
| No. of Persons. | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| 1884 | 1885 | | £ | | £ | |
| | | Post Office—continued. | | | | |
| 392 | 438 | Brought forward ... .. | ..... | 105,906 | ..... | 112,156 |
| | | MISCELLANEOUS. | | | | |
| | | <i>(Irrespective of date of claims.)</i> | | | | |
| | | Gratuities to the widows of late Letter-carrier Atkinson, of Singleton (£50), and late Sorter Caldwell, of Sydney (£100) | | 150 | ..... |  |
| | | Retiring Allowances | * | 1,106 | | †860 |
| | | Fuel and Light for Country Offices | | 1,200 | | 1,300 |
| | | Rent of Country and Branch Offices | | 4,500 | | 5,200 |
| | | Furniture and Fittings, City, Suburban and Country Offices, and repairs | | 3,500 | | 3,500 |
| | | Forage Allowances to Country Letter-carriers and to Postal Inspectors when in town | | 4,500 | | 5,000 |
| | | Forage and Farriery, Sydney Horses | | 1,700 | | 1,700 |
| | | New Mail Carts | | 50 | | 60 |
| | | Additional Horses | | 150 | | 150 |
| | | Overtime, Sorting English Mails | | 2,000 | | 2,200 |
| | | Uniforms for Letter-carriers and Mail Guards | | 2,000 | | 2,400 |
| | | Postal Inspectors' Travelling Expenses | | 1,700 | | 1,700 |
| | | New Stamps and Seals | | 400 | | 500 |
| | | Iron Letter and Newspaper Receivers | | 300 | | 300 |
| | | Extra Clerical Assistance | | 2,000 | | 2,657 |
| | | Incidental and Unforeseen Expenses | | 2,500 | | 3,000 |
| | | Travelling Allowance to Mail Guards and Sorters on Railway | | 1,000 | | 1,100 |
| | | Wages of Male and Female Servants employed in cleaning General Post Office | | 400 | | 600 |
| | | Other Services, 1884 | | 2,025 |  | ..... |
| | | | | 31,181 | | 32,227 |
| | | CONVEYANCE OF MAILS. | | | | |
| | | <i>(Irrespective of date of claims.)</i> | | | | |
| | | Inland, including Portage | | 107,000 | | 111,000 |
| | | Amount to be transferred to the Railway Department for Conveyance of Mails | | 35,000 | | 35,000 |
| | | Gratuities to Ships' Mails, Foreign and Coastwise | | 16,000 | | 17,000 |
| | | Postal Communication <i>via</i> San Francisco | | 21,500 | | 13,500 |
| | | Do do <i>via</i> Suez, per Orient Company... .. | | 22,000 | | 37,000 |
| | | To meet payments to Victoria and Queensland of the postage on letters, packets, and newspapers conveyed <i>via</i> Colombo and <i>via</i> Torres Straits, amount to be partly recouped by postage collected on outward mail matter, and by amount allowed by London on correspondence forwarded to this Colony | | 18,000 | | 14,000 |
| | | | | 219,500 | | 227,500 |
| 392 | 438 | TOTAL ... .. | £ | ..... | ..... | 371,883 |

* For Messenger Cummings, Sydney, being at the rate of one month's pay for each year's service.
 Letter-carrier Mooney, of Sydney, do do
 Do Guinnery, do do
 † For Letter-carrier Matchett, do do
 Messenger Hevey, do do
 Letter-carrier M'Grath, do do

| No. of Persons. | | No. X.—THE POSTMASTER-GENERAL. | | | |
|-----------------|------|---|--------|---------------------------|--|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | Money Order and Government Savings' Bank Department. | | | |
| | | £ | | £ | |
| 1 | 1 | Superintendent Money Order Office and Savings' Bank | 800 | 800 | |
| 1 | 1 | Chief Clerk and Examiner | 550 | 550 | |
| 1 | 1 | Teller | 500 | 500 | |
| 1 | 1 | Examiner | 450 | 450 | |
| 1 | 1 | Ledger-keeper | 300 | 300 | |
| 1 | 1 | Assistant Examiner | 275 | 275 | |
| 1 | 1 | Assistant Teller | 250 | 250 | |
| 1 | 1 | Ledger-keeper | 275 | 275 | |
| 4 | 4 | Ledger-keepers, at £225 | 900 | 900 | |
| 4 | 4 | Do. at £175 | 700 | 700 | |
| 7 | 7 | Clerks, at £150 | 1,050 | 1,050 | |
| 4 | 4 | Do. at £125 | 500 | 500 | |
| 2 | 8 | Do. at £100 | 200 | 800 | |
| 1 | 1 | Store-keeper | 125 | 125 | |
| 1 | 1 | Messenger | 125 | 125 | |
| ... | 2 | Messengers, at £50 | ..... | 100 | |
| 1 | 1 | Office-keeper | 20 | 20 | |
| | | | 7,020 | 7,720 | |
| | | CONTINGENCIES. | | | |
| | | <i>(Irrespective of date of claims.)</i> | | | |
| | | Extra Clerical Assistance | 1,000 | 1,000 | |
| | | Travelling Expenses | 100 | 100 | |
| | | To pay balance of Commission due on British and Foreign Money Order Accounts and Commission to Postmasters for transacting Money Order business | 6,000 | 7,000 | |
| | | Commission to Postmasters for transacting Savings' Bank business | 1,500 | 1,500 | |
| | | Incidental and unforeseen Expenses | 100 | 100 | |
| | | | 8,700 | 9,700 | |
| 32 | 40 | TOTAL | 15,720 | 17,420 | |

ESTIMATES OF EXPENDITURE—1885.

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| No. of Persons. | | No. X.—THE POSTMASTER-GENERAL. | | | | SALARIES AND CONTINGENCIES. | | | |
|-----------------------------|------|---|-----|-----|-----|-----------------------------|--------|---------------------------|--------|
| 1884 | 1885 | | | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | | | | £ | | £ | |
| Electric Telegraphs. | | | | | | | | | |
| 1 | 1 | Superintendent | ... | ... | ... | 900 | | 900 | |
| 1 | 1 | Assistant Superintendent | ... | ... | ... | 600 | | 600 | |
| 1 | 1 | Accountant | ... | ... | ... | 450 | | 450 | |
| 1 | 1 | Ledger-keeper | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Cashier | ... | ... | ... | 300 | | 300 | |
| 2 | 2 | Clerks, at £250 | ... | ... | ... | 500 | | 500 | |
| 1 | 1 | Clerk, at £225 | ... | ... | ... | 225 | | 225 | |
| 3 | 3 | Clerks, at £200 | ... | ... | ... | 600 | | 600 | |
| 5 | 5 | Clerks, at £150 | ... | ... | ... | 750 | | 750 | |
| 1 | 1 | Receiving Clerk | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Do. | ... | ... | ... | 250 | | 250 | |
| 1 | 1 | Chief Booking Clerk | ... | ... | ... | 350 | | 350 | |
| 2 | 2 | Booking Clerks, at £200 | ... | ... | ... | 400 | | 400 | |
| 1 | 1 | Booking Clerk | ... | ... | ... | 175 | | 175 | |
| 7 | 5 | Booking Clerks, at £150 | ... | ... | ... | 1,050 | | 750 | |
| 1 | 3 | Do. 2 at £120, and 1 at £104 | ... | ... | ... | 104 | | 344 | |
| 2 | 2 | Do. at £100 | ... | ... | ... | 200 | | 200 | |
| 3 | 4 | Do. at £75 | ... | ... | ... | 225 | | 300 | |
| 1 | 1 | Instrument Mechanician | ... | ... | ... | 450 | | 450 | |
| 4 | 4 | Do. Fitters, at £200 | ... | ... | ... | 800 | | 800 | |
| 1 | 1 | Do. Fitter, at £175 | ... | ... | ... | 175 | | 175 | |
| 2 | 2 | Do. Fitters, at £150 | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Battery Man | ... | ... | ... | 150 | | 150 | |
| 1 | 1 | Assistant Battery Man | ... | ... | ... | 104 | | 104 | |
| 1 | 1 | Office-keeper | ... | ... | ... | 200 | | 200 | |
| 1 | 1 | Stable-keeper | ... | ... | ... | 150 | | 150 | |
| 1 | ... | Assistant do. | ... | ... | ... | 75 |  | ..... |  |
| 1 | 1 | Clerk in charge of Stores | ... | ... | ... | 225 | | 225 | |
| 1 | 1 | Clerk (Store) | ... | ... | ... | 175 | | 175 | |
| 1 | 2 | Do. 1 at £150, and 1 at £104 | ... | ... | ... | 150 | | 254 | |
| 1 | 1 | Messenger Overseer | ... | ... | ... | 200 | | 200 | |
| 2 | 2 | Do. Overseers, 1 at £175 and 1 at £125 | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Inspector of Lines and Stations | ... | ... | ... | 350 | | 350 | |
| 2 | 2 | Inspectors of Lines and Stations, at £300 | ... | ... | ... | 600 | | 600 | |
| 2 | 2 | Do do. at £250 | ... | ... | ... | 500 | | 500 | |
| 59 | 60 | | | | | | 12,583 | | 12,627 |
| 1 | 1 | Station Manager | ... | ... | ... | 400 | | 400 | |
| 1 | 1 | Assistant Station Manager | ... | ... | ... | 350 | | 350 | |
| 1 | 1 | Cable Clerk | ... | ... | ... | 350 | | 350 | |
| 1 | 1 | Continental Clerk | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Telegraph Instructor | ... | ... | ... | 300 | | 300 | |
| 5 | 5 | | | | | | 1,700 | | 1,700 |
| 9 | 9 | Station-masters, at £300 | ... | ... | ... | 2,700 | | 2,700 | |
| 3 | 3 | Do. at £250 | ... | ... | ... | 750 | | 750 | |
| 22 | 19 | Do. at £200 | ... | ... | ... | 4,400 | | 3,800 | |
| 38 | 39 | Do. at £180 | ... | ... | ... | 6,840 | | 7,020 | |
| 1 | 1 | Do. at £175 | ... | ... | ... | 175 | | 175 | |
| 84 | 77 | Do. at £150 | ... | ... | ... | 12,600 | | 11,550 | |
| ... | 1 | Do. at £125 | ... | ... | ... | ..... |  | 125 | |
| 41 | 37 | Do. at £120 | ... | ... | ... | 4,920 | | 4,440 | |
| 74 | 86 | Do. at £104 | ... | ... | ... | 7,696 | | 8,944 | |
| 22 | 20 | Do. at £75 | ... | ... | ... | 1,650 | | 1,500 | |
| 11 | 15 | Do. at £52 | ... | ... | ... | 572 | | 780 | |
| 17 | 18 | Do. at £26 | ... | ... | ... | 442 | | 468 | |
| 322 | 325 | | | | | | 42,745 | | 42,252 |
| 386 | 390 | Carried forward | | | | £ | 57,028 | ..... | 56,579 |

| No. of Persons. | | | | No. X.—THE POSTMASTER-GENERAL. | | | |
|-----------------|------|---|-----|--------------------------------|---------|---------------------------|---------|
| | | | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | | £ | | £ | |
| | | Electric Telegraphs—continued. | | | | | |
| 386 | 390 | Brought forward... |  | ..... | 57,028 | ..... | 56,579 |
| 1 | 1 | Line Repairer | ... | 275 | | 275 | |
| 1 | 1 | Do. | ... | 225 | | 225 | |
| 30 | 30 | Line Repairers, at £150 | ... | 4,500 | | 4,500 | |
| 9 | 9 | Do. at £120 | ... | 1,080 | | 1,080 | |
| 1 | 1 | Check Clerk | ... | 275 | | 275 | |
| 10 | 10 | Operators, at £275 | ... | 2,750 | | 2,750 | |
| 16 | 16 | Do. at £225 | ... | 3,600 | | 3,600 | |
| 8 | 10 | Do. at £200 | ... | 1,600 | | 2,000 | |
| 28 | 29 | Do. at £175 | ... | 4,900 | | 5,075 | |
| 29 | 34 | Do. at £150 | ... | 4,350 | | 5,100 | |
| 34 | 40 | Do. at £120 | ... | 4,080 | | 4,800 | |
| 79 | 81 | Do. at £104 | ... | 8,216 | | 8,424 | |
| 35 | 42 | Do. at £75 | ... | 2,625 | | 3,150 | |
| 17 | 23 | Do. at £52 | ... | 884 | | 1,196 | |
| 4 | 12 | Do. at £26 | ... | 104 | | 312 | |
| 10 | 10 | Messengers, at £75 | ... | 750 | | 750 | |
| 132 | 137 | Do. at £52 | ... | 6,864 | | 7,124 | |
| 53 | 60 | Do. at £39 | ... | 2,067 | | 2,340 | |
| 139 | 141 | Do. at £26 | ... | 3,614 | | 3,666 | |
| | | To provide for Operators, &c., as required | ... | 5,000 | | 5,000 | |
| | | | | | 57,759 | | 61,642 |
| 636 | 687 | | | | 114,787 | | 118,221 |
| | | CONTINGENCIES. | | | | | |
| | | <i>(Irrespective of date of claims.)</i> | | | | | |
| | | Horse Equipment, Forage Allowances, &c. | ... | 6,500 | | 6,500 | |
| | | Forage for Messengers' ponies | ... | 1,500 | | 1,500 | |
| | | Travelling Expenses | ... | 4,000 | | 4,000 | |
| | | Rent of Temporary Offices | ... | 6,000 | | 6,000 | |
| | | Allowance for Officers working overtime | ... | 300 | | 500 | |
| | | Messengers' Uniforms | ... | 800 | | 800 | |
| | | Repairs to Lines generally | ... | 11,000 | | 12,000 | |
| | | To supply Instruments, and Unforeseen Expenses | ... | 8,000 | | 8,000 | |
| | | Working Expenses | ... | 11,000 | | 12,000 | |
| | | Fuel and Light | ... | 800 | | 800 | |
| | | Quarters, Manager and Assistant Manager | ... | 100 | | 100 | |
| | | Telegraph Books | ... | 50 | | 50 | |
| | | Remuneration to Railway Operators, for performing Public Telegraph Business | ... | 750 | | 1,000 | |
| | | | | | 50,800 | | 53,250 |
| 1022 | 1077 | TOTAL | ... | £ | 165,587 | | 171,471 |

ESTIMATES OF EXPENDITURE—1885.

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| | | No. X.—THE POSTMASTER-GENERAL. | | | |
|--|------|---|---------|---------------------------|--------|
| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Telephones and Electric Lights. | | | | | |
| TELEPHONE BRANCH. | | | | | |
| ... | 1 | Manager ... .. | ..... | 350 | |
| 1 | 1 | Overseer | 250 | 250 | |
| 1 | 1 | Assistant Overseer, Sydney | 150 | 150 | |
| 1 | 1 | Do. do. Newcastle | 150 | 150 | |
| ... | 2 | Do. do. at £104 ... .. | ..... | 208 | |
| ... | 1 | Line Overseer ... .. | ..... | 150 | |
| ... | 1 | Batteryman ... .. | ..... | 75 | |
| 6 | 6 | Switch Board Attendants, at £75 | 450 | 450 | |
| 5 | 5 | Do. do. do. at £52 | 260 | 260 | |
| ... | ... | Switch Board Attendants, &c., as required ... .. | ..... | 200 | |
| | | | 1,260 | | 2,243 |
| | | For the Erection of Telephone Lines, the Purchase of Instruments, and Incidental Expenses | 5,000 | 5,000 | 5,000 |
| | | | | | 5,000 |
| | | TOTAL | £ | 6,260 | 7,243 |
| ELECTRIC LIGHTS. | | | | | |
| <i>Houses of Parliament—</i> | | | | | |
| 1 | 1 | Engineer | 221 | 221 | |
| 1 | 1 | Assistant | 156 | 156 | |
| <i>Circular Quay—</i> | | | | | |
| 1 | 1 | Engineer | 208 | 208 | |
| 2 | 2 | Assistants, at £182 and £104 | 286 | 286 | |
| <i>Government Printing Office and Free Public Library—</i> | | | | | |
| 1 | 1 | Engineer | 182 | ..... |  |
| 1 | 1 | Assistant | 156 | ..... |  |
| <i>General Post Office—</i> | | | | | |
| 1 | 1 | Engineer | 156 | 156 | |
| 1 | 1 | Assistant | 104 | 104 | |
| | | | 1,469 | | 1,131 |
| <i>Contingencies—</i> | | | | | |
| | | Fuel, Gas, Water, and Carbons | 1,200 | 1,500 | |
| | | To replace Lamps, Oil, &c. | 500 | 700 | |
| | | Globes... .. | 40 | 50 | |
| | | Unforeseen expenses... .. | 100 | 100 | |
| | | Purchase of Plant and Renewals ... .. | ..... | 3,000 | |
| | | | 1,840 | | 5,350 |
| 23 | 28 | TOTAL | £ | 3,309 | 6,481 |
| BRITISH AND AUSTRALIAN CABLE SUBSIDY. | | | | | |
| | | Proportion payable by New South Wales of Guaranteed Annual Subsidy of £32,400 for twenty years, from 1st November, 1879, for the duplication of the British Australian Cable ... .. | ..... | 12,618 | 12,618 |
| NEW ZEALAND CABLE SUBSIDY. | | | | | |
| | | Guaranteed Annual Subscription for ten years, towards the Electric Cable between New Zealand and New South Wales (Resolution of Assembly) ... .. | ..... | 2,500 | 2,500 |

XI.

Secretary for Mines.

SUMMARY.

| Page. | HEAD OF SERVICE. | Voted for 1884. | Required for 1885. |
|---------|---|--------------------|-----------------------|
| | | £ | £ |
| 136-137 | Department of Mines | 54,115 | 59,730 |
| 138 | Minor Roads | 6,875 | 6,875 |
| 138 | Occupation of Lands | 16,615 | 5,045 |
| 139 | Prevention of Scab in Sheep | 15,540 | 16,240 |
| 139 | Rabbit Nuisance Act | 72,700 | 104,332 |
| 140 | Imported Stock | 1,220 | 670 |
| 140 | Registration of Brands | 2,150 | 2,150 |
| 140 | Public Tanks and Wells... .. | 11,827 | 11,827 |
| 140 | Management of Pounds and Commons | 500 | 500 |
| 140 | Miscellaneous | 51,304 | 30,000 |
| | | 232,846 | 237,369 |
| | <i>Deduct expenditure chargeable to the Prevention of Scab in Sheep and Rabbit Nuisance Act Special Accounts, Trust Fund</i> | 88,240 | 62,500 |
| | TOTAL | £ 144,606 | 174,869 |

*The Treasury, New South Wales,
Sydney, 19th November, 1884.*

GEORGE R. DIBBS,
Treasurer.

| No. of Persons. | | No. XI.—SECRETARY FOR MINES. | | | | | | SALARIES AND CONTINGENCIES. | | | |
|-----------------------------|------|---------------------------------------|-----|-----|-----|-----|-----|-----------------------------|--------|---------------------------|--------|
| 1884 | 1885 | | | | | | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | | | | | | | £ | | £ | |
| Department of Mines. | | | | | | | | | | | |
| 1 | 1 | Secretary for Mines | ... | ... | ... | ... | ... | 1,500 | | 1,500 | |
| 1 | 1 | Under Secretary | ... | ... | ... | ... | ... | 900 | 2,400 | 900 | 2,400 |
| 2 | 2 | | | | | | | | | | |
| CLERICAL STAFF. | | | | | | | | | | | |
| 1 | 1 | Chief Clerk... | ... | ... | ... | ... | ... | 600 | | 600 | |
| 1 | 1 | Registrar | ... | ... | ... | ... | ... | 400 | | 400 | |
| 1 | 1 | *Accountant... | ... | ... | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Clerk | ... | ... | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Do., at £275 | ... | ... | ... | ... | ... | 275 | | 275 | |
| 1 | 1 | Do., at £250 | ... | ... | ... | ... | ... | 250 | | 250 | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 225 | | 225 | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 200 | | 200 | |
| 2 | 2 | Clerks, at £175 | ... | ... | ... | ... | ... | 350 | | 350 | |
| 1 | 1 | Clerk | ... | ... | ... | ... | ... | 150 | | 150 | |
| 2 | 2 | Clerks, at £125 | ... | ... | ... | ... | ... | 250 | 3,300 | 250 | 3,300 |
| 1 | 1 | Messenger | ... | ... | ... | ... | ... | 130 | | 130 | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 100 | | 100 | |
| 1 | 1 | Housekeeper | ... | ... | ... | ... | ... | 90 | | 90 | |
| 3 | 3 | Office Cleaners, at £30 | ... | ... | ... | ... | ... | 90 | | 90 | |
| 1 | 1 | Night Watchman | ... | ... | ... | ... | ... | 125 | 535 | 125 | 535 |
| 20 | 20 | | | | | | | | | | |
| SURVEY STAFF. | | | | | | | | | | | |
| ... | 1 | Chief Mining Surveyor | ... | ... | ... | ... | ... | ..... |  | 600 | |
| 1 | 1 | Chief Draftsman | ... | ... | ... | ... | ... | 550 | | 550 | |
| 1 | 1 | Draftsman | ... | ... | ... | ... | ... | 375 | | 375 | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 325 | | 325 | |
| 4 | 4 | 2 at £250 and 2 at £275 | ... | ... | ... | ... | ... | 1,050 | | 1,050 | |
| 1 | 1 | Draftsman | ... | ... | ... | ... | ... | 225 | | 225 | |
| 1 | 1 | Plan Mounter | ... | ... | ... | ... | ... | 200 | | 200 | |
| 1 | 1 | Messenger | ... | ... | ... | ... | ... | 110 | 2,835 | 110 | 3,435 |
| 10 | 11 | | | | | | | | | | |
| 1 | 1 | Inspector of Mines (other than Coal) | ... | ... | ... | ... | ... | ..... | 300 | ..... | 300 |
| GOLD FIELDS. | | | | | | | | | | | |
| ... | 1 | Warden | ... | ... | ... | ... | ... | ..... |  | 200 | |
| 1 | 1 | Warden | ... | ... | ... | ... | ... | 300 | | 100 | |
| 1 | 2 | Warden | ... | ... | ... | ... | ... | 150 | | 150 | |
| 2 | 1 | Clerks, at £200 | ... | ... | ... | ... | ... | 200 | | 200 | |
| 62 | 62 | Warden's Clerks and Mining Registrars | ... | ... | ... | ... | ... | 1,170 | | 1,170 | |
| 43 | 43 | Bailiffs | ... | ... | ... | ... | ... | 700 | 2,520 | 700 | 2,520 |
| 109 | 110 | | | | | | | | | | |
| GEOLOGICAL SURVEYOR. | | | | | | | | | | | |
| 1 | 1 | Surveyor in Charge | ... | ... | ... | ... | ... | 800 | | 800 | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 500 | | 500 | |
| 1 | 1 | Do. | ... | ... | ... | ... | ... | 300 | | 300 | |
| 1 | 1 | Curator, &c: | ... | ... | ... | ... | ... | 225 | | 225 | |
| 1 | 1 | Clerk and Draftsman | ... | ... | ... | ... | ... | 225 | | 225 | |
| 1 | 1 | Assistant | ... | ... | ... | ... | ... | 150 | | 150 | |
| 1 | 1 | Messenger | ... | ... | ... | ... | ... | 100 | 2,300 | 100 | 2,300 |
| 7 | 7 | | | | | | | | | | |
| 149 | 151 | Carried forward | ... | ... | ... | ... | ... | £ | 14,190 | ..... | 14,790 |

* Receives £75 per annum under the "Rabbit Nuisance Act."

No. XI.—SECRETARY FOR MINES.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|--|--------|---------------------------|--------|
| 1884 | 1885 | Department of Mines—continued. | | | |
| | | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| 149 | 151 | Brought forward | | | |
|  |  | ..... | 14,190 | ..... | 14,790 |
| COAL FIELDS. | | | | | |
| 1 | 1 | Examiner of Coal Fields | 600 | 600 | |
| 2 | 2 | Inspectors—1 at £300, 1 at £250 | 550 | 550 | |
| | | | 1,150 | | 1,150 |
| 3 | 3 | DIAMOND DRILL BRANCH. | | | |
| 1 | 1 | Superintendent | 450 | 450 | 450 |
| FORESTS CONSERVANCY BRANCH. | | | | | |
| 1 | 1 | Inspector of Forests and Chief Forest Ranger | 350 | 350 | |
| 1 | 1 | Chief Clerk | 300 | 300 | |
| 1 | 1 | Clerk | 200 | 200 | |
| 1 | 1 | Do. | 150 | 150 | |
| 1 | 1 | Do. | 150 | 150 | |
| 1 | 1 | Messenger | 100 | 100 | |
| 1 | 1 | Forest Ranger | 250 | 250 | |
| 29 | 29 | Forest Rangers, at £200 | 5,800 | 5,800 | |
| 1 | 1 | Forest Ranger | 175 | 175 | |
| 9 | 9 | Assistant Forest Rangers | 1,350 | 1,350 | |
| 3 | 3 | Junior Forest Rangers | 300 | 300 | |
| | | | 9,125 | | 9,125 |
| 49 | 49 | TOTAL SALARIES ... .. £ | ..... | 24,915 | ..... |
| CONTINGENCIES <i>(Irrespective of date of claims and nature of service.)</i> | | | | | |
| | | Preparation of Leases | 300 | 300 | |
| | | Preparation of Diagrams | 250 | 250 | |
| | | Allowance to Mining Surveyors to supplement applicants' fees | 4,000 | 4,000 | |
| | | Allowance for Surveys, Reports, Locality Maps, &c. | 800 | 800 | |
| | | Rent of Offices | 2,300 | 2,300 | |
| | | Plan Mounting | 100 | 100 | |
| | | Travelling Expenses of Officers of the Department when specially sanctioned | 2,000 | 2,000 | |
| | | Equipment Allowance to Geological Surveyor and Chief Mining Surveyor | 690 | 690 | |
| | | Men's Wages, Provisions, &c. | 525 | 525 | |
| | | Commission on Sale of Miners' Rights, &c., and to Land Agents on Deposits of Rents | 500 | 500 | |
| | | Incidental Expenses | 1,250 | 1,250 | |
| | | Incidental Expenses in connection with Forests, including Travelling Expenses of Rangers reporting on Ring-barking, Conservancy of Forests, and Re-planting | 5,000 | 5,000 | |
| | | | 17,715 | | 17,715 |
| | | For the purchase, construction, repair, and expenses of working Diamond and other Drills for the purpose of developing the mineral and other resources of the Colony | 10,000 | 10,000 | |
| | | Preservation of Caves | 650 | 650 | |
| | | For the preservation and management of the Wellington Caves ... .. | ..... | 200 | |
| | | For the publication of an illustrated work upon the Forest Flora of New South Wales ... .. | ..... | 150 | |
| | | For the formation of plantations of cedar, wattle, &c., on Railway or other reserves, thinning and pruning in Forest reserves, collecting seeds and plants of indigenous trees, and for the establishment of two forest nurseries ... .. | ..... | 2,500 | |
| | | In aid of prospecting for gold, and reward for the discovery of new goldfields ... .. | ..... | 3,000 | |
| | | Other services | 835 | ..... |  |
| | | | 11,485 | | 16,500 |
| 202 | 204 | TOTAL ... .. £ | ..... | 54,115 | ..... |
| | | | | | 59,780 |

| No. of Persons. | | No. XI.—SECRETARY FOR MINES. | | | |
|--|------|---|----------|---------------------------|-------|
| | | SALARIES AND CONTINGENCIES. | | | |
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Minor Roads Branch. | | | | | |
| 1 | 1 | Clerk | 300 | 300 | |
| 1 | 1 | Clerk | 275 | 275 | |
| 1 | 1 | Clerk | 200 | 200 | |
| | | Extra Clerical Assistance | 350 | 350 | |
| | | | 1,125 | | 1,125 |
| <i>(Irrespective of date of claims and nature of service.)</i> | | | | | |
| | | Alignment Posts for Towns | 250 | 250 | |
| | | To meet Expense of fencing Public Roads where pro- claimed through enclosed Lands | 2,500 | 2,500 | |
| | | To meet claims for compensation for Land taken for pro- claimed Roads and extension of Streets | 3,000 | 3,000 | |
| | | | 5,750 | | 5,750 |
| 3 | 3 | TOTAL | £ 6,875 | £ 6,875 | |
| Occupation of Lands. | | | | | |
| 1 | ... | Chief Officer | 600 | | |
| 1 | 1 | Chief Draftsman | 450 | 450 | |
| 6 | 6 | Draftsmen—1 at £350, 1 at £300, 1 at £250, 1 at £225, 1 at £200, and 1 at £175 | 1,500 | 1,500 | |
| 1 | 1 | Cadet | 150 | 150 | |
| | | | 2,100 | | 2,100 |
| 1 | 1 | Chief Clerk | 350 | 350 | |
| 1 | 1 | Clerk | 300 | 300 | |
| 11 | 11 | Clerks—1 at £250, 1 at £225, 2 at £200, 1 at £175, 3 at £150, and 3 at £125 | 1,875 | 1,875 | |
| | | | 2,525 | | 2,525 |
| 2 | ... | Messengers—1 at £120, and 1 at £100 | 220 | | |
| 1 | 1 | Housekeeper, at £70 | 70 | 70 | |
| 1 | 1 | Cumberland Ranger | 200 | 200 | |
| | | | 490 | | 270 |
| <i>(Irrespective of date of claims and nature of service.)</i> | | | | | |
| | | Incidental Expenses and temporary assistance | 100 | | |
| | | Towards preparing Diagrams of Runs for appraisement, and for compensation for areas withdrawn from pastoral lease | 1,000 | | |
| | | Travelling Expenses for the Cumberland Ranger | | 150 | |
| | | Other services, 1884 | 9,800 | | |
| | | | 10,900 | | 150 |
| 26 | 23 | TOTAL | £ 16,615 | £ 5,045 | |

No. XI.—SECRETARY FOR MINES.

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|-------------------------------------|------|--|---------|---------------------------|---------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Prevention of Scab in Sheep. | | | | | |
| 1 | 1 | Chief Inspector | 600 | 600 | |
| 1 | 1 | Clerk | 250 | 250 | |
| 1 | 1 | Do. | 150 | 150 | |
| 8 | 8 | Inspectors, at £350 | 2,800 | 2,800 | |
| 6 | 6 | Do. at £300 | 1,800 | 1,800 | |
| 27 | 28 | Do. at £250 | 6,750 | 7,000 | |
| 2 | 2 | Do. at £150 | 300 | 300 | |
| 1 | 1 | Do. at £100 | 100 | 100 | |
| 1 | 1 | Do. at £50 | 50 | 50 | |
| 1 | 1 | Do. at £25 | 25 | 25 | |
| 1 | 1 | Quarantine-keeper, Canterbury | 110 | 110 | |
| 1 | 1 | Messenger | 100 | 100 | |
| | | <i>(Irrespective of date of claims and nature of service.)</i> | | | |
| | | Travelling Expenses of Inspectors (when specially sanctioned) | 200 | 200 | |
| | | Travelling Expenses of Sheep Directors | 300 | 300 | |
| | | Allowance to Inspectors for Stationery | 225 | 225 | |
| | | Forage allowance | 350 | 350 | |
| | | Medicaments for dressing Sheep | 30 | 30 | |
| | | Keeping Quarantine Yards, Sydney | 50 | 50 | |
| | | Rent of Offices | 500 | 500 | |
| | | Rent of Quarantine at Canterbury Estate | 50 | 50 | |
| | | Incidental Expenses, including Clerical Assistance, Law Costs and Charges | 600 | 600 | |
| | | Furniture for Offices in Country Districts | 200 | 200 | |
| | | Removal of Quarantine Buildings from Summer Hill to Randwick ... .. | ..... | 450 | |
| | | | 13,035 | 13,285 | |
| 51 | 52 | TOTAL | £ | 15,540 | 16,240 |
| Rabbit Nuisance Act. | | | | | |
| 1 | 1 | Superintending Inspector | 400 | 400 | |
| 1 | 1 | Do. | 350 | 350 | |
| 31 | 31 | Inspectors, at £300 | 9,300 | 9,300 | |
| 2 | 2 | Do. £250 | 500 | 500 | |
| | | <i>(Irrespective of date of claims and nature of service.)</i> | | | |
| | | Forage allowances to Inspectors | 1,500 | 2,632 | |
| | | Purchase of Bisulphide of Carbon | 5,000 | 1,000 | |
| | | Stationery allowances for Inspectors | 150 | 150 | |
| | | Clearing Land of Rabbits at owners' expense | 4,000 | 2,000 | |
| | | Travelling Expenses | 1,500 | 1,000 | |
| | | Clearing Crown Lands | 3,000 | 10,000 | |
| | | Subsidy to Owners | 45,000 | 75,000 | |
| | | Incidental Expenses | 500 | 500 | |
| | | Clerical Assistance | 1,500 | 1,500 | |
| | | | 62,150 | 93,782 | |
| 35 | 35 | TOTAL | £ | 72,700 | 104,332 |
| Imported Stock. | | | | | |
| 2 | 2 | Quarantine Keepers, at £110 ... .. | ..... | 220 | 220 |
| | | <i>(Irrespective of date of claims and nature of service.)</i> | | | |
| | | Forage for Stock in Quarantine | 250 | 250 | |
| | | Transport of Stock and Forage | 50 | 50 | |
| | | Incidental Expenses | 700 | 160 | |
| | | | 1,000 | 450 | |
| 2 | 2 | TOTAL | £ | 1,220 | 670 |

| No. of Persons. | | SALARIES AND CONTINGENCIES. | | | |
|--|------|---|----------|---------------------------|--------|
| 1884 | 1885 | Amount Voted for 1884. | | Amount Required for 1885. | |
| | | £ | | £ | |
| Registration of Brands. | | | | | |
| 1 | 1 | Deputy Registrar and Clerk in Charge | 300 | | 300 |
| 1 | 1 | Clerk | 200 | | 200 |
| 40 | 40 | Deputy Registrars in Country Towns, at £25 each <i>(Irrespective of date of claims and nature of service.)</i> | 1,000 | 1,500 | 1,500 |
| | | Extra Clerical Assistance, Printing, and Incidental Expenses | 650 | 650 | 650 |
| 42 | 42 | TOTAL | £ 2,150 | £ 2,150 | 2,150 |
| Public Tanks and Wells. | | | | | |
| 1 | 1 | Inspector | 400 | | 400 |
| 1 | 1 | Clerk | 225 | | 225 |
| 1 | 1 | Chainman | 52 | 677 | 677 |
| | | <i>(Irrespective of date of claims and nature of service.)</i> Management of Tanks and Wells and expenses connected with search for water by boring or otherwise | 10,000 | 10,000 | 10,000 |
| | | Travelling Expenses | 900 | | 900 |
| | | Advertising | 150 | | 150 |
| | | Incidental Expenses and Clerical Assistance | 100 | | 100 |
| 6 | 3 | TOTAL | £ 11,827 | £ 11,827 | 11,827 |
| Management of Pounds and Commons. | | | | | |
| 1 | 1 | Clerk | 150 | | 150 |
| | | <i>(Irrespective of date of claims and nature of service.)</i> Incidental Expenses | 50 | | 50 |
| | | For erection of Pounds | 300 | 500 | 500 |
| 1 | 1 | TOTAL | £ 500 | £ 500 | 500 |
| Miscellaneous. | | | | | |
| | | <i>(Irrespective of date of claims and nature of service.)</i> For the purposes of the Pastures and Stock Protection Act and the Rabbit Act | 40,000 | 30,000 | 30,000 |
| | | Other Services, 1884 | 11,304 | 51,304 | 30,000 |

SUPPLEMENTARY ESTIMATES

OF THE

EXPENDITURE

OF THE

GOVERNMENT

OF

NEW SOUTH WALES,

FOR

1884

AND PREVIOUS YEARS.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
19 NOVEMBER, 1884.



SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1884.

[6d.]

SUPPLEMENTARY ESTIMATES FOR 1884 AND PREVIOUS YEARS.

| HEAD OF SERVICE. | TO BE VOTED. | | PAID TO 31ST OCTOBER, 1884. | UNPAID 31ST OCTOBER, 1884. |
|---|--------------|-------------|-----------------------------------|----------------------------------|
| | AMOUNT. | TOTAL. | | |
| Services of 1882. | | | | |
| No. III.—COLONIAL SECRETARY. | | | | |
| MISCELLANEOUS. | | | | |
| Further expenses in connection with the Amsterdam Exhibition | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Cost of Works of Art, Statuary, &c., further sum | 27 14 11 | | | |
| Further expenses connected with the repre- sentation of the Colony at the Bordeaux Wine Exhibition | 1,005 0 0 | | | |
| | 80 0 0 | 1,112 14 11 | 1,112 14 11 | ..... |
| No. VI.—ADMINISTRATION OF JUSTICE. | | | | |
| MASTER IN EQUITY. | | | | |
| Shorthand writing for Equity Court ... .. | ..... | 100 0 0 | 100 0 0 | ..... |
| TOTAL, SERVICES OF 1882 ... .. £ | ..... | 1,212 14 11 | 1,212 14 11 | ..... |
| Services of 1883. | | | | |
| No. III.—COLONIAL SECRETARY. | | | | |
| CHARITABLE ALLOWANCES. | | | | |
| For the support of Infants removed from the Benevolent Asylum, Sydney, to the Asylum for Destitute Children at Randwick, further sum ... .. | ..... | 2,042 8 1 | 2,042 8 1 | ..... |
| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | |
| QUARANTINE. | | | | |
| Incidental expenses, further sum ... .. | ..... | 28 5 2 | 28 5 2 | ..... |
| MISCELLANEOUS. | | | | |
| Further expenses in connection with the measures adopted to prevent the spread of Small-pox (Counsel's fees—Watson <i>ats.</i> Foucart) ... .. | ..... | 41 13 0 | 41 13 0 | ..... |
| No. IX.—SECRETARY FOR PUBLIC WORKS. | | | | |
| PUBLIC WORKS AND BUILDINGS. | | | | |
| Construction of Reservoir and other improve- ments at the Quarantine Station—further sum ... .. | ..... | 1,843 9 1 | 1,843 9 1 | ..... |
| No. X.—POSTMASTER-GENERAL. | | | | |
| ELECTRIC TELEGRAPHS. | | | | |
| For Telephones, and unforeseen expenses— further sum ... .. | ..... | 118 15 0 | 118 15 0 | ..... |
| No. XI.—SECRETARY FOR MINES. | | | | |
| OCCUPATION OF LANDS. | | | | |
| Incidental Expenses—further sum ... .. | ..... | 24 15 8 | 24 15 8 | ..... |
| TOTAL, SERVICES OF 1883 ... .. £ | ..... | 4,099 6 0 | 4,099 6 0 | ..... |

SUPPLEMENTARY ESTIMATES FOR 1884 AND PREVIOUS YEARS.

| HEAD OF SERVICE. | TO BE VOTED. | | PAID TO 31ST OCTOBER, 1884. | UNPAID 31ST OCTOBER, 1884. |
|---|--------------|------------|-----------------------------------|----------------------------------|
| | AMOUNT. | TOTAL. | | |
| Services of 1884. | | | | |
| No. II.—EXECUTIVE AND LEGISLATIVE. | | | | |
| LEGISLATIVE COUNCIL AND ASSEMBLY. | | | | |
| For occasional assistance during the last Session, further sum | | 300 0 0 | | 300 0 0 |
| TOTAL, EXECUTIVE AND LEGISLATIVE | £ | 300 0 0 | | 300 0 0 |
| No. III.—COLONIAL SECRETARY. | | | | |
| PARLIAMENTARY REPORTING STAFF. | | | | |
| Gratuities to members of the Staff in consideration of the continuous and exceptionally heavy work which they have had to perform during the past Session | | 315 0 0 | | 315 0 0 |
| PERMANENT AND VOLUNTEER MILITARY FORCES. | | | | |
| To reimburse Lieutenant H. P. Airey for expenses incurred in the erection of two additional rooms to the officers' quarters, South Head | | 70 0 0 | | 70 0 0 |
| TRAINING-SHIP "WOLVERENE." | | | | |
| To meet the expense of maintenance, pending future arrangements, further sum | | 1,600 0 0 | 395 12 3 | 1,204 7 9 |
| POLICE. | | | | |
| Removal of the Police Station at Campbell's Springs, and the re-erection of same at Emu Flat | | 121 2 0 | | 121 2 0 |
| CONVALESCENT AND FEVER HOSPITAL, LITTLE BAY. | | | | |
| Maintenance of Patients, &c., further sum | | 2,000 0 0 | 767 11 7 | 1,232 8 5 |
| CHARITABLE INSTITUTIONS. — INSPECTOR OF PUBLIC CHARITIES. | | | | |
| Messenger, at £100, from 1st August... .. | 41 13 4 | | | |
| Housekeeper, at £30, from 1st August | 12 10 0 | | | |
| | | 54 3 4 | 20 1 9 | 34 1 7 |
| IMMIGRATION. | | | | |
| Chief Clerk and Accountant—increase to salary for taking charge of the special work of the Labour Bureau and Unemployed, at £100 per annum, from 1st September | 33 6 8 | | | |
| Messenger—increase from £78 to £125 per annum, from 1st July | 23 10 0 | | | |
| | | 56 16 8 | 20 1 8 | 36 15 0 |
| FISHERIES COMMISSION. | | | | |
| Contingencies, further sum | | 50 0 0 | 50 0 0 | |
| STATE CHILDREN'S RELIEF BOARD. | | | | |
| Salary of Matron at £100 per annum, from 1st September | 33 6 8 | | | |
| Salary of Sub-matron, at £75 per annum, from 1st September... .. | 25 0 0 | | | |
| | | 58 6 8 | 14 11 8 | 43 15 0 |
| CHARITABLE ALLOWANCES. | | | | |
| In aid of the erection of the Hospital at Nymagee, special grant | 750 0 0 | | | 750 0 0 |
| In aid of the Building Fund of the Narandera Hospital, special grant | 500 0 0 | | | 500 0 0 |
| Scone Hospital—Purchase of Surgical Instruments, special grant | 21 2 0 | | 21 2 0 | |
| For the support of Women and Children in the Benevolent Asylum, Sydney | 2,800 0 0 | | 33 6 0 | 2,766 14 0 |
| Parramatta Hospital—Treatment of Pauper Patients suffering from Typhoid Fever | 100 0 0 | | 100 0 0 | |
| | | 4,171 2 0 | | |
| Carried forward | £ | 8,496 10 8 | 1,422 6 11 | 7,074 3 9 |
| Carried forward | £ | 300 0 0 | | 300 0 0 |

SUPPLEMENTARY ESTIMATES FOR 1884 AND PREVIOUS YEARS.

| HEAD OF SERVICE. | TO BE VOTED. | | PAID TO 31ST OCTOBER, 1884. | UNPAID 31ST OCTOBER, 1884. |
|---|--------------|--------------|-----------------------------------|----------------------------------|
| | AMOUNT. | TOTAL. | | |
| Services of 1884—continued. | £ | s. d. | £ | s. d. |
| Brought forward | £ | | 300 0 0 | ..... |
| No. III.—COLONIAL SECRETARY—continued. | | | | |
| Brought forward | £ | | 8,496 10 8 | 1,422 6 11 |
| MISCELLANEOUS. | | | | |
| Compensation to Captain Armstrong, late Resident Magistrate, for loss sustained by his removal from Lord Howe Island ... | £ | 1,000 0 0 | ..... | 1,000 0 0 |
| Further expenses connected with the representation of the Colony at the Calcutta Exhibition | £ | 63 13 9 | ..... | 63 13 9 |
| Relief to and Relief Works for the Unemployed, further sum | £ | 6,500 0 0 | 4,764 7 8 | 1,735 12 4 |
| Corowa—Tree-planting... .. | £ | 25 11 6 | 25 11 6 | ..... |
| Municipal rates on Government Buildings—further sum | £ | 1,500 0 0 | 828 9 6 | 671 10 6 |
| Purchase of Land at Bowral as site for a Lockup | £ | 150 0 0 | 150 0 0 | ..... |
| Purchase of Land at Condong as site for Police Station... .. | £ | 130 0 0 | 130 0 0 | ..... |
| Model designs of Statue of the Queen... .. | £ | 157 10 0 | 157 10 0 | ..... |
| Expenses of Inquiry into charges preferred against the Bench of Magistrates at Lismore | £ | 126 0 0 | 126 0 0 | ..... |
| Expenses in connection with the Sanitary Conference | £ | 34 7 0 | 34 7 0 | ..... |
| Report on Hospitals of the Colony | £ | 15 15 0 | 15 15 0 | ..... |
| Publishing old Annals, Manuscripts, &c., formerly in possession of Sir Joseph Banks | £ | 375 0 0 | 375 0 0 | ..... |
| Special grant to Country and Suburban Municipalities—further sum | £ | 112 0 3 | 112 0 3 | ..... |
| Expenses incurred in connection with the measures adopted for preventing the spread of Infectious Diseases | £ | 987 16 11 | 987 16 11 | ..... |
| | | | 11,177 14 5 | |
| TOTAL, COLONIAL SECRETARY | £ | | 19,674 5 1 | 9,129 4 9 |
| No. IV.—TREASURER AND SECRETARY FOR FINANCE AND TRADE. | | | | |
| QUARANTINE. | | | | |
| Expenses of vessels in Quarantine and contingencies | £ | | 500 0 0 | 5 13 0 |
| GLEBE ISLAND ABATTOIRS. | | | | |
| Improvements at Glebe Island Abattoirs, irrespective of date of claims, further sum | £ | | 3,000 0 0 | 1,899 13 2 |
| MARINE BOARD OF NEW SOUTH WALES. | | | | |
| Subsidy to steamer in connection with Life-boat Service, from 1st September, 1883, to 31st August, 1884 | £ | | 600 0 0 | 600 0 0 |
| ORDNANCE AND BARRACK DEPARTMENT. | | | | |
| Fitting up hulk "Prospector" as a Dynamite Magazine | £ | | 35 0 0 | 35 0 0 |
| MISCELLANEOUS. | | | | |
| For interest at 4 per cent. on the uninvested funds at the credit of the Government Savings Bank in the Treasury during the the year 1884... .. | £ | 31,200 0 0 | ..... | ..... |
| Premium on Debentures purchased under the Railway Loan Act of 1867 | £ | 1,230 5 0 | ..... | ..... |
| Treasury Steam Launch—Boiler and engine... .. | £ | 900 0 0 | ..... | ..... |
| | | | 33,335 5 0 | 2,130 5 0 |
| TOTAL, TREASURER AND SECRETARY FOR FINANCE AND TRADE | £ | | 37,465 5 0 | 4,670 11 2 |
| Carried forward... .. | £ | | 57,439 10 1 | 13,799 15 11 |
| | | | | 43,639 14 2 |

SUPPLEMENTARY ESTIMATES FOR 1884 AND PREVIOUS YEARS.

| HEAD OF SERVICE. | TO BE VOTED. | | PAID TO 31ST OCTOBER, 1884. | UNPAID 31ST OCTOBER, 1884. |
|--|--------------|-------------|-----------------------------------|----------------------------------|
| | AMOUNT. | TOTAL. | | |
| Services of 1884—continued. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Brought forward ... .. | ..... | 57,439 10 1 | 13,799 15 11 | 43,639 14 2 |
| No. VI.—ADMINISTRATION OF JUSTICE. | | | | |
| PROTHONOTARY. | | | | |
| Extra Clerk, from 1st July to 31st December, at £200 per annum | 100 0 0 | ..... | ..... | 100 0 0 |
| Removal and Arranging, &c., of Old Records in the Supreme Court Office | 50 0 0 | ..... | ..... | 50 0 0 |
| Travelling expenses of the Judges, further sum | 330 0 0 | 330 0 0 | 330 0 0 | ..... |
| | | 480 0 0 | | |
| PETTY SESSIONS. | | | | |
| Furniture for Court-houses at Clare and Girilambone ... .. | ..... | 146 0 0 | ..... | 146 0 0 |
| INSOLVENCY COURT. | | | | |
| Additional clerical assistance ... .. | ..... | 15 5 0 | 15 5 0 | ..... |
| TOTAL, ADMINISTRATION OF JUSTICE £ | ..... | 641 5 0 | 345 5 0 | 296 0 0 |
| No. VII.—ATTORNEY-GENERAL. | | | | |
| THE ATTORNEY-GENERAL. | | | | |
| To meet incidental expenses of prosecutions, and of actions by, or against, or taken up by, the Government, further sum ... .. | ..... | 800 0 0 | 533 10 1 | 266 9 11 |
| TOTAL, ATTORNEY-GENERAL £ | ..... | 800 0 0 | 533 10 1 | 266 9 11 |
| No. VIII.—SECRETARY FOR LANDS. | | | | |
| MISCELLANEOUS. | | | | |
| Hyde, Cook, and Phillip Parks—Improvement of, further sum ... .. | ..... | 500 0 0 | 500 0 0 | ..... |
| TOTAL, SECRETARY FOR LANDS £ | ..... | 500 0 0 | 500 0 0 | ..... |
| No. IX.—SECRETARY FOR PUBLIC WORKS. | | | | |
| ROADS AND BRIDGES. | | | | |
| General Establishment— | | | | |
| Gratuity, at the rate of one month's pay for each year of service, to James J. Duffy, on his retirement... .. | 661 2 3 | ..... | 661 2 3 | ..... |
| Construction and Maintenance— | | | | |
| Wood-paving, Newtown Road | 7,000 0 0 | ..... | ..... | 7,000 0 0 |
| | | 7,661 2 3 | | |
| PUBLIC WORKS—COLONIAL ARCHITECT'S BRANCH. | | | | |
| Police Stations, Officers' Quarters, &c., further sum | 2,000 0 0 | - | 502 1 3 | 1,497 18 9 |
| St. Leonards Post and Telegraph Office—cost of site | 1,800 0 0 | ..... | 1,800 0 0 | ..... |
| Erection of Temporary Stables, Clarence-street, for Post and Telegraph purposes | 1,389 18 0 | ..... | 1,389 18 0 | ..... |
| Institutions for the Insane generally—Alterations, Additions, Repairs, Furniture, &c., further sum | 1,500 0 0 | ..... | 700 6 11 | 799 18 1 |
| Carried forward £ | 6,689 18 0 | 7,661 2 3 | 5,053 8 5 | 9,297 11 10 |
| Carried forward ... .. £ | ..... | 59,380 15 1 | 15,178 11 0 | 44,202 4 1 |

SUPPLEMENTARY ESTIMATES FOR 1884 AND PREVIOUS YEARS.

7

| HEAD OF SERVICE. | TO BE VOTED. | | PAID TO 31ST OCTOBER, 1884. | UNPAID 31ST OCTOBER, 1884. |
|---|--------------|---------------|-----------------------------------|----------------------------------|
| | AMOUNT. | TOTAL. | | |
| Services of 1884—continued. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Brought forward | £ | 59,380 15 1 | 15,178 11 0 | 44,202 4 1 |
| No. IX.—SECRETARY FOR PUBLIC WORKS—continued. | | | | |
| Brought forward | £ | 7,661 2 3 | 5,053 8 5 | 9,297 11 10 |
| PUBLIC WORKS—COLONIAL ARCHITECT'S BRANCH—continued. | | | | |
| Brought forward | £ 6,689 18 0 | - | | |
| Site for Infectious Diseases Hospital, New-castle | 4,000 0 0 | | 4,000 0 0 | ..... |
| Tar-paving, &c., Macquarie-street | 17 7 0 | | 17 7 0 | ..... |
| Furniture and Fittings for Public Offices generally, further sum | 6,000 0 0 | | 3,628 10 5 | 2,371 9 7 |
| Repairs to Military and Volunteer Buildings, further sum | 1,000 0 0 | | 501 6 6 | 498 13 6 |
| Gaols, Court-houses, and Lock-ups, further sum | 4,000 0 0 | | 1,264 6 8 | 2,735 13 4 |
| Police Buildings, further sum | 5,000 0 0 | | 3,601 8 0 | 1,398 12 0 |
| Purchase of Building in Phillip-street for Colonial Stores—in excess of Loan Vote for the Service | 326 10 0 | | 326 10 0 | ..... |
| | | 27,083 15 0 | | |
| TOTAL, SECRETARY FOR PUBLIC WORKS £ | | 34,694 17 3 | 18,392 17 0 | 16,302 0 3 |
| No. X.—THE POSTMASTER-GENERAL. | | | | |
| POST OFFICE. | | | | |
| Conveyance of Mails <i>via</i> Suez, per "Orient," further sum ... .. | ..... | 1,693 11 7 | ..... | 1,693 11 7 |
| TOTAL, THE POSTMASTER-GENERAL £ | | 1,693 11 7 | ..... | 1,693 11 7 |
| No. XI.—SECRETARY FOR MINES. | | | | |
| DEPARTMENT OF MINES. | | | | |
| Expenses in connection with the Conservancy of Forests, further sum ... .. | ..... | 3,000 0 0 | ..... | 3,000 0 0 |
| OCCUPATION OF LANDS. | | | | |
| Gratuity at the rate of one month's pay for each year of service to T. J. Oliver, on his retirement on account of age and infirmity... .. | ..... | 562 10 0 | 562 10 0 | ..... |
| TOTAL, SECRETARY FOR MINES | £ | 3,562 10 0 | 562 10 0 | 3,000 0 0 |
| TOTAL, SERVICES OF 1883 | £ | 99,331 13 11 | 34,133 18 0 | 65,197 15 11 |
| <i>Add—</i> Services of 1881... .. | ..... | 1,212 14 11 | 1,212 14 11 | ..... |
| Services of 1882... .. | ..... | 4,099 6 0 | 4,099 6 0 | ..... |
| GRAND TOTAL | £ | 104,643 14 10 | 39,445 18 11 | 65,197 15 11 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

GEORGE R. DIBBS,
Treasurer.

NEW SOUTH WALES.

LEGISLATIVE ASSEMBLY.

SESSION 1884.

EXPLANATORY ABSTRACTS

Nos. I and II,

OF THE

AMOUNTS RESPECTIVELY ESTIMATED, VOTED,

AND

EMBODIED IN THE APPROPRIATION ACT

(48^o VICTORIÆ, No. XXVII),

FOR THE SERVICE OF THE YEAR 1885, AND FOR THE YEAR 1884 AND
PREVIOUS YEARS,

WITH

NOTES EXPLANATORY.

SYDNEY : THOMAS RICHARDS, GOVERNMENT PRINTER.

1884.

NEW SOUTH WALES.

LEGISLATIVE ASSEMBLY.

No. I.

(SERVICES OF 1885.)

EXPLANATORY ABSTRACT of the Expenditure of the Colonial Government, for the undermentioned Services, for the year 1885, as respectively Estimated, Voted, and Embodied in the Appropriation Act, 48° Victoria, No. XXVII.

| Page. | No. of Head. | Head of Service. | Amounts Estimated. | | | | | Amounts Voted. | | | | | Notes Explanatory of Alterations. |
|-------|--------------|---|--------------------|----------------|-------------|-----------------|-------------|-----------------|----------------|-------------|-----------------|-------------|-----------------------------------|
| | | | Establishments. | | | Other Services. | Total. | Establishments. | | | Other Services. | Total. | |
| | | | Salaries. | Contingencies. | Total. | | | Salaries. | Contingencies. | Total. | | | |
| | | | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| 7 | I. | Supplement to Schedule G. | | | | 1,189 0 0 | 1,189 0 0 | | | | 1,189 0 0 | 1,189 0 0 | |
| | II. | Executive and Legislative:— | | | | | | | | | | | |
| 10 | | His Excellency the Governor | 1,511 0 0 | 549 0 0 | 2,060 0 0 | | 2,060 0 0 | 1,511 0 0 | 549 0 0 | 2,060 0 0 | | 2,060 0 0 | |
| 10 | | Executive Council | 1,018 0 0 | 10 0 0 | 1,028 0 0 | | 1,028 0 0 | 1,018 0 0 | 10 0 0 | 1,028 0 0 | | 1,028 0 0 | |
| 10 | | Legislative Council | 5,880 0 0 | 175 0 0 | 6,055 0 0 | | 6,055 0 0 | 5,880 0 0 | 175 0 0 | 6,055 0 0 | | 6,055 0 0 | |
| 11 | | Legislative Assembly | 8,805 0 0 | 250 0 0 | 9,055 0 0 | | 9,055 0 0 | 8,805 0 0 | 250 0 0 | 9,055 0 0 | | 9,055 0 0 | |
| 11 | | Legislative Council and Assembly | 1,945 0 0 | 675 0 0 | 2,620 0 0 | | 2,620 0 0 | 1,945 0 0 | 675 0 0 | 2,620 0 0 | | 2,620 0 0 | |
| 11 | | Parliamentary Library | 975 0 0 | 720 0 0 | 1,695 0 0 | | 1,695 0 0 | 975 0 0 | 720 0 0 | 1,695 0 0 | | 1,695 0 0 | |
| | | Totals | 20,134 0 0 | 2,379 0 0 | 22,513 0 0 | | 22,513 0 0 | 20,134 0 0 | 2,379 0 0 | 22,513 0 0 | | 22,513 0 0 | |
| | III. | Colonial Secretary:— | | | | | | | | | | | |
| 14 | | Colonial Secretary | 5,637 0 0 | 1,516 0 0 | 7,153 0 0 | | 7,153 0 0 | 5,637 0 0 | 1,516 0 0 | 7,153 0 0 | | 7,153 0 0 | |
| 14 | | Public Parks | 657 0 0 | 125 0 0 | 782 0 0 | | 782 0 0 | 657 0 0 | 125 0 0 | 782 0 0 | | 782 0 0 | |
| 14 | | Aborigines Protection Board | 200 0 0 | 6,250 0 0 | 6,450 0 0 | | 6,450 0 0 | 200 0 0 | 6,250 0 0 | 6,450 0 0 | | 6,450 0 0 | |
| 15 | | Parliamentary Reporting Staff | 4,150 0 0 | 10 0 0 | 4,160 0 0 | | 4,160 0 0 | 4,150 0 0 | 10 0 0 | 4,160 0 0 | | 4,160 0 0 | |
| | | Permanent and Volunteer Military Forces:— | | | | | | | | | | | |
| 15 | | The General Staff | 2,462 0 0 | 610 0 0 | 3,072 0 0 | | 3,072 0 0 | 2,462 0 0 | 610 0 0 | 3,072 0 0 | | 3,072 0 0 | |
| 15-16 | | Artillery Force | 19,437 0 0 | 14,138 0 0 | 33,575 0 0 | | 33,575 0 0 | 19,437 0 0 | 14,138 0 0 | 33,575 0 0 | | 33,575 0 0 | |
| 17 | | Works of Defence | | | | 8,150 0 0 | 8,150 0 0 | | | | 8,150 0 0 | 8,150 0 0 | |
| 17-19 | | Volunteer Force | 45,713 0 0 | 44,469 0 0 | 90,182 0 0 | | 90,182 0 0 | 45,713 0 0 | 44,469 0 0 | 90,182 0 0 | | 90,182 0 0 | |
| 19 | | Volunteer Naval Artillery | | | | 500 0 0 | 500 0 0 | | | | 500 0 0 | 500 0 0 | |
| 20 | | Naval Brigade | 5,215 0 0 | 600 0 0 | 5,815 0 0 | | 5,815 0 0 | 5,215 0 0 | 600 0 0 | 5,815 0 0 | | 5,815 0 0 | |
| 20 | | Training Ship "Wolverene" | | | | 4,200 0 0 | 4,200 0 0 | | | | 4,200 0 0 | 4,200 0 0 | |
| 21 | | Police | 206,840 0 0 | 68,100 0 0 | 274,940 0 0 | | 274,940 0 0 | 206,840 0 0 | 68,100 0 0 | 274,940 0 0 | | 274,940 0 0 | |
| 21 | | Government Analyst | 850 0 0 | 100 0 0 | 950 0 0 | | 950 0 0 | 850 0 0 | 100 0 0 | 950 0 0 | | 950 0 0 | |
| 22-25 | | Lunacy | 30,236 0 0 | 41,161 0 0 | 71,397 0 0 | 9,300 0 0 | 80,697 0 0 | 30,236 0 0 | 41,161 0 0 | 71,397 0 0 | 9,300 0 0 | 80,697 0 0 | |
| 25 | | Master in Lunacy | 1,200 0 0 | 100 0 0 | 1,300 0 0 | | 1,300 0 0 | 1,200 0 0 | 100 0 0 | 1,300 0 0 | | 1,300 0 0 | |
| 25 | | Medical Board | 100 0 0 | 100 0 0 | 200 0 0 | | 200 0 0 | 100 0 0 | 100 0 0 | 200 0 0 | | 200 0 0 | |
| 26 | | Medical Adviser, Vaccination, Medical Officers, &c. | 3,790 0 0 | 5,715 0 0 | 9,505 0 0 | | 9,505 0 0 | 3,790 0 0 | 5,715 0 0 | 9,505 0 0 | | 9,505 0 0 | |
| 26 | | Convalescent and Fever Hospital, Little Bay | | | | 4,000 0 0 | 4,000 0 0 | | | | 4,000 0 0 | 4,000 0 0 | |
| 27 | | Department of Audit | 8,470 0 0 | 1,175 0 0 | 9,645 0 0 | | 9,645 0 0 | 8,470 0 0 | 1,175 0 0 | 9,645 0 0 | | 9,645 0 0 | |
| 28 | | Registrar-General | 13,995 0 0 | 7,750 0 0 | 21,745 0 0 | | 21,745 0 0 | 13,995 0 0 | 7,750 0 0 | 21,745 0 0 | | 21,745 0 0 | |
| 29 | | Agent-General for the Colony | 4,997 0 0 | 880 0 0 | 5,877 0 0 | | 5,877 0 0 | 4,997 0 0 | 880 0 0 | 5,877 0 0 | | 5,877 0 0 | |
| 29 | | Immigration | 1,461 0 0 | | 1,461 0 0 | 50,000 0 0 | 51,461 0 0 | 1,461 0 0 | | 1,461 0 0 | 50,000 0 0 | 51,461 0 0 | |
| 29 | | City of Sydney Improvement Board | 200 0 0 | 160 0 0 | 360 0 0 | | 360 0 0 | 200 0 0 | 160 0 0 | 360 0 0 | | 360 0 0 | |
| 29 | | Charitable Institutions | 930 0 0 | 400 0 0 | 1,330 0 0 | | 1,330 0 0 | 930 0 0 | 400 0 0 | 1,330 0 0 | | 1,330 0 0 | |
| 29-30 | | Fisheries Commission | 4,340 0 0 | 904 0 0 | 5,244 0 0 | | 5,244 0 0 | 4,340 0 0 | 904 0 0 | 5,244 0 0 | | 5,244 0 0 | |
| 30 | | Asylums for the Infirm and Destitute | 2,762 0 0 | 22,400 0 0 | 25,162 0 0 | | 25,162 0 0 | 2,762 0 0 | 22,400 0 0 | 25,162 0 0 | | 25,162 0 0 | |
| 30 | | State Children's Relief Board | 1,025 0 0 | 17,510 0 0 | 18,535 0 0 | | 18,535 0 0 | 1,025 0 0 | 17,510 0 0 | 18,535 0 0 | | 18,535 0 0 | |
| 31 | | Fire Brigades | 700 0 0 | 6,220 0 0 | 6,920 0 0 | | 6,920 0 0 | 700 0 0 | 6,220 0 0 | 6,920 0 0 | | 6,920 0 0 | |
| 31 | | Botanic Gardens | 1,020 0 0 | 4,365 0 0 | 5,385 0 0 | | 5,385 0 0 | 1,020 0 0 | 4,365 0 0 | 5,385 0 0 | | 5,385 0 0 | |
| 31 | | Nursery Garden, Campbelltown | 100 0 0 | 670 0 0 | 770 0 0 | | 770 0 0 | 100 0 0 | 670 0 0 | 770 0 0 | | 770 0 0 | |
| 31 | | Government Domains | 270 0 0 | 2,163 0 0 | 2,433 0 0 | | 2,433 0 0 | 270 0 0 | 2,163 0 0 | 2,433 0 0 | | 2,433 0 0 | |
| 32 | | Garden Palace Grounds | 120 0 0 | 1,050 0 0 | 1,170 0 0 | | 1,170 0 0 | 120 0 0 | 1,050 0 0 | 1,170 0 0 | | 1,170 0 0 | |
| 32-33 | | Charitable Allowances | 650 0 0 | | 650 0 0 | 66,558 0 0 | 67,208 0 0 | 650 0 0 | | 650 0 0 | 66,558 0 0 | 67,208 0 0 | |
| 32-34 | | Miscellaneous Services | | | | 112,858 0 0 | 112,858 0 0 | | | | 112,858 0 0 | 112,858 0 0 | |
| | | Totals | 367,487 0 0 | 248,541 0 0 | 616,028 0 0 | 250,561 0 0 | 866,589 0 0 | 367,487 0 0 | 248,541 0 0 | 616,028 0 0 | 250,561 0 0 | 866,589 0 0 | |

| IV. Treasurer and Secretary for Finance and Trade:— | | | | | | | | | | | | |
|---|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 36 | Treasury | 18,995 0 0 | 1,700 0 0 | 20,695 0 0 | 20,695 0 0 | 18,995 0 0 | 1,700 0 0 | 20,695 0 0 | 20,695 0 0 | 18,995 0 0 | 1,700 0 0 | 20,695 0 0 |
| 37 | Stamp Duties .. . | 8,410 0 0 | 390 0 0 | 3,700 0 0 | 3,700 0 0 | 8,410 0 0 | 390 0 0 | 3,700 0 0 | 3,700 0 0 | 8,410 0 0 | 390 0 0 | 3,700 0 0 |
| 37-40 | Customs .. . | 40,741 0 0 | 15,237 0 0 | 55,978 0 0 | 55,978 0 0 | 40,741 0 0 | 15,237 0 0 | 55,978 0 0 | 55,978 0 0 | 40,741 0 0 | 15,237 0 0 | 55,978 0 0 |
| 41 | Colonial Distilleries and Refineries .. | 3,513 0 0 | 901 0 0 | 4,414 0 0 | 4,414 0 0 | 3,513 0 0 | 901 0 0 | 4,414 0 0 | 4,414 0 0 | 3,513 0 0 | 901 0 0 | 4,414 0 0 |
| 41 | Gold Receivers .. . | 175 0 0 | 50 0 0 | 225 0 0 | 225 0 0 | 175 0 0 | 50 0 0 | 225 0 0 | 225 0 0 | 175 0 0 | 50 0 0 | 225 0 0 |
| 41 | Gold and Escort .. . | | | | 2,000 0 0 | | | | | | | 2,000 0 0 |
| 42 | Government Printer's Department .. . | 41,645 0 0 | 13,750 0 0 | 55,395 0 0 | 55,395 0 0 | 41,645 0 0 | 13,750 0 0 | 55,395 0 0 | 55,395 0 0 | 41,645 0 0 | 13,750 0 0 | 55,395 0 0 |
| 43 | Stores and Stationery .. . | 3,921 0 0 | 107,700 0 0 | 111,621 0 0 | 111,621 0 0 | 3,921 0 0 | 107,700 0 0 | 111,621 0 0 | 111,621 0 0 | 3,921 0 0 | 107,700 0 0 | 111,621 0 0 |
| 43-44 | Ordnance and Barrack Department .. . | 7,790 0 0 | 2,250 0 0 | 10,040 0 0 | 10,040 0 0 | 7,790 0 0 | 2,250 0 0 | 10,040 0 0 | 10,040 0 0 | 7,790 0 0 | 2,250 0 0 | 10,040 0 0 |
| 44 | Board of Health .. . | 3,391 0 0 | 2,514 0 0 | 6,905 0 0 | 6,905 0 0 | 3,391 0 0 | 2,514 0 0 | 6,905 0 0 | 6,905 0 0 | 3,391 0 0 | 2,514 0 0 | 6,905 0 0 |
| 45 | Board of Pharmacy .. . | 100 0 0 | | 100 0 0 | 100 0 0 | 100 0 0 | | 100 0 0 | 100 0 0 | 100 0 0 | | 100 0 0 |
| 45 | Shipping Masters .. . | 2,985 0 0 | 20 0 0 | 2,405 0 0 | 2,405 0 0 | 2,985 0 0 | 20 0 0 | 2,405 0 0 | 2,405 0 0 | 2,985 0 0 | 20 0 0 | 2,405 0 0 |
| 45 | Glebe Island Abattoir .. . | 1,142 0 0 | 7,183 0 0 | 8,325 0 0 | 8,325 0 0 | 1,142 0 0 | 7,183 0 0 | 8,325 0 0 | 8,325 0 0 | 1,142 0 0 | 7,183 0 0 | 8,325 0 0 |
| 45-49 | Marine Board of New South Wales .. . | 34,254 0 0 | 7,091 0 0 | 41,345 0 0 | 41,345 0 0 | 34,254 0 0 | 7,091 0 0 | 41,345 0 0 | 41,345 0 0 | 34,254 0 0 | 7,091 0 0 | 41,345 0 0 |
| 49 | Lifeboats .. . | | | | 700 0 0 | | | | | | | 700 0 0 |
| 50 | Public Wharves .. . | 1,303 0 0 | 630 0 0 | 1,933 0 0 | 1,933 0 0 | 1,303 0 0 | 630 0 0 | 1,933 0 0 | 1,933 0 0 | 1,303 0 0 | 630 0 0 | 1,933 0 0 |
| 50 | Miscellaneous Services .. . | 350 0 0 | 25 0 0 | 375 0 0 | 375 0 0 | 350 0 0 | 25 0 0 | 375 0 0 | 375 0 0 | 350 0 0 | 25 0 0 | 375 0 0 |
| 50 | Advance to Treasurer .. . | | | | 100,000 0 0 | | | | | | | 100,000 0 0 |
| | Totals .. . | 163,178 0 0 | 159,444 0 0 | 322,622 0 0 | 322,622 0 0 | 163,178 0 0 | 159,444 0 0 | 322,622 0 0 | 322,622 0 0 | 163,178 0 0 | 159,444 0 0 | 322,622 0 0 |
| V. Public Instruction:— | | | | | | | | | | | | |
| 52-55 | Public Instruction, under Act 43 Vic. No. 23 .. | 466,200 0 0 | 256,200 0 0 | 722,400 0 0 | 722,400 0 0 | 466,200 0 0 | 256,200 0 0 | 722,400 0 0 | 722,400 0 0 | 466,200 0 0 | 256,200 0 0 | 722,400 0 0 |
| 55 | Public Schools Cadet Corps .. . | 440 0 0 | 304 0 0 | 744 0 0 | 744 0 0 | 440 0 0 | 304 0 0 | 744 0 0 | 744 0 0 | 440 0 0 | 304 0 0 | 744 0 0 |
| 56 | Industrial Schools .. . | 2,804 0 0 | 4,951 0 0 | 7,755 0 0 | 7,755 0 0 | 2,804 0 0 | 4,951 0 0 | 7,755 0 0 | 7,755 0 0 | 2,804 0 0 | 4,951 0 0 | 7,755 0 0 |
| 57 | Orphan Schools, Parramatta .. . | | | | 5,500 0 0 | | | | | | | 5,500 0 0 |
| 57 | Observatory .. . | 2,740 0 0 | 1,150 0 0 | 3,890 0 0 | 3,890 0 0 | 2,740 0 0 | 1,150 0 0 | 3,890 0 0 | 3,890 0 0 | 2,740 0 0 | 1,150 0 0 | 3,890 0 0 |
| 57 | Museum .. . | 350 0 0 | 5,550 0 0 | 5,900 0 0 | 5,900 0 0 | 350 0 0 | 5,550 0 0 | 5,900 0 0 | 5,900 0 0 | 350 0 0 | 5,550 0 0 | 5,900 0 0 |
| 57 | Technological Museum .. . | 300 0 0 | 4,100 0 0 | 4,400 0 0 | 4,400 0 0 | 300 0 0 | 4,100 0 0 | 4,400 0 0 | 4,400 0 0 | 300 0 0 | 4,100 0 0 | 4,400 0 0 |
| 58 | Free Public Library .. . | 3,750 0 0 | 3,690 0 0 | 7,440 0 0 | 7,440 0 0 | 3,750 0 0 | 3,690 0 0 | 7,440 0 0 | 7,440 0 0 | 3,750 0 0 | 3,690 0 0 | 7,440 0 0 |
| 58 | Church and School Lands .. . | 1,330 0 0 | 1,200 0 0 | 2,530 0 0 | 2,530 0 0 | 1,330 0 0 | 1,200 0 0 | 2,530 0 0 | 2,530 0 0 | 1,330 0 0 | 1,200 0 0 | 2,530 0 0 |
| 59 | Grants in aid of Public Institutions .. . | | | | 64,150 0 0 | | | | | | | 64,150 0 0 |
| | Totals .. . | 478,024 0 0 | 277,175 0 0 | 755,199 0 0 | 755,199 0 0 | 478,024 0 0 | 277,175 0 0 | 755,199 0 0 | 755,199 0 0 | 478,024 0 0 | 277,175 0 0 | 755,199 0 0 |
| VI. Administration of Justice:— | | | | | | | | | | | | |
| 62 | Department of Justice .. . | 5,760 0 0 | 100 0 0 | 5,860 0 0 | 5,860 0 0 | 5,760 0 0 | 100 0 0 | 5,860 0 0 | 5,860 0 0 | 5,760 0 0 | 100 0 0 | 5,860 0 0 |
| 63 | Master in Equity .. . | 2,324 0 0 | 150 0 0 | 2,474 0 0 | 2,474 0 0 | 2,324 0 0 | 150 0 0 | 2,474 0 0 | 2,474 0 0 | 2,324 0 0 | 150 0 0 | 2,474 0 0 |
| 63 | Prothonotary .. . | 5,402 0 0 | 9,200 0 0 | 14,602 0 0 | 14,602 0 0 | 5,402 0 0 | 9,200 0 0 | 14,602 0 0 | 14,602 0 0 | 5,402 0 0 | 9,200 0 0 | 14,602 0 0 |
| 64 | Sheriff .. . | 11,850 0 0 | 10,525 0 0 | 21,375 0 0 | 21,375 0 0 | 11,850 0 0 | 10,525 0 0 | 21,375 0 0 | 21,375 0 0 | 11,850 0 0 | 10,525 0 0 | 21,375 0 0 |
| 65-67 | Insolvency Court .. . | 1,850 0 0 | 884 0 0 | 2,734 0 0 | 2,734 0 0 | 1,850 0 0 | 884 0 0 | 2,734 0 0 | 2,734 0 0 | 1,850 0 0 | 884 0 0 | 2,734 0 0 |
| 67 | District Courts .. . | 5,637 0 0 | 3,700 0 0 | 9,337 0 0 | 9,337 0 0 | 5,637 0 0 | 3,700 0 0 | 9,337 0 0 | 9,337 0 0 | 5,637 0 0 | 3,700 0 0 | 9,337 0 0 |
| 68-80 | Coroners' Inquests .. . | 830 0 0 | 3,570 0 0 | 4,400 0 0 | 4,400 0 0 | 830 0 0 | 3,570 0 0 | 4,400 0 0 | 4,400 0 0 | 830 0 0 | 3,570 0 0 | 4,400 0 0 |
| 81-85 | Petty Sessions .. . | 71,980 0 0 | 13,450 0 0 | 85,430 0 0 | 85,430 0 0 | 71,980 0 0 | 13,450 0 0 | 85,430 0 0 | 85,430 0 0 | 71,980 0 0 | 13,450 0 0 | 85,430 0 0 |
| 86 | Prisons .. . | 64,877 0 0 | 33,955 0 0 | 98,832 0 0 | 98,832 0 0 | 64,877 0 0 | 33,955 0 0 | 98,832 0 0 | 98,832 0 0 | 64,877 0 0 | 33,955 0 0 | 98,832 0 0 |
| 86 | The Shaftesbury Reformatory for Girls .. . | 423 0 0 | 450 0 0 | 873 0 0 | 873 0 0 | 423 0 0 | 450 0 0 | 873 0 0 | 873 0 0 | 423 0 0 | 450 0 0 | 873 0 0 |
| 86 | Registrar of Copyright .. . | 200 0 0 | 20 0 0 | 220 0 0 | 220 0 0 | 200 0 0 | 20 0 0 | 220 0 0 | 220 0 0 | 200 0 0 | 20 0 0 | 220 0 0 |
| 86 | Miscellaneous Services .. . | | | | 5,638 0 0 | | | | | | | 5,638 0 0 |
| | Totals .. . | 170,709 0 0 | 76,004 0 0 | 246,713 0 0 | 246,713 0 0 | 170,709 0 0 | 76,004 0 0 | 246,713 0 0 | 246,713 0 0 | 170,709 0 0 | 76,004 0 0 | 246,713 0 0 |
| VII. The Attorney-General:— | | | | | | | | | | | | |
| 85 | The Attorney-General .. . | 910 0 0 | 4,755 0 0 | 5,665 0 0 | 5,665 0 0 | 910 0 0 | 4,755 0 0 | 5,665 0 0 | 5,665 0 0 | 910 0 0 | 4,755 0 0 | 5,665 0 0 |
| 88 | Parliamentary Draftsman .. . | 1,400 0 0 | 660 0 0 | 2,060 0 0 | 2,060 0 0 | 1,400 0 0 | 660 0 0 | 2,060 0 0 | 2,060 0 0 | 1,400 0 0 | 660 0 0 | 2,060 0 0 |
| 89 | Crown Solicitor .. . | 3,731 0 0 | 460 0 0 | 4,191 0 0 | 4,191 0 0 | 3,731 0 0 | 460 0 0 | 4,191 0 0 | 4,191 0 0 | 3,731 0 0 | 460 0 0 | 4,191 0 0 |
| 89 | Quarter Sessions .. . | 6,700 0 0 | 23,550 0 0 | 30,250 0 0 | 30,250 0 0 | 6,700 0 0 | 23,550 0 0 | 30,250 0 0 | 30,250 0 0 | 6,700 0 0 | 23,550 0 0 | 30,250 0 0 |
| | Totals .. . | 12,741 0 0 | 29,415 0 0 | 42,156 0 0 | 42,156 0 0 | 12,741 0 0 | 29,415 0 0 | 42,156 0 0 | 42,156 0 0 | 12,741 0 0 | 29,415 0 0 | 42,156 0 0 |
| VIII. Secretary for Lands:— | | | | | | | | | | | | |
| 92-98 | Department of Lands and Conditional Land Sales Branch .. | 50,023 0 0 | 11,925 0 0 | 61,951 0 0 | 61,951 0 0 | 50,023 0 0 | 11,925 0 0 | 61,951 0 0 | 61,951 0 0 | 50,023 0 0 | 11,925 0 0 | 61,951 0 0 |
| 94 | Land Agents, Appraisers, and others .. . | 15,000 0 0 | 14,200 0 0 | 29,200 0 0 | 29,200 0 0 | 15,000 0 0 | 14,200 0 0 | 29,200 0 0 | 29,200 0 0 | 15,000 0 0 | 14,200 0 0 | 29,200 0 0 |
| 94-95 | Survey of Lands .. . | 90,897 0 0 | 231,797 0 0 | 322,694 0 0 | 322,694 0 0 | 90,897 0 0 | 231,797 0 0 | 322,694 0 0 | 322,694 0 0 | 90,897 0 0 | 231,797 0 0 | 322,694 0 0 |
| 96 | Triangulation and General Survey of the Colony .. . | 12,095 0 0 | 8,330 0 0 | 20,425 0 0 | 20,425 0 0 | 12,095 0 0 | 8,330 0 0 | 20,425 0 0 | 20,425 0 0 | 12,095 0 0 | 8,330 0 0 | 20,425 0 0 |
| 97 | Miscellaneous Services .. . | | | | 54,831 0 0 | | | | | | | 54,831 0 0 |
| | Totals .. . | 168,018 0 0 | 266,302 0 0 | 434,320 0 0 | 434,320 0 0 | 168,018 0 0 | 266,302 0 0 | 434,320 0 0 | 434,320 0 0 | 168,018 0 0 | 266,302 0 0 | 434,320 0 0 |

EXPLANATORY ABSTRACT—continued.

| Page. | No. of Head. | Head of Service. | Amounts Estimated. | | | | | Amounts Voted. | | | | | Notes Explanatory of Alterations. |
|---------|--------------|---|--------------------|----------------|---------------|-----------------|---------------|-----------------|----------------|---------------|-----------------|---------------|-----------------------------------|
| | | | Establishments. | | | Other Services. | Total. | Establishments. | | | Other Services. | Total. | |
| | | | Salaries. | Contingencies. | Total. | | | Salaries. | Contingencies. | Total. | | | |
| | | | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | |
| | IX. | Secretary for Public Works:— | | | | | | | | | | | |
| 100 | | Department of Public Works | 4,735 0 0 | 950 0 0 | 5,685 0 0 | ..... | 5,685 0 0 | 4,735 0 0 | 950 0 0 | 5,685 0 0 | ..... | 5,685 0 0 | |
| | | Harbours and Rivers Navigation:— | | | | | | | | | | | |
| 100 | | Engineer's Department | 6,989 0 0 | 145 0 0 | 7,134 0 0 | ..... | 7,134 0 0 | 6,989 0 0 | 145 0 0 | 7,134 0 0 | ..... | 7,134 0 0 | |
| 100 | | Fitzroy Dock | 2,160 0 0 | 2,340 0 0 | 4,500 0 0 | ..... | 4,500 0 0 | 2,160 0 0 | 2,340 0 0 | 4,500 0 0 | ..... | 4,500 0 0 | |
| 100 | | Dredge Service | 40,349 0 0 | 38,003 0 0 | 78,952 0 0 | ..... | 78,952 0 0 | 40,349 0 0 | 38,003 0 0 | 78,952 0 0 | ..... | 78,952 0 0 | |
| 104 | | Public Works | 1,838 0 0 | ..... | 1,838 0 0 | 68,122 0 0 | 69,510 0 0 | 1,838 0 0 | ..... | 1,838 0 0 | 68,122 0 0 | 69,510 0 0 | |
| 106 | | Colonial Architect | 11,532 0 0 | 6,135 0 0 | 17,667 0 0 | ..... | 17,667 0 0 | 11,532 0 0 | 6,135 0 0 | 17,667 0 0 | ..... | 17,667 0 0 | |
| 107-8 | | Public Works and Buildings .. .. . | ..... | ..... | ..... | 228,435 0 0 | 228,435 0 0 | ..... | ..... | ..... | 228,435 0 0 | 228,435 0 0 | |
| 103 | | Revotes .. .. . | ..... | ..... | ..... | 18,247 0 0 | 18,247 0 0 | ..... | ..... | ..... | 18,247 0 0 | 18,247 0 0 | |
| | | Roads and Bridges:— | | | | | | | | | | | |
| 110 | | General Establishment | 5,080 0 0 | 2,600 0 0 | 7,680 0 0 | ..... | 7,680 0 0 | 5,080 0 0 | 2,600 0 0 | 7,680 0 0 | ..... | 7,680 0 0 | |
| 110 | | Superintendents in Field | 12,383 0 0 | 4,495 0 0 | 16,878 0 0 | ..... | 16,878 0 0 | 12,383 0 0 | 4,495 0 0 | 16,878 0 0 | ..... | 16,878 0 0 | |
| 110-114 | | Construction and Maintenance .. .. . | ..... | ..... | ..... | 691,453 0 0 | 691,453 0 0 | ..... | ..... | ..... | 691,453 0 0 | 691,453 0 0 | |
| | | Totals.. .. . | 84,016 0 0 | 55,268 0 0 | 139,884 0 0 | 1,006,257 0 0 | 1,146,141 0 0 | 84,016 0 0 | 55,268 0 0 | 139,884 0 0 | 1,006,257 0 0 | 1,146,141 0 0 | |
| | IX. | Railways:— | | | | | | | | | | | |
| 118 | | General Establishment | 8,440 0 0 | 250 0 0 | 8,690 0 0 | ..... | 8,690 0 0 | 8,440 0 0 | 250 0 0 | 8,690 0 0 | ..... | 8,690 0 0 | |
| 119 | | Engineering Establishment—Works in Progress— | 18,972 0 0 | 7,450 0 0 | 21,422 0 0 | ..... | 21,422 0 0 | 18,972 0 0 | 7,450 0 0 | 21,422 0 0 | ..... | 21,422 0 0 | |
| 120-121 | | Do Construction | 27,842 0 0 | ..... | 27,842 0 0 | ..... | 27,842 0 0 | 27,842 0 0 | ..... | 27,842 0 0 | ..... | 27,842 0 0 | |
| 122 | | Staff, payable from Loan Votes .. .. . | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |  |
| | | Engineering Establishment—Works in Progress—Railway | 21,437 0 0 | ..... | 21,437 0 0 | ..... | 21,437 0 0 | 21,437 0 0 | ..... | 21,437 0 0 | ..... | 21,437 0 0 | |
| 123-124 | | Survey, payable from Loan Votes | 21,437 0 0 | ..... | 21,437 0 0 | ..... | 21,437 0 0 | 21,437 0 0 | ..... | 21,437 0 0 | ..... | 21,437 0 0 | |
| 125 | | Existing Lines—Working expenses | 86,549 0 0 | 1,722,391 0 0 | 1,808,940 0 0 | ..... | 1,808,940 0 0 | 86,549 0 0 | 1,722,391 0 0 | 1,808,940 0 0 | ..... | 1,808,940 0 0 | |
| | | Miscellaneous .. .. . | ..... | ..... | ..... | 3,200 0 0 | 3,200 0 0 | ..... | ..... | ..... | 3,200 0 0 | 3,200 0 0 | |
| | | Totals.. .. . | 168,240 0 0 | 1,780,091 0 0 | 1,888,331 0 0 | 3,200 0 0 | 1,891,531 0 0 | 168,240 0 0 | 1,780,091 0 0 | 1,888,331 0 0 | 3,200 0 0 | 1,891,531 0 0 | |
| | X. | The Postmaster-General:— | | | | | | | | | | | |
| 123-129 | | Post Office | 112,156 0 0 | 32,227 0 0 | 144,383 0 0 | 227,500 0 0 | 371,883 0 0 | 112,156 0 0 | 32,227 0 0 | 144,383 0 0 | 227,500 0 0 | 371,883 0 0 | |
| 130 | | Money Order and Government Savings Bank Department | 7,720 0 0 | 3,700 0 0 | 17,420 0 0 | ..... | 17,420 0 0 | 7,720 0 0 | 3,700 0 0 | 17,420 0 0 | ..... | 17,420 0 0 | |
| 131-132 | | Electric Telegraphs | 118,221 0 0 | 53,250 0 0 | 171,471 0 0 | ..... | 171,471 0 0 | 118,221 0 0 | 53,250 0 0 | 171,471 0 0 | ..... | 171,471 0 0 | |
| 133 | | Telephones | 2,043 0 0 | 5,200 0 0 | 7,243 0 0 | ..... | 7,243 0 0 | 2,043 0 0 | 5,200 0 0 | 7,243 0 0 | ..... | 7,243 0 0 | |
| 133 | | Electric Lights | 1,181 0 0 | 5,350 0 0 | 6,481 0 0 | ..... | 6,481 0 0 | 1,181 0 0 | 5,350 0 0 | 6,481 0 0 | ..... | 6,481 0 0 | |
| 138 | | British and Australian Cable Subsidy .. .. . | ..... | ..... | ..... | 12,618 0 0 | 12,618 0 0 | ..... | ..... | ..... | 12,618 0 0 | 12,618 0 0 | |
| 133 | | New Zealand Cable Subsidy .. .. . | ..... | ..... | ..... | 2,500 0 0 | 2,500 0 0 | ..... | ..... | ..... | 2,500 0 0 | 2,500 0 0 | |
| | | Totals.. .. . | 241,271 0 0 | 105,727 0 0 | 346,998 0 0 | 242,018 0 0 | 589,616 0 0 | 241,271 0 0 | 105,727 0 0 | 346,998 0 0 | 242,018 0 0 | 589,616 0 0 | |
| | XI. | Secretary for Mines:— | | | | | | | | | | | |
| 136-137 | | Department of Mines | 25,515 0 0 | 17,715 0 0 | 43,230 0 0 | 16,500 0 0 | 59,730 0 0 | 25,515 0 0 | 17,715 0 0 | 43,230 0 0 | 16,500 0 0 | 59,730 0 0 | |
| 138 | | Minor Roads Branch | 1,125 0 0 | 5,750 0 0 | 6,875 0 0 | ..... | 6,875 0 0 | 1,125 0 0 | 5,750 0 0 | 6,875 0 0 | ..... | 6,875 0 0 | |
| 138 | | Occupation of Lands | 4,895 0 0 | 150 0 0 | 5,045 0 0 | ..... | 5,045 0 0 | 4,895 0 0 | 150 0 0 | 5,045 0 0 | ..... | 5,045 0 0 | |
| 139 | | Prevention of Scab in Sheep | 13,285 0 0 | 2,955 0 0 | 16,240 0 0 | ..... | 16,240 0 0 | 13,285 0 0 | 2,955 0 0 | 16,240 0 0 | ..... | 16,240 0 0 | |
| 139 | | Rabbit Nuisance Act | 10,550 0 0 | 98,782 0 0 | 104,332 0 0 | ..... | 104,332 0 0 | 10,550 0 0 | 98,782 0 0 | 104,332 0 0 | ..... | 104,332 0 0 | |
| 140 | | Imported Stock | 220 0 0 | 450 0 0 | 670 0 0 | ..... | 670 0 0 | 220 0 0 | 450 0 0 | 670 0 0 | ..... | 670 0 0 | |
| 140 | | Registration of Brands | 1,500 0 0 | 650 0 0 | 2,150 0 0 | ..... | 2,150 0 0 | 1,500 0 0 | 650 0 0 | 2,150 0 0 | ..... | 2,150 0 0 | |
| 140 | | Public Tanks and Wells | 677 0 0 | 11,150 0 0 | 11,827 0 0 | ..... | 11,827 0 0 | 677 0 0 | 11,150 0 0 | 11,827 0 0 | ..... | 11,827 0 0 | |
| 140 | | Management of Pounds and Commons | 150 0 0 | 350 0 0 | 500 0 0 | ..... | 500 0 0 | 150 0 0 | 350 0 0 | 500 0 0 | ..... | 500 0 0 | |
| 140 | | Miscellaneous .. .. . | ..... | ..... | ..... | 30,000 0 0 | 30,000 0 0 | ..... | ..... | ..... | 30,000 0 0 | 30,000 0 0 | |
| | | Totals.. .. . | 57,917 0 0 | 182,952 0 0 | 190,869 0 0 | 46,500 0 0 | 237,369 0 0 | 57,917 0 0 | 182,952 0 0 | 190,869 0 0 | 46,500 0 0 | 237,369 0 0 | |
| | | Total Estimated | 1,922,335 0 0 | 3,083,298 0 0 | 5,005,633 0 0 | 1,912,090 0 0 | 6,917,723 0 0 | ..... | ..... | ..... | ..... | ..... |  |
| | | Total voted and embodied in the Appropriation Act of 1885 .. .. . | ..... | ..... | ..... | ..... | ..... | 1,922,335 0 0 | 3,083,298 0 0 | 5,005,633 0 0 | 1,912,090 0 0 | 6,917,723 0 0 | |
| | | GROSS TOTALS.. .. . | £ 1,922,335 0 0 | 3,083,298 0 0 | 5,005,633 0 0 | 1,912,090 0 0 | 6,917,723 0 0 | £ 1,922,335 0 0 | 3,083,298 0 0 | 5,005,633 0 0 | 1,912,090 0 0 | 6,917,723 0 0 | |

No. II.

(SERVICES OF 1884 AND PREVIOUS YEARS.)

EXPLANATORY ABSTRACT of the Amounts respectively Estimated, Voted, and Embodied in the Appropriation Act, 48^o Victoria No. 27, for the Supplementary Service of the year 1884 and previous years.

| | £ | s. | d. |
|---|---------|----|----|
| Amount of Estimates | 104,643 | 14 | 10 |
| Amount Voted and embodied in the Appropriation Act..... | 103,643 | 14 | 10 |
| Excess of Estimated over Authorized Expenditure | 1,000 | 0 | 0 |
| NOTES Explanatory of Alterations made in the Supplementary Estimates in their progress through Committee of Supply:— | | | |
| GROSS Amount of Supplementary Estimates for the year 1884 and previous years, submitted with Message No. 1 | 104,643 | 14 | 10 |
| SERVICES OF 1884. | | | |
| REDUCED. | | | |
| By <i>Negative</i> :— | | | |
| “Colonial Secretary”— <i>Miscellaneous</i> Item, £1,000, for compensation to Captain Armstrong, late Resident Magistrate, for loss sustained by his removal from Lord Howe Island | 1,000 | 0 | 0 |
| Amount Voted | 103,643 | 14 | 10 |

Legislative Assembly Office,
Sydney, 27th November, 1884.

F. W. WEBB,
Clerk Assistant.

ESTIMATES
 OF THE
 WAYS AND MEANS
 OF THE
 GOVERNMENT
 OF
 NEW SOUTH WALES
 FOR THE YEAR
 1885.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED, 19 NOVEMBER, 1884.



SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1884.

[2s.]

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CONSOLIDATED REVENUE FUND.

ACCOUNT

OF THE

RECEIPTS AND EXPENDITURE

FOR THE

YEAR 1884 AND PREVIOUS YEARS.

Consolidated

ACCOUNT OF THE RECEIPTS AND EXPENDITURE

Dr.

| No. | PARTICULARS. | AMOUNT. | TOTAL. |
|-----|---|---------------|----------------|
| | | £ s. d. | £ s. d. |
| | SERVICES OF 1883 AND PREVIOUS YEARS. | | |
| 1 | To amount of payments made on account of the following Services, from 1st January to 31st October, 1884, viz. :— | | |
| | Services of 1883 and previous years | 686,234 18 0 | |
| | Services specially authorized out of the Surplus Revenue Account, under various Acts | 532,253 6 8 | 1,218,488 4 8 |
| 2 | To amount of Outstanding Liabilities against the Consolidated Revenue Fund, on the 31st October, 1884, viz. :— | | |
| | Services of 1882 and previous years, as per Appropriation Act 48 Victoria No. 25 | 37,365 4 9 | |
| | Services of 1883 £712,879 0 8 | | |
| | Less—Amount of Appropriations estimated as not likely to be required 300,000 0 0 | 412,879 0 8 | |
| | Services specially authorized out of the Surplus Revenue Account, under various Acts | 446,581 12 1 | 896,825 17 6 |
| 3 | To Estimated Surplus carried forward to 1884 | | 2,115,314 2 2 |
| | | | 664,621 7 6 |
| | | | 2,779,935 9 8 |
| | YEAR 1884. | | |
| 4 | To charges on the Consolidated Revenue Fund, on account of 1884, as shown in the Summary of the Estimates-in-Chief for 1885, page 1, viz. :— | | |
| | General Services... .. | 6,289,708 0 0 | |
| | Provided by Constitutional and Colonial Acts... .. | 46,485 8 0 | |
| | Special Appropriations | 1,286,676 0 0 | |
| | | 7,622,869 8 0 | |
| | Less—Amount of appropriations estimated as not likely to be required £300,000 0 0 | | |
| | Chargeable on Loan Votes 54,374 0 0 | 354,374 0 0 | 7,268,495 8 0 |
| 5 | To amount of further Special Appropriations, viz. :— | | |
| | Revenue and Receipts returned... .. | 130,000 0 0 | |
| | Drawbacks and Refund of Duties | 12,000 0 0 | |
| | Charges on Collections | 3,000 0 0 | |
| | Refunds under the Superannuation Repeal Act | 828 16 1 | |
| | Expenses of Returning Officers | 402 11 0 | |
| | Preliminary Expenses of Municipal Institutions | 193 8 3 | |
| | Witnesses Expenses, Parliamentary Evidence Act | 244 14 0 | 146,669 9 4 |
| 6 | To amount of Supplementary Estimates for Services of 1884 and previous years, as per the Supplementary Estimates now before the Legislative Assembly | | 7,415,164 17 4 |
| 7 | To Estimated Surplus, 31st December, 1884 | | 104,643 14 10 |
| | | | 7,519,808 12 2 |
| | | | 210,679 15 4 |
| | TOTAL £ | | 7,780,488 7 6 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

Revenue Fund.

FOR THE YEAR 1884 AND PREVIOUS YEARS.

Cr.

| No. | PARTICULARS. | AMOUNT. | TOTAL. |
|-----|--|---------------------|---------------------------|
| | REVENUE BALANCE OF 1883 AND PREVIOUS YEARS. | £ s. d. | £ s. d. |
| 1 | By Balance at the credit of the Consolidated Revenue Fund, on 31st December, 1883 ... .. | ..... | 2,511,016 5 10 |
| 2 | By Advances to be repaid— | | |
| | Amount of Treasurer's Advance Votes, for the years 1882 and 1883 | 250,000 0 0 | |
| | Amount of Advances to Railway Contractors... .. | 3,000 0 0 | |
| | Amount of Advances in 1883 on account of the Railway Extension, Wallerawang to Mudgee, to be repaid from the Loan Vote of £157,000 for this Service— | 15,919 3 10 | 268,919 3 10 |
| | | | <hr/> 2,779,935 9 8 <hr/> |
| | YEAR 1884. | | |
| | By Estimated Surplus brought down ... .. | ..... | 664,621 7 6 |
| | By Amount of Actual and Estimated Revenue and Receipts for the year 1884, as per Statement attached, marked A, page 13, viz. :— | | |
| | Taxation | 2,110,204 0 0 | |
| | Land Revenue— | | |
| | Sales | £991,249 0 0 | |
| | Annual Revenue | 738,426 0 0 | |
| | | <hr/> 1,729,675 0 0 | |
| | Receipts for Services rendered | 2,978,749 0 0 | |
| | General Miscellaneous Receipts | 247,239 0 0 | |
| | | <hr/> 7,065,867 0 0 | |
| | | | <hr/> 7,730,488 7 6 <hr/> |

GEORGE B. DIBBS,
Treasurer.

No. 2.

ACCOUNT

OF THE

CONSOLIDATED REVENUE FUND OF NEW SOUTH WALES

SHOWING THE

PROPOSED EXPENDITURE

IN RELATION TO THE

ESTIMATED INCOME

FOR THE YEAR

1885.

Consolidated

ACCOUNT OF ESTIMATED REVENUE AND

Dr.

| No. | PARTICULARS. | AMOUNT. | | TOTAL. | |
|-----|--|-----------|-------|-----------|-------|
| | | £ | s. d. | £ | s. d. |
| 1 | To CHARGES ON THE CONSOLIDATED REVENUE FUND, as shown in Summary of the Estimates-in-Chief for 1885, page 1, viz. :— | | | | |
| | General Services | 6,752,643 | 0 0 | | |
| | Provided by Constitutional and Colonial Acts ... | 45,935 | 8 0 | | |
| | Special Appropriations | 1,671,276 | 0 0 | | |
| | | 8,469,854 | 8 0 | | |
| | Less—chargeable against Loan Votes ... | 49,279 | 0 0 | | |
| | | | | 8,420,575 | 8 0 |
| 2 | To ESTIMATED SURPLUS | | | 275,354 | 7 4 |
| | TOTAL | £ | | 8,695,929 | 15 4 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

JAMES PEARSON,
Accountant.

2.

Revenue Fund.

EXPENDITURE FOR THE YEAR 1885.

Cr.

| No. | PARTICULARS. | AMOUNT. | TOTAL. |
|-----|---|---------------------|---------------------|
| | | £ s. d. | £ s. d. |
| 1 | BY AMOUNT OF ESTIMATED SURPLUS on the Account for 1884 and previous years, brought forward ... .. | ..... | 210,679 15 4 |
| 2 | BY AMOUNT OF ESTIMATED REVENUE for the year 1885, as per Statement attached, marked A, page 13, viz. :— | | |
| | Taxation | 2,254,150 0 0 | |
| | Land Revenue— | | |
| | Sales £1,544,000 0 0 | | |
| | Annual Revenue 979,700 0 0 | | |
| | | <hr/> 2,523,700 0 0 | |
| | Receipts for services rendered | 3,424,050 0 0 | |
| | General Miscellaneous Receipts | 283,350 0 0 | |
| | | | <hr/> 8,485,250 0 0 |
| | TOTAL... .. | £ | 8,695,929 15 4 |

JAMES THOMSON,
Consulting Accountant.

GEORGE R. DIBBS,
Treasurer.

A.

CONSOLIDATED REVENUE.

ABSTRACT STATEMENT showing the ACTUAL REVENUE of the Year 1883, the ACTUAL and ESTIMATED REVENUE for 1884, and the ESTIMATED REVENUE for 1885.

| Head of Receipt. | Revenue of 1883. | Actual and Estimated Revenue of 1884. | Estimated Revenue for 1885. |
|--|--------------------|---------------------------------------|-----------------------------|
| Taxation. | | | |
| | £ | £ | £ |
| Customs | 1,546,844 | 1,687,715 | 1,736,700 |
| Excise | 12,204 | 79,879 | 138,000 |
| Stamps | 214,976 | 218,079 | 250,000 |
| Licenses | 117,684 | 124,531 | 129,450 |
| Total Taxation | 1,891,708 | 2,110,204 | 2,254,150 |
| Land Revenue. | | | |
| SALES | 958,804 | 991,249 | 1,544,000 |
| ANNUAL LAND REVENUE— | | | |
| Interest on Land conditionally purchased .. | 310,676 | 329,921 | 340,000 |
| Pastoral Occupation | 340,130 | 351,107 | 555,000 |
| Mining Occupation | 17,778 | 26,375 | 24,500 |
| Miscellaneous Land Receipts | 28,656 | 31,023 | 60,200 |
| | 697,240 | 738,426 | 979,700 |
| Total Land Revenue.. .. . | 1,656,044 | 1,729,675 | 2,523,700 |
| Receipts for Services rendered. | | | |
| Railway Receipts | 2,081,002 | 2,344,116 | 2,750,000 |
| Post Office | 403,812 | 441,237 | 474,250 |
| Mint Receipts | 7,010 | 7,684 | 8,000 |
| Fees for Escort and Conveyance of Gold.. .. | 1,344 | 1,122 | 1,200 |
| Pilotage, Harbour, and Light Rates and Fees .. | 51,802 | 54,775 | 57,000 |
| Registration of Brands | 758 | 764 | 1,050 |
| Public School Fees | 51,428 | 54,663 | 58,000 |
| Fees of Office | 69,504 | 74,388 | 74,550 |
| Total Receipts for Services rendered | 2,666,660 | 2,978,749 | 3,424,050 |
| General Miscellaneous Receipts. | | | |
| Rents, exclusive of Land | 45,534 | 48,288 | 49,250 |
| Fines and Forfeitures | 19,790 | 21,387 | 22,500 |
| Unclassified Receipts | 196,398 | 177,564 | 211,600 |
| Total Miscellaneous Receipts | 261,722 | 247,239 | 283,350 |
| Grand Totals | £ 6,476,134 | 7,065,867 | 8,485,250 |

GEORGE R. DIBBS,
Treasurer.

The Treasury, New South Wales,
Sydney, 19th November, 1884.

REVENUE DETAILED.

| Head of Receipt. | Revenue of 1883. | Actual and Estimated Revenue for 1884. | | | Estimated Revenue for 1885. |
|---|------------------|--|----------------------|-----------|-----------------------------|
| | | Actual to 31 Oct. | Estimated to 31 Dec. | Total. | |
| Taxation. | | | | | |
| CUSTOMS— | | | | | |
| Spirits | 717,845 | 626,497 | 125,000 | 751,497 | 775,000 |
| Wine | 51,208 | 42,827 | 8,000 | 50,827 | 55,000 |
| Ale and Beer | 47,163 | 42,218 | 7,500 | 49,718 | 50,000 |
| Tobacco and Cigars | 129,114 | 115,244 | 25,000 | 140,244 | 150,000 |
| Tea | 75,883 | 86,153 | 18,000 | 104,153 | 105,000 |
| Sugar and Molasses | 112,611 | 121,511 | 19,000 | 140,511 | 150,000 |
| Coffee and Chicory | 10,681 | 11,434 | 1,800 | 13,234 | 14,000 |
| Opium | 14,111 | 16,102 | 2,500 | 18,602 | 18,000 |
| Malt | 8,362 | 8,262 | 2,000 | 10,262 | 11,000 |
| Hops | 8,902 | 6,943 | 1,200 | 8,143 | 9,000 |
| Rice | 14,363 | 14,009 | 1,500 | 15,509 | 16,500 |
| Dried Fruits | 50,418 | 43,403 | 12,000 | 55,403 | 56,000 |
| Specific Duties | 271,620 | 273,403 | 40,000 | 313,403 | 320,000 |
| Bonded Warehouses, 20 Vic. No. 21 | 6,593 | 6,338 | ..... | 6,338 | 7,000 |
| Rent of Goods in Queen's Warehouses, &c. | 196 | 231 | 30 | 261 | 200 |
| | 1,519,070 | 1,414,575 | 263,530 | 1,678,105 | 1,736,700 |
| Cash Payments by the Government of South Australia | *27,774 | 9,610 | ..... | 9,610 | ..... |
| | 1,546,844 | 1,424,185 | 263,530 | 1,687,715 | 1,736,700 |
| EXCISE— | | | | | |
| Duty on Tobacco, Cigars, and Cigarettes ... .. | ..... | 51,220 | 17,800 | 69,020 | 130,000 |
| Duty on Spirits Distilled in the Colony | 12,204 | 9,059 | 1,800 | 10,859 | 8,000 |
| | 12,204 | 60,279 | 19,600 | 79,879 | 138,000 |
| STAMPS | | | | | |
| | 214,976 | 186,079 | 32,000 | 218,079 | 250,000 |
| LICENSES— | | | | | |
| Wholesale Spirit-dealers and Brewers | 8,397 | 8,041 | 330 | 8,371 | 9,000 |
| Auctioneers | 4,031 | 1,898 | 2,302 | 4,200 | 4,400 |
| Retail Fermented and Spirituous Liquors | 93,005 | 90,887 | 6,000 | 96,887 | 100,000 |
| Billiard and Bagatelle Licenses | 7,328 | 3,495 | 3,600 | 7,095 | 7,500 |
| Distillers and Rectifiers | 66 | 80 | 20 | 100 | 100 |
| Hawkers and Pedlers | 1,887 | 1,864 | 150 | 2,014 | 2,200 |
| Pawnbrokers | 700 | 551 | 300 | 851 | 900 |
| Colonial Wine, Cider, and Perry Licenses | 1,193 | 1,133 | 200 | 1,333 | 1,400 |
| Licenses under the Gunpowder Act of 1876 | 498 | 560 | 160 | 720 | 750 |
| Licenses to sell Tobacco ... .. | ..... | 2,103 | 200 | 2,303 | 2,500 |
| All other Licenses | 579 | 517 | 140 | 657 | 700 |
| | 117,684 | 111,129 | 13,402 | 124,531 | 129,450 |
| TOTAL TAXATION | £ 1,891,708 | 1,781,672 | 328,532 | 2,110,204 | 2,254,150 |

* The difference between this sum and the £47,500 payable by the Government of South Australia under the recent convention is distributed under the various tariff heads, being the amount of duties collected, or estimated to be collected, by New South Wales, on bonded goods, which is taken as part payment of the amount agreed upon. The duties are now collected by the New South Wales officers on the Border, as the Convention has expired by effluxion of time.

REVENUE DETAILED—*continued.*

| Head of Receipt. | Revenue of 1883. | Actual and Estimated Revenue for 1884. | | | Estimated Revenue for 1885. |
|---|---------------------|--|-------------------------|----------------|-----------------------------------|
| | | Actual to 31 Oct. | Estimated to 31 Dec. | Total. | |
| Land Revenue. | £ | £ | £ | £ | £ |
| SALES— | | | | | |
| Auction Sales | 178,304 | 72,240 | 10,000 | 82,240 | 200,000 |
| Improved Purchases, &c. | 117,561 | 206,066 | 100,000 | 306,066 | 700,000 |
| Selections after Auction | 37,480 | 767 | ..... | 767 | ..... |
| Provisional Pre-emptive Right Sales | 1,345 | ..... | ..... | ..... | ..... |
| Deposits on Conditional Purchases | 424,968 | 288,060 | 64,685 | 352,745 | 350,000 |
| Instalments on Conditional Purchases | 137,278 | 170,063 | 12,000 | 182,063 | 230,000 |
| Balances on Conditional Purchases | 58,315 | 53,735 | 3,000 | 56,735 | 60,000 |
| Miscellaneous Purchases | 3,553 | 8,633 | 2,000 | 10,633 | 4,000 |
| TOTAL REVENUE FROM LAND SALES £ | 958,804 | 799,564 | 191,685 | 991,249 | 1,544,000 |
| Annual Land Revenue. | | | | | |
| INTEREST ON LAND CONDITIONALLY PURCHASED. | 310,676 | 324,921 | 5,000 | 329,921 | 340,000 |
| PASTORAL OCCUPATION— | | | | | |
| Pastoral Leases... .. | 272,959 | 9,815 | 280,000 | 289,815 | 450,000 |
| Annual and Special Leases | 66,694 | 57,828 | 3,000 | 60,828 | 105,000 |
| Quit Rents | 477 | 449 | 15 | 464 | ..... |
| | 340,130 | 68,092 | 283,015 | 351,107 | 555,000 |
| MINING OCCUPATION— | | | | | |
| Mineral Leases | 8,221 | 11,180 | 2,160 | 13,340 | 12,000 |
| Mineral Licenses | 1,573 | 3,212 | 250 | 3,462 | 3,000 |
| Leases of Auriferous Lands | 2,640 | 3,258 | 565 | 3,823 | 4,000 |
| Miners' Rights | 4,560 | 4,029 | 150 | 4,179 | 4,500 |
| Business Licenses | 784 | 1,481 | 90 | 1,571 | 1,000 |
| | 17,778 | 23,160 | 3,215 | 26,375 | 24,500 |
| MISCELLANEOUS LAND RECEIPTS— | | | | | |
| Timber Licenses, Royal | 9,886 | 7,616 | 2,500 | 10,116 | 21,000 |
| Fees on Transfer of Runs | 1,053 | 854 | 170 | 1,024 | 1,200 |
| Fees on Preparation and Enrolment of Title-deeds | 3,958 | 3,626 | 350 | 3,976 | 8,000 |
| All other Receipts | 13,759 | 12,907 | 3,000 | 15,907 | 30,000 |
| | 28,656 | 25,003 | 6,020 | 31,023 | 60,200 |
| TOTAL ANNUAL LAND REVENUE £ | 697,240 | 441,176 | 297,250 | 738,426 | 979,700 |

REVENUE DETAILED—*continued.*

| Head of Receipt. | Revenue of 1883. | Actual and Estimated Revenue for 1884. | | | Estimated Revenue for 1885. |
|---|---------------------|--|-------------------------|-----------|-----------------------------------|
| | | Actual to 31 Oct. | Estimated to 31 Dec. | Total. | |
| Receipts for Services rendered. | £ | £ | £ | £ | £ |
| RAILWAYS— | | | | | |
| Railways Proper | 1,891,454 | 1,608,026 | 520,000 | 2,128,026 | 2,500,000 |
| Tramways | 189,548 | 180,090 | 36,000 | 216,090 | 250,000 |
| | 2,081,002 | 1,788,116 | 556,000 | 2,344,116 | 2,750,000 |
| POST OFFICE— | | | | | |
| Postage | 261,680 | 241,742 | 48,000 | 289,742 | 316,000 |
| Telegraph Receipts | 130,890 | 115,949 | 23,300 | 139,249 | 145,000 |
| Commission on Money Orders | 11,242 | 10,146 | 2,100 | 12,246 | 13,250 |
| | 403,812 | 367,837 | 73,400 | 441,237 | 474,250 |
| MINT RECEIPTS | 7,010 | 6,034 | 1,600 | 7,684 | 8,000 |
| FEEs FOR ESCORT AND CONVEYANCE OF GOLD... | 1,344 | 922 | 200 | 1,122 | 1,200 |
| PILOTAGE, HARBOUR, AND LIGHT RATES AND FEES | 51,802 | 45,275 | 9,500 | 54,775 | 57,000 |
| REGISTRATION OF BRANDS | 758 | 614 | 150 | 764 | 1,050 |
| PUBLIC SCHOOL FEES | 51,428 | 43,663 | 11,000 | 54,663 | 58,000 |
| FEES OF OFFICE— | | | | | |
| Certificates of Naturalization | 393 | 377 | 50 | 427 | 400 |
| Registrar-General | 26,866 | 23,883 | 6,000 | 29,883 | 30,000 |
| Prothonotary of Supreme Court | 6,200 | 5,129 | 1,000 | 6,129 | 6,500 |
| Master in Equity | 1,068 | 1,334 | 250 | 1,584 | 1,500 |
| Curator of Intestate Estates | 1,300 | 1,248 | 400 | 1,648 | 2,000 |
| Insolvent Court | 2,683 | 2,363 | 480 | 2,843 | 2,600 |
| Sheriff | 1,289 | 1,204 | 250 | 1,454 | 1,400 |
| District Courts... .. | 5,256 | 4,988 | 500 | 5,488 | 5,000 |
| Courts of Petty Sessions | 8,875 | 7,254 | 1,750 | 9,004 | 9,000 |
| Shipping Masters | 3,852 | 3,363 | 750 | 4,113 | 4,150 |
| Other Fees | 11,222 | 6,515 | 5,300 | 11,815 | 12,000 |
| | 69,504 | 57,658 | 16,730 | 74,388 | 74,550 |
| TOTAL RECEIPTS FOR SERVICES RENDERED | £ 2,666,660 | 2,310,169 | 668,580 | 2,978,749 | 3,424,050 |

REVENUE DETAILED—continued.

| Head of Receipt. | Revenue of 1883. | Actual and Estimated Revenue for 1884. | | | Estimated Revenue for 1885. |
|---|------------------|--|----------------------|-----------|-----------------------------|
| | | Actual to 31 Oct. | Estimated to 31 Dec. | Total. | |
| General Miscellaneous Receipts. | £ | £ | £ | £ | £ |
| RENTS, EXCLUSIVE OF LAND— | | | | | |
| Tolls and Ferries | 6,586 | 5,655 | 1,500 | 7,155 | 7,250 |
| Wharfs | 29,323 | 27,748 | 5,000 | 32,748 | 35,000 |
| Government Buildings and Premises... .. | 6,425 | 5,748 | 1,200 | 6,948 | 7,000 |
| Glebe Island Bridge | 3,200 | 1,437 | ..... | 1,437 | ..... |
| | 45,534 | 40,588 | 7,700 | 48,288 | 49,250 |
| FINES AND FORFEITURES— | | | | | |
| Sheriff | 885 | 530 | 250 | 780 | 800 |
| Courts of Petty Sessions | 17,278 | 15,370 | 3,500 | 18,870 | 20,000 |
| Unauthorized Occupation of Crown Lands ... | 186 | 282 | 50 | 332 | 400 |
| Crown's Share of Seizures, &c. | 144 | 566 | 75 | 641 | 500 |
| Confiscated and Unclaimed Property... .. | 258 | 46 | 50 | 96 | 100 |
| Other Fines | 1,039 | 568 | 100 | 668 | 700 |
| | 19,790 | 17,362 | 4,025 | 21,387 | 22,500 |
| UNCLASSIFIED RECEIPTS— | | | | | |
| Transfer from Public Instruction Endowment Account | 25,685 | ..... | 12,000 | 12,000 | 15,000 |
| Sale of Government Property... .. | 4,404 | 4,616 | 900 | 5,516 | 6,000 |
| Support of Patients in Lunatic Asylums ... | 5,968 | 5,760 | 600 | 6,360 | 6,100 |
| Collections by Government Printer | 6,095 | 4,507 | 950 | 5,457 | 6,000 |
| Store Rent of Gunpowder, &c. | 3,923 | 3,214 | 1,000 | 4,214 | 9,500 |
| Value of Articles manufactured by Prisoners in Gaol, &c. | 20,310 | 4,972 | 15,000 | 19,972 | 20,000 |
| Fees on presenting Private Bills to Parliament and on Letters of Registration ... | 4,113 | 3,148 | ..... | 3,148 | 4,000 |
| Interest on Bank Deposits | 35,121 | 22,281 | 5,000 | 27,281 | 50,000 |
| Glebe Island Abattoir Receipts | 9,517 | 9,025 | 1,400 | 10,425 | 10,000 |
| Fitz Roy Dry Dock Receipts | 1,443 | 2,058 | 250 | 2,308 | 2,500 |
| Assessment on Sugar Refinery | 1,500 | 750 | 750 | 1,500 | 1,500 |
| Fisheries Commission | 2,943 | 4,817 | 500 | 5,317 | 6,000 |
| Other Receipts... .. | 75,376 | 49,066 | 25,000 | 74,066 | 75,000 |
| | 196,398 | 114,214 | 63,350 | 177,564 | 211,600 |
| TOTAL, GENERAL MISCELLANEOUS RECEIPTS £ | 261,722 | 172,164 | 75,075 | 247,239 | 283,350 |
| Grand Totals | £ 6,476,134 | 5,504,745 | 1,561,122 | 7,065,867 | 8,485,250 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

GEORGE R. DIBBS,
Treasurer.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews, while secondary data was obtained from existing reports and databases.

The third section details the statistical analysis performed on the collected data. It describes the use of descriptive statistics to summarize the data and inferential statistics to test hypotheses. The results of these analyses are presented in a clear and concise manner, highlighting the key findings of the study.

Finally, the document concludes with a discussion of the implications of the findings. It suggests that the results have significant implications for the field of study and offers recommendations for further research. The author also acknowledges the limitations of the study and expresses gratitude to those who assisted in the research process.

B.

STATEMENT showing the Amounts appropriated for the service of the year 1883, the Expenditure therefrom to 31st October, 1884, and the Balance unexpended on that date, retained for future expenditure.

| HEAD OF SERVICE. | AMOUNT. | | | TOTAL. | | |
|--|-----------|----|----|-----------|----|----|
| | £ | s. | d. | £ | s. | d. |
| Amount of authorized Charges on the Consolidated Revenue Fund | 6,813,943 | 16 | 5 | | | |
| Amount of further authorized Charges, as per Supplementary Estimates | 281,649 | 16 | 6 | | | |
| Amount of Additional Special Appropriations, viz. :— | | | | | | |
| Revenue refunded | 94,947 | 12 | 10 | | | |
| Charges on Collections... .. | 5,122 | 11 | 3 | | | |
| Expenses of Returning Officers | 6,860 | 5 | 6 | | | |
| Superannuation Repeal Fund... .. | 925 | 8 | 1 | | | |
| Preliminary Expenses of Municipal Institutions | 287 | 18 | 0 | | | |
| Authorized increases to Salaries and Pensions of Supreme and District Court Judges ... | 7,821 | 17 | 9 | | | |
| Schedule A—Supplement | 366 | 13 | 4 | | | |
| Schedule B—Supplement | 314 | 18 | 4 | | | |
| | 116,647 | 5 | 1 | | | |
| | | | | 7,212,240 | 18 | 0 |
| Deduct Expenditure from 1st January, 1883, to 31st October, 1884 | 6,879,302 | 14 | 8 | | | |
| <i>Less</i> —Amount of Treasurer's Advance Vote to be repaid | £150,000 | 0 | 0 | | | |
| Advances on account of Loan Services repaid | 87,385 | 18 | 6 | | | |
| Advances on account of Loan Services to be repaid | 142,554 | 18 | 10 | | | |
| | 379,940 | 17 | 4 | | | |
| | | | | 6,499,361 | 17 | 4 |
| Balance of Appropriations, 31st October, 1884 | £ | | | 712,879 | 0 | 8 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

JAMES PEARSON,
Accountant.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The analysis focuses on identifying trends and patterns over time, which is crucial for making informed decisions.

The third part of the document details the challenges faced during the data collection process. These include issues related to data quality, such as missing values and outliers. The author provides strategies to address these challenges, such as data cleaning and imputation techniques.

Finally, the document concludes with a summary of the findings and their implications. It highlights the key insights gained from the analysis and offers recommendations for future research and practice. The author stresses the need for continuous monitoring and evaluation to ensure the effectiveness of the data-driven approach.

C.

CONSOLIDATED REVENUE FUND.—SURPLUS REVENUE CHARGES.

STATEMENT showing the APPROPRIATIONS on account of PUBLIC WORKS AND OTHER SERVICES authorized to be defrayed out of SURPLUS REVENUE; the EXPENDITURE therefrom to the 31st October, 1884; and the BALANCES written off or retained for expenditure on that date.

| No. of Item in Appropriation Act. | HEAD OF SERVICE. | Amount Appropriated. | | Amount expended to 31st Oct., 1884. | | Balances | |
|-----------------------------------|---|----------------------|-------|-------------------------------------|-------|--------------|------------|
| | | £ | s. d. | £ | s. d. | Written off. | Retained. |
| | Appropriations of 1879. (Under the Acts 42 Vic. Nos. 6 and 17.) | | | | | | |
| | Towards meeting the expenses connected with the International Exhibition to be held in Sydney in 1879 | 100,000 | 0 0 | 100,000 | 0 0 | ..... | ..... |
| | (Under the Act 43 Vic. No. 10.) | | | | | | |
| | No. III. | | | | | | |
| 825 | Charitable Allowances—Towards the completion of the Prince Alfred Hospital | 20,000 | 0 0 | 20,000 | 0 0 | ..... | ..... |
| 826 | Expenses connected with the International Exhibition held in Sydney in 1879 | 75,000 | 0 0 | 74,733 | 1 2 | 266 18 10 | ..... |
| 827 | Special grant to Country and Suburban Municipalities equal to full rates in each case for the Municipal year ending 4th February, 1879 | 68,000 | 0 0 | 68,000 | 0 0 | ..... | ..... |
| 828 | Special grant to the Corporation of Sydney for the year 1879 | 25,000 | 0 0 | 25,000 | 0 0 | ..... | ..... |
| | No. VII. | | | | | | |
| 829 | For purchase of land adjoining the Necropolis, Haslem's Creek, for public purposes, 1,440 acres | 36,000 | 0 0 | 36,000 | 0 0 | ..... | ..... |
| 830 | For the purchase of certain land at Waverley, for the purposes of a Public Park and Water Reservoir | 7,500 | 0 0 | 7,500 | 0 0 | ..... | ..... |
| 831 | For improvements in connection with the National Park | 2,000 | 0 0 | 2,000 | 0 0 | ..... | ..... |
| 832 | For the purchase of land at Ashfield for a Public Park | 7,000 | 0 0 | 6,536 | 0 10 | 463 19 2 | ..... |
| | No. VIII. | | | | | | |
| 833 | Breakwaters, Clarence River, including some payments in 1878, out of the Treasurer's Advance Account | 20,000 | 0 0 | 19,998 | 5 11 | 1 14 1 | ..... |
| 834 | Prison Buildings, &c., Trial Bay | 30,000 | 0 0 | 29,997 | 8 4 | 2 11 8 | ..... |
| 835 | Dredge for Rivers and Lakes | 15,000 | 0 0 | 14,998 | 19 5 | 1 0 7 | ..... |
| 836 | Dredge, Tug, and Punts, to be employed in the first instance on the Manning River | 18,000 | 0 0 | 13,393 | 19 8 | ..... | 4,606 0 4 |
| 837 | Punts for Dredge Service | 13,000 | 0 0 | 13,000 | 0 0 | ..... | ..... |
| 838 | New Dredge, &c., for Sydney Harbour | 15,000 | 0 0 | 9,876 | 11 5 | ..... | 5,123 8 7 |
| 839 | For providing Water Supply for Country Towns | 250,000 | 0 0 | 249,702 | 7 5 | ..... | 297 12 7 |
| 840 | Erection of Light-house, Green Cape | 17,000 | 0 0 | 17,000 | 0 0 | ..... | ..... |
| 841 | For the erection of a new Lunatic Asylum at Callan Park | 127,000 | 0 0 | 126,999 | 1 1 | 0 18 11 | ..... |
| 842 | For the completion of Public Offices for the Lands Department | 35,000 | 0 0 | 34,743 | 5 6 | 256 14 6 | ..... |
| 843 | For the completion of new Public Offices for Department of Public Works and Colonial Secretary | 45,000 | 0 0 | 45,000 | 0 0 | ..... | ..... |
| | Carried forward | £ 825,500 | 0 0 | 814,479 | 0 9 | 993 17 9 | 10,027 1 6 |
| | Carried forward... .. | £ 100,000 | 0 0 | 100,000 | 0 0 | ..... | ..... |

STATEMENT—continued.

| No. of Item in Appropriation Act. | HEAD OF SERVICE. | Amount Appropriated. | | | Amount expended to 31st Oct., 1884. | | | Balances | | | | | | |
|-----------------------------------|---|----------------------|----|----|-------------------------------------|-------|-------|--------------|---------|-------|-----------|-------|-------|-------|
| | | £ | s. | d. | £ | s. | d. | Written off. | | | Retained. | | | |
| | Brought forward... .. | 100,000 | 0 | 0 | 100,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| | Appropriations of 1879—continued. (Under 43 Vic. No. 10.) | | | | | | | | | | | | | |
| | Brought forward | 825,500 | 0 | 0 | 814,479 | 0 | 9 | 998 17 9 | 10,027 | 1 | 6 | | | |
| | No. VIII—continued. | | | | | | | | | | | | | |
| 844 | For the erection of a new Free Public Library | 150,000 | 0 | 0 | 97,797 | 13 | 7 | ..... | *52,202 | 6 | 5 | | | |
| 845 | For the erection of new Law Courts | 210,000 | 0 | 0 | ..... | ..... | ..... | 210,000 | 0 | 0 | | | | |
| 846 | For the extension of the new General Post Office, including £13,300 payable to the Honorable Alexander Campbell under Arbitrator's award for resumption of land in Pitt-street | 150,000 | 0 | 0 | 117,342 | 14 | 9 | ..... | 32,657 | 5 | 3 | | | |
| 847 | Construction of Telegraph Line, Louth to Cobarr | 5,000 | 0 | 0 | 3,337 | 1 | 7 | 1,662 | 18 | 5 | | | | |
| | Re-votes:— | | | | | | | | | | | | | |
| | Appropriations and Balances of Appropriations which lapsed on the 31st December, 1878, re-voted:— | | | | | | | | | | | | | |
| | 1876:— | | | | | | | | | | | | | |
| 848 | Wharf, Kempsey, Macleay River | 800 | 0 | 0 | ..... | ..... | ..... | 800 | 0 | 0 | | | | |
| 849 | Sea-wall, Dawes Point, balance on vote of £4,500 | 177 | 12 | 6 | 152 | 8 | 10 | 25 | 3 | 8 | | | | |
| | 1877:— | | | | | | | | | | | | | |
| 850 | Contribution to meet one-half the estimated expense of works for protecting the banks of the Hunter River, at West Maitland, from the encroachment of floods, the remainder of the necessary funds having been subscribed from other sources | 7,000 | 0 | 0 | 5,947 | 14 | 1 | 1,052 | 5 | 11 | | | | |
| 851 | Sea-wall, Dawes' Point, further sum | 706 | 0 | 0 | 705 | 14 | 7 | 0 | 5 | 5 | | | | |
| 852 | Towards erection of Cranes, Darling Harbour | 20,000 | 0 | 0 | 6,652 | 10 | 0 | 13,347 | 10 | 0 | | | | |
| 853 | Towards enlarging Tathra Wharf | 2,000 | 0 | 0 | 1,117 | 13 | 3 | 882 | 6 | 9 | | | | |
| 854 | Towards constructing Boat Harbour at Dawes' Point, in connection with Sea-wall being erected there | 500 | 0 | 0 | ..... | ..... | ..... | 500 | 0 | 0 | | | | |
| 855 | Additions to Custom-house, Sydney | 12,000 | 0 | 0 | ..... | ..... | ..... | 12,000 | 0 | 0 | | | | |
| 856 | For the erection of a new Gunpowder Magazine, Parramatta River | 15,000 | 0 | 0 | ..... | ..... | ..... | 15,000 | 0 | 0 | | | | |
| 857 | Extension of Treasury Buildings, to include the Audit Office, and to provide temporary accommodation | 20,000 | 0 | 0 | 3,238 | 11 | 8 | 16,761 | 8 | 4 | | | | |
| 858 | Post and Telegraph Office, Adelong | 1,200 | 0 | 0 | ..... | ..... | ..... | 1,200 | 0 | 0 | | | | |
| 859 | Lock-up at Ashfield | 900 | 0 | 0 | ..... | ..... | ..... | 900 | 0 | 0 | | | | |
| 860 | Light-house, Barranjuery, further sum... .. | 5,000 | 0 | 0 | 5,000 | 0 | 0 | ..... | ..... | ..... |  |  |  |  |
| 861 | Post and Telegraph Office, Blayney | 1,500 | 0 | 0 | 1,500 | 0 | 0 | ..... | ..... | ..... |  |  |  |  |
| 862 | Post and Telegraph Office, Cassilis | 1,200 | 0 | 0 | 1,200 | 0 | 0 | ..... | ..... | ..... |  |  |  |  |
| 863 | Post and Telegraph Office, Cootamundra | 1,200 | 0 | 0 | 1,101 | 19 | 1 | 98 | 0 | 11 | | | | |
| 864 | Post and Telegraph Office, Goulburn | 5,000 | 0 | 0 | 5,000 | 0 | 0 | ..... | ..... | ..... |  |  |  |  |
| 865 | Post and Telegraph Office, Liverpool, including site | 1,000 | 0 | 0 | 1,000 | 0 | 0 | ..... | ..... | ..... |  |  |  |  |
| 866 | Post and Telegraph Office, Louth | 1,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | 1,000 | 0 | 0 | |
| 867 | Post and Telegraph Office, Molong | 800 | 0 | 0 | 680 | 0 | 0 | 120 | 0 | 0 | | | | |
| 868 | Erection of Police Barracks, Moruya | 500 | 0 | 0 | 500 | 0 | 0 | ..... | ..... | ..... |  |  |  |  |
| 869 | Court-house, Murrumburrah | 1,200 | 0 | 0 | 715 | 8 | 3 | 484 | 11 | 9 | | | | |
| 870 | Post and Telegraph Office, Narrandera... .. | 800 | 0 | 0 | 800 | 0 | 0 | ..... | ..... | ..... |  |  |  |  |
| 871 | Post and Telegraph Office, Rylstone | 800 | 0 | 0 | 800 | 0 | 0 | ..... | ..... | ..... |  |  |  |  |
| 872 | Post and Telegraph Office, St. Leonards, including purchase of site | 3,125 | 0 | 0 | ..... | ..... | ..... | 3,125 | 0 | 0 | | | | |
| | Carried forward | £1,443,908 | 12 | 6 | 1,069,068 | 10 | 5 | 278,953 | 8 | 11 | 95,886 | 13 | 2 | |
| | Carried forward... .. | £100,000 | 0 | 0 | 100,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

* Restored having been inadvertently written off on the 31st December, 1882. In addition to this amount there is a sum of £15,784 available for the purpose under the Loan Act 25 Vic. No. 19.

STATEMENT—continued.

| No. of Item in Appropriation Act. | HEAD OF SERVICE. | Amount appropriated. | | | Amount expended to 31st Oct., 1884. | | | Balances | | | | | |
|-----------------------------------|---|----------------------|----------|----------|-------------------------------------|----------|-----------|----------------|----------|----------|--------------------|--|--|
| | | £ | s. | d. | £ | s. | d. | Written off. | | | Retained. | | |
| | Brought forward | 100,000 | 0 | 0 | 100,000 | 0 | 0 | ..... |  |  | ..... |  |  |
| | Appropriations of 1879—continued. (Under 43 Vic. No. 10.) | | | | | | | | | | | | |
| | Brought forward | 1,443,908 | 12 | 6 | 1,069,068 | 10 | 5 | 278,953 | 8 | 11 | 95,886 13 2 | | |
| | Re-votes—continued. | | | | | | | | | | | | |
| 873 | Custom-house, Wentworth | 2,500 | 0 | 0 | ..... |  |  | 2,500 | 0 | 0 | ..... |  |  |
| 874 | Alterations and additions to the Queen's Warehouse, Custom-house, Sydney ... | 1,750 | 0 | 0 | ..... |  |  | 1,750 | 0 | 0 | ..... |  |  |
| 875 | Additions to Artillery Barracks | 890 | 0 | 0 | 822 | 5 | 2 | 67 | 14 | 10 | ..... |  |  |
| 876 | For erection of Police Buildings and Officers' Quarters (unexpended balance of Vote of £30,000) | 8,690 | 0 | 0 | 8,653 | 4 | 4 | 36 | 15 | 8 | ..... |  |  |
| 877 | Post and Telegraph Office, Port Macquarie | 1,200 | 0 | 0 | 1,200 | 0 | 0 | ..... |  |  | ..... |  |  |
| 878 | Additions and repairs, Asylum for Imbeciles, Newcastle, (unexpended balance of Vote of £9,000) | 3,773 | 2 | 0 | 2,856 | 1 | 6 | 917 | 0 | 6 | ..... |  |  |
| 879 | Extension of Gun-carriage Shed, Ordnance Store Yard | 1,500 | 0 | 0 | 1,500 | 0 | 0 | ..... |  |  | ..... |  |  |
| 880 | Police Buildings, Singleton, further sum | 400 | 0 | 0 | 400 | 0 | 0 | ..... |  |  | ..... |  |  |
| 881 | To construct Main Drain through the Domain to convey away water from the Mint and other Public Buildings ... | 300 | 0 | 0 | ..... |  |  | 300 | 0 | 0 | ..... |  |  |
| 882 | New Police Buildings at Singleton | 1,500 | 0 | 0 | 1,321 | 10 | 0 | 178 | 10 | 0 | ..... |  |  |
| 883 | Post and Telegraph Office at Menindie ... | 1,000 | 0 | 0 | 1,000 | 0 | 0 | ..... |  |  | ..... |  |  |
| 884 | For erecting Railway Store at Newcastle, further sum | 3,200 | 0 | 0 | ..... |  |  | 3,200 | 0 | 0 | ..... |  |  |
| 885 | Land Sheds, Siding Accommodation, and Approaches at Darling Harbour (unexpended balance of Vote of £20,000) | 8,348 | 18 | 6 | 8,348 | 12 | 8 | 0 | 5 | 10 | ..... |  |  |
| 886 | Widening the Road Bridge over the Railway near Petersham (unexpended balance of Vote of £2,000) | 372 | 8 | 8 | 301 | 0 | 9 | 71 | 7 | 11 | ..... |  |  |
| 887 | For preparing ground for Gardens, and planting trees and shrubs at the principal Railway Stations (unexpended balance of Vote of £500) ... | 455 | 2 | 9 | ..... |  |  | 455 | 2 | 9 | ..... |  |  |
| | 1876 Votes—Re-voted in 1877:— | | | | | | | | | | | | |
| 888 | Bridge, Bundarra | 6,000 | 0 | 0 | 6,000 | 0 | 0 | ..... |  |  | ..... |  |  |
| 889 | Bridge, Coonamble to Mundooran | 300 | 0 | 0 | ..... |  |  | 300 | 0 | 0 | ..... |  |  |
| | 1877 Votes:— | | | | | | | | | | | | |
| 890 | Bridge on Road, Combo to Drying | 300 | 0 | 0 | 280 | 0 | 0 | 20 | 0 | 0 | ..... |  |  |
| 891 | Roads, Manaro to Low Country | 5,950 | 0 | 0 | ..... |  |  | 5,950 | 0 | 0 | ..... |  |  |
| 892 | Bridge, Bundarra | 2,000 | 0 | 0 | 2,000 | 0 | 0 | ..... |  |  | ..... |  |  |
| | TOTAL (43 Vic. No. 10) | £ 1,494,338 | 4 | 5 | 1,103,751 | 4 | 10 | 294,700 | 6 | 5 | 95,886 13 2 | | |
| | Appropriations of 1880. (Under the Act 44 Vic. No. 4.) | | | | | | | | | | | | |
| | No. III. | | | | | | | | | | | | |
| 704 | Special grant to Country and Suburban Municipalities equal to full rates in each case for the Municipal year ended 3rd February, 1879, further sum | 8,200 | 0 | 0 | 8,000 | 0 | 0 | 200 | 0 | 0 | ..... |  |  |
| 705 | Towards the completion of the Prince Alfred Hospital, further sum | 20,000 | 0 | 0 | 20,000 | 0 | 0 | ..... |  |  | ..... |  |  |
| | Carried forward | £ 28,200 | 0 | 0 | 28,000 | 0 | 0 | 200 | 0 | 0 | ..... |  |  |
| | Carried forward | £ 1,594,338 | 4 | 5 | 1,203,751 | 4 | 10 | 294,700 | 6 | 5 | 95,886 13 2 | | |

STATEMENT—continued.

| No. of Item in Appropriation Act. | HEAD OR SERVICE. | Amount appropriated. | Amount expended to 31st Oct., 1884. | Written off. | Retained. |
|-----------------------------------|---|----------------------|-------------------------------------|--------------|-------------|
| | | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| | Brought forward | 1,594,338 4 5 | 1,208,751 4 10 | 294,700 6 5 | 95,886 18 2 |
| | Appropriations of 1880—continued. (Under 44 Vic. No. 4.) | | | | |
| | Brought forward | 28,200 0 0 | 28,000 0 0 | 200 0 0 | |
| | No. III—continued. | | | | |
| 706 | Further Expenses connected with the International Exhibition | 40,000 0 0 | 40,000 0 0 | | |
| 707 | Towards meeting the expenses connected with the International Exhibition held in Sydney during the years 1879 and 1880, further sum | 33,000 0 0 | 33,000 0 0 | | |
| | No. VII. | | | | |
| 708 | To purchase and improvement of Public Park at Ashfield being a re-vote of the unexpended balance of the £7,000 voted for the purchase of land for this Park in 1879 | 1,757 15 5 | 1,757 15 5 | | |
| | No. VIII. | | | | |
| 709 | For the erection of Grammar Schools at Matland, Goulburn, and Bathurst | 20,000 0 0 | 20,000 0 0 | 20,000 0 0 | |
| 710 | Light-house, Green Cape, further sum | 2,000 0 0 | 2,000 0 0 | | |
| | Electric Telegraphs— | | | | |
| 711 | Goulburn to Taralga | 1,500 0 0 | | *1,500 0 0 | |
| 712 | Walgett <i>via</i> Mogil to Mungindi | 6,000 0 0 | | *6,000 0 0 | |
| 713 | Kymbon to Pilot Station, Tweed River Heads | 1,250 0 0 | | *1,250 0 0 | |
| 714 | Gulgong to Mungdurran | 3,000 0 0 | | *3,000 0 0 | |
| 715 | Taralga to Oberon | 700 0 0 | | *700 0 0 | |
| 716 | Extension of lines generally | 5,000 0 0 | | *5,000 0 0 | |
| 717 | Extension of lines along Railway Extensions | 15,000 0 0 | | *15,000 0 0 | |
| | Re-votes:— | | | | |
| | Lapsed Appropriations and Balances of Lapsed Appropriations, re-voted, viz:— | | | | |
| | Re-votes of 1872-3-4:— | | | | |
| 718 | Bridge over the Bogan (1872) | 795 13 4 | | 795 13 4 | |
| 719 | Bridge, Black Camp Creek (1873) | 200 0 0 | 200 0 0 | | |
| 720 | Bridge, Black Camp Creek (1874) | 117 0 0 | 93 2 0 | 23 18 0 | |
| | Re-votes of 1877:— | | | | |
| 721 | Underpinning Wall, Victoria Barracks | 900 0 0 | 300 0 0 | 600 0 0 | |
| 722 | Drainage, Victoria Barracks | 3,000 0 0 | | 3,000 0 0 | |
| 723 | Light-house, Montague Island—balance of vote | 14,836 15 1 | 14,803 8 5 | 33 6 8 | |
| 724 | Wharf at West Kempsey re-voted, as towards further Wharf and Punt Accommodation, Macleay River | 2,500 0 0 | 2,500 0 0 | | |
| 725 | Permanent Buildings at La Perouse, Botany, for the accommodation of the New Zealand Cable Officers | 3,000 0 0 | 3,000 0 0 | | |
| 726 | Bridge, South Creek, Windsor | 2,000 0 0 | 1,741 0 4 | 258 19 8 | |
| 727 | Public Wharf—Yamba, Clarence River (1878) | 1,000 0 0 | 1,000 0 0 | | |
| 728 | Wharf at Pitt Town (1873) | 1,000 0 0 | 603 8 9 | 396 11 3 | |
| 729 | Wharf at Hay (1878) | 3,547 5 1 | 875 16 4 | 2,671 8 9 | |
| | Carried forward | £ 190,304 8 11 | 129,874 11 3 | 60,429 17 8 | |
| | Carried forward | £ 1,594,338 4 5 | 1,208,751 4 10 | 294,700 6 5 | 95,886 18 2 |

*These Votes have been written off, as the provision made in the Loan Act of 1880 is intended to cover them.

STATEMENT—continued.

| No. of Item in Appropriation Act. | HEAD OF SERVICE. | Amount Appropriated. | Amount expended to 31st Oct., 1884. | Balances | |
|-----------------------------------|--|----------------------|-------------------------------------|--------------|-------------|
| | | | | Written off. | Retained. |
| | | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| | Brought forward | 1,594,338 4 5 | 1,203,751 4 10 | 294,700 6 5 | 95,886 13 2 |
| | Appropriations of 1880—continued. (Under 44 Vic. No. 4.) | | | | |
| | Brought forward | 190,304 8 11 | 129,874 11 3 | 60,429 17 8 | ..... |
| | Re-votes—continued. | | | | |
| | Re-votes of 1877—continued:— | | | | |
| 730 | Towards lengthening Eden Wharf (1878) | 744 10 0 | 743 10 8 | 0 19 4 | ..... |
| 731 | Darlinghurst Gaol—Rebuilding Wall, &c., 1878—Balance of Vote | 6,700 0 0 | 25 0 0 | 6,675 0 0 | ..... |
| 732 | Kiama Pilot's Residence—Erection of ... | 400 0 0 | 400 0 0 | ..... | ..... |
| 733 | Blayne Post and Telegraph Office, further sum, 1878 | 200 0 0 | 200 0 0 | ..... | ..... |
| 734 | Goulburn Gaol—Erection of, 1878 ... | 24,801 8 9 | 23,446 15 6 | ..... | 1,354 13 3 |
| 735 | Erection of Watch-house, George-street, North Sydney, including site, 1878, balance of Vote | 2,000 0 0 | 2,000 0 0 | ..... | ..... |
| 736 | Walgett Post and Telegraph Station—Erection of, 1878 | 1,500 0 0 | 1,500 0 0 | ..... | ..... |
| 737 | Bridge over Bogan River, between Bathalga and Nyngen, 1877 | 800 0 0 | ..... | 800 0 0 | ..... |
| 738 | Bridge, South Creek, at Windsor, 1877 | 2,000 0 0 | 196 7 0 | 1,803 13 0 | ..... |
| 739 | Bridge, Tuross River, 1877 | 1,350 0 0 | 1,350 0 0 | ..... | ..... |
| 740 | Road, Nowra to Saltwater Creek, 1877 ... | 330 0 0 | 330 0 0 | ..... | ..... |
| 741 | Foot-bridge, Parramatta Park, 1877 ... | 500 0 0 | 500 0 0 | ..... | ..... |
| 742 | Bridge, Wollondilly River, Wheco Road, 1878 | 2,369 18 4 | 2,369 18 4 | ..... | ..... |
| 743 | Bridge at Bundarra, 1878 | 9,993 15 0 | 8,826 12 10 | 1,167 2 2 | ..... |
| 744 | Bridge, Budgee Budgee Creek, Balranald District, 1878 | 500 0 0 | 500 0 0 | ..... | ..... |
| 745 | Road, Kiama to Geringong, 1878 | 987 0 0 | 47 6 0 | 939 14 0 | ..... |
| 746 | Tanks, Liverpool Plains, 1878 | 2,949 15 6 | 2,941 1 2 | 8 14 4 | ..... |
| 747 | Bridge over Woytchugga, at Menindie ... | 500 0 0 | 500 0 0 | ..... | ..... |
| 748 | Bridge at Menindie, Tallywalka, 1876 ... | 551 13 0 | 548 3 0 | 3 10 0 | ..... |
| | No. X. | | | | |
| | Department of Mines:— | | | | |
| 749 | In aid of Prospecting the Crown Lands of the Colony, 1878 | 2,000 0 0 | 1,953 11 4 | 46 8 8 | ..... |
| | Total (44 Vic. No. 4) | £ 251,482 9 6 | 178,252 17 1 | 71,874 19 2 | 1,354 13 3 |
| | Appropriations of 1881. (Under the Act 44 Vic. No. 27.) | | | | |
| | No. III.—Colonial Secretary:— | | | | |
| 574 | Municipalities—Special Grant to Country and Suburban Municipalities, equal to one-half of the total amount of the rates collected in each case for the Municipal year ended 31st January, 1881 | 50,000 0 0 | 47,903 3 4 | 2,096 16 8 | ..... |
| 575 | Miscellaneous—For the purchase of lands, to be set apart as places of Public Recreation, in certain of the Metropolitan Suburbs, and in Country Towns (Schedule of particulars of expenditure to be laid before Parliament) | 100,000 0 0 | 49,166 8 9 | ..... | 50,833 11 3 |
| | Carried forward | £ 150,000 0 0 | 97,069 12 1 | 2,096 16 8 | 50,833 11 3 |
| | Carried forward | £ 1,845,820 13 11 | 1,382,004 1 11 | 366,575 5 7 | 97,241 6 5 |

STATEMENT—continued.

| No. of Item in Appropriation Act. | HEAD OF SERVICE. | Amount Appropriated. | Amount expended to 31st Oct., 1884. | Balances | |
|-----------------------------------|--|-----------------------|-------------------------------------|-------------------|--------------------|
| | | | | Written off. | Retained. |
| | | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| | Brought forward ... | 1,845,820 13 11 | 1,382,004 1 11 | 366,575 5 7 | 97,241 6 5 |
| | Appropriations of 1881—continued. (Under 44 Vic. No. 27.) | | | | |
| | Brought forward ... | 150,000 0 0 | 97,069 12 1 | 2,096 16 8 | 50,833 11 3 |
| | No. III—Colonial Secretary—continued. | | | | |
| | Permanent Force—To reimburse Brigade Pay and Quartermaster for payments made in excess of Vote during the year 1873 ... | 12 19 8 | 12 19 8 | ..... | ..... |
| | Volunteer Force—Contingencies—1878, further sum ... | 948 2 0 | 948 2 0 | ..... | ..... |
| | Police, 1878—Conveyance of Stores, further sum ... | 3 12 6 | 3 12 6 | ..... | ..... |
| | Medical Fees, 1878, further sum ... | 1 1 0 | ..... | 1 1 0 | ..... |
| | Stores and Stationery, 1875, further sum ... | 57 7 10 | 57 7 10 | ..... | ..... |
| | Stores and Stationery, 1878, further sum ... | 24 8 0 | 24 8 0 | ..... | ..... |
| | Advertising for the Public Service, 1878, further sum ... | 21 7 3 | 21 7 3 | ..... | ..... |
| | Postage Public Departments, 1878, further sum ... | 8 10 6 | 8 10 6 | ..... | ..... |
| | Department of Mines—Travelling Expenses, 1878, further sum ... | 5 0 0 | 5 0 0 | ..... | ..... |
| | Shellharbour Breakwater ... | 3 8 8 | 3 8 8 | ..... | ..... |
| | Erection of Post and Telegraph Offices at Parramatta, 1878, further sum ... | 309 14 0 | 309 14 0 | ..... | ..... |
| | Watering the approaches to the Parliamentary Buildings in the years 1875-6-7 and 8 ... | 238 16 6 | 238 16 6 | ..... | ..... |
| | Cost of Conveyance of Correspondence for the British North American Provinces, the West Indies, Panama, Mexico, &c., via San Francisco, during the years 1874-5-6-7-8 ... | 360 5 4 | 360 5 4 | ..... | ..... |
| | International Exhibition:— | | | | |
| | Further expenses during the years 1879 and 1880 ... | 6,148 10 4 | 6,148 10 4 | ..... | ..... |
| | Expenditure by the Commissioners in London ... | 5,847 10 11 | 5,847 10 11 | ..... | ..... |
| | Expenses of Management in excess of the Entrance Fees collected ... | 7,169 18 11 | 7,169 18 11 | ..... | ..... |
| | Further payments for Land resumed under the Macquarie Street Resumption Act (43 Vic. No. 9) ... | 6,486 5 8 | 6,486 5 8 | ..... | ..... |
| | Total (44 Vic. No. 27) | £ 177,646 19 1 | 124,715 10 2 | 2,097 17 8 | 50,833 11 3 |
| | Appropriations of 1882. (Under the Act 45 Vic. No. 21.) | | | | |
| | No. III.—Colonial Secretary— | | | | |
| 794 | Charitable Allowances—Final instalment for the completion of the Prince Alfred Hospital, inclusive of an amount for furnishing same ... | 30,000 0 0 | 30,000 0 0 | ..... | ..... |
| 795 | Municipalities—Special grant to Country and Suburban Municipalities, equal to one-half of the total amount of the rates collected for the Municipal year ending 3 February, 1882 ... | 50,000 0 0 | 50,000 0 0 | ..... | ..... |
| | Carried forward ... | £ 80,000 0 0 | 80,000 0 0 | ..... | ..... |
| | Carried forward ... | £ 2,023,467 13 0 | 1,506,719 12 1 | 368,673 3 8 | 148,074 17 8 |

STATEMENT—continued.

| No. of Item in Appropriation Act. | HEAD OF SERVICE. | Amount Appropriated. | Amount expended to 31st Oct., 1884. | Balances | |
|-----------------------------------|--|----------------------|-------------------------------------|--------------|--------------|
| | | | | Written off. | Retained. |
| | | £ s d. | £ s d. | £ s d. | £ s d. |
| | Brought forward | 2,023,467 13 0 | 1,506,719 12 1 | 368,673 3 3 | 148,074 17 8 |
| | Appropriations of 1882—continued. (Under 45 Vic. No. 21.) | | | | |
| | Brought forward | 80,000 0 0 | 80,000 0 0 | ..... | ..... |
| | No. V—Public Instruction— | | | | |
| 796 | Public Instruction—Towards providing School Accommodation to replace Certified Denominational Schools necessary under the provisions of section 31 of Public Instruction Act (irrespective of date of claims) | 50,000 0 0 | 50,000 0 0 | ..... | ..... |
| | No. IX—Secretary for Public Works— | | | | |
| | Colonial Architect—Public Works and Buildings— | | | | |
| 797 | Central Police Court, Sydney | 25,000 0 0 | ..... | 25,000 0 0 | ..... |
| 798 | Erection of Police Stations and Officers Quarters, &c. | 10,000 0 0 | 9,995 10 8 | 4 9 4 | ..... |
| 799 | Erection of Goulburn Gaol—further sum | 34,500 0 0 | 34,500 0 0 | ..... | ..... |
| 800 | Towards the completion of the Lands Office, Sydney | 50,000 0 0 | 9,992 3 9 | 40,007 16 3 | ..... |
| 801 | Towards the erection of Bathurst Gaol ... | 50,000 0 0 | 2,823 2 1 | ..... | 47,176 17 11 |
| 802 | Erection of Court-house, Newtown ... | 10,000 0 0 | 6,910 0 0 | ..... | 3,090 0 0 |
| 803 | Erection of Court-house, Goulburn ... | 20,000 0 0 | ..... | ..... | 20,000 0 0 |
| 804 | Erection of Court-house, Deniliquin ... | 8,000 0 0 | 4,775 0 0 | ..... | 3,225 0 0 |
| 805 | Erection of Shipping Office, Sydney ... | 10,000 0 0 | ..... | ..... | 10,000 0 0 |
| 806 | Towards erection of a new Custom-house, Sydney | 20,000 0 0 | 10,700 0 0 | ..... | 9,300 0 0 |
| 807 | Erection of Powder Magazine | 20,000 0 0 | 17,738 17 7 | 2,261 2 5 | ..... |
| | Roads and Bridges— | | | | |
| 808 | Bridges, Parramatta and Iron Cove, including Embanked Approaches, further sum | 9,000 0 0 | 8,996 17 5 | 3 2 7 | ..... |
| 809 | For the purchase of Wagga Wagga Bridge | 10,000 0 0 | 9,804 0 0 | ..... | 196 0 0 |
| 810 | Towards the erection of a Bridge over the Macleay River, at Kempsey | 6,000 0 0 | ..... | 6,000 0 0 | ..... |
| 811 | Erection of a Bridge over the M'Donald River, at St. Alban's | 2,500 0 0 | 400 8 3 | ..... | 2,099 11 9 |
| 812 | Tanks and Wells—For constructing Tanks, sinking Wells, &c., in the interior ... | 50,000 0 0 | 50,000 0 0 | ..... | ..... |
| | Mining Surveys, 1877 and 1878 | 103 14 3 | 103 14 3 | ..... | ..... |
| | Medical Adviser, Vaccination Medical Officers, &c., further sum for 1878 ... | 5 5 0 | 5 5 0 | ..... | ..... |
| | Gaols generally, 1875-6 and 8, further sum | 28 18 9 | 28 18 9 | ..... | ..... |
| | District Courts—Contingencies, 1877-78, further sum | 3 18 0 | 3 18 0 | ..... | ..... |
| | Stores and Stationery—1877-8, further sum | 901 7 5 | 901 7 5 | ..... | ..... |
| | Lands Department—To meet outstanding claims of 1875-6-7 and 8 | 61 14 8 | 61 7 2 | 0 7 6 | ..... |
| | Fencing Roads, 1877, further sum ... | 56 18 6 | 56 18 6 | ..... | ..... |
| | Repairs to Telegraph Lines, 1878, further sum | 3 8 0 | 3 8 0 | ..... | ..... |
| | Public Wharf, Botany, 1877 | 273 6 6 | 273 6 6 | ..... | ..... |
| | Nowra Bridge, 1877 | 3,803 5 3 | 3,803 5 3 | ..... | ..... |
| | Court-house and Lock-up, Tenterfield, 1877 (Revote) | 2,925 0 0 | 2,925 0 0 | ..... | ..... |
| | Post and Telegraph Office, Tenterfield, 1877 (Re-vote, £1,310 5s. 6d. and further sum) | 1,832 2 4 | 1,732 2 4 | 100 0 0 | ..... |
| | Court-house, Bombala, 1878 (Re-vote) ... | 1,200 0 0 | 1,200 0 0 | ..... | ..... |
| | Carried forward | £ 476,198 18 8 | 307,734 10 11 | 73,376 18 1 | 95,087 9 8 |
| | Carried forward | £ 2,023,467 13 0 | 1,506,719 12 1 | 368,673 3 3 | 148,074 17 8 |

STATEMENT—continued.

| No. of Item in Appropriation Act. | HEAD OF SERVICE. | Amount Appropriated. | Amount expended to 31st Oct., 1884. | Balances | |
|-----------------------------------|---|----------------------|-------------------------------------|--------------|--------------|
| | | | | Written off. | Retained. |
| | | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| | Brought forward | 2,023,467 13 0 | 1,506,719 12 1 | 368,673 3 3 | 148,074 17 8 |
| | Appropriations of 1882—continued. (Under 45 Vic. No. 21.) | | | | |
| | Brought forward | 476,198 13 8 | 307,734 10 11 | 73,376 18 1 | 95,087 9 8 |
| | Erection of Temporary Buildings at the Hospital for the Insane, Parramatta, 1878, further sum | 1,766 0 2 | 1,766 0 2 | ..... | ..... |
| | Bridge, Balranald, 1877 | 1,830 18 5 | 1,830 18 5 | ..... | ..... |
| | Conveyance of Mails—Balance of claims to 31st December, 1878, on account of Conveyance of Mails <i>via</i> San Francisco | 1,334 0 0 | 1,334 0 0 | ..... | ..... |
| | Further payments for land resumed under the Macquarie-street Resumption Act (43 Vic. No. 9) | 214 2 9 | 214 2 9 | ..... | ..... |
| | Verdict and Costs in the case Hoskins <i>vs.</i> Simmons, in connection with the land resumed in Macquarie-street | 4,133 10 4 | 4,133 10 4 | ..... | ..... |
| | Compensation for Land resumed under the "Rushcutter's Bay, Resumption Act of 1878" further sum | 6,850 7 0 | 6,850 7 0 | ..... | ..... |
| | International Exhibition, further expenses | 7 099 10 7 | 7,062 17 3 | 36 13 4 | ..... |
| | Maintenance of Orphan Schools, 1878, further sum | 2 4 4 | 2 4 4 | ..... | ..... |
| | Towards the erection of New Law Courts, being the unappropriated balance on the Surplus Revenue Account... .. | 165,572 18 5 | ..... | ..... | 165,572 18 5 |
| 813 | Special appropriation to pay off certain Interminable Debentures which the Government have the option of retiring in 1882 | 232,130 0 0 | 231,860 0 0 | 270 0 0 | ..... |
| | Total (under Act 45, No. 21) £ | 897,132 10 8 | 562,788 11 2 | 73,683 11 5 | 260,660 8 1 |
| | Appropriations of 1883. (Under the Act 46 Vic. No. 22.) | | | | |
| | No. III.—Colonial Secretary— | | | | |
| | Works of Defence:— | | | | |
| 895 | Towards expenses of carrying out Defences of the Coast | 35,000 0 0 | 35,000 0 0 | ..... | ..... |
| 896 | For additional Guns | 13,000 0 0 | ..... | ..... | 13,000 0 0 |
| 897 | Immigration—Immigration generally | 150,000 0 0 | 150,000 0 0 | ..... | ..... |
| | Charitable Allowances:— | | | | |
| 898 | Prince Alfred Hospital, further sum | 12,500 0 0 | 12,500 0 0 | ..... | ..... |
| 899 | Sydney Hospital, further sum | 20,000 0 0 | 20,000 0 0 | ..... | ..... |
| | Miscellaneous:— | | | | |
| 900 | For the purchase of lands to be set apart as places of public recreation in certain of the Metropolitan Suburbs and in Country Towns, further sum | 100,000 0 0 | 73,863 14 11 | ..... | 26,136 5 1 |
| 901 | Special grant to Country and Suburban Municipalities, equal to 15s. per £ of the total amount of the ordinary rates collected for the Municipal year ending 5th February, 1883 | 100,000 0 0 | 78,942 17 11 | 21,057 2 1 | ..... |
| | No. IV.—Treasurer and Secretary for Finance and Trade— | | | | |
| | Ordnance Department:— | | | | |
| 902 | Warlike Stores | 25,000 0 0 | 14,449 5 3 | ..... | 10,550 14 9 |
| | Carried forward | £ 455,500 0 0 | 384,755 18 1 | 21,057 2 1 | 49,686 19 10 |
| | Carried forward | £ 2,920,600 3 8 | 2,069,508 3 3 | 442,356 14 8 | 408,735 5 9 |

STATEMENT—continued.

| No. of Item in Appropriation Act. | HEAD OF SERVICE. | Amount Appropriated. | Amount expended to 31st Oct., 1884. | Balances | |
|-----------------------------------|---|----------------------|-------------------------------------|--------------|--------------|
| | | | | Written off. | Retained. |
| | | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| | Brought forward | 2,920,600 3 8 | 2,069,508 3 3 | 442,356 14 8 | 408,735 5 9 |
| | Appropriations of 1883—continued. (Under 46 Vic. No. 22.) | | | | |
| | Brought forward | 455,500 0 0 | 384,755 18 1 | 21,057 2 1 | 49,683 19 10 |
| | No. VIII.—Secretary for Public Works— Harbours and River Navigation:— | | | | |
| 903 | Towards improving and clearing the Murrumbidgee River | 10,000 0 0 | 2,558 0 10 | ..... | 7,441 19 2 |
| 904 | Steam Ferry Bridge, to connect Sydney with North Shore | 40,000 0 0 | 6,160 8 4 | ..... | 33,839 11 8 |
| 905 | Towards the reclamation of White Bay, not including compensation (if any) for land | 5,000 0 0 | ..... | ..... | 5,000 0 0 |
| | Public Works and Buildings—Colonial Architect:— | | | | |
| 906 | Callan Park Lunatic Asylum—Erection of, &c., further sum | 65,000 0 0 | 39,675 1 0 | ..... | 25,324 19 0 |
| 907 | New General Post Office, further sum ... | 60,000 0 0 | 3,112 17 6 | ..... | 56,887 2 6 |
| 908 | Reformatory for Boys—Forming and erection of a | 20,000 0 0 | ..... | ..... | 20,000 0 0 |
| 909 | Jervis Bay Light-house—Erection of ... | 20,000 0 0 | ..... | ..... | 20,000 0 0 |
| 910 | Further improvements at Glebe Island Abattoir | 10,000 0 0 | 9,952 11 8 | ..... | 47 8 4 |
| 911 | Construction of Reservoir and other improvements at the Quarantine Station North Head | 15,000 0 0 | 15,000 0 0 | ..... | ..... |
| 912 | Police Stations and Officers' Quarters ... | 23,000 0 0 | 22,959 9 6 | ..... | 40 10 6 |
| 913 | Government Printing Office, further sum... | 17,000 0 0 | 17,000 0 0 | ..... | ..... |
| 914 | Public Buildings, Dubbo | 20,000 0 0 | ..... | ..... | 20,000 0 0 |
| 915 | Erection of Asylum for Infirm and Destitute Women at Newington, to accommodate 300 | 8,000 0 0 | 3,200 0 0 | ..... | 4,800 0 0 |
| 916 | Purchase of 2½ acres of land adjoining Asylum, George-street, Parramatta ... | 1,000 0 0 | 1,000 0 0 | ..... | ..... |
| 917 | Purchase of premises for additional accommodation for Infirm and Destitute Men, at Parramatta | 6,000 0 0 | 6,000 0 0 | ..... | ..... |
| 918 | Additions and alterations to premises for Infirm and Destitute at Parramatta ... | 2,500 0 0 | 1,244 11 3 | ..... | 1,255 8 9 |
| 919 | Purchase of premises for Lock Hospital, and necessary additions thereto ... | 6,000 0 0 | ..... | ..... | 6,000 0 0 |
| 920 | Wagga Wagga Gaol—Erection of ... | 10,000 0 0 | ..... | ..... | 10,000 0 0 |
| 921 | Cottage at Bare Island Fortifications, Botany Heads | 800 0 0 | 585 0 0 | ..... | 215 0 0 |
| 922 | Green Cape Light-house, further sum ... | 2,000 0 0 | 1,994 2 6 | ..... | 5 17 6 |
| 923 | Towards providing premises for Naval Depot, and for the residence of the Officer in Command of H.M. Navy on this Station | 50,000 0 0 | 6,489 2 9 | ..... | 43,510 17 3 |
| 924 | Towards buildings for residence of His Excellency the Governor | 10,000 0 0 | ..... | ..... | 10,000 0 0 |
| 925 | Alterations and additions, Court-house, Darlinghurst | 7,500 0 0 | 2,800 0 0 | ..... | 4,700 0 0 |
| | Roads and Bridges—Inland Water Supply:— | | | | |
| 926 | Twenty-seven Tanks and Wells on Stock Routes, approved by Mines Department | 25,000 0 0 | 10,103 9 4 | ..... | 14,896 10 8 |
| 927 | Supply of Machinery, &c., and completion of works in progress | 6,800 0 0 | 6,800 0 0 | ..... | ..... |
| 928 | Further sum, Iron Bridge on river near Gas-works, Parramatta, and approaches | 9,000 0 0 | 1,352 1 1 | ..... | 7,647 18 11 |
| 929 | Bridge at Teamas, over Murrumbidgee ... | 6,000 0 0 | ..... | ..... | 6,000 0 0 |
| | Carried forward | £ 911,100 0 0 | 542,742 13 10 | 21,057 2 1 | 347,300 4 1 |
| | Carried forward | £ 2,920,600 3 8 | 2,069,508 3 3 | 442,356 14 8 | 408,735 5 9 |

STATEMENT—continued.

| No. of Item of Appropriation Act. | HEAD OF SERVICE. | Amount Appropriated. | Amount expended to 31st Oct., 1884. | Balances | |
|-----------------------------------|--|----------------------|-------------------------------------|--------------|--------------|
| | | | | Written off. | Retained. |
| | | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| | Brought forward | 2,920,600 3 | 82,069,508 3 3 | 442,356 14 8 | 408,735 5 9 |
| | Appropriations of 1883—continued. (Under 46 Vic. No. 22.) | | | | |
| 930 | Brought forward | 911,100 0 0 | 542,742 13 10 | 21,057 2 1 | 347,300 4 1 |
| 931 | Wahgunyah Bridge at Corowa, Moiety of purchase money payable by the Government of New South Wales £6,000 0 0 | | | | |
| 932 | Interest from 1st July, 1882, at 5 per cent ... 192 14 9 | 6,192 14 9 | 6,192 14 9 | ..... | ..... |
| | Expenses in connection with the purchase of Pymont Bridge, and improvement of Roads... .. | 50,000 0 0 | 50,000 0 0 | ..... | ..... |
| 933 | No. X.—Secretary for Mines— Miscellaneous:— Pastures and Stock Protection Act and Extermination of Rabbits | 35,000 0 0 | 29,017 6 11 | ..... | 5,982 13 1 |
| 934 | Tanks and Wells:— For the construction of Tanks and Wells | 22,000 0 0 | 6,657 3 11 | ..... | 15,342 16 1 |
| 935 | No. V.—Public Instruction— Public Instruction:— New Public School Buildings and Teachers' Residences | 150,000 0 0 | 150,000 0 0 | ..... | ..... |
| 936 | Grants in aid of Public Institutions:— Sydney University—additional buildings.. | 20,000 0 0 | 779 6 11 | ..... | 19,220 13 1 |
| | Total (under Act 46 Vic. No. 22) ... | 1,194,292 14 9 | 785,389 6 4 | 21,057 2 1 | 387,846 6 4 |
| | Special Appropriations. | | | | |
| | Revenue Refunded, 1878 and previous years | 174,018 5 10 | 174,018 5 10 | ..... | ..... |
| | Charges on Collections, 1878 and previous years | 4,766 9 5 | 4,766 9 5 | ..... | ..... |
| | Drawbacks and Refund of Duties | 17,851 12 2 | 17,851 12 2 | ..... | ..... |
| | Total Special Appropriations £ | 196,636 7 5 | 196,636 7 5 | ..... | ..... |
| | GRAND TOTAL | £4,311,529 5 10 | 3,051,533 17 0 | 463,413 16 9 | 796,581 12 1 |
| | Less amount of appropriations estimated as not likely to be required ... .. | ..... | ..... | ..... | 350,000 0 0 |
| | Balance ... .. | ..... | ..... | ..... | 446,581 12 1 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

JAMES PEARSON,
Accountant.

LOANS ACCOUNTS.

STATEMENT OF
LIABILITIES AND ASSETS
ON THE
31ST OCTOBER, 1884.

Loans

Dr.

STATEMENT of the LIABILITIES and ASSETS

| No. | PARTICULARS. | AMOUNT. | TOTAL. |
|------------------------------|--|---------|-----------------|
| | | £ s. d. | £ s. d. |
| OLD LOANS ACCOUNT. | | | |
| 1 | To AMOUNT of LIABILITIES outstanding on 31st October, 1884, being Appropriations and Balances of Appropriations for Public Works and other Services authorized to be provided for by Loans, as per the accompanying Statement marked F, page 76 ... .. | ..... | 152,794 7 3 |
| | TOTAL | £ | 152,794 7 3 |
| GENERAL LOAN ACCOUNT. | | | |
| 2 | To AMOUNT of LIABILITIES outstanding on 31st October, 1884, being Appropriations and Balances of Appropriations for Public Works and other Services authorized to be provided for by Loans, as per the accompanying Statement marked F, page 84 ... .. | ..... | 22,289,744 5 2 |
| 3 | " OVERDRAFT in the Bank of New South Wales on the General Loan Account on the 31st October, 1884 ... .. | ..... | 2,695,878 13 7 |
| | TOTAL | £ | 24,985,622 18 9 |
| | GRAND TOTAL | £ | 25,138,417 6 0 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

JAMES PEARSON,
Accountant.

Accounts.

of Loans Accounts on the 31st October, 1884.

Cr.

| No. | PARTICULARS. | AMOUNT. | TOTAL. |
|------------------------------|---|----------------|-----------------|
| | | £ s. d. | £ s. d. |
| OLD LOANS ACCOUNT. | | | |
| 1 | By Cash in the Bank of New South Wales, Sydney, on 31st October, 1884, being part of the balance at the credit of the Public Account ... .. | ..... | 152,794 7 3 |
| | TOTAL | £ | 152,794 7 3 |
| GENERAL LOAN ACCOUNT. | | | |
| 2 | AMOUNTS yet to be raised by Loan under the following Loan Acts, viz. :— | | |
| | 39 Vic. No. 18 (balance) | 70,977 0 0 | |
| | 38 Vic. No. 2 } 40 Vic. No. 12 } do. 41 Vic. No. 4 } | 71,177 18 7 | |
| | 44 Vic. No. 12 do. | 8,763 13 10 | |
| | 44 Vic. No. 28 do. | 7,494,389 10 8 | |
| | 45 Vic. No. 22 | 1,000,000 0 0 | |
| | 46 Vic. No. 23 | 2,000,000 0 0 | |
| | 48 Vic. No. | 14,388,303 0 0 | |
| | | 25,033,611 3 1 | |
| | Less—Amount over-raised under Acts 41 Victoria No. 7 and 43 Victoria No. 11 | 47,988 4 4 | 24,985,622 18 9 |
| | TOTAL | £ | 24,985,622 18 9 |
| | GRAND TOTAL | £ | 25,138,417 6 0 |

GEORGE R. DIBBS,
Treasurer.

D.

STATEMENT OF APPROPRIATIONS FOR SERVICES AUTHORIZED TO BE PROVIDED FOR BY LOANS, from the year 1853 to the year 1884, both inclusive, showing the expenditure under each head up to the 31st October, 1884, and the balances written off or retained for future expenditure.

| Year. | Appropriations under Acts of Parliament. | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | |
|---------------------------|--|---|--|--------------|---|
| | | | | Written off. | Retained for Expenditure, 31st October, 1884. |
| OLD LOANS ACCOUNT. | | | | | |
| | £ s. d. | | £ s. d. | £ s. d. | £ s. d. |
| 1853 | 200,000 0 0 | 17 VICTORIA, No. 34. Sewerage of the City of Sydney | 200,000 0 0 | ..... | ..... |
| " | 200,000 0 0 | 17 VICTORIA, No. 35. Supply of Water to the City of Sydney | 200,000 0 0 | ..... | ..... |
| 1854 | 30,000 0 0 | 18 VICTORIA, No. 35. Works of Defence at Middle Harbour and the South Head | 30,000 0 0 | ..... | ..... |
| " | 3,250 0 0 | Light-house at Cape Moreton | 3,247 15 0 | 2 5 0 | ..... |
| " | 20,000 0 0 | Abattoir at Glebe Island | 19,995 4 5 | 4 15 7 | ..... |
| " | 40,000 0 0 | New General Post Office | 40,000 0 0 | ..... | ..... |
| " | 6,000 0 0 | New Government Printing Office | 6,000 0 0 | ..... | ..... |
| " | 3,000 0 0 | Colonial Store ... .. | ..... | 3,000 0 0 | ..... |
| " | 600 0 0 | Signal-house at Newcastle | 579 13 6 | 20 6 6 | ..... |
| " | 6,000 0 0 | New Water Police Office at Sydney | 5,868 0 5 | 131 19 7 | ..... |
| " | 4,000 0 0 | New Water Police Watch House at Sydney | 3,615 6 6 | 384 13 6 | ..... |
| " | 6,000 0 0 | Mounted Patrol Barracks and Stables at Sydney ... .. | ..... | ..... | ..... |
| " | 5,000 0 0 | Police Station at the Southern end of Sydney | 5,729 12 5 | 270 7 7 | ..... |
| " | 750 0 0 | Watch House at Balmain | 4,179 5 8 | 820 14 4 | ..... |
| " | 400 0 0 | Watch House on the North Shore | 750 0 0 | ..... | ..... |
| " | 400 0 0 | Watch House on the North Shore | 400 0 0 | ..... | ..... |
| " | 1,350 0 0 | Watch House at Darlinghurst | 1,350 0 0 | ..... | ..... |
| " | 300 0 0 | Watch House at Newtown | 125 18 8 | 174 1 4 | ..... |
| " | 4,000 0 0 | Police Station at Newcastle | 3,032 8 5 | 967 11 7 | ..... |
| " | 2,000 0 0 | Court House at Camden | 2,000 0 0 | ..... | ..... |
| " | 1,200 0 0 | Court and Watch House at Queanbeyan, with out-buildings | 1,200 0 0 | ..... | ..... |
| " | 3,500 0 0 | Court House at Ipswich | 3,500 0 0 | ..... | ..... |
| " | 1,600 0 0 | Watch House at Ipswich | 1,600 0 0 | ..... | ..... |
| " | 1,500 0 0 | Public Wharf at the end of Erskine-street in Sydney | 1,500 0 0 | ..... | ..... |
| " | 5,000 0 0 | Dam at the North Rocks, Parramatta | 5,000 0 0 | ..... | ..... |
| " | 2,000 0 0 | Bridge at Menangle Ford | 2,000 0 0 | ..... | ..... |
| " | 7,000 0 0 | Bridge over the Macquarie River at Bathurst | 7,000 0 0 | ..... | ..... |
| " | 2,300 0 0 | Bridge over the Belubula Rivulet at Carcoar | 2,300 0 0 | ..... | ..... |
| " | 4,000 0 0 | Bridge over the Bargo River | 4,000 0 0 | ..... | ..... |
| " | 3,000 0 0 | Bridge over Paddy's River | 3,000 0 0 | ..... | ..... |
| " | 4,000 0 0 | Bridge at Gunning | 1,776 3 3 | 2,223 16 9 | ..... |
| " | 7,000 0 0 | Bridge at Queanbeyan | 6,103 2 8 | 896 17 4 | ..... |
| " | 4,000 0 0 | Bridge over the Yugiong Creek | 4,000 0 0 | ..... | ..... |
| | 178,750 0 0 | | 169,852 10 11 | 8,897 9 1 | ..... |
| " | 400,000 0 0 | 18 VICTORIA, No. 40. Construction of Railways | 400,000 0 0 | ..... | ..... |
| " | 224,733 18 8 | Purchase of the Properties of the Sydney Railway, and of the Hunter River Railway Companies | 224,733 18 8 | ..... | ..... |
| | 624,733 18 8 | | 624,733 18 8 | ..... | ..... |
| 1855 | 40,000 0 0 | 19 VICTORIA, Nos. 25, 38, AND 40. Improvements to the Navigation of the River Hunter, and to the Ports of Newcastle and Morpeth | 39,999 4 5 | ..... | 0 15 7 |
| " | 50,000 0 0 | Works of Defence in Sydney Harbour, including the purchase of land at Kiribilli Point | 50,000 0 0 | ..... | ..... |
| £ | 90,000 0 0 | Carried forward | £ 89,999 4 5 | ..... | 0 15 7 |
| £ | 1,203,483 18 8 | Carried forward | £ 1,194,586 9 7 | 8,897 9 1 | ..... |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | | | | | |
|-------|--|----|----|---|--|--------------|---|--------|--------|----|--------|--------|----|---|
| | £ | s. | d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | | | | | | | |
| | 1,203,483 | 18 | 8 | Brought forward | 1,194,586 | 9 | 7 | 8,897 | 9 | 1 | £ | s. | d. | |
| | | | | OLD LOANS ACCOUNT—continued. | | | | | | | | | | |
| | | | | 19 VICTORIA, Nos. 25, 38, AND 40—continued. | | | | | | | | | | |
| | 90,000 | 0 | 0 | Brought forward | 89,999 | 4 | 5 | ..... |  |  |  | 0 | 15 | 7 |
| 1855 | 20,000 | 0 | 0 | Gaol at Brisbane | 13,317 | 17 | 7 | 6,682 | 2 | 5 | ..... |  |  |  |
| " | 2,000 | 0 | 0 | Court House at Wollongong | 1,935 | 14 | 9 | 64 | 5 | 3 | ..... |  |  |  |
| " | 600 | 0 | 0 | Court and Watch House at Wingham, on the Manning River | 600 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 600 | 0 | 0 | Court House at Deniliquin | 600 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 7,000 | 0 | 0 | Building for a Time-ball, for an Observatory, and residence of an Astronomer... .. | 7,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 15,000 | 0 | 0 | Additions to the present building of the Legislative Council, to provide accommodation for two Houses of Parliament | 15,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 25,000 | 0 | 0 | Site for the Sydney Grammar School | 25,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 1,600 | 0 | 0 | Site for the Light-house at Newcastle | 1,600 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 1,000 | 0 | 0 | Survey of the River Hunter... .. | 870 | 8 | 4 | 129 | 11 | 8 | ..... |  |  |  |
| " | 1,000 | 0 | 0 | Clearing the Channel of the River Murray... .. | 1,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 1,000 | 0 | 0 | Clearing the Channel of the Murrumbidgee River | 1,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 10,450 | 0 | 0 | Steam Dredge and Punt for the River Brisbane | 337 | 18 | 2 | 10,112 | 1 | 10 | ..... |  |  |  |
| " | 8,000 | 0 | 0 | Dam at Hunt's Creek, Parramatta | 8,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 3,757 | 0 | 0 | Providing a supply of Fresh Water for the Township of Gladstone | 3,101 | 19 | 0 | 655 | 1 | 0 | ..... |  |  |  |
| " | 14,516 | 0 | 0 | Fitz Roy Dock and Dockyard and Workshops and Machinery | 14,516 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 62,500 | 0 | 0 | Railway—Sydney to Liverpool; and Railway, Newcastle to Maitland | 62,499 | 10 | 0 | ..... |  |  | 0 | 10 | 0 | |
| " | 50,000 | 0 | 0 | Surveys, Experiments, and Preparations for the Extension of Railways | 49,997 | 19 | 7 | ..... |  |  | 2 | 0 | 5 | |
| " | 1,100 | 0 | 0 | Bridge over the Macquarie River at Bathurst | 1,100 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 200 | 0 | 0 | Bridge over Paddy's River | 196 | 13 | 6 | 3 | 6 | 6 | ..... |  |  |  |
| " | 50,000 | 0 | 0 | Buildings of the University of Sydney | 50,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| | | | | Affiliated Colleges:— | | | | | | | | | | |
| " | 20,000 | 0 | 0 | St. Paul's | 15,148 | 8 | 10 | ..... |  |  | 4,851 | 11 | 2 | |
| " | 20,000 | 0 | 0 | St. John's | 20,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 20,000 | 0 | 0 | St. Andrew's | 14,129 | 17 | 9 | ..... |  |  | 5,870 | 2 | 3 | |
| " | 20,000 | 0 | 0 | Wesleyan ... .. | ..... |  |  | ..... |  |  | 20,000 | 0 | 0 | |
| | 445,323 | 0 | 0 | | 396,951 | 11 | 11 | 17,646 | 8 | 8 | 30,724 | 19 | 5 | |
| | | | | 20 VICTORIA, No. 1. | | | | | | | | | | |
| 1856 | 200,000 | 0 | 0 | Railway Works | 200,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 73,776 | 0 | 0 | To pay off Land and Immigration Debentures falling due in 1856 | 67,100 | 6 | 2 | 6,675 | 13 | 10 | ..... |  |  |  |
| | 273,776 | 0 | 0 | | 267,100 | 6 | 2 | 6,675 | 13 | 10 | ..... |  |  |  |
| | | | | 20 VICTORIA, No. 16. | | | | | | | | | | |
| " | 130,400 | 0 | 0 | To pay off Debentures falling due in 1857... | 130,400 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| | | | | 20 VICTORIA, No. 33. | | | | | | | | | | |
| 1857 | 6,000 | 0 | 0 | Dockyard, Buildings, and Machinery, at the Dry Dock, Cockatoo Island | 6,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 2,500 | 0 | 0 | Light-house at Newcastle | 2,500 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 5,000 | 0 | 0 | Providing additional accommodation for Patients at the Sydney Infirmary | 5,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 3,500 | 0 | 0 | Court House at East Maitland | 3,492 | 0 | 3 | 7 | 19 | 9 | ..... |  |  |  |
| " | 5,000 | 0 | 0 | Asylum for Destitute Children | 5,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| " | 38,000 | 0 | 0 | Connecting the Cities of Sydney and Melbourne by Electric Telegraph | 38,000 | 0 | 0 | ..... |  |  | ..... |  |  |  |
| £ | 60,000 | 0 | 0 | Carried forward | £ | 59,992 | 0 | 3 | 7 | 19 | 9 | ..... |  |  |
| £ | 2,052,982 | 18 | 8 | Carried forward | £ | 1,989,038 | 7 | 8 | 33,219 | 11 | 7 | 30,724 | 19 | 5 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | | | | |
|-------|--|----|----|---|--|--------------|----|--|----|----|--------|----|---|
| | £ | s. | d. | | | Written off. | | Retained for Expenditure, 31st October, 1884 | | | | | |
| | £ | s. | d. | | £ | s. | d. | £ | s. | d. | | | |
| | 2,052,982 | 18 | 8 | Brought forward | 1,989,038 | 7 | 8 | 33,219 | 11 | 7 | 30,724 | 19 | 5 |
| | OLD LOANS ACCOUNT—continued. | | | | | | | | | | | | |
| | 20 VICTORIA, No. 33—continued. | | | | | | | | | | | | |
| | 60,000 | 0 | 0 | Brought forward | 59,992 | 0 | 3 | 7 | 19 | 9 | | | |
| 1857 | 12,113 | 18 | 11 | Defences of Port Jackson | 12,113 | 18 | 11 | | | | | | |
| " | 10,000 | 0 | 0 | Erection and Maintenance of Light-houses on the Australian Coast | 10,000 | 0 | 0 | | | | | | |
| " | 2,590 | 0 | 0 | Immigration Depôt, Brisbane... .. | 2,590 | 0 | 0 | | | | | | |
| " | 250 | 0 | 0 | Immigration Depôt at Maryborough | | | | 250 | 0 | 0 | | | |
| " | 1,000 | 0 | 0 | Removing obstructions to the Navigation of the Rivers Brisbane and Bremer... .. | 1,000 | 0 | 0 | | | | | | |
| " | 500 | 0 | 0 | Electric Telegraph, Brisbane... .. | | | | 500 | 0 | 0 | | | |
| " | 500 | 0 | 0 | Improving the Navigation of the Bar entrance of the River Mary, from the Mouth to the Township | 500 | 0 | 0 | | | | | | |
| " | 500 | 0 | 0 | Public Wharf at Maryborough | 500 | 0 | 0 | | | | | | |
| " | 1,500 | 0 | 0 | Custom House Station at the mouth of Moreton Bay | 1,495 | 18 | 9 | 4 | 1 | 3 | | | |
| " | 1,000 | 0 | 0 | Court and Watch-house at Maryborough | 1,000 | 0 | 0 | | | | | | |
| " | 500 | 0 | 0 | Court and Watch-house at Nanango, Wide Bay... .. | 400 | 0 | 0 | 100 | 0 | 0 | | | |
| " | 500 | 0 | 0 | Court and Watch-house at Yarrome, Wide Bay... .. | 500 | 0 | 0 | | | | | | |
| " | 450 | 0 | 0 | Watch-house at Gatton | 450 | 0 | 0 | | | | | | |
| " | 1,500 | 0 | 0 | Hospital at Ipswich | 1,500 | 0 | 0 | | | | | | |
| " | 150 | 0 | 0 | Bridge at Ipswich | 150 | 0 | 0 | | | | | | |
| " | 500 | 0 | 0 | Bridge, Western Suburbs, North Brisbane... .. | 500 | 0 | 0 | | | | | | |
| " | 1,000 | 0 | 0 | Bridge over Lockyer's Creek... .. | 1,000 | 0 | 0 | | | | | | |
| " | 1,000 | 0 | 0 | Bridges over other Crossings... .. | 1,000 | 0 | 0 | | | | | | |
| " | 500 | 0 | 0 | Bridge over Laidley's Creek | 500 | 0 | 0 | | | | | | |
| " | 1,064 | 0 | 0 | Roads, Little Liverpool Range | 1,064 | 0 | 0 | | | | | | |
| " | 2,000 | 0 | 0 | Streets at Brisbane | 2,000 | 0 | 0 | | | | | | |
| " | 2,000 | 0 | 0 | Streets at Ipswich | 2,000 | 0 | 0 | | | | | | |
| " | 500 | 0 | 0 | Roadway and Tank at Drayton | 500 | 0 | 0 | | | | | | |
| " | 3,000 | 0 | 0 | Road between Brisbane and Ipswich | 3,000 | 0 | 0 | | | | | | |
| " | 400 | 0 | 0 | Road between Maryborough and Brisbane | 400 | 0 | 0 | | | | | | |
| " | 200 | 0 | 0 | Road purposes between the Upper Dawson and the Fitzroy Rivers, Leichhardt District... .. | 200 | 0 | 0 | | | | | | |
| " | 1,500 | 0 | 0 | Bridge over Breakfast Creek... .. | 1,500 | 0 | 0 | | | | | | |
| " | 1,000 | 0 | 0 | Bridge over Norman Creek | 1,000 | 0 | 0 | | | | | | |
| | 107,717 | 18 | 11 | | 106,855 | 17 | 11 | 862 | 1 | 0 | | | |
| | 20 VICTORIA, No. 34. | | | | | | | | | | | | |
| " | 300,000 | 0 | 0 | Railway Works | 299,927 | 9 | 4 | | | | 72 | 10 | 8 |
| | 22 VICTORIA, Nos 5 AND 26. | | | | | | | | | | | | |
| 1858 | 125,000 | 0 | 0 | To pay off Land and Immigration Debentures which will fall due in 1858 and 1859 | 125,000 | 0 | 0 | | | | | | |
| 1859 | 10,000 | 0 | 0 | To pay off Debentures for Sewerage for the City of Sydney | 10,000 | 0 | 0 | | | | | | |
| " | 10,000 | 0 | 0 | To pay off Debentures for Water for the City of Sydney | 10,000 | 0 | 0 | | | | | | |
| £ | 145,000 | 0 | 0 | | 145,000 | 0 | 0 | | | | | | |
| £ | 2,605,700 | 17 | 7 | Carried forward | £2,540,821 | 14 | 11 | 34,081 | 12 | 7 | 30,797 | 10 | 1 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | |
|---|--|--|--|--------------|---|
| | | | | Written off. | Retained for Expenditure, 31st October, 1884. |
| | £ s. d. | | £ s. d. | £ s. d. | £ s. d. |
| | 2,605,700 17 7 | Brought forward | 2,540,821 14 11 | 34,081 12 7 | 30,797 10 1 |
| OLD LOANS ACCOUNT—continued. | | | | | |
| 22 VICTORIA, No. 22. | | | | | |
| 1858 | 712,000 0 0 | Extension of Existing Railways | 711,999 18 0 | 0 2 0 | ..... |
| " | 8,000 0 0 | Railway Trial Surveys... .. | 8,000 0 0 | ..... | ..... |
| " | 10,500 0 0 | Electric Telegraph, Sydney to Bathurst | 9,726 7 10 | 773 12 2 | ..... |
| " | 13,000 0 0 | Electric Telegraph, Sydney to Newcastle | 13,000 0 0 | ..... | ..... |
| " | 10,000 0 0 | Bridge over the River Murray at Albury | 9,642 17 3 | 357 2 9 | ..... |
| " | 3,000 0 0 | Additional Powder Magazine at Goat Island | 1,610 17 0 | 1,389 3 0 | ..... |
| " | 2,000 0 0 | Dam at West Maitland ... .. | ..... | 2,000 0 0 | ..... |
| | 758,500 0 0 | | 758,980 0 1 | 4,519 19 11 | ..... |
| 22 VICTORIA, No. 26. | | | | | |
| 1859 | 6,600 0 0 | Gaol at Brisbane ... .. | ..... | 6,600 0 0 | ..... |
| " | 5,000 0 0 | Light-house at Cape St. George | 4,792 0 10 | 207 19 2 | ..... |
| | 11,600 0 0 | | 4,792 0 10 | 6,807 19 2 | ..... |
| 23 VICTORIA, No. 5. | | | | | |
| To pay off Debentures which will fall due in 1860:— | | | | | |
| 1860 | 281,700 0 0 | Railway | 281,330 0 0 | ..... | 370 0 0 |
| " | 21,000 0 0 | Public Works | 21,000 0 0 | ..... | ..... |
| " | 44,900 0 0 | Sydney Sewerage | 44,900 0 0 | ..... | ..... |
| " | 18,000 0 0 | Sydney Water Works | 18,000 0 0 | ..... | ..... |
| | 365,600 0 0 | | 365,230 0 0 | ..... | 370 0 0 |
| 23 VICTORIA, No. 10. | | | | | |
| " | 2,100 0 0 | Construction of Coal Wharf, Newcastle | 2,100 0 0 | ..... | ..... |
| " | 800 0 0 | Steam Crane | 746 9 8 | 53 10 4 | ..... |
| " | 1,882 0 0 | Glebe Island Punts | 1,882 0 0 | ..... | ..... |
| " | 2,425 0 0 | Harbour Defences | 2,425 0 0 | ..... | ..... |
| " | 4,500 0 0 | Additions to Works at Fort Macquarie | 4,496 15 3 | 3 4 9 | ..... |
| " | 20,279 0 0 | Bridge to connect the Abattoirs, Glebe Island with the main land | 20,186 15 11 | 92 4 1 | ..... |
| For Railway purposes— | | | | | |
| " | 1,300 0 0 | Valuation of Land... .. | 1,296 0 0 | 4 0 0 | ..... |
| " | 9,021 0 0 | Works in progress—Authorized Extensions | 8,645 2 8 | 375 17 4 | ..... |
| " | 23,949 0 0 | Trial Surveys | 23,941 1 8 | 7 18 4 | ..... |
| " | 54,100 0 0 | New Works | 51,825 1 11 | ..... | 2,274 18 1 |
| For Electric Telegraph— | | | | | |
| " | 15,000 0 0 | Gundagai, <i>via</i> Wagga Wagga, to Deniliquin | 12,149 4 11 | 2,850 15 1 | ..... |
| " | 3,850 0 0 | Purchase of Line from Deniliquin to Echuca | 2,798 12 10 | 1,051 7 2 | ..... |
| " | 40,000 0 0 | West Maitland to the Boundary of Queensland, <i>via</i> Singleton, Scone, Murrumbidgee, Tamworth, Bendemeer, and Armidale | 34,003 6 11 | 2,846 7 10 | 3,150 5 3 |
| " | 6,000 0 0 | Extension of Western Line to Mudgee... .. | 5,233 11 0 | 766 9 0 | ..... |
| " | 3,000 0 0 | Extension to Orange | 2,663 11 11 | 336 8 1 | ..... |
| " | 8,700 0 0 | Gundagai to Kiandra, <i>via</i> Adelong and Tumut | 5,341 4 4 | 3,358 15 8 | ..... |
| " | 10,225 0 0 | Moiety of Expense for the erection of a Light-house on Gabo Island | 10,225 0 0 | ..... | ..... |
| " | 5,000 0 0 | Renewal of Circular Quay | 5,000 0 0 | ..... | ..... |
| " | 2,000 0 0 | Pier at extension of Dowling-street... .. | 1,255 3 5 | ..... | 744 16 7 |
| " | 5,200 0 0 | Extension of Wharf Accommodation, Newcastle | 5,200 0 0 | ..... | ..... |
| " | 26,892 0 0 | Improvements to Wollongong Harbour | 26,892 0 0 | ..... | ..... |
| " | 30,000 0 0 | Improvements to Kiama Harbour | 30,000 0 0 | ..... | ..... |
| " | 1,000 0 0 | Removing Obstructions to the Navigation of the Moruya River | 1,000 0 0 | ..... | ..... |
| £ | 277,223 0 0 | Carried forward | £ 259,306 2 5 | 11,746 17 8 | 6,169 19 11 |
| £ | 3,741,400 17 7 | Carried forward... .. | £ 3,664,823 15 10 | 45,409 11 8 | 31,167 10 1 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances. | | | | | | | | |
|-------|--|----|----|--|--|--------------|---|--------|--------|----|--------|--------|----|----|
| | £ | s. | d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | | | | | | | |
| | £ | s. | d. | Brought forward | £ | s. | d. | £ | s. | d. | £ | s. | d. | |
| | 3,741,400 | 17 | 7 | | 3,664,823 | 15 | 10 | 45,409 | 11 | 8 | 31,167 | 10 | 1 | |
| | | | | OLD LOANS ACCOUNT—continued. | | | | | | | | | | |
| | | | | 23 VICTORIA, No. 10—continued. | | | | | | | | | | |
| | 277,223 | 0 | 0 | Brought forward | £ | 259,306 | 2 | 5 | 11,746 | 17 | 8 | 6,169 | 19 | 11 |
| 1860 | 2,500 | 0 | 0 | Wharf at Eden | | 2,364 | 9 | 3 | 135 | 10 | 9 | | | |
| " | 5,000 | 0 | 0 | Improvements to the Navigation of the Shoalhaven and Crookhaven Rivers | | 4,999 | 19 | 2 | 0 | 0 | 10 | | | |
| " | 2,000 | 0 | 0 | Improvements to the Navigation of the Rivers Murray and Murrumbidgee | | 1,913 | 15 | 2 | 86 | 4 | 10 | | | |
| " | 2,000 | 0 | 0 | Purchase of Alphabetical Telegraph Instruments | | 1,862 | 5 | 9 | | | | 187 | 14 | 3 |
| " | 6,500 | 0 | 0 | Erection of a Light-house at Port Stephens | | 6,500 | 0 | 0 | | | | | | |
| " | 53,000 | 0 | 0 | To pay off Land and Immigration Debentures falling due in 1860 | | 53,000 | 0 | 0 | | | | | | |
| | 348,223 | 0 | 0 | | | 329,946 | 11 | 9 | 11,968 | 14 | 1 | 6,307 | 14 | 2 |
| | | | | 24 VICTORIA, No. 24. | | | | | | | | | | |
| | | | | For Railway purposes— | | | | | | | | | | |
| | 1,300 | 0 | 0 | Valuation of Land | | 1,300 | 0 | 0 | | | | | | |
| " | 7,020 | 0 | 0 | Works in Progress—Authorized Extensions | | 6,718 | 9 | 5 | 301 | 10 | 7 | | | |
| " | 25,000 | 0 | 0 | For Electric Telegraphs— | | | | | | | | | | |
| | | | | Deniliquin to the Eastern Boundary of South Australia, <i>via</i> Moulamein, Balranald, Euston, and Wentworth... | | 16,821 | 8 | 6 | 8,178 | 11 | 6 | | | |
| " | 4,000 | 0 | 0 | Goulburn to Braidwood | | 3,077 | 15 | 0 | 422 | 5 | 0 | 500 | 0 | 0 |
| " | 10,000 | 0 | 0 | Enlargement of the Australian Museum | | 10,000 | 0 | 0 | | | | | | |
| " | 15,265 | 0 | 0 | New Wharf, Woolloomooloo Bay | | 15,265 | 0 | 0 | | | | | | |
| " | 20,000 | 0 | 0 | Improvement of Clarence and Richmond Rivers | | 19,995 | 8 | 2 | 4 | 11 | 10 | | | |
| " | 3,000 | 0 | 0 | Improvements to Moruya River | | 3,000 | 0 | 0 | | | | | | |
| " | 5,000 | 0 | 0 | Extension of Wharf Accommodation, Newcastle | | 5,000 | 0 | 0 | | | | | | |
| " | 3,250 | 0 | 0 | Purchase of Steam Cranes | | 3,250 | 0 | 0 | | | | | | |
| " | 5,000 | 0 | 0 | Construction of Northern Breakwater, Newcastle | | 4,921 | 16 | 5 | 78 | 3 | 7 | | | |
| " | 1,000 | 0 | 0 | Removing Obstacles to the Navigation of the River Murray | | 1,000 | 0 | 0 | | | | | | |
| " | 5,000 | 0 | 0 | Bridge over the Lachlan River | | 5,000 | 0 | 0 | | | | | | |
| " | 2,400 | 0 | 0 | Bridge over Tumut River, including £200 for superintendence | | 2,400 | 0 | 0 | | | | | | |
| " | 5,000 | 0 | 0 | Lodging-houses and Public Room at Glebe Island | | 1,244 | 18 | 8 | 3,755 | 1 | 4 | | | |
| " | 1,300 | 0 | 0 | Extension of Circular Quay for the accommodation of Harbour Steamers | | 1,283 | 14 | 1 | 16 | 5 | 11 | | | |
| | 113,535 | 0 | 0 | | | 100,278 | 10 | 3 | 12,756 | 9 | 9 | 500 | 0 | 0 |
| | | | | 24 VICTORIA, No. 26. | | | | | | | | | | |
| " | 50,000 | 0 | 0 | Assisted Immigration to this Colony | | 50,000 | 0 | 0 | | | | | | |
| " | 5,000 | 0 | 0 | Voluntary Immigration to this Colony | | 5,000 | 0 | 0 | | | | | | |
| | 55,000 | 0 | 0 | | | 55,000 | 0 | 0 | | | | | | |
| | | | | 25 VICTORIA, No. 19. | | | | | | | | | | |
| | | | | Railways— | | | | | | | | | | |
| 1862 | 675 | 0 | 0 | Valuation of Land | | 671 | 1 | 8 | 3 | 18 | 4 | | | |
| " | 9,184 | 0 | 0 | Works in Progress—Authorized Extensions | | 8,168 | 13 | 2 | 1,015 | 6 | 10 | | | |
| " | 20,000 | 0 | 0 | Northern Line to Terminus at Morpeth | | 20,000 | 0 | 0 | | | | | | |
| " | 5,000 | 0 | 0 | Carriage-shed and Machine-shop, and fixing an Engine Turn-table, Northern Line | | 4,578 | 19 | 3 | | | | 421 | 0 | 9 |
| " | 40,000 | 0 | 0 | Bridge over Hunter River at Singleton | | 40,000 | 0 | 0 | | | | | | |
| £ | 74,859 | 0 | 0 | Carried forward | £ | 73,418 | 14 | 1 | 1,019 | 5 | 2 | 421 | 0 | 9 |
| £ | 4,258,158 | 17 | 7 | Carried forward | £ | 4,150,048 | 17 | 10 | 70,134 | 15 | 6 | 37,975 | 4 | 3 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | |
|-------|--|--|--|--------------|---|
| | | | | Written off. | Retained for Expenditure, 31st October, 1884. |
| | £ s. d. | | £ s. d. | £ s. d. | £ s. d. |
| | 4,258,158 17 7 | Brought forward | 4,150,048 17 10 | 70,184 15 6 | 37,975 4 3 |
| | | OLD LOANS ACCOUNT—continued. | | | |
| | | 25 VICTORIA, No. 19—continued. | | | |
| | 74,859 0 0 | Brought forward | 73,418 14 1 | 1,019 5 2 | 421 0 9 |
| | | <i>Railways—continued.</i> | | | |
| 1862 | 70,000 0 0 | Bridge over the Nepean River at Penrith | 70,000 0 0 | ..... | ..... |
| " | 688,000 0 0 | Great Southern Railway to Goulburn ... | 687,999 8 0 | ..... | 0 12 0 |
| " | 16,200 0 0 | Land for Great Southern Railway to Goulburn | 16,200 0 0 | ..... | ..... |
| " | 20,000 0 0 | Engines for Southern Extension | 20,000 0 0 | ..... | ..... |
| " | 7,000 0 0 | Trial Surveys | 7,000 0 0 | ..... | ..... |
| " | 30,000 0 0 | Great Western Line to the Nepean ... | 30,000 0 0 | ..... | ..... |
| " | 250,000 0 0 | Great Western Line from Penrith towards Bathurst | 250,000 0 0 | ..... | ..... |
| " | 250,000 0 0 | Great Northern Line towards Armidale... | 250,000 0 0 | ..... | ..... |
| " | 60,000 0 0 | Horse Railway Line from Blacktown to Windsor and Richmond | 60,000 0 0 | ..... | ..... |
| " | 10,000 0 0 | Additions and Alterations to Workshops and Stations | 9,998 7 6 | ..... | 1 12 6 |
| | | <i>Electric Telegraphs—</i> | | | |
| " | 14,000 0 0 | To the Burrangong Gold Fields | 12,825 1 9 | 1,174 18 3 | ..... |
| " | 8,400 0 0 | Tenterfield to Grafton | 5,481 3 4 | 2,918 16 8 | ..... |
| " | 4,000 0 0 | To Wollongong and Kiama | 3,375 9 3 | 624 10 9 | ..... |
| " | 4,000 0 0 | From Mudgee to Wellington | 2,651 18 7 | 1,348 1 5 | ..... |
| " | 350 0 0 | Second Wire from Scone to Muswellbrook | 330 13 4 | 19 6 8 | ..... |
| " | 700 0 0 | Second Wire from Newcastle to Singleton | 27 12 4 | 672 7 8 | ..... |
| " | 3,000 0 0 | Bridge over River at Bargo ... .. | ..... | 3,000 0 0 | ..... |
| " | 6,000 0 0 | Bridge over River Hunter at West Maitland | 6,000 0 0 | ..... | ..... |
| " | 24,000 0 0 | Bridge and Approaches over Murrumbidgee River at Gundagai | 24,000 0 0 | ..... | ..... |
| " | 8,000 0 0 | Bridge over River at Deniliquin | 8,000 0 0 | ..... | ..... |
| " | 10,000 0 0 | Bridge over River at Moama | 79 1 4 | 9,920 18 8 | ..... |
| " | 5,000 0 0 | Bridge over River at Nanami ... .. | ..... | 5,000 0 0 | ..... |
| " | 4,000 0 0 | Bridge over Namoi River at Narrabri ... | 2,950 12 10 | 1,049 7 2 | ..... |
| " | 10,000 0 0 | Police Barracks, Sydney and Country Dis- tricts | 10,000 0 0 | ..... | ..... |
| " | 25,000 0 0 | Free Public Library | 9,715 0 6 | ..... | 15,284 19 6 |
| " | 10,000 0 0 | District Courts, Sydney ... .. | ..... | ..... | 10,000 0 0 |
| " | 20,000 0 0 | Improvement of accommodation in Gaols and Penal Establishments | 13,906 11 6 | ..... | 6,093 8 6 |
| " | 3,000 0 0 | Improvements to Shoalhaven River | 3,000 0 0 | ..... | ..... |
| " | 5,000 0 0 | Improvements to Moruya River | 5,000 0 0 | ..... | ..... |
| " | 5,000 0 0 | Extension of Wharf accommodation at New- castle | 5,000 0 0 | ..... | ..... |
| " | 3,400 0 0 | Purchase of Steam Cranes | 3,396 0 7 | 3 19 5 | ..... |
| " | 700 0 0 | Pier, Shellharbour | 700 0 0 | ..... | ..... |
| " | 1,000 0 0 | Stone Dyke, Bullock Island, Newcastle ... | 1,000 0 0 | ..... | ..... |
| " | 1,000 0 0 | Dyke, Shoalhaven River | 999 19 11 | 0 0 1 | ..... |
| " | 2,500 0 0 | Wharf, Ulladulla | 2,500 0 0 | ..... | ..... |
| " | 10,000 0 0 | Breakwater and Pier at Bellambi ... .. | ..... | 10,000 0 0 | ..... |
| " | 5,000 0 0 | University of Sydney | 5,000 0 0 | ..... | ..... |
| " | 43,261 14 6 | Compensation to the Municipal Council of Sydney, for land resumed under the Water Act, 17 Vict., No. 35 | 43,261 14 6 | ..... | ..... |
| " | 20,000 0 0 | Juvenile Reformatories | 19,946 17 9 | ..... | 53 2 3 |
| " | 50,000 0 0 | Assisted Immigration to this Colony ... | 50,000 0 0 | ..... | ..... |
| | 1,782,370 14 6 | | 1,713,764 7 1 | 36,751 11 11 | 31,854 15 6 |
| | | 26 VICTORIA, No. 14. | | | |
| | | <i>Railways—</i> | | | |
| " | 700 0 0 | Valuation of land | 696 0 0 | 4 0 0 | ..... |
| " | 11,182 0 0 | Works in Progress—Authorized Exten- sions | 10,523 3 5 | 658 16 7 | ..... |
| £ | 11,882 0 0 | Carried forward | £ 11,219 3 5 | 662 16 7 | ..... |
| £ | 6,040,529 12 1 | Carried forward | £ 5,863,813 4 11 | 106,886 7 5 | 69,829 19 9 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | | | | | |
|-------|--|----|----|---|--|--------------|----|---------|---|-------|--------|--------|-------|---|
| | £ | s. | d. | | | Written off. | | | Retained for Expenditure, 31st October, 1884. | | | | | |
| | 6,040,529 | 12 | 1 | Brought forward | 5,863,813 | 4 | 11 | 106,886 | 7 | 5 | 69,829 | 19 | 9 | |
| | | | | OLD LOANS ACCOUNT—continued. | | | | | | | | | | |
| | | | | 26 VICTORIA, No. 14—continued. | | | | | | | | | | |
| | | | | Brought forward... .. | 11,219 | 3 | 5 | 662 | 16 | 7 | ..... | ..... | ..... |  |
| 1862 | 11,882 | 0 | 0 | Railways—continued. | | | | | | | | | | |
| | 1,000 | 0 | 0 | Bridge over the Railway near Newcastle.. | 1,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 16,000 | 0 | 0 | Additional Line from Newcastle to the Wallsend Junction | 14,684 | 8 | 6 | ..... | ..... | ..... | 1,315 | 11 | 6 | |
| " | 350 | 0 | 0 | Additional Telegraph Wire for Railway purposes, from Parramatta to Penrith | 336 | 5 | 6 | 13 | 14 | 6 | ..... | ..... | ..... |  |
| " | 675 | 0 | 0 | Additional Telegraph Wire for Railway purposes, from Campbelltown to Picton... .. | 514 | 16 | 8 | ..... | ..... | ..... | 160 | 3 | 4 | |
| " | 7,500 | 0 | 0 | Wharf, Ulladulla | 7,500 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 3,500 | 0 | 0 | Improvements to Shoalhaven River | 3,458 | 6 | 0 | 41 | 14 | 0 | ..... | ..... | ..... |  |
| " | 15,000 | 0 | 0 | Extension of Wharf accommodation, Newcastle | 14,999 | 11 | 6 | ..... | ..... | ..... | 0 | 8 | 6 | |
| " | 275 | 0 | 0 | Additional Screw Moorings for the Harbour of Newcastle | 275 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 5,000 | 0 | 0 | Northern Breakwater, Newcastle | 4,999 | 2 | 6 | ..... | ..... | ..... | 0 | 17 | 6 | |
| " | 30,000 | 0 | 0 | Improvement to Clarence River North Breakwater | 29,935 | 0 | 2 | ..... | ..... | ..... | 64 | 19 | 10 | |
| " | 3,000 | 0 | 0 | Steam Cranes | 3,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 1,000 | 0 | 0 | Stone Dyke, Bullock Island, Newcastle | 939 | 4 | 0 | 60 | 16 | 0 | ..... | ..... | ..... |  |
| " | 20,000 | 0 | 0 | Second Steam Dredge, Punts, and Tug, for Newcastle | 19,966 | 6 | 4 | 33 | 13 | 8 | ..... | ..... | ..... |  |
| " | 10,000 | 0 | 0 | Wharf and Coal Shoots, Morpeth | 4,342 | 10 | 9 | ..... | ..... | ..... | 5,657 | 9 | 3 | |
| " | 6,000 | 0 | 0 | Bridge at Bendemeer | 5,999 | 4 | 1 | 0 | 15 | 11 | ..... | ..... | ..... |  |
| " | 6,000 | 0 | 0 | Bridge at Dunmore | 6,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 10,000 | 0 | 0 | Offices for the Department of Public Works | 10,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | | | | Electric Telegraphs— | | | | | | | | | | |
| " | 3,500 | 0 | 0 | Additional Wire from Sydney to Newcastle | 3,232 | 1 | 6 | 267 | 18 | 6 | ..... | ..... | ..... |  |
| " | 350 | 0 | 0 | Do. Parramatta to Liverpool... .. | 300 | 0 | 0 | 50 | 0 | 0 | ..... | ..... | ..... |  |
| " | 5,600 | 0 | 0 | Do. Deniliquin to Hay | 3,781 | 0 | 10 | 1,818 | 19 | 2 | ..... | ..... | ..... |  |
| " | 2,600 | 0 | 0 | Do. Wellington to Dubbo | 1,608 | 17 | 10 | 991 | 2 | 2 | ..... | ..... | ..... |  |
| " | 2,600 | 0 | 0 | Do. Braidwood to Queanbeyan | 1,995 | 5 | 3 | 604 | 14 | 9 | ..... | ..... | ..... |  |
| | 161,832 | 0 | 0 | 27 VICTORIA, No. 14. | 150,086 | 4 | 10 | 4,546 | 5 | 3 | 7,199 | 9 | 11 | |
| | | | | Railways— | | | | | | | | | | |
| 1864 | 215,414 | 3 | 1 | Extension to Goulburn | 215,414 | 3 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 3,932 | 2 | 8 | Workshops, Southern Line | 3,932 | 2 | 8 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 2,480 | 14 | 3 | Workshops, Northern Line | 2,431 | 7 | 6 | ..... | ..... | ..... | 49 | 6 | 9 | |
| " | 13,000 | 0 | 0 | Rolling Stock, Northern Line | 13,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 23,000 | 0 | 0 | Locomotive Engines, Western Line | 23,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 20,000 | 0 | 0 | Carriages, Break-vans, &c., Western Line | 20,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 35,000 | 0 | 0 | Locomotive Engines, Northern Line | | | | | | | | | | |
| " | 1,000 | 0 | 0 | Traverses for Coal Sidings, Newcastle | | | | | | | | | | |
| " | 4,000 | 0 | 0 | Ballast Waggons for Northern, Southern, and Western Lines | 37,659 | 10 | 9 | ..... | ..... | ..... | 2,340 | 9 | 3 | |
| " | 50,000 | 0 | 0 | Extension into Goulburn | 50,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 150,000 | 0 | 0 | Extension to Bathurst | 150,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 15,000 | 0 | 0 | Richmond and Windsor Railways | 15,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 7,500 | 0 | 0 | Purchase of Land for Morpeth Railway... .. | 7,495 | 13 | 4 | ..... | ..... | ..... | 4 | 6 | 8 | |
| " | 5,000 | 0 | 0 | Siding into Cemetery at Haslem's Creek... .. | 4,821 | 5 | 6 | ..... | ..... | ..... | 178 | 14 | 6 | |
| " | 900 | 0 | 0 | Wharf, Carriage Dock, and Siding, Newcastle Station, and at West Maitland | 900 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 970 | 0 | 0 | New Passenger Station, Platform, and Siding, at Hexham | 970 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 3,500 | 0 | 0 | Coal Sidings at Newcastle | 566 | 13 | 9 | ..... | ..... | ..... | 2,933 | 6 | 3 | |
| " | 400 | 0 | 0 | Passenger Station and Platform at Rooty Hill, Western Line | 400 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 900 | 0 | 0 | Three Gate-houses on Western Line | 831 | 10 | 5 | ..... | ..... | ..... | 68 | 9 | 7 | |
| " | 110 | 0 | 0 | Stables at Newcastle | 110 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| £ | 552,107 | 0 | 0 | Carried forward... .. | £ | 546,532 | 7 | 0 | ..... | ..... | 5,574 | 13 | 0 | |
| £ | 6,202,361 | 12 | 1 | Carried forward | £ | 6,013,899 | 9 | 9 | 111,432 | 12 | 8 | 77,029 | 9 | 8 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | | | | |
|-------|---|----|----|--|--|--------------|---|---------|-------|-------|--------|-------|-------|
| | £ | s. | d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | | | | | | |
| | £ | s. | d. | | £ | s. | d. | £ | s. | d. | £ | s. | d. |
| | 6,202,361 | 12 | 1 | Brought forward ... | 6,013,899 | 9 | 9 | 111,432 | 12 | 8 | 77,029 | 9 | 8 |
| | OLD LOANS ACCOUNT—continued. | | | | | | | | | | | | |
| | 27 VICTORIA, No. 14—continued. | | | | | | | | | | | | |
| | 552,107 | 0 | 0 | Brought forward .. | 546,532 | 7 | 0 | ..... | ..... | ..... | 5,574 | 13 | 0 |
| 1864 | 7,153 | 13 | 2 | Electric Telegraphs— Stations on Southern, Western, Northern, and Mudgee Lines ... | 5,827 | 6 | 3 | ..... | ..... | ..... | 1,326 | 6 | 11 |
| " | 300 | 0 | 0 | Wollongong to Kiama ... | 211 | 19 | 7 | 88 | 0 | 5 | ..... | ..... | ..... |
| " | 9,000 | 0 | 0 | Mudgee to Murrurundi ... | 5,116 | 3 | 6 | 3,883 | 16 | 6 | ..... | ..... | ..... |
| " | 4,500 | 0 | 0 | Braidwood to Araluen ... | 683 | 17 | 0 | 3,816 | 3 | 0 | ..... | ..... | ..... |
| " | 3,000 | 0 | 0 | Continuation of Line to Cooma ... | 2,847 | 11 | 9 | 152 | 8 | 3 | ..... | ..... | ..... |
| " | 1,800 | 0 | 0 | Stations at Grafton, Wagga Wagga, and Hay ... | 550 | 0 | 0 | ..... | ..... | ..... | 1,250 | 0 | 0 |
| " | 9,000 | 0 | 0 | Bridge over the River Hunter at West Mait- land ... | 9,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 38,000 | 0 | 0 | Wharfs and Coal Basin, Newcastle ... | 38,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 3,000 | 0 | 0 | Coal Shoots and Railway, Wollongong ... | 3,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 5,000 | 0 | 0 | Improvement of Wollongong Harbour ... | 5,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 5,000 | 0 | 0 | Reclamation of Land, Woolloomooloo Bay ... | 5,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 4,000 | 0 | 0 | Sewers for draining reclaimed land at Wool- loomooloo Bay ... | 4,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 10,000 | 0 | 0 | Reclaiming Land at the head of Darling Harbour and Blackwattle Swamp ... | 10,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 1,047 | 12 | 9 | Light-house, Gabo Island ... | 1,047 | 12 | 9 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 765 | 19 | 5 | Light-house, Wilson's Promontory ... | 635 | 19 | 5 | 130 | 0 | 0 | ..... | ..... | ..... |
| " | 11,000 | 0 | 0 | Australian Museum ... | 11,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 5,351 | 7 | 3 | Harbour Defences ... | 5,351 | 7 | 3 | ..... | ..... | ..... | ..... | ..... | ..... |
| | 670,025 | 12 | 7 | | 653,804 | 4 | 6 | 8,070 | 8 | 2 | 8,150 | 19 | 11 |
| | 29 VICTORIA, No. 5. | | | | | | | | | | | | |
| | To pay off Debentures falling due January, 1866— | | | | | | | | | | | | |
| 1865 | 97,500 | 0 | 0 | Sewerage, 17 Vict., No. 34 ... | 97,500 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 50,700 | 0 | 0 | Water Supply, 17 Vict., No. 35 ... | 50,700 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 139,000 | 0 | 0 | Railways, 18 Vict., No. 40 ... | 139,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 12,800 | 0 | 0 | Public Works, 18 Vict., No. 35, and 19 Vict., Nos. 38—40 ... | 12,800 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| | 300,000 | 0 | 0 | | 300,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| | 29 VICTORIA, No. 9. | | | | | | | | | | | | |
| | Railways— | | | | | | | | | | | | |
| " | 650 | 0 | 0 | Station at Riverstone ... | 650 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 650 | 0 | 0 | Station at Mulgrave ... | 650 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 9,000 | 0 | 0 | Forty additional Ballast and Goods Trucks ... | 9,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 10,000 | 0 | 0 | Windsor and Richmond Railway ... | 10,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 850 | 0 | 0 | Land at Newtown for Sidings ... | 820 | 17 | 8 | ..... | ..... | ..... | 29 | 2 | 4 |
| " | 10,000 | 0 | 0 | Additional Rolling Stock ... | 10,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 20,000 | 0 | 0 | Additional Goods Accommodation, Sydney Station ... | 19,999 | 18 | 0 | 0 | 2 | 0 | ..... | ..... | ..... |
| " | 12,000 | 0 | 0 | Railway Sheds ... | 12,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 5,000 | 0 | 0 | Additional Accommodation, Stations ... | 5,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 6,000 | 0 | 0 | To meet outstanding claims for land on the Penrith, Picton, and Singleton Extensions ... | 3,856 | 2 | 2 | ..... | ..... | ..... | 2,143 | 17 | 10 |
| " | 650 | 0 | 0 | Station at Douglass Park ... | 640 | 14 | 3 | ..... | ..... | ..... | 9 | 5 | 9 |
| " | 20,000 | 0 | 0 | Extension of Great Northern Line to Terminus at Morpeth ... | 19,995 | 2 | 11 | ..... | ..... | ..... | 4 | 17 | 1 |
| " | 9,000 | 0 | 0 | Bridge at Pitnacree ... | 9,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 900 | 0 | 0 | Dunmore Bridge ... | 900 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| " | 4,000 | 0 | 0 | West Maitland Bridge ... | 4,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |
| £ | 108,700 | 0 | 0 | Carried forward ... | £ 106,512 | 15 | 0 | 0 | 2 | 0 | 2,187 | 3 | 0 |
| £ | 7,172,387 | 4 | 8 | Carried forward ... | £ 6,967,703 | 14 | 3 | 119,503 | 0 | 10 | 85,180 | 9 | 7 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | | | | |
|-------|--|----|----|--|--|--------------|---|---------|----|----|---------|----|----|
| | £ | s. | d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | | | | | | |
| | 7,172,387 | 4 | 8 | Brought forward ... | 6,967,703 | 14 | 3 | 119,503 | 0 | 10 | 85,180 | 9 | 7 |
| | | | | OLD LOANS ACCOUNT—continued. | | | | | | | | | |
| | | | | 29 VICTORIA, No. 9—continued. | | | | | | | | | |
| 1865 | 108,700 | 0 | 0 | Brought forward... | 106,512 | 15 | 0 | 0 | 2 | 0 | 2,187 | 3 | 0 |
| | 850 | 0 | 0 | Dwarf Wall and Railing between the Domain and the reclaimed land in Woolloomooloo Bay, and for a Gate to the same, and a new Gate in Palmer-street ... | 850 | 0 | 0 | | | | | | |
| " | 3,900 | 0 | 0 | Reclamation of Land, Woolloomooloo Bay | 3,899 | 16 | 10 | 0 | 3 | 2 | | | |
| " | 6,000 | 0 | 0 | Australian Museum ... | 5,954 | 11 | 0 | 45 | 9 | 0 | | | |
| " | 6,000 | 0 | 0 | Excavation, Kiama Harbour Works... | 5,998 | 6 | 9 | 1 | 13 | 3 | | | |
| " | 500 | 0 | 0 | Wharf at Ulladulla ... | 500 | 0 | 0 | | | | | | |
| " | 3,500 | 0 | 0 | Three new Punts for second Steam Dredge, Newcastle ... | 3,500 | 0 | 0 | | | | | | |
| " | 25,000 | 0 | 0 | Penitentiary ... | | | | | | | 25,000 | 0 | 0 |
| " | 25,000 | 0 | 0 | Lunatic Asylum ... | 22,147 | 15 | 0 | | | | 2,852 | 5 | 0 |
| " | 40,000 | 0 | 0 | Assisted Immigration to this Colony ... | 39,437 | 17 | 2 | | | | 562 | 2 | 10 |
| | 219,450 | 0 | 0 | | 188,801 | 1 | 9 | 47 | 7 | 5 | 30,601 | 10 | 10 |
| | | | | 29 VICTORIA, No. 23. | | | | | | | | | |
| | | | | Railways— | | | | | | | | | |
| 1866 | 200,000 | 0 | 0 | Extension of the Great Western Line ... | 200,000 | 0 | 0 | | | | | | |
| " | 400,000 | 0 | 0 | Extension of the Great Northern Line... | 398,677 | 2 | 3 | | | | 1,322 | 17 | 9 |
| " | 20,000 | 0 | 0 | Relaying the Line from Sydney to the Parramatta Junction... | 20,000 | 0 | 0 | | | | | | |
| " | 4,000 | 0 | 0 | Enlarging Railway Bridges at East Maitland ... | 2,508 | 17 | 2 | | | | 1,491 | 2 | 10 |
| " | 5,000 | 0 | 0 | Additional Accommodation to Stations, &c. ... | 5,000 | 0 | 0 | | | | | | |
| " | 10,000 | 0 | 0 | Additional Goods Waggons ... | 10,000 | 0 | 0 | | | | | | |
| " | 10,000 | 0 | 0 | Wollongong Harbour Works ... | 9,986 | 9 | 5 | 13 | 10 | 7 | | | |
| " | 5,000 | 0 | 0 | Breakwater, Newcastle ... | 5,000 | 0 | 0 | | | | | | |
| " | 10,000 | 0 | 0 | Coal Staiths, Newcastle ... | 10,000 | 0 | 0 | | | | | | |
| " | 24,000 | 0 | 0 | Steam Dredge and Punts for Sydney ... | 24,000 | 0 | 0 | | | | | | |
| " | 33,000 | 0 | 0 | One-third the cost of the Bridge over the Nepean at Penrith, defrayed from Railway Loan ... | 33,000 | 0 | 0 | | | | | | |
| " | 15,500 | 0 | 0 | One-third the cost of Singleton Bridge, defrayed from Railway Loan ... | 12,160 | 3 | 3 | | | | 3,339 | 16 | 9 |
| " | 3,000 | 0 | 0 | Bridge over the Lachlan at Cowra ... | 3,000 | 0 | 0 | | | | | | |
| " | 1,000 | 0 | 0 | Extension of Riley-street to Palmer-street, including Ornamental Railing for portion of the Domain ... | | | | | | | 1,000 | 0 | 0 |
| " | 2,500 | 0 | 0 | Electric Telegraph, Yass to Burrowa ... | 1,358 | 18 | 4 | 1,141 | 1 | 8 | | | |
| " | 15,000 | 0 | 0 | Cost of Heavy Guns for Fortifications ... | 15,000 | 0 | 0 | | | | | | |
| | 758,000 | 0 | 0 | | 749,691 | 10 | 5 | 1,154 | 12 | 3 | 7,153 | 17 | 4 |
| | | | | 30 VICTORIA, No. 23. | | | | | | | | | |
| | | | | Railways— | | | | | | | | | |
| " | 3,000 | 0 | 0 | Engine-shed, Windsor and Richmond Line ... | 1,054 | 9 | 6 | | | | 1,945 | 10 | 6 |
| " | 5,000 | 0 | 0 | Trial Surveys for the Extension of the Great Southern and Western Railways | 5,000 | 0 | 0 | | | | | | |
| " | 25,000 | 0 | 0 | Compensation for Land taken on the Ultimo Estate ... | 25,000 | 0 | 0 | | | | | | |
| " | 900 | 0 | 0 | Bridge at Pitnacree ... | 897 | 16 | 2 | 2 | 3 | 10 | | | |
| " | 10,000 | 0 | 0 | Removing Obstructions and improving the Navigation of the Rivers Murray, Murrumbidgee, and Darling ... | 10,000 | 0 | 0 | | | | | | |
| " | 12,000 | 0 | 0 | Approaches to Gundagai Bridge ... | 12,000 | 0 | 0 | | | | | | |
| " | 6,000 | 0 | 0 | Road and Railway Bridge over the Murray at Echuca ... | 6,000 | 0 | 0 | | | | | | |
| " | 3,000 | 0 | 0 | Electric Telegraph, Cooma to Bombala ... | 2,041 | 5 | 5 | 958 | 14 | 7 | | | |
| " | 450 | 0 | 0 | Electric Telegraph, Newcastle to Wallsend... | 184 | 10 | 0 | 265 | 10 | 0 | | | |
| " | 500 | 0 | 0 | Electric Telegraph Extension to Bulli ... | 153 | 10 | 0 | 346 | 10 | 0 | | | |
| | 65,850 | 0 | 0 | | 62,331 | 11 | 1 | 1,572 | 18 | 5 | 1,945 | 10 | 6 |
| £ | 8,215,637 | 4 | 8 | Carried forward ... | £7,968,527 | 17 | 6 | 122,277 | 18 | 11 | 124,881 | 8 | 3 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | | | | | |
|-------|--|----|----|---|--|--------------|---|---------|---------|-------|---------|---------|-------|---|
| | £ | s. | d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | | | | | | | |
| | £ | s. | d. | | £ | s. | d. | £ | s. | d. | £ | s. | d. | |
| | 8,215,687 | 4 | 8 | Brought forward... .. | 7,968,527 | 17 | 6 | 122,277 | 18 | 11 | 124,881 | 8 | 3 | |
| | OLD LOANS ACCOUNT—continued. | | | | | | | | | | | | | |
| | 31 VICTORIA, No. 11. | | | | | | | | | | | | | |
| 1867 | 1,000,000 | 0 | 0 | Railway Works, Extension to Bathurst and Goulburn | 999,409 | 12 | 10 | ..... | ..... | ..... | 590 | 7 | 2 | |
| | 31 VICTORIA, No. 27 | | | | | | | | | | | | | |
| | Railways— | | | | | | | | | | | | | |
| 1868 | 3,412 | 0 | 0 | Half the cost of Telegraph Line from Picton to Goulburn, along the line of Railway, chargeable to Railways... | 3,411 | 2 | 0 | ..... | ..... | ..... | 0 | 18 | 0 | |
| " | 3,719 | 0 | 0 | Half the cost of Telegraph Line from Penrith to Bathurst, along the line of Railway, chargeable to Railways... | 3,511 | 0 | 10 | ..... | ..... | ..... | 207 | 19 | 2 | |
| " | 10,000 | 0 | 0 | Removing Obstructions and improving the Navigation of the Rivers Murray, Murrumbidgee, and Darling | 10,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 5,000 | 0 | 0 | Repair of the Southern Breakwater, Newcastle | 5,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 6,600 | 0 | 0 | Coal Staiths, Newcastle | 6,600 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 1,000 | 0 | 0 | Bridge and Approaches, West Maitland | 1,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 4,500 | 0 | 0 | Additional Punt for new Steam Dredge, Sydney Harbour | 4,499 | 16 | 3 | 0 | 3 | 9 | ..... | ..... | ..... |  |
| " | 8,000 | 0 | 0 | Bridge over the Macquarie River at Wellington | 8,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 13,000 | 0 | 0 | Iron Bridge over the Lower Murrumbidgee... | 12,998 | 18 | 9 | ..... | ..... | ..... | 1 | 1 | 3 | |
| " | 10,000 | 0 | 0 | Iron Bridge at Yass... .. | 10,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 12,000 | 0 | 0 | Iron Bridge at Bathurst | 12,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 15,000 | 0 | 0 | Bridge over the Nimboy, between Grafton and New England... .. | 14,999 | 18 | 0 | ..... | ..... | ..... | 0 | 2 | 0 | |
| " | 11,000 | 0 | 0 | Receiving Houses at the Redfern Railway Station and the Necropolis | 11,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 13,000 | 0 | 0 | Additions and Alterations to Abattoirs, Glebe Island, including Water Supply | 12,557 | 12 | 0 | ..... | ..... | ..... | 442 | 8 | 0 | |
| " | Electric Telegraph— | | | | | | | | | | | | | |
| " | 1,750 | 0 | 0 | Glen Innes to Inverell | 1,625 | 9 | 0 | 124 | 11 | 0 | ..... | ..... | ..... |  |
| " | 25,000 | 0 | 0 | Tamworth to Fort Bourke | 16,735 | 13 | 9 | ..... | ..... | ..... | 3,264 | 6 | 3 | |
| " | 1,750 | 0 | 0 | Morpeth <i>via</i> Raymond Terrace to Port Stephens | 1,735 | 5 | 8 | 14 | 14 | 4 | ..... | ..... | ..... |  |
| " | 7,250 | 0 | 0 | Armidale to Port Macquarie | 5,835 | 3 | 6 | 1,414 | 16 | 6 | ..... | ..... | ..... |  |
| " | 1,500 | 0 | 0 | Burrowa to Young | 931 | 18 | 9 | 568 | 1 | 3 | ..... | ..... | ..... |  |
| " | 2,500 | 0 | 0 | Araluen to Moruya | 1,215 | 3 | 8 | 1,284 | 16 | 4 | ..... | ..... | ..... |  |
| " | 2,500 | 0 | 0 | Kiandra to Cooma... .. | 1,731 | 2 | 4 | 768 | 17 | 8 | ..... | ..... | ..... |  |
| " | 2,500 | 0 | 0 | Bombala to Panbula and Eden | 2,319 | 6 | 11 | 180 | 13 | 1 | ..... | ..... | ..... |  |
| " | 1,800 | 0 | 0 | Parramatta to Wiseman's Ferry... .. | 1,304 | 12 | 10 | 495 | 7 | 2 | ..... | ..... | ..... |  |
| " | 1,095 | 0 | 0 | Re-insulating Line, Sydney to Albury | 221 | 8 | 6 | ..... | ..... | ..... | 873 | 11 | 6 | |
| " | 4,500 | 0 | 0 | Stations, Balranald, Moulamein, and Wellington | 4,496 | 9 | 2 | ..... | ..... | ..... | 3 | 10 | 10 | |
| " | 1,900 | 0 | 0 | Stations at Euston and Wentworth | 1,688 | 15 | 0 | 211 | 5 | 0 | ..... | ..... | ..... |  |
| " | 3,413 | 0 | 0 | One-half the cost of Telegraph Line from Picton to Goulburn, along the line of Railway, chargeable to Telegraphs | 3,413 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 3,718 | 0 | 0 | One-half the cost of Telegraph Line from Penrith to Bathurst, along the line of Railway, chargeable to Telegraphs | 3,718 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| | 177,407 | 0 | 0 | | 162,549 | 16 | 11 | 5,063 | 6 | 1 | 9,793 | 17 | 0 | |
| | 32 VICTORIA, No. 13. | | | | | | | | | | | | | |
| | Railways— | | | | | | | | | | | | | |
| 1869 | 60,000 | 0 | 0 | Towards cost of Additional Rolling Stock for Railway Extensions | 60,000 | 0 | 0 | ..... | ..... | ..... | ..... | ..... | ..... |  |
| " | 10,000 | 0 | 0 | Compensation for Land taken at Honey-suckle Point | 9,852 | 7 | 2 | ..... | ..... | ..... | 147 | 12 | 10 | |
| £ | 70,000 | 0 | 0 | Carried forward | £ | 69,852 | 7 | 2 | ..... | ..... | 147 | 12 | 10 | |
| £ | 9,893,094 | 4 | 8 | Carried forward... .. | £ | 9,130,487 | 7 | 3 | 127,341 | 5 | 0 | 135,265 | 12 | 5 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | | | | |
|-------|--|----|----|---|--|--------------|----|---------|---|----|---------|----|----|
| | £ | s. | d. | | | Written off. | | | Retained for Expenditure, 31st October, 1884. | | | | |
| | 9,393,094 | 4 | 8 | Brought forward | 9,130,487 | 7 | 3 | 127,341 | 5 | 0 | 135,265 | 12 | 5 |
| | | | | OLD LOANS ACCOUNT—continued. | | | | | | | | | |
| | | | | 32 VICTORIA, No. 13—continued. | | | | | | | | | |
| | 70,000 | 0 | 0 | Brought forward | 69,852 | 7 | 2 | ..... |  |  | 147 | 12 | 10 |
| 1869 | 18,000 | 0 | 0 | Harbours and River Navigation— | | | | | | | | | |
| | | | | Removing obstructions and improving the Navigation of the Rivers Murray, Murrumbidgee, and Darling | 17,993 | 18 | 9 | ..... |  |  | 6 | 1 | 3 |
| " | 5,000 | 0 | 0 | For Breakwater, Newcastle | 5,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 10,000 | 0 | 0 | Dredge for Manning, Macleay, and Clarence Rivers | 10,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 35,000 | 0 | 0 | Erection of Steam Cranes, Wharf, &c., Darling Harbour | 35,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 10,000 | 0 | 0 | Towards Reclamation of Land, Blackwattle Bay | 9,999 | 9 | 0 | ..... |  |  | 0 | 11 | 0 |
| " | 3,000 | 0 | 0 | Erection of Light-house Tower at Ulladulla | 3,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 3,000 | 0 | 0 | Erection of Light-house Tower at Wollongong | 2,996 | 6 | 6 | ..... |  |  | 3 | 13 | 6 |
| " | 11,500 | 0 | 0 | Roads and Bridges— | | | | | | | | | |
| " | | | | Bridge over the Urara, on Road from Grafton to Glen Innes | 11,500 | 0 | 0 | ..... |  |  |  |  |  |
| " | 4,000 | 0 | 0 | Iron Bridge over the Macquarie River, at Bathurst, further sum | 4,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 7,000 | 0 | 0 | Public Works and Buildings— | | | | | | | | | |
| " | | | | Erection of Public Offices, Newcastle | 7,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 2,500 | 0 | 0 | Electric Telegraphs— | | | | | | | | | |
| " | | | | Kiama to Jervis Bay | 2,211 | 10 | 0 | ..... |  |  | 288 | 10 | 0 |
| " | 160 | 0 | 0 | Newcastle to Co-operative Company's Works | 19 | 3 | 6 | 140 | 16 | 6 | | | |
| " | 220 | 0 | 0 | Newcastle to Lambton Colliery Works | 90 | 19 | 8 | 129 | 0 | 4 | | | |
| " | 150 | 0 | 0 | Newcastle to New Lambton Colliery Works | 41 | 13 | 9 | 108 | 6 | 3 | | | |
| " | 800 | 0 | 0 | Muswellbrook to Denman | 411 | 10 | 2 | 388 | 9 | 10 | | | |
| " | 800 | 0 | 0 | Eden to Bega | 599 | 19 | 4 | 200 | 0 | 8 | | | |
| " | 450 | 0 | 0 | Additions to Port Stephens Line ... .. | ..... |  |  |  |  |  | 450 | 0 | 0 |
| " | 180 | 0 | 0 | To purchase Improvements, Grenfell | 180 | 0 | 0 | ..... |  |  |  |  |  |
| " | 1,750 | 0 | 0 | Eden to Gabo Island Light-house | 1,750 | 0 | 0 | ..... |  |  |  |  |  |
| " | 2,000 | 0 | 0 | Maitland to Manning River | 125 | 10 | 3 | ..... |  |  | 1,874 | 9 | 9 |
| " | 2,400 | 0 | 0 | Bathurst to Carcoar and Cowra | 1,148 | 4 | 1 | ..... |  |  | 1,251 | 15 | 11 |
| " | 200 | 0 | 0 | Panbula and Merimbula ... .. | ..... |  |  | 200 | 0 | 0 | | | |
| " | 350 | 0 | 0 | Port Stephens to Nelson's Bay | 285 | 1 | 0 | ..... |  |  | 64 | 19 | 0 |
| " | 350 | 0 | 0 | Newcastle to Waratah Coal Company's Works | 54 | 18 | 6 | 295 | 1 | 6 | | | |
| " | 1,575 | 0 | 0 | Extension to Walcha ... .. | ..... |  |  |  |  |  | 1,575 | 0 | 0 |
| " | 2,500 | 0 | 0 | Grafton to Clarence River Heads | 2,151 | 7 | 7 | ..... |  |  | 348 | 12 | 5 |
| " | 5,000 | 0 | 0 | In anticipation of further Extensions under the Guarantee System | 4,797 | 6 | 4 | ..... |  |  | 202 | 13 | 8 |
| | 197,885 | 0 | 0 | | 190,209 | 5 | 7 | 1,461 | 15 | 1 | 6,213 | 19 | 4 |
| | | | | 34 VICTORIA, No. 2. | | | | | | | | | |
| | | | | Railways— | | | | | | | | | |
| 1870 | 13,000 | 0 | 0 | New Machine Shop, Running Shed, &c., Newcastle | 12,917 | 4 | 5 | ..... |  |  | 82 | 15 | 7 |
| " | 2,000 | 0 | 0 | Additional Machinery | 1,674 | 4 | 2 | ..... |  |  | 325 | 15 | 10 |
| " | 30,500 | 0 | 0 | New Station, Workshops, &c., Redfern | 30,420 | 19 | 11 | ..... |  |  | 79 | 0 | 1 |
| " | 5,000 | 0 | 0 | Excavating Station Yard, Redfern | 4,902 | 14 | 10 | ..... |  |  | 97 | 5 | 2 |
| " | 3,500 | 0 | 0 | Additional Machinery | 3,500 | 0 | 0 | ..... |  |  |  |  |  |
| " | 6,000 | 0 | 0 | New Passenger Station and Platform, Newcastle | 5,965 | 0 | 5 | ..... |  |  | 34 | 19 | 7 |
| " | 60,000 | 0 | 0 | Further for construction of Rolling Stock | 59,998 | 3 | 6 | ..... |  |  | 1 | 16 | 6 |
| " | 35,000 | 0 | 0 | Completion of the re-laying the Line from Sydney to Parramatta | 30,402 | 14 | 5 | ..... |  |  | 4,597 | 5 | 7 |
| | £ 155,000 | 0 | 0 | Carried forward | £ 149,781 | 1 | 8 | ..... |  |  | 5,218 | 18 | 4 |
| | £ 9,590,979 | 4 | 8 | Carried forward | £ 9,320,696 | 12 | 10 | 128,803 | 0 | 1 | 141,479 | 11 | 9 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | | | | |
|-------|--|----|----|---|--|--------------|---|---------|--------|----|---------|----|---|
| | £ | s. | d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | | | | | | |
| | £ | s. | d. | | £ | s. | d. | £ | s. | d. | | | |
| | 9,590,979 | 4 | 8 | Brought forward | 9,320,696 | 12 | 10 | 128,803 | 0 | 1 | 141,479 | 11 | 9 |
| | OLD LOANS ACCOUNT—continued. | | | | | | | | | | | | |
| | 34 VICTORIA, No. 2—continued. | | | | | | | | | | | | |
| | 155,000 | 0 | 0 | Brought forward | 149,781 | 1 | 8 | ..... | 5,218 | 18 | 4 | | |
| 1870 | 17,000 | 0 | 0 | Railways—continued. Completion of new Goods Shed, Sydney, &c. | 14,518 | 9 | 10 | ..... | 2,481 | 10 | 2 | | |
| " | 5,000 | 0 | 0 | Extension to Morpeth | 4,994 | 10 | 0 | ..... | 5 | 10 | 0 | | |
| " | 2,000 | 0 | 0 | Land for Windsor and Richmond Line | 1,340 | 18 | 11 | ..... | 659 | 1 | 1 | | |
| " | 17,500 | 0 | 0 | Removing Obstructions and improving the Navigation of the Rivers Murray, Murrumbidgee, and Darling | 17,491 | 17 | 0 | ..... | 8 | 3 | 0 | | |
| " | 30,000 | 0 | 0 | New Steam Dredge, Newcastle Harbour | 30,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 600 | 0 | 0 | Additional Screw Moorings and Buoys for Newcastle Harbour | 600 | 0 | 0 | ..... |  |  |  |  |  |
| " | 9,300 | 0 | 0 | To complete Kiama Harbour Works | 9,299 | 10 | 10 | ..... | 0 | 9 | 2 | | |
| " | 2,000 | 0 | 0 | Clearing, surveying, and improving the Navigation of Edward River | 2,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 3,000 | 0 | 0 | Coal Staiths, Newcastle | 2,999 | 8 | 11 | ..... | 0 | 11 | 1 | | |
| " | 5,000 | 0 | 0 | Wharf, Bullock Island | 5,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 2,500 | 0 | 0 | Dredge for improving Navigation of Rivers and Creeks flowing into Coast Lakes and Lagoons | 2,500 | 0 | 0 | ..... |  |  |  |  |  |
| " | 2,500 | 0 | 0 | Approach to Bridge over Macquarie River, at Bathurst | 2,500 | 0 | 0 | ..... |  |  |  |  |  |
| " | 2,000 | 0 | 0 | Completion of Fitz Roy Dry Dock and works attached thereto | 1,993 | 15 | 0 | ..... | 6 | 5 | 0 | | |
| " | 1,548 | 13 | 7 | Receiving Houses at Redfern Railway Station and at Necropolis | 1,548 | 13 | 7 | ..... |  |  |  |  |  |
| " | 30,000 | 0 | 0 | Erection of New General Post Office | 30,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 1,350 | 0 | 0 | Electric Telegraphs— To connect Barrenjuey with Sydney | 1,116 | 12 | 4 | ..... | 233 | 7 | 8 | | |
| " | 3,750 | 0 | 0 | Iron Telegraph Posts | 1,739 | 0 | 0 | ..... | 2,011 | 0 | 0 | | |
| " | 17,103 | 0 | 0 | To pay amounts awarded for Land for new General Post Office | 16,413 | 0 | 0 | ..... | 690 | 0 | 0 | | |
| " | 100,000 | 0 | 0 | To pay off Railway Debentures issued under 18 Vic. No. 40, falling due 1st January, 1871 | 100,000 | 0 | 0 | ..... |  |  |  |  |  |
| | 407,151 | 13 | 7 | | 395,836 | 18 | 1 | ..... | 11,314 | 15 | 6 | | |
| | £9,998,130 | 18 | 3 | TOTALS, OLD LOANS... | £9,716,533 | 10 | 11 | 128,803 | 0 | 1 | 152,794 | 7 | 3 |
| | GENERAL LOAN ACCOUNT. | | | | | | | | | | | | |
| | 35 VICTORIA, No. 5. | | | | | | | | | | | | |
| 1871 | 124 | 0 | 0 | Railways— Construction of Railway Sheds | 122 | 9 | 5 | ..... | 1 | 10 | 7 | | |
| " | 230,000 | 0 | 0 | Completion of Lines already sanctioned | 229,942 | 14 | 2 | ..... | 57 | 5 | 10 | | |
| " | 70,000 | 0 | 0 | Construction of Rolling Stock manufactured in the Colony | 65,580 | 13 | 9 | ..... | 4,419 | 6 | 3 | | |
| " | 1,291 | 0 | 0 | Harbours and Rivers— Dredge for Manning, Macleay, and Clarence Rivers | 1,290 | 3 | 0 | ..... | 0 | 17 | 0 | | |
| " | 5,000 | 0 | 0 | Removing obstructions, Murray, Murrumbidgee, and Darling | 5,000 | 0 | 0 | ..... |  |  |  |  |  |
| " | 5,000 | 0 | 0 | Southern Breakwater, Newcastle | 4,991 | 10 | 5 | ..... | 8 | 9 | 7 | | |
| " | 265 | 0 | 0 | Coal Staiths, Newcastle, for Masonry Approaches | 264 | 1 | 7 | ..... | 0 | 18 | 5 | | |
| " | 300 | 0 | 0 | Light-house, Wollongong... .. | 255 | 8 | 6 | ..... | 44 | 11 | 6 | | |
| " | 500 | 0 | 0 | Light-house, Ulladulla | 499 | 19 | 2 | ..... | 0 | 0 | 10 | | |
| " | 1,000 | 0 | 0 | Blasting and removing rock in front of Newcastle Wharf | 996 | 0 | 11 | ..... | 3 | 19 | 1 | | |
| | £ 313,480 | 0 | 0 | Carried forward | £ 308,943 | 0 | 11 | ..... | 4,536 | 19 | 1 | | |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | |
|-------|--|-------|--|--|--------------|--|-------|--------|-------|
| | £ | s. d. | | | Written off. | Retained for Expenditure 31st October, 1884. | | | |
| | £ | s. d. | | £ | s. d. | £ | s. d. | £ | s. d. |
| | GENERAL LOAN ACCOUNT—continued. | | | | | | | | |
| | 35 VICTORIA, No. 5—continued. | | | | | | | | |
| | 313,480 | 0 0 | Brought forward... | 308,943 | 0 11 | | | 4,536 | 19 1 |
| 1871 | 12,000 | 0 0 | Public Works and Buildings— Completion, New General Post Office | 12,000 | 0 0 | | | | |
| | 7,000 | 0 0 | Roads and Bridges— Bridge at Windsor | 7,000 | 0 0 | | | | |
| | 3,500 | 0 0 | Restoring Yass Bridge | 3,500 | 0 0 | | | | |
| | 8,000 | 0 0 | Re-building Jugiong Bridge | 8,000 | 0 0 | | | | |
| | 500 | 0 0 | Electric Telegraphs— Eden to Gabo Island | 394 | 17 6 | | | 105 | 2 6 |
| | 500 | 0 0 | Kiama to Jervis Bay | | | | | 500 | 0 0 |
| | 30,000 | 0 0 | Fortifications | 30,000 | 0 0 | | | | |
| | 374,980 | 0 0 | | 369,837 | 18 5 | | | 5,142 | 1 7 |
| | 36 VICTORIA, No. 2. | | | | | | | | |
| 1872 | 60,000 | 0 0 | Railways— For Rolling Stock manufactured in the Colony | 60,000 | 0 0 | | | | |
| | 257 | 0 0 | Station-master's House, Newtown | 257 | 0 0 | | | | |
| | 2,000 | 0 0 | Stations Buildings at West Maitland | 1,876 | 10 2 | | | 123 | 9 10 |
| | 75,000 | 0 0 | Purchase of Railway Stores | 75,000 | 0 0 | | | | |
| | 3,000 | 0 0 | Harbours and Rivers Navigation— Removing obstructions and improving the Navigation of the Rivers Murray, Murrumbidgee, and Darling, further sum | 2,999 | 11 8 | | | 0 | 8 4 |
| | 4,397 | 0 0 | Additional Siding, Purchase of Land required for Approach, &c., Coal Staiths, Newcastle | 4,194 | 17 5 | | | 202 | 2 7 |
| | 10,000 | 0 0 | Purchase of Blackwattle Bridge | 10,000 | 0 0 | | | | |
| | 18,000 | 0 0 | Dredge and Punts for Clarence River | 18,000 | 0 0 | | | | |
| | 2,000 | 0 0 | Improving the Navigation of the Edward River, further sum | 2,000 | 0 0 | | | | |
| | 18,000 | 0 0 | Dredge and Punts for Newcastle | 18,000 | 0 0 | | | | |
| | 6,000 | 0 0 | Public Works and Buildings— Completion of New General Post Office | 6,000 | 0 0 | | | | |
| | 2,000 | 0 0 | Roads and Bridges— Bridge over the Hawkesbury, Windsor | 2,000 | 0 0 | | | | |
| | 5,000 | 0 0 | Bridge at Warry, Shoalhaven | 5,000 | 0 0 | | | | |
| | 5,000 | 0 0 | Bridge at Casino | 5,000 | 0 0 | | | | |
| | 2,000 | 0 0 | Approaches and alterations to Hay Bridge | 2,000 | 0 0 | | | | |
| | 4,000 | 0 0 | Approaches and addition to height of Nimboy Bridge | 3,999 | 18 11 | | | 0 | 1 11 |
| | 22,000 | 0 0 | Mudgee Road | 22,000 | 0 0 | | | | |
| | 3,000 | 0 0 | Electric Telegraphs— Telegraph Line to the Manning River, Tinonee, on the guarantee principle | 2,991 | 5 9 | | | 8 | 14 3 |
| | 850 | 0 0 | Erection of Line and Telegraph Station, Gulgong | 837 | 3 0 | | | 512 | 17 0 |
| | 4,000 | 0 0 | Iron Poles, Singleton to Murrurundi | 107 | 6 0 | | | 3,892 | 14 0 |
| | 3,600 | 0 0 | Extra Wire, West Maitland to Armidale | 2,345 | 12 6 | | | 1,254 | 7 6 |
| | 1,050 | 0 0 | Railway Line, Singleton to Murrurundi | 1,045 | 8 4 | | | 4 | 11 8 |
| | 500 | 0 0 | Line, Parranatta Junction to Campbelltown | 498 | 18 0 | | | 1 | 2 0 |
| | 1,830 | 0 0 | Second Wire, Sydney to Newcastle | 1,806 | 18 6 | | | 23 | 1 6 |
| | 2,000 | 0 0 | Second Wire, Armidale to Tenterfield | 1,959 | 18 6 | | | 40 | 1 6 |
| | 750 | 0 0 | Second Wire, Bathurst to Hill End | 660 | 6 0 | | | 89 | 14 0 |
| | 5,000 | 0 0 | Extension of Telegraph Lines generally | 5,000 | 0 0 | | | | |
| | 50,000 | 0 0 | To pay off Debentures— 29 Vict. No. 5, due 31st December, 1872 | 50,000 | 0 0 | | | | |
| | 100,000 | 0 0 | 20 Vict. No. 33, due 1st January, 1873 | 100,000 | 0 0 | | | | |
| | 20,000 | 0 0 | 16 Vict. No. 39, due 28th February, 1873 | 20,000 | 0 0 | | | | |
| | 30,000 | 0 0 | 16 Vict. No. 39, due 21st October, 1873 | 30,000 | 0 0 | | | | |
| | 461,234 | 0 0 | | 455,080 | 14 9 | | | 6,153 | 5 3 |
| £ | 836,214 | 0 0 | Carried forward... | £ | 824,918 | 13 2 | | 11,295 | 6 10 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | |
|-------|--|-------|--|--|--------------|---|-------|--------|-------|
| | £ | s. d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | | | |
| | £ | s. d. | | £ | s. d. | £ | s. d. | £ | s. d. |
| | 836,214 | 0 0 | Brought forward | 824,918 | 13 2 | ..... |  | 11,295 | 6 10 |
| | | | GENERAL LOAN ACCOUNT—continued. | | | | | | |
| | | | 36 VICTORIA, No. 17. | | | | | | |
| 1873 | 60,000 | 0 0 | Railways— | | | | | | |
| | | | For Rolling Stock manufactured in the Colony | 60,000 | 0 0 | ..... |  |  |  |
| " | 10,000 | 0 0 | Trial Surveys | 9,999 | 18 11 | ..... |  | 0 | 1 1 |
| " | 1,131,000 | 0 0 | Towards the Construction of a Line from Goulburn to Wagga Wagga | 1,131,000 | 0 0 | ..... |  |  |  |
| " | 60,000 | 0 0 | Kelso to Bathurst... .. | 60,000 | 0 0 | ..... |  |  |  |
| " | 279,000 | 0 0 | Bathurst to Orange | 279,000 | 0 0 | ..... |  |  |  |
| " | 361,500 | 0 0 | For the Construction of a Line from Murrurundi to Tamworth | 361,500 | 0 0 | ..... |  |  |  |
| | 1,901,500 | 0 0 | | 1,901,499 | 18 11 | ..... |  | 0 | 1 1 |
| | | | 36 VICTORIA, No. 21. | | | | | | |
| | | | Harbours and Rivers Navigation— | | | | | | |
| " | 20,000 | 0 0 | Removing obstructions and improving the Navigation of the Rivers Murray, Murrumbidgee, and Darling | 19,997 | 9 0 | ..... |  | 2 | 11 0 |
| " | 1,000 | 0 0 | Improving the Navigation of the Edward River | 902 | 13 1 | ..... |  | 97 | 6 11 |
| " | 4,000 | 0 0 | Extension of Wharf Accommodation, Newcastle | 3,998 | 2 4 | ..... |  | 1 | 17 8 |
| " | 21,560 | 0 0 | Enlarging, deepening, and completing Kiama Harbour | 21,560 | 0 0 | ..... |  |  |  |
| " | 15,000 | 0 0 | Darling Harbour Wharf | 14,994 | 3 9 | ..... |  | 5 | 16 3 |
| " | 9,000 | 0 0 | Improvements, Moruya River | 9,000 | 0 0 | ..... |  |  |  |
| " | 5,000 | 0 0 | Small Dredge and Punts | 5,000 | 0 0 | ..... |  |  |  |
| " | 89,000 | 0 0 | Increased Wharf Accommodation at Sydney | 79,265 | 8 1 | ..... |  | 9,734 | 11 11 |
| | | | Public Works and Buildings— | | | | | | |
| " | 10,000 | 0 0 | Completion of New General Post Office... .. | 10,000 | 0 0 | ..... |  |  |  |
| " | 3,000 | 0 0 | Custom House, Newcastle | 3,000 | 0 0 | ..... |  |  |  |
| " | 20,000 | 0 0 | New Public Offices | 20,000 | 0 0 | ..... |  |  |  |
| " | 4,000 | 0 0 | Water Supply, Abattoirs... .. | 4,000 | 0 0 | ..... |  |  |  |
| " | 10,000 | 0 0 | Lighthouse, Seal Rocks | 10,000 | 0 0 | ..... |  |  |  |
| | | | Roads and Bridges— | | | | | | |
| " | 4,000 | 0 0 | Approaches and additions to Hay Bridge | 4,000 | 0 0 | ..... |  |  |  |
| " | 50,000 | 0 0 | Bridge over Parramatta River at Five Dock and Iron Cove Creek... .. | 50,000 | 0 0 | ..... |  |  |  |
| " | 4,000 | 0 0 | Bridge over the Barwon | 4,000 | 0 0 | ..... |  |  |  |
| | | | Electric Telegraphs— | | | | | | |
| " | 3,000 | 0 0 | Casino to Richmond River Heads | 2,985 | 9 3 | ..... |  | 14 | 10 9 |
| " | 860 | 0 0 | Second Wire, Tenterfield to Queensland | 853 | 6 10 | ..... |  | 6 | 13 2 |
| " | 4,800 | 0 0 | To construct a Line, Bendemeer through Bundarra, to connect the several Tin Mines | 4,561 | 5 3 | ..... |  | 238 | 14 9 |
| " | 3,000 | 0 0 | To complete through communication from Maitland to Port Macquarie | 2,983 | 15 6 | ..... |  | 16 | 4 6 |
| " | 3,500 | 0 0 | To carry a Line from Carcoar, <i>via</i> Cowra to Young | 3,431 | 0 6 | ..... |  | 68 | 19 6 |
| " | 2,610 | 0 0 | Additional Wire, Sydney to Bathurst | 807 | 0 0 | ..... |  | 1,803 | 0 0 |
| " | 200 | 0 0 | Additional Wire, Wolumla to Bega | 152 | 15 0 | ..... |  | 47 | 5 0 |
| " | 1,100 | 0 0 | To place Balmain, North Shore, Newtown, Paddington, Redfern, William-street, Darlinghurst, and Glebe, in Telegraph communication with Head Office | 1,095 | 0 6 | ..... |  | 4 | 19 6 |
| " | 100 | 0 0 | Wahgunyah to Cowra | 70 | 7 3 | ..... |  | 29 | 12 9 |
| " | 850 | 0 0 | Removal of Line from G. N. Road to Railway Line between Singleton and Murrurundi | 829 | 2 0 | ..... |  | 20 | 18 0 |
| " | 1,700 | 0 0 | 94 miles of Extra Wire on the Southern and Western Railways | 1,189 | 12 2 | ..... |  | 510 | 7 10 |
| " | 1,000 | 0 0 | Jervis Bay to Ulladulla | 855 | 6 10 | ..... |  | 144 | 13 2 |
| £ | 292,280 | 0 0 | Carried forward... .. | £ | 279,531 | 17 4 | ..... | 12,748 | 2 8 |
| £ | 2,737,714 | 0 0 | Carried forward | £ | 2,726,418 | 12 1 | ..... | 11,295 | 7 11 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | |
|-------|--|-------|--|--|--------------|---|-------|
| | £ | s. d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | |
| | 2,737,714 | 0 0 | Brought forward | 2,726,418 | 12 1 | 11,295 | 7 11 |
| | | | GENERAL LOAN ACCOUNT—continued. | | | | |
| | | | 36 VICTORIA, No. 21—continued. | | | | |
| | 292,280 | 0 0 | Brought forward | 279,531 | 17 4 | 12,748 | 2 8 |
| 1873 | 9,000 | 0 0 | Electric Telegraphs—continued. | | | | |
| | 500 | 0 0 | 3,000 Iron Poles for Railways | 8,464 | 5 2 | 535 | 14 10 |
| | 23,000 | 0 0 | Second Wire to Newcastle | 496 | 4 6 | 3 | 15 6 |
| | | | Additional Wires on Southern, Western, and Northern Lines | 22,990 | 12 8 | 9 | 7 4 |
| | 50,000 | 0 0 | Immigration | 49,991 | 16 8 | 8 | 3 4 |
| | 35,000 | 0 0 | Fortifications | 35,000 | 0 0 | | |
| | 100,000 | 0 0 | To pay off Debentures (29 Vic. No. 5), due 31 December, 1873 | 100,000 | 0 0 | | |
| | 509,780 | 0 0 | | 496,474 | 16 4 | 13,305 | 3 8 |
| | | | 38 VICTORIA, No. 2. | | | | |
| | | | Railways— | | | | |
| 1874 | 20,000 | 0 0 | Trial Surveys | 19,988 | 3 4 | 11 | 16 8 |
| | 100,000 | 0 0 | Rolling Stock | 100,000 | 0 0 | | |
| | 25,000 | 0 0 | Towards purchasing Land, laying Sidings, and erecting Sheds, Darling Harbour Wharf... .. | 24,998 | 13 4 | 1 | 6 8 |
| | 10,000 | 0 0 | For Engine Sheds | 9,953 | 14 1 | 46 | 5 11 |
| | 8,000 | 0 0 | Enlarging Machine Shop, Sydney Station | 7,745 | 3 3 | 254 | 16 9 |
| | 2,000 | 0 0 | Additional Machinery, Sydney | 2,000 | 0 0 | | |
| | 6,000 | 0 0 | Completing New Station, Redfern (including Approach Roads, Lighting, Water Supply, and Retaining Wall, Darling Harbour Branch) | 5,931 | 13 7 | 68 | 6 5 |
| | 1,000 | 0 0 | Unadjusted Land Claims... .. | 146 | 10 8 | 853 | 9 4 |
| | 45,000 | 0 0 | To complete the Western Line to Kelso, and to provide for increased price of iron-work for the Bridges over the River Macquarie | 44,980 | 18 9 | 19 | 1 3 |
| | 50,000 | 0 0 | To connect the Great Northern Railway with the new Wharfage accommodation at Bullock Island | 43,732 | 15 3 | 6,267 | 4 9 |
| | 50,000 | 0 0 | Purchase of Twelve Locomotive Engines | 50,000 | 0 0 | | |
| | 10,000 | 0 0 | Harbours and Rivers Navigation— | | | | |
| | | | Towards construction of Harbour of Refuge at Trial Bay by Prison labour | 10,000 | 0 0 | | |
| | 9,000 | 0 0 | Two additional Steam Cranes, Newcastle | 8,992 | 8 8 | 7 | 11 4 |
| | 10,000 | 0 0 | Southern Breakwater Extension... .. | 9,986 | 13 3 | 13 | 6 9 |
| | 5,000 | 0 0 | Improving Navigation of River Darling... | 5,000 | 0 0 | | |
| | 16,200 | 0 0 | Reclamation of Blackwattle Swamp | 16,200 | 0 0 | | |
| | 5,000 | 0 0 | Extension of Newcastle Wharf, further sum | 4,990 | 16 11 | 9 | 3 1 |
| | 15,000 | 0 0 | To complete the Dock at Cockatoo Island | 14,896 | 1 11 | 103 | 18 1 |
| | | | Colonial Architect— | | | | |
| | 5,000 | 0 0 | Light-house, Barranjoey, Broken Bay | 5,000 | 0 0 | | |
| | 4,000 | 0 0 | Light-house, Solitary Island | 3,999 | 15 1 | 0 | 4 11 |
| | 20,000 | 0 0 | Erection of Public Offices | 20,000 | 0 0 | | |
| | 20,000 | 0 0 | Erection of Public Offices, Lands Department | 20,000 | 0 0 | | |
| | 3,000 | 0 0 | Custom-house, Newcastle | 3,000 | 0 0 | | |
| | 4,000 | 0 0 | Light-house, Seal Rocks | 4,000 | 0 0 | | |
| | 75,000 | 0 0 | New Lunatic Asylum | 75,000 | 0 0 | | |
| | 2,000 | 0 0 | Water Supply Abattoirs, further sum | 2,000 | 0 0 | | |
| | | | Roads and Bridges— | | | | |
| | 6,000 | 0 0 | Bridge at Moruya... .. | 5,949 | 18 4 | 50 | 1 8 |
| | 3,800 | 0 0 | Nimboy Bridge, further sum | 3,800 | 0 0 | | |
| | 1,000 | 0 0 | Uralla Bridge, further sum | 1,000 | 0 0 | | |
| | 2,000 | 0 0 | Windsor Bridge, further sum | 2,000 | 0 0 | | |
| | £ 533,000 | 0 0 | Carried forward... .. | £ 525,293 | 6 5 | 7,706 | 13 7 |
| | 3,247,494 | 0 0 | Carried forward | £3,222,893 | 8 5 | 24,600 | 11 7 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | |
|-------|--|-------|--|--|-----------|-------|--------------|---|-------|
| | £ | s. d. | | | £ | s. d. | Written off. | Retained for Expenditure, 31st October, 1884. | |
| | 3,247,494 | 0 0 | Brought forward | 3,222,893 | 8 5 | | | 24,600 | 11 7 |
| | | | GENERAL LOAN ACCOUNT—continued. | | | | | | |
| | | | 38 VICTORIA, No. 2—continued. | | | | | | |
| | 533,000 | 0 0 | Brought forward | 525,293 | 6 5 | | | 7,706 | 13 7 |
| 1874 | 4,500 | 0 0 | Electric Telegraphs— To connect Coonamble with the Telegraph Line to Fort Bourke, on the guarantee principle | 4,444 | 8 7 | | | 55 | 11 5 |
| " | 1,600 | 0 0 | Mudgee to Rylstone, on the guarantee principle | 1,280 | 18 11 | | | 319 | 1 1 |
| " | 1,600 | 0 0 | Inverell to Warialda, on the guarantee principle | 1,573 | 4 4 | | | 26 | 15 8 |
| " | 2,400 | 0 0 | Telegraph Line from Bingera to Warialda, on the guarantee principle | 1,276 | 2 5 | | | 1,123 | 17 7 |
| " | 800 | 0 0 | Additional for line to Ulladulla | 576 | 6 1 | | | 223 | 13 11 |
| " | 3,000 | 0 0 | Casino to the Tweed | 3,000 | 0 0 | | | | |
| " | 1,500 | 0 0 | Forbes to Bushman's | 1,087 | 17 9 | | | 412 | 2 3 |
| " | 3,000 | 0 0 | Coolah to Coonabarabran | 2,922 | 6 1 | | | 77 | 13 11 |
| " | 1,800 | 0 0 | To connect Kempsey, <i>via</i> Gladstone, with Macleay River Heads | 1,404 | 11 6 | | | 395 | 8 6 |
| " | 3,000 | 0 0 | To connect New Light-house, Seal Rocks To Pay off Debentures— | 3,000 | 0 0 | | | | |
| " | 100,000 | 0 0 | 29 Vic. No. 5, due 31 December, 1874 ... | 100,000 | 0 0 | | | | |
| " | 150,000 | 0 0 | 16 Vic. No. 39, due February, March, and November, 1874 | 150,000 | 0 0 | | | | |
| | 806,200 | 0 0 | | 795,859 | 2 1 | | | 10,340 | 17 11 |
| | | | 39 VICTORIA, No. 18. | | | | | | |
| 1875 | 50,000 | 0 0 | Railways— Rolling Stock | 50,000 | 0 0 | | | | |
| " | 5,000 | 0 0 | Additional Machinery, Sydney | 5,000 | 0 0 | | | | |
| " | 20,000 | 0 0 | Trial Surveys | 20,000 | 0 0 | | | | |
| " | 10,000 | 0 0 | Harbours and Rivers Navigation— Reclamation of Blackwattle Swamp, further sum | 10,000 | 0 0 | | | | |
| " | 4,000 | 0 0 | Improving the Navigation of the Murrumbidgee River, further sum | 3,984 | 10 11 | | | 15 | 9 1 |
| " | 2,000 | 0 0 | Improving Navigation of the River Darling, further sum | 1,998 | 15 11 | | | 1 | 4 1 |
| " | 20,000 | 0 0 | Newcastle Wharf Cranes, &c. | 20,000 | 0 0 | | | | |
| " | 3,000 | 0 0 | Colonial Architect— Completion New General Post Office, further sum | 2,999 | 10 1 | | | 0 | 9 11 |
| " | 5,000 | 0 0 | Custom House, Newcastle, further sum ... | 4,870 | 3 11 | | | 129 | 16 1 |
| " | 3,000 | 0 0 | Light-house, Seal Rocks, further sum ... | 3,000 | 0 0 | | | | |
| " | 1,200 | 0 0 | Roads and Bridges— Bridge over Hunter at Elderslie | 1,178 | 6 8 | | | 21 | 13 4 |
| " | 3,000 | 0 0 | Bridge at Casino, further sum | 3,000 | 0 0 | | | | |
| " | 7,000 | 0 0 | Purchase of Richmond Bridge | 7,000 | 0 0 | | | | |
| " | 5,000 | 0 0 | Fortifications— Towards completing the Fortifications of Port Jackson | 4,918 | 8 7 | | | 81 | 11 5 |
| " | 30,000 | 0 0 | Electric Telegraphs— Bourke to Wentworth | 27,578 | 2 2 | | | 2,421 | 17 10 |
| " | 4,200 | 0 0 | Coonabarabran to Coonamble | 3,324 | 17 4 | | | 875 | 2 8 |
| " | 4,600 | 0 0 | Warialda to Goondawindi | 3,390 | 16 3 | | | 1,209 | 3 9 |
| " | 3,500 | 0 0 | Orange to Wellington, <i>via</i> Molong | 2,823 | 11 0 | | | 676 | 9 0 |
| " | 2,600 | 0 0 | Wollombi to Singleton (3 wires) | 2,540 | 14 9 | | | 59 | 5 3 |
| " | 7,200 | 0 0 | Glen Innes to Grafton, <i>via</i> Newton Boyd ... | 6,019 | 13 9 | | | 1,180 | 6 3 |
| " | 600 | 0 0 | St. Leonards to Manly Beach | 504 | 1 10 | | | 95 | 18 2 |
| " | 4,800 | 0 0 | Bourke to Rutherford's | 4,577 | 0 10 | | | 222 | 19 2 |
| " | 1,000 | 0 0 | Line to the Tweed, further sum | 1,000 | 0 0 | | | | |
| " | 15,000 | 0 0 | Iron poles for Railway Extensions | 14,872 | 12 8 | | | 127 | 7 4 |
| " | 600 | 0 0 | Newcastle to Wallsend | | | | | 600 | 0 0 |
| " | 1,850 | 0 0 | Singleton, <i>via</i> Jerry's Plains to Denman ... | 1,380 | 13 9 | | | 469 | 6 3 |
| £ | 214,150 | 0 0 | Carried forward | £ 205,962 | 0 5 | | | 8,187 | 19 7 |
| £ | 4,053,694 | 0 0 | Carried forward | £ 4,018,752 | 10 6 | | | 34,941 | 9 6 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | |
|-------|--|-------|--|--|--------------|---|------|
| | £ | s. d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | |
| | 4,053,694 | 0 0 | Brought forward | 4,018,752 | 10 6 | 34,941 | 9 6 |
| | | | GENERAL LOAN ACCOUNT—continued. | | | | |
| | | | 39 VICTORIA, No. 18.—continued. | | | | |
| | 214,150 | 0 0 | Brought forward | 205,962 | 0 5 | 8,187 | 19 7 |
| 1875 | 3,500 | 0 0 | Electric Telegraphs—continued. | | | | |
| | 7,500 | 0 0 | Moruya to Bega | 2,638 | 14 6 | 861 | 5 6 |
| " | 2,000 | 0 0 | West Kempsey to Grafton, <i>via</i> the Nam- buca and Bellinger Rivers | 5,175 | 5 6 | 2,324 | 14 6 |
| " | 3,500 | 0 0 | Balranald to the Victorian Boundary | 586 | 13 10 | 1,413 | 6 2 |
| " | 340 | 0 0 | Dubbo to Warren | 2,951 | 6 5 | 548 | 13 7 |
| " | 3,500 | 0 0 | St. Leonards to Hunter's Hill and Glades- ville | 135 | 11 0 | 204 | 9 0 |
| " | 1,200 | 0 0 | Wagga Wagga to Narrandera | 2,656 | 13 8 | 843 | 6 4 |
| " | | | To connect Murrumburrah | 872 | 19 6 | 327 | 0 6 |
| | 235,690 | 0 0 | | 220,979 | 4 10 | 14,710 | 15 2 |
| | | | 40 VICTORIA, No. 12. | | | | |
| 1876 | 350,000 | 0 0 | Railways— | | | | |
| " | 260,000 | 0 0 | Orange to Wellington, fifty-six miles | 350,000 | 0 0 | | |
| " | 384,000 | 0 0 | Wellington to Dubbo, including Bridge over Macquarie River, thirty miles | 260,000 | 0 0 | | |
| " | 600,000 | 0 0 | From a point on the Great Southern Line, near Junee, to Narrandera, on the Murrumbidgee, sixty-four miles | 348,457 | 18 1 | 35,542 | 1 11 |
| " | 220,000 | 0 0 | Tamworth to District of Armidale, Great Northern Line, seventy-five miles | 600,000 | 0 0 | | |
| " | 25,000 | 0 0 | Were's Creek to Gunnedah, Great Nor- thern Line, forty miles | 220,000 | 0 0 | | |
| " | 150,000 | 0 0 | Trial Surveys | 25,000 | 0 0 | | |
| " | 10,000 | 0 0 | Additional Rolling Stock | 150,000 | 0 0 | | |
| " | | | For strengthening the Bridge and impro- ving the gradients on the Windsor and Richmond Line | 10,000 | 0 0 | | |
| " | 35,000 | 0 0 | Harbours and Rivers— | | | | |
| " | 100,000 | 0 0 | Southern Breakwater Extension, New- castle Harbour, further sum | 35,000 | 0 0 | | |
| " | | | Wharf and Shipping Appliances, New- castle | 97,257 | 8 5 | 2,742 | 11 7 |
| " | 40,000 | 0 0 | Roads Branch— | | | | |
| " | 30,000 | 0 0 | Bridges over Iron Cove Creek and Parra- matta River, further sum | 40,000 | 0 0 | | |
| " | 32,000 | 0 0 | Bridge over Darling at Bourke | 29,975 | 8 10 | 24 | 11 2 |
| " | | | Bridge over the Murray at Echuca | 32,000 | 0 0 | | |
| | 2,236,000 | 0 0 | | 2,197,690 | 15 4 | 38,309 | 4 8 |
| | | | 41 VICTORIA, No. 4. | | | | |
| 1877 | 30,000 | 0 0 | Railways— | | | | |
| " | 20,352 | 0 0 | To complete the Construction of a Line from Goulburn to Wagga Wagga | 30,000 | 0 0 | | |
| " | 77,000 | 0 0 | To complete the Extension into Bathurst | 7,883 | 0 11 | 12,468 | 19 1 |
| " | 80,000 | 0 0 | To complete the Construction of a Line from Bathurst to Orange | 66,139 | 12 4 | 10,860 | 7 8 |
| " | | | To complete the Construction of a Line from Murrurundi to Tamworth | 73,829 | 3 11 | 6,170 | 16 1 |
| " | 207,352 | 0 0 | | 177,851 | 17 2 | 29,500 | 2 10 |
| | | | 41 VICTORIA, No. 7. | | | | |
| " | 680,000 | 0 0 | Railways— | | | | |
| | | | For the Extension of the Great Southern Railway from the end of No. 3 Con- tract, near Wagga Wagga to Albury, including the Viaduct over the River Murrumbidgee—eighty-two miles | 680,000 | 0 0 | | |
| £ | 680,000 | 0 0 | Carried forward | £ 680,000 | 0 0 | | |
| £ | 6,732,736 | 0 0 | Carried forward | £ 6,615,274 | 7 10 | 117,461 | 12 2 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | | |
|-------|--|-------|--|--|--------------|---|-------|-----------|-------|
| | £ | s. d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | | | |
| | £ | s. d. | Brought forward | £ | s. d. | £ | s. d. | £ | s. d. |
| | 6,732,736 | 0 0 | | 6,615,274 | 7 10 | | | 117,461 | 12 2 |
| | GENERAL LOAN ACCOUNT—continued. | | | | | | | | |
| | 41 VICTORIA, No. 7—continued. | | | | | | | | |
| | 680,000 | 0 0 | Brought forward | 680,000 | 0 0 | | | | |
| 1877 | 20,000 | 0 0 | Railways—continued. | | | | | | |
| | 20,000 | 0 0 | Railway Trial Surveys | 20,000 | 0 0 | | | | |
| | 240,000 | 0 0 | Wallsend Junction to Hexham | 20,000 | 0 0 | | | | |
| | | | Rolling Stock, including Engines | 240,000 | 0 0 | | | | |
| | 160,000 | 0 0 | Fortifications— | | | | | | |
| | | | Defence Works at Port Jackson, Botany Bay, and Newcastle, as per Resolution of the Assembly | 159,985 | 16 8 | | | 14 | 3 4 |
| | 1,120,000 | 0 0 | Total, 41 Victoria, No. 7 | 1,119,985 | 16 8 | | | 14 | 3 4 |
| | 43 VICTORIA, No. 11. | | | | | | | | |
| 1879 | 1,611,000 | 0 0 | Railways— | | | | | | |
| | 1,450,000 | 0 0 | Tamworth to Tenterfield | 1,402,551 | 4 7 | | | 208,448 | 15 5 |
| | 370,000 | 0 0 | Dubbo to the vicinity of Bourke | 1,032,233 | 4 9 | | | 417,766 | 15 3 |
| | 735,000 | 0 0 | Gunnedah to Narrabri | 301,757 | 2 4 | | | 68,242 | 17 8 |
| | 735,000 | 0 0 | Wallerawang to Mudgee | 735,000 | 0 0 | | | | |
| | 100,000 | 0 0 | Narrandera to Hay | 574,244 | 11 0 | | | 160,755 | 9 0 |
| | 20,000 | 0 0 | Goulburn to Wagga Wagga | 96,564 | 2 7 | | | 3,435 | 17 5 |
| | 225,000 | 0 0 | Trial Surveys | 20,000 | 0 0 | | | | |
| | 620,000 | 0 0 | Purchase of Railway Stores, further sum | 225,000 | 0 0 | | | | |
| | | | Rolling Stock | 620,000 | 0 0 | | | | |
| | 1,086,768 | 0 0 | Harbours and Rivers— | | | | | | |
| | 400,000 | 0 0 | Sydney Water Supply | 1,082,459 | 15 9 | | | 4,308 | 4 3 |
| | | | Sewerage—City of Sydney | 216,309 | 11 9 | | | 183,690 | 8 3 |
| | 7,352,768 | 0 0 | Total, 43 Victoria, No. 11 | 6,306,119 | 12 9 | | | 1,046,648 | 7 3 |
| | 44 VICTORIA, No. 12. | | | | | | | | |
| 1880 | 40,000 | 0 0 | Railways— | | | | | | |
| | 22,000 | 0 0 | Orange to Dubbo | 24,366 | 10 2 | | | 15,633 | 9 10 |
| | 600,000 | 0 0 | Werris Creek to Gunnedah | 20,193 | 0 1 | | | 1,806 | 19 11 |
| | 250,000 | 0 0 | Tramways—Construction | 599,995 | 15 4 | | | 4 | 4 8 |
| | 100,000 | 0 0 | New Workshops, &c., for Tramways | 249,654 | 15 9 | | | 345 | 4 3 |
| | | | Doubling Great Western Line between Parramatta and Parramatta Junction &c. | 99,988 | 13 4 | | | 11 | 6 8 |
| | 150,000 | 0 0 | Harbours and Rivers— | | | | | | |
| | | | Extension of Dock Accommodation | 27,259 | 17 11 | | | 122,740 | 2 1 |
| | 100,000 | 0 0 | Electric Telegraphs— | | | | | | |
| | | | Construction and Extension generally | 99,656 | 1 3 | | | 343 | 18 9 |
| | 1,262,000 | 0 0 | Total, 44 Victoria, No. 12 | 1,121,114 | 13 10 | | | 140,885 | 6 2 |
| | 16,467,504 | 0 0 | Carried forward | £15,162,494 | 11 1 | | | 1,305,009 | 8 11 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | |
|--|--|-------|---|--|--------------|---|--|--|
| | £ | s. d. | | | Written off. | Retained for Expenditure, 31st October, 1884. | | |
| | 16,467,504 | 0 0 | Brought forward | 15,162,494 11 1 | ..... | 1,305,009 8 11 | | |
| GENERAL LOAN ACCOUNT—continued. | | | | | | | | |
| 44 VICTORIA, No. 28. | | | | | | | | |
| Railways— | | | | | | | | |
| 1881 | 2,000,000 | 0 0 | Homebush to Waratah | 348,953 5 5 | ..... | 1,651,046 14 7 | | |
| " | 1,020,000 | 0 0 | Sydney to Wollongong and Kiama | 505,606 15 9 | ..... | 514,393 4 3 | | |
| " | 1,430,000 | 0 0 | Goulburn to Cooma | 337,986 5 2 | ..... | 1,092,013 14 10 | | |
| " | 80,000 | 0 0 | Albury to the River Murray | 80,000 0 0 | ..... | ..... |  |  |
| " | 705,500 | 0 0 | Orange to near Forbes | 123,226 16 8 | ..... | 582,273 3 4 | | |
| " | 518,000 | 0 0 | Narandera to Jerilderie | 362,178 17 8 | ..... | 155,821 2 4 | | |
| " | 218,000 | 0 0 | Cootamundra to Gundagai | 96,991 16 3 | ..... | 121,008 3 9 | | |
| " | 1,260,000 | 0 0 | Murrumburrah to Blayney | 219,169 14 6 | ..... | 1,040,830 5 6 | | |
| " | 95,000 | 0 0 | Wagga Wagga to Albury... .. | 95,000 0 0 | ..... | ..... |  |  |
| " | 300,000 | 0 0 | Alteration and Additions to Station Buildings, &c. | 300,000 0 0 | ..... | ..... |  |  |
| Harbours and Rivers— | | | | | | | | |
| " | 20,000 | 0 0 | Southern Breakwater, Newcastle | 18,056 11 11 | ..... | 1,948 8 1 | | |
| " | 30,000 | 0 0 | Breakwater, Clarence River | 30,000 0 0 | ..... | ..... |  |  |
| " | 60,000 | 0 0 | Darling Harbour Wharf and Extension of Railway to Port Jackson... .. | 173 12 1 | ..... | 59,826 7 11 | | |
| " | 20,000 | 0 0 | Harbour Works, Lake Macquarie | 20,000 0 0 | ..... | ..... |  |  |
| Roads and Bridges— | | | | | | | | |
| " | 27,000 | 0 0 | Bridge over Manilla River at Manilla | 14,367 14 4 | ..... | 12,632 5 8 | | |
| " | 24,000 | 0 0 | Bridge over the Gwydir at Bingera | 1,484 5 6 | ..... | 22,515 14 6 | | |
| | 7,807,500 | 0 0 | Total, 44 Victoria, No. 28 | 2,553,195 15 3 | ..... | 5,254,304 4 9 | | |
| 45 VICTORIA, No. 22. | | | | | | | | |
| Railways— | | | | | | | | |
| " | 500,000 | 0 0 | Additional Rolling Stock... .. | 500,000 0 0 | ..... | ..... |  |  |
| Harbour and Rivers— | | | | | | | | |
| " | 500,000 | 0 0 | Completing Darling Harbour Wharf, and extending the Railway to the deep waters of Port Jackson | 253,832 13 6 | ..... | 246,167 6 6 | | |
| | 1,000,000 | 0 0 | Total, 45 Victoria, No. 22 | 753,832 13 6 | ..... | 246,167 6 6 | | |
| 46 VICTORIA, No. 23. | | | | | | | | |
| Harbours and River Navigation— | | | | | | | | |
| 1883 | 100,000 | 0 0 | Further towards improvements, Clarence River Heads | 14,545 10 8 | ..... | 85,454 9 4 | | |
| " | 20,000 | 0 0 | Further towards improvements, Lake Macquarie Heads | 9,437 18 5 | ..... | 10,562 1 7 | | |
| " | 10,000 | 0 0 | Further for Prison Buildings, Trial Bay... .. | 2,563 18 11 | ..... | 7,436 1 1 | | |
| " | 25,000 | 0 0 | Dredging Plant for the Richmond and other Northern Rivers | 1,427 8 4 | ..... | 23,572 11 8 | | |
| | 155,000 | 0 0 | Carried forward | £ 27,974 16 4 | ..... | 127,025 3 8 | | |
| | 25,275,004 | 0 0 | Carried forward | £18,469,522 19 10 | ..... | 6,805,481 0 2 | | |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | |
|-------|--|---|--|------------------|---|
| | | | | Written off. | Retained for Expenditure, 31st October, 1884. |
| | £ s. d. | | £ s. d. | £ s. d. | £ s. d. |
| | 25,275,004 0 0 | Brought forward | 18,469,522 19 10 | ..... | 6,805,481 0 2 |
| | | GENERAL LOAN ACCOUNT—continued. | | | |
| | | <i>46 VICTORIA, No. 23—continued.</i> | | | |
| | 155,000 0 0 | Brought forward | 27,974 16 4 | ..... | 127,025 3 8 |
| 1883 | 100,000 0 0 | Sewerage— Southern Extension from original Sewerage Farm at Shea's Creek to Webb's Grant, including Syphon and resumption of land at Rushcutters' Bay, Double Bay, and Waterloo for Sewerage purposes | 34,719 17 6 | ..... | 65,280 2 6 |
| " | 580,000 0 0 | Railways— For providing additional Rolling Stock and the purchase of Machinery, Tools, &c. | 151,234 17 10 | ..... | 428,765 2 2 |
| " | 400,000 0 0 | For construction of Tramways, including Motors, Rolling Stock, Machinery, &c. | 172,090 7 10 | ..... | 227,909 12 2 |
| " | 40,000 0 0 | Trial Surveys | 39,995 7 1 | ..... | 4 12 11 |
| " | 400,000 0 0 | Alterations, additions, and improvements at Stations, increased siding accommodation, and other purposes | 399,786 13 6 | ..... | 213 6 6 |
| " | 140,000 0 0 | Towards construction of a Line from North Shore to junction with Southern and Northern Junction Railway | 1,558 19 5 | ..... | 138,441 0 7 |
| " | 85,000 0 0 | Doubling Line from Parramatta to Penrith | 5,586 0 5 | ..... | 79,413 19 7 |
| " | 100,000 0 0 | Electric Telegraphs— Construction and extension of Telegraph Lines generally | 71,092 15 1 | ..... | 28,907 4 11 |
| | 2,000,000 0 0 | Total, 46 Victoria, No. 23 | 904,039 15 0 | ..... | 1,095,960 5 0 |
| | | <i>48 VICTORIA, No. 26.</i> | | | |
| " | 250,000 0 0 | Harbours and Rivers Branch— For providing Water Supplies for Country Towns ... .. | ..... | ..... | 250,000 0 0 |
| " | 553,000 0 0 | Further for Sydney Water Supply Works ... .. | ..... | ..... | 553,000 0 0 |
| " | 17,500 0 0 | Additional Dredge and Punts for Sydney ... .. | ..... | ..... | 17,500 0 0 |
| " | 50,000 0 0 | Further for Harbour Improvements and Shipping facilities, Newcastle Harbour ... .. | ..... | ..... | 50,000 0 0 |
| " | 10,000 0 0 | Towards Harbour Works, Lake Macquarie—further sum ... .. | ..... | ..... | 10,000 0 0 |
| " | 1,200 0 0 | Towards enlarging Wentworth Wharf ... .. | ..... | ..... | 1,200 0 0 |
| " | 3,000 0 0 | Further for Tug, &c., Dredge Service ... .. | ..... | ..... | 3,000 0 0 |
| " | 5,000 0 0 | Towards construction of Jetty, Byron Bay ... .. | ..... | ..... | 5,000 0 0 |
| " | 2,400 0 0 | For Punts for Grab Dredge, to be used first on the Hastings River ... .. | ..... | ..... | 2,400 0 0 |
| " | 3,600 0 0 | Small Grab Dredge &c. Punts to be used first in the Camden Haven and Lake District ... .. | ..... | ..... | 3,600 0 0 |
| | 895,700 0 0 | Carried forward ... .. | £ | ..... | 895,700 0 0 |
| | 27,275,004 0 0 | Carried forward | £ | 19,373,562 14 10 | 7,901,441 5 2 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | Description of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | |
|-------|--|---|--|--------------|---|
| | | | | Written off. | Retained for Expenditure, 31st October, 1884. |
| | £ s. d. | | £ s. d. | £ s. d. | £ s. d. |
| | 27,275,004 0 0 | Brought forward ... | 19,373,562 14 10 | | 7,901,441 5 2 |
| | | GENERAL LOAN ACCOUNT—continued. | | | |
| | | 48 VICTORIA, No. 26—continued. | | | |
| | 895,700 0 0 | Brought forward ... | | | 895,700 0 0 |
| 1883 | 3,000 0 0 | Harbours and Rivers Branch—continued— Towards improving the Entrance to the Nambucca River ... | | | 3,000 0 0 |
| " | 2,000 0 0 | Towards construction of Light-house, Kiama ... | | | 2,000 0 0 |
| " | 11,000 0 0 | Northern Breakwater, Newcastle—further sum ... | | | 11,000 0 0 |
| " | 18,500 0 0 | Wood Paving, Circular Quay ... | | | 18,500 0 0 |
| " | 5,000 0 0 | For removal of Rocks from front of Wharf, Newcastle Harbour—further sum ... | | | 5,000 0 0 |
| " | 3,500 0 0 | Colonial Architect's Branch— Narrabri Court-house—Erection of ... | | | 3,500 0 0 |
| " | 2,000 0 0 | Court-house and Lock-up at Mulwala ... | | | 2,000 0 0 |
| " | 1,500 0 0 | Court-house and Lock-up at Mount Hope ... | | | 1,500 0 0 |
| " | 3,000 0 0 | Nymagee Court and Watch House and Police Quarters—Erection of ... | | | 3,000 0 0 |
| " | 1,500 0 0 | Post and Telegraph Office, Broughton Creek ... | | | 1,500 0 0 |
| " | 1,000 0 0 | Post and Telegraph Office, Oberon ... | | | 1,000 0 0 |
| " | 1,500 0 0 | Post and Telegraph Office, Moruya ... | | | 1,500 0 0 |
| " | 1,200 0 0 | Post and Telegraph Office, Adelong ... | | | 1,200 0 0 |
| " | 2,950 0 0 | Government Printing Office—Additions—further sum ... | | | 2,950 0 0 |
| " | 6,000 0 0 | Erection of Gaol, Grafton ... | | | 6,000 0 0 |
| " | 3,000 0 0 | Court-house, Cobar—Erection of ... | | | 3,000 0 0 |
| " | 1,400 0 0 | Court-house, Darlinghurst—Dwarf Wall and Iron Palisading—Erection of ... | | | 1,400 0 0 |
| " | 5,000 0 0 | Court-house, Cooma—Erection of ... | | | 5,000 0 0 |
| " | 6,000 0 0 | Court-house and Post-office, Balmain—further sum ... | | | 6,000 0 0 |
| " | 50,000 0 0 | Naval Stations, Port Jackson ... | | | 50,000 0 0 |
| " | 5,000 0 0 | Goulburn Gaol—Completion of—further sum ... | | | 5,000 0 0 |
| " | 20,853 0 0 | For the purchase of land resumed at the corner of Bridge and Phillip Streets, for public purposes ... | | | 20,853 0 0 |
| " | 25,000 0 0 | Sites and Buildings for Fire Brigade Stations in City of Sydney ... | | | 25,000 0 0 |
| " | 50,000 0 0 | Towards the erection of new School Buildings and Teachers' Residences ... | | | 50,000 0 0 |
| " | 4,000 0 0 | Compensation for Land and Buildings resumed at the intersection of the New South Head Road and Point Piper Road, for Post and Telegraph Office purposes ... | | | 4,000 0 0 |
| " | 10,000 0 0 | Erection of Buildings at the University for Museum of Natural History and Zoological Library, to be presented by the Hon. William Macleay, M.L.C. ... | | | 10,000 0 0 |
| " | 5,800 0 0 | For the purchase of Ormand House, Paddington, for the use of the State Children's Relief Department ... | | | 5,800 0 0 |
| " | 15,000 0 0 | For the purchase of Buildings in Phillip-street for Colonial Stores ... | | | 15,000 0 0 |
| " | 40,000 0 0 | For the purchase and further sum, Central Police Courts, Sydney ... | | | 40,000 0 0 |
| | 1,200,403 0 0 | Carried forward ... | £ | | 1,200,403 0 0 |
| | 27,275,004 0 0 | Carried forward ... | £19,373,562 14 10 | | 7,901,441 5 2 |

STATEMENT—continued.

| Year. | Appropriations under Acts of Parliament. | | Particulars of Appropriation. | Expenditure to the 31st October, 1884. | Balances— | | | |
|-------|--|-------|---|--|--------------|---|------|---|
| | £ | s. d. | | | Written off. | Retained for Expenditure, 31st October, 1884. |  | £ | s. d. |
| | 27,275,004 | 0 0 | Brought forward | 19,373,562 14 10 | ..... | 7,901,441 | 5 2 | |
| | | | GENERAL LOAN ACCOUNT—continued. | | | | | |
| | | | 48 VICTORIA, No. 26—continued. | | | | | |
| | 1,200,403 | 0 0 | Brought forward ... .. | ..... | ..... | 1,200,403 | 0 0 | |
| 1883 | 3,500 | 0 0 | Roads and Bridges Branch— | | | | | |
| | | | Bridge over Wilson's Creek, at Lismore— | | | | | |
| | | | further sum ... .. | ..... | ..... | 3,500 | 0 0 | |
| | 1,000 | 0 0 | Bridges, Westbrook and Glendon Brook | | | | | |
| | | | Bridge, King Creek, Port Macquarie ... | ..... | ..... | 1,000 | 0 0 | |
| | 2,000 | 0 0 | Bridge over Brungle Gully, on the road | | | | | |
| | | | from Walgett to Coonamble ... .. | ..... | ..... | 2,000 | 0 0 | |
| | 1,500 | 0 0 | Bridge over the river at Paterson ... | ..... | ..... | 1,500 | 0 0 | |
| | 4,000 | 0 0 | Bridge on road Bega to Brogo ... .. | ..... | ..... | 4,000 | 0 0 | |
| | 2,900 | 0 0 | Lennox Bridge, Parramatta ... .. | ..... | ..... | 2,900 | 0 0 | |
| | | | For the purchase of Pymont Bridge— | | | | | |
| | | | further sum ... .. | ..... | ..... | 2,900 | 0 0 | |
| | 2,000 | 0 0 | Iron Steam-punt, Harwood Island ... | ..... | ..... | 2,000 | 0 0 | |
| | 20,000 | 0 0 | Resumption of land at Rushcutter's Bay, | | | | | |
| | | | Double Bay, Waterloo and Botany, and | | | | | |
| | | | Webb's Grant, for Sewerage purposes | ..... | ..... | 20,000 | 0 0 | |
| | | | Railway Branch— | | | | | |
| | 356,000 | 0 0 | Erection of new Workshops, and for | | | | | |
| | | | Machinery and Sidings in connection | | | | | |
| | | | therewith ... .. | ..... | ..... | 356,000 | 0 0 | |
| | 25,000 | 0 0 | Trial Surveys—further sum ... .. | ..... | ..... | 25,000 | 0 0 | |
| | 157,000 | 0 0 | Wallerawang to Mudgee—further sum... | ..... | ..... | 157,000 | 0 0 | |
| | 450,000 | 0 0 | City Extension, 1 mile 76 chains ... | ..... | ..... | 450,000 | 0 0 | |
| | 195,000 | 0 0 | Perth to near Rockley, 17 miles ... | ..... | ..... | 195,000 | 0 0 | |
| | 578,000 | 0 0 | Inverell to Glen Innes, 45 miles ... | ..... | ..... | 578,000 | 0 0 | |
| | 2,000,000 | 0 0 | South Grafton to Glen Innes, 103 miles | ..... | ..... | 2,000,000 | 0 0 | |
| | 1,980,000 | 0 0 | Grafton to the Tweed River, <i>via</i> Casino, | | | | | |
| | | | Lismore, and the Brunswick, 165 miles | ..... | ..... | 1,980,000 | 0 0 | |
| | 700,000 | 0 0 | Musclebrook to Cassilis, 70 miles ... | ..... | ..... | 700,000 | 0 0 | |
| | 310,000 | 0 0 | Tarago to Braidwood, 31 miles ... .. | ..... | ..... | 310,000 | 0 0 | |
| | 500,000 | 0 0 | Gundagai to Tumut, <i>via</i> Adelong, includ- | | | | | |
| | | | ing Iron Bridge over the river Murrum- | | | | | |
| | | | bidgee, 33 miles ... .. | ..... | ..... | 500,000 | 0 0 | |
| | 804,000 | 0 0 | Kiama to Jarvis Bay, 41 miles ... .. | ..... | ..... | 804,000 | 0 0 | |
| | 606,000 | 0 0 | Bega to Eden, 40 miles ... .. | ..... | ..... | 606,000 | 0 0 | |
| | 259,500 | 0 0 | Goulburn to Crookwell, 25 miles ... | ..... | ..... | 259,500 | 0 0 | |
| | 144,000 | 0 0 | Galong to Burrowa, 18 miles ... .. | ..... | ..... | 144,000 | 0 0 | |
| | 710,000 | 0 0 | Wagga to Tumberumba, 68 miles ... | ..... | ..... | 710,000 | 0 0 | |
| | 173,500 | 0 0 | Tenterfield to the Queensland Border, | | | | | |
| | | | 12 miles ... .. | ..... | ..... | 173,500 | 0 0 | |
| | 705,500 | 0 0 | { Orange to Molong, <i>via</i> Borenore, 21 miles } | | | | | |
| | | | { Borenore to Forbes, <i>via</i> Cudal, 60 miles } | ..... | ..... | 705,500 | 0 0 | |
| | 500,000 | 0 0 | Alterations, additions, and improvements | | | | | |
| | | | at Stations, increased siding accommo- | | | | | |
| | | | dation, and other purposes ... .. | ..... | ..... | 500,000 | 0 0 | |
| | | | Light Lines— | | | | | |
| | 1,050,000 | 0 0 | Forbes to Wilcannia, 340 miles ... .. | ..... | ..... | 1,050,000 | 0 0 | |
| | 263,500 | 0 0 | Nyngan to Cobar, 82 miles ... .. | ..... | ..... | 263,500 | 0 0 | |
| | 336,500 | 0 0 | Narrabri to Moree, 61 miles ... .. | ..... | ..... | 336,500 | 0 0 | |
| | 210,000 | 0 0 | Culcairn to Corowa, 45 miles ... .. | ..... | ..... | 210,000 | 0 0 | |
| | | | Fortifications— | | | | | |
| | 130,000 | 0 0 | For Gun-carriages and Defence Works | | | | | |
| | | | generally ... .. | ..... | ..... | 130,000 | 0 0 | |
| | 14,388,303 | 0 0 | Total, 48 Victoria, No. 26 ... .. | ..... | ..... | 14,388,303 | 0 0 | |
| | 41,663,307 | 0 0 | Total, General Loan Account... .. | £ 19,373,562 14 10 | ..... | 22,289,744 | 5 2 | |
| | 9,998,130 | 18 3 | Add Total Old Loans Account (from page 76) £ | 9,716,533 10 11 | 128,803 0 1 | 152,794 | 7 3 | |
| | £ 51,661,437 | 18 3 | GRAND TOTAL | £ 29,090,096 5 9 | 128,803 0 1 | 22,492,538 | 12 5 | |

E.

Services provided for by Loans.

ABSTRACT of Expenditure for Public Works and other Services provided for by Loans, from the commencement of the Loans' Account to the 31st October, 1884.

| HEAD OF SERVICE. | AMOUNT. | | | TOTAL. | | |
|--|---------|----|----|-------------|----|----|
| | £ | s. | d. | £ | s. | d. |
| Railways | | | | 21,864,871 | 4 | 1 |
| Telegraphs | | | | 606,212 | 18 | 8 |
| Immigration | | | | 569,930 | 0 | 0 |
| Sewerage and Water Supply, Sydney | | | | 400,000 | 0 | 0 |
| Compensation to Municipal Council of Sydney for land resumed under the Water Supply Act, 17 Vic. No. 35 | | | | 43,261 | 14 | 6 |
| New Water Supply for Sydney | | | | 1,082,609 | 15 | 9 |
| New Sewerage Scheme for Sydney | | | | 216,309 | 11 | 9 |
| Sewerage, Shea's Creek to Webb's Grant | | | | 34,719 | 17 | 6 |
| Public Works, Queensland, when it formed part of N. S. Wales... | | | | 49,855 | 8 | 6 |
| Harbours and Rivers Navigation Improvements:— | | | | | | |
| Improving the Harbour of Newcastle and the river Hunter... | 42,740 | 13 | 8 | | | |
| Wharf, Newcastle | 196,545 | 19 | 2 | | | |
| Wharf, Bullock Island | 6,939 | 4 | 0 | | | |
| Steam Cranes, Newcastle | 19,384 | 18 | 11 | | | |
| Southern Breakwater, Newcastle Harbour | 83,034 | 15 | 7 | | | |
| Northern Breakwater, Newcastle Harbour | 9,920 | 18 | 11 | | | |
| Coal Stairs, Newcastle | 24,058 | 7 | 11 | | | |
| Navigation of the rivers Darling, Murray, and Murrumbidgee | 99,379 | 18 | 5 | | | |
| Improving the navigation of the Edward River | 4,902 | 13 | 1 | | | |
| Harbour Works, Wollongong | 44,878 | 9 | 5 | | | |
| Harbour Works, Kiama | 66,857 | 17 | 7 | | | |
| Harbour Works, Lake Macquarie | 21,820 | 1 | 4 | | | |
| Improving the navigation of other harbours and rivers, &c. ... | 75,817 | 1 | 0 | | | |
| Steam Dredges and Punts | 138,183 | 13 | 11 | | | |
| Improvements, Circular Quay | 6,283 | 14 | 1 | | | |
| Steam Cranes, Wharf, &c., Darling Harbour | 152,332 | 2 | 10 | | | |
| Dam at North Rocks, Parramatta | 5,000 | 0 | 0 | | | |
| Dam at Hunt's Creek, Parramatta | 8,000 | 0 | 0 | | | |
| Fitz Roy Dry Dock | 37,405 | 16 | 11 | | | |
| Wharf, &c., Woolloomooloo Bay | 28,164 | 16 | 10 | | | |
| Reclaiming Land at Darling Harbour and Blackwattle Swamp | 46,199 | 9 | 0 | | | |
| Blackwattle Bridge and Causeway | 10,000 | 0 | 0 | | | |
| Increased Wharf Accommodation at Sydney | 82,020 | 11 | 6 | | | |
| Wharf, Eden | 2,364 | 9 | 3 | | | |
| Wharf, Morpeth | 4,342 | 10 | 9 | | | |
| Breakwater at the Clarence River | 59,935 | 0 | 2 | | | |
| Improving the entrance of the Moruya River | 18,000 | 0 | 0 | | | |
| Extension of Dock Accommodation | 26,459 | 4 | 0 | | | |
| | | | | 1,321,022 | 8 | 3 |
| Carried forward | | | | £26,188,792 | 19 | 0 |

| HEAD OF SERVICE. | AMOUNT. | TOTAL. |
|---|--------------|-----------------------|
| | £ s. d. | £ s. d. |
| Brought forward ... .. | ..... | 26,188,792 19 0 |
| Public Works and Buildings:— | | |
| Harbour Defences | 349,291 6 8 | |
| University of Sydney | 55,000 0 0 | |
| Affiliated Colleges | 49,278 6 7 | |
| Grammar School | 25,000 0 0 | |
| Australian Museum Enlargement | 26,954 11 0 | |
| Parliamentary Buildings | 15,000 0 0 | |
| Juvenile Reformatories | 19,946 17 9 | |
| New General Post Office... .. | 117,412 10 1 | |
| New Printing Office | 6,000 0 0 | |
| New Public Offices | 70,000 0 0 | |
| Public Offices, Newcastle | 7,579 13 6 | |
| Custom House, Newcastle | 10,870 3 11 | |
| Receiving Houses at Redfern and the Necropolis | 12,548 13 7 | |
| Free Public Library | 9,715 0 6 | |
| Observatory | 7,000 0 0 | |
| Asylum for Destitute Children | 5,000 0 0 | |
| Additions to the Sydney Infirmary | 5,000 0 0 | |
| Public Works and Improvements, Sydney and Suburbs | 2,460 17 0 | |
| Lunatic Asylum | 97,147 15 0 | |
| Light-houses | 70,052 2 3 | |
| Glebe Island Abattoirs, Bridge, &c. | 61,866 11 0 | |
| Gaols and Penal Establishments | 16,470 10 5 | |
| Court and Watch Houses | 21,937 0 7 | |
| Police Barracks and Stations, Sydney and Country Districts | 22,941 6 6 | |
| | | 1,084,473 6 4 |
| Roads and Bridges:— | | |
| Bridges throughout the Colony | 459,600 0 5 | |
| Metalling the Mudgee Road | 22,000 0 0 | |
| | | 481,600 0 5 |
| Repayments by Loans:— | | |
| Loans repaid under various Acts ... .. | ..... | 1,335,230 0 0 |
| TOTAL | £ | <u>29,090,096 5 9</u> |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

JAMES PEARSON,
Accountant.

STATEMENT
OF THE
PARTICULARS OF THE PUBLIC DEBT OF THE COLONY
OF
NEW SOUTH WALES,
ON
31st OCTOBER, 1884.

STATEMENT OF THE PARTICULARS OF THE PUBLIC DEBT OF

| SERVICES. | AUTHORITY. | AMOUNT AUTHORIZED TO BE RAISED. | AMOUNT OF DEBENTURES AND FUNDED STOCK SOLD. | AMOUNT RAISED. | AMOUNT OVER-RAISED. | AMOUNT NOT YET RAISED. |
|---|------------------------|---------------------------------|---|-----------------|---|------------------------|
| | | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| DEBENTURES. | | | | | | |
| Sydney Sewerage | 17 Vic., No. 34 | 200,000 0 0 | 209,080 0 0 | 201,149 11 9 | The issue of Debentures under various Loan Acts, in 1870, to the extent of £450,000, has adjusted the amounts short and over raised under these Acts. | |
| Sydney Water Supply... .. | 17 Vic., No. 35 | 200,000 0 0 | 208,400 0 0 | 201,264 13 5 | | |
| Public Works | 18 Vic., No. 35 | 178,750 0 0 | 144,000 0 0 | 135,890 13 2 | | |
| Railways | 18 Vic., No. 40 | 624,733 18 8 | 666,800 0 0 | 630,105 11 7 | | |
| Public Works | 19 Vic., Nos. 38 & 40. | 445,323 0 0 | 410,500 0 0 | 393,427 5 8 | | |
| To pay off Land and Immigration Debentures | 20 Vic., No. 1 | 73,776 0 0 | 73,700 0 0 | 70,300 16 2 | | |
| Railways | 20 Vic., No. 1 | 200,000 0 0 | 203,000 0 0 | 199,997 10 0 | | |
| To pay off Land and Immigration Debentures | 20 Vic., No. 16 | 130,400 0 0 | 132,300 0 0 | 130,311 0 0 | | |
| Public Works | 20 Vic., No. 33 | 107,717 18 11 | 112,000 0 0 | 107,737 15 0 | | |
| Railways | 20 Vic., No. 34 | 300,000 0 0 | 299,000 0 0 | 300,895 12 6 | | |
| To pay off Debentures... .. | 22 Vic., Nos. 5 & 26. | 145,000 0 0 | 145,700 0 0 | 145,007 0 0 | | |
| Railways and Public Works | 22 Vic., No. 22 | 753,500 0 0 | 760,700 0 0 | 756,890 15 0 | | |
| Public Works | 22 Vic., No. 26 | 11,600 0 0 | 5,000 0 0 | 4,962 10 0 | | |
| To pay off Debentures... .. | 23 Vic., No. 5 | 365,600 0 0 | 365,600 0 0 | 361,612 10 0 | | |
| Public Works and to pay off Debentures | 23 Vic., No. 10 | 348,223 0 0 | 348,200 0 0 | 341,084 15 0 | | |
| Railways and Public Works | 24 Vic., No. 24 | 113,535 0 0 | 113,900 0 0 | 112,209 11 6 | | |
| Voluntary and Assisted Immigration | 24 Vic., No. 26 | 55,000 0 0 | 55,500 0 0 | 54,945 16 0 | | |
| Railways and Public Works | 25 Vic., No. 19 | 1,782,370 14 6 | 1,782,300 0 0 | 1,696,828 5 0 | | |
| Railways and Public Works | 26 Vic., No. 14 | 161,832 0 0 | 162,000 0 0 | 136,728 17 10 | | |
| Public Works | 27 Vic., No. 14 | 670,025 12 7 | 670,000 0 0 | 565,483 14 2 | | |
| To pay off Debentures... .. | 29 Vic., No. 5 | 300,000 0 0 | 300,000 0 0 | 270,252 5 0 | | |
| Public Works and Immigration | 29 Vic., No. 9 | 219,450 0 0 | 219,400 0 0 | 193,474 0 0 | | |
| Public Works | 29 Vic., No. 23 | 758,000 0 0 | 758,000 0 0 | 718,844 10 0 | | |
| Public Works | 30 Vic., No. 23 | 65,850 0 0 | 65,800 0 0 | 61,902 0 0 | | |
| Railways | 31 Vic., No. 11 | 1,000,000 0 0 | 1,000,000 0 0 | 981,655 7 0 | | |
| Public Works | 31 Vic., No. 27 | 177,407 0 0 | 177,400 0 0 | 178,055 0 0 | | |
| Public Works | 32 Vic., No. 13 | 197,885 0 0 | 197,800 0 0 | 196,625 9 10 | | |
| Public Works and other purposes | 34 Vic., No. 2 | 407,151 13 7 | 407,100 0 0 | 403,321 7 6 | | |
| To make good the loss sustained in the negotiation of the Debentures of previous Loans. | Under various Acts. | ..... | 450,000 0 0 | 439,787 7 11 | | |
| Public Works and other purposes | 35 Vic., No. 5 | 374,980 0 0 | 374,900 0 0 | 375,424 19 6 | ..... |  |
| Public Works and other purposes | 36 Vic., No. 2 | 406,863 7 3 | 406,800 0 0 | 422,696 18 0 | ..... |  |
| Railways | 36 Vic., No. 17 | 1,901,500 0 0 | 1,901,500 0 0 | 1,725,661 6 11 | ..... |  |
| Public Works | 39 Vic., No. 18 | 235,690 0 0 | 172,000 0 0 | 164,713 0 0 | ..... |  |
| Public Works and other purposes | 38 Vic., No. 2 | 3,249,552 0 0 | 3,249,500 0 0 | 3,178,374 1 5 | ..... | 70,977 0 0 |
| Public Works | 40 Vic., No. 12 |  |  |  | ..... | 71,177 18 7 |
| Public Works | 41 Vic., No. 4 | 1,120,000 0 0 | 88,472,700 0 0 | 8,520,756 4 4 | ..... | ..... |
| Public Works | 41 Vic., No. 7 |  |  |  | ..... | 47,988 4 4 |
| Public Works | 43 Vic., No. 11 | 7,352,768 0 0 | ..... | ..... | ..... | ..... |
| Public Works | 44 Vic., No. 12 | 1,262,000 0 0 | 1,262,000 0 0 | 1,253,236 6 2 | ..... | 8,763 13 10 |
| Public Works | 44 Vic., No. 28 | 7,807,500 0 0 | 7,815,300 0 0 | 313,110 9 4 | ..... | 7,494,389 10 8 |
| Public Works | 45 Vic., No. 22 | 1,000,000 0 0 | ..... | ..... | ..... | 1,000,000 0 0 |
| Public Works | 46 Vic., No. 23 | 2,000,000 0 0 | ..... | ..... | ..... | 2,000,000 0 0 |
| Public Works | 48 Vic., No. 26 | 14,389,303 0 0 | ..... | ..... | ..... | 14,388,303 0 0 |
| FUNDED STOCK. | | | | | | |
| Public Works and other purposes | 36 Vic., No. 21 | 509,780 0 0 | 530,189 9 2 | 509,780 0 0 | ..... | ..... |
| TOTALS .. .. . | ..... | £51,607,067 5 6 | 27,128,019 9 2 | 26,455,554 16 8 | 64,266 14 7 | 25,033,611 3 1 |

† Transferred to the credit of the Consolidated Revenue Fund. † The amount short raised under this Act, viz., £175,533 13s. 1d. has been made good from the Consolidated Revenue Fund. § Of this sum £2,050,000 were issued in Debentures. The £2,000,000 loan of 1882 was issued in Debentures also, but they have since been authorized to be exchanged for Inscribed Stock at the option of the holders; a privilege which has been availed of to the extent of £1,180,300, according to latest advices from England. The balance was in the form of Inscribed Stock. a. Issued as Inscribed Stock. A further Loan of £5,500,000 has been negotiated in London, not yet brought into this statement.

The Treasury, New South Wales,
Sydney, 19th November, 1884.

JAMES PEARSON,
Accountant.

Public Debt.

STATEMENT showing the DUE DATES, &c., of OUTSTANDING DEBENTURES and FUNDED STOCK on the 31st October, 1884.

| YEAR. | DEBENTURES. | INSCRIBED AND FUNDED STOCK. | TOTAL. | | | ANNUAL INTEREST. | | | |
|---|-------------|-----------------------------|-----------|----|----|------------------|-----------|----|----|
| | | | | | | Rate. | Amount. | | |
| | £ | £ | £ | s. | d. | | £ | s. | d. |
| 1888... .. | 499,200 | ..... | 499,200 | 0 | 0 | 5 ½ cent. | 24,960 | 0 | 0 |
| 1889... .. | 891,400 | ..... | 891,400 | 0 | 0 | " | 44,570 | 0 | 0 |
| 1890... .. | 718,200 | ..... | 718,200 | 0 | 0 | " | 35,910 | 0 | 0 |
| 1891... .. | 225,500 | ..... | 225,500 | 0 | 0 | " | 11,275 | 0 | 0 |
| 1892... .. | 1,782,300 | ..... | 1,782,300 | 0 | 0 | " | 89,115 | 0 | 0 |
| 1893... .. | 40,000 | ..... | 40,000 | 0 | 0 | " | 2,900 | 0 | 0 |
| 1895... .. | 832,000 | ..... | 832,000 | 0 | 0 | " | 41,600 | 0 | 0 |
| 1896... .. | 977,400 | ..... | 977,400 | 0 | 0 | " | 48,870 | 0 | 0 |
| 1897... .. | 65,800 | ..... | 65,800 | 0 | 0 | " | 3,290 | 0 | 0 |
| 1898... .. | 177,200 | ..... | 177,200 | 0 | 0 | " | 8,860 | 0 | 0 |
| 1899... .. | 197,700 | ..... | 197,700 | 0 | 0 | " | 9,885 | 0 | 0 |
| 1900... .. | 857,100 | ..... | 857,100 | 0 | 0 | " | 42,855 | 0 | 0 |
| 1901... .. | 374,900 | ..... | 374,900 | 0 | 0 | " | 18,745 | 0 | 0 |
| 1902... .. | 399,300 | ..... | 399,300 | 0 | 0 | " | 19,965 | 0 | 0 |
| 1903... .. | 1,901,500 | ..... | 1,901,500 | 0 | 0 | 4 ¾ cent. | 76,060 | 0 | 0 |
| 1906... .. | 172,000 | ..... | 172,000 | 0 | 0 | " | 6,880 | 0 | 0 |
| 1908 and 1909 | 3,249,500 | ..... | 3,249,500 | 0 | 0 | " | 129,980 | 0 | 0 |
| 1910 and 1913 | 2,863,700 | ..... | 2,863,700 | 0 | 0 | " | 114,548 | 0 | 0 |
| 1933... .. | ..... | *4,186,300 | 0 | 0 | 0 | " | 167,452 | 0 | 0 |
| 1934... .. | ..... | 3,000,000 | 0 | 0 | 0 | " | 120,000 | 0 | 0 |
| Annual drawings of £20,000, which commenced 31st December, 1872 | 660,500 | ..... | 660,500 | 0 | 0 | 5 ½ cent. | 33,025 | 0 | 0 |
| Interminable, being undrawn balance of Debentures paid off in 1882 | 270 | ..... | 270 | 0 | 0 | " | 13 | 10 | 0 |
| Funded Stock—Interminable ..... | ..... | 530,189 | 9 | 2 | 0 | 4 ¾ cent. | 21,207 | 11 | 8 |
| Permanent | 2,700 | ..... | 2,700 | 0 | 0 | 5 ½ cent. | 135 | 0 | 0 |
| Total Amount outstanding, 31st October, 1884 | 16,888,170 | 7,716,489 | 9 | 2 | 0 | ..... | 1,071,201 | 1 | 8 |

* This amount consists of the £3,000,000 Loan of July, 1883, and £1,186,300, portion of the £2,000,000 Debenture Loan of 1882, which, according to the latest advices from London, is the extent to which the privilege of conversion has been availed of.

The Treasury, New South Wales,
Sydney, 19th November, 1884.

JAMES PEARSON,
Accountant.

STATEMENT
OF
BALANCES ON THE PUBLIC ACCOUNTS
OF
NEW SOUTH WALES,
AND THE
DISTRIBUTION OF THE SAME ON THE
31st OCTOBER,
1884.

STATEMENT of BALANCES on the PUBLIC ACCOUNTS OF NEW SOUTH WALES,

| TREASURY BALANCES. | | | | | | | |
|---|-----|-----|-----|-----|-------------|----|----|
| | | £ | s. | d. | £ | s. | d. |
| PUBLIC ACCOUNT. | | | | | | | |
| CONSOLIDATED REVENUE— | | | | | | | |
| Revenue Proper | ... | ... | ... | ... | 1,195,291 | 6 | 9 |
| LOANS' ACCOUNT (OLD) | ... | ... | ... | ... | 152,794 | 7 | 3 |
| TRUST FUND— | | | | | | | |
| Church and School Estates Fund | ... | ... | ... | ... | 1 | 8 | 6 |
| Public Instruction Endowment Account | ... | ... | ... | ... | 204,589 | 10 | 11 |
| Public Schools Property Fund | ... | ... | ... | ... | 7,115 | 9 | 10 |
| Police Reward Fund | ... | ... | ... | ... | 22,654 | 5 | 1 |
| Police Superannuation Fund | ... | ... | ... | ... | 11,909 | 9 | 0 |
| Poundage | ... | ... | ... | ... | 6,715 | 14 | 5 |
| Shipping Master (Seamen's Wages) | ... | ... | ... | ... | 416 | 6 | 7 |
| Revenue Suspense Fund | ... | ... | ... | ... | 29,125 | 13 | 3 |
| Imperial Money Orders Account | ... | ... | ... | ... | 141 | 5 | 2 |
| Trust Moneys, 20 Vic. No. 11 | ... | ... | ... | ... | 115,584 | 19 | 2 |
| Lunacy Trust Fund, 42 Vic. No. 7 | ... | ... | ... | ... | 4,750 | 17 | 8 |
| Immigration Remittances | ... | ... | ... | ... | 52,246 | 3 | 4 |
| Commissioners' Fund—Real Property Act | ... | ... | ... | ... | 1,021 | 7 | 6 |
| Assurance Fund—Real Property Act | ... | ... | ... | ... | 60,723 | 7 | 2 |
| Government Savings' Bank Account, 34 Vic. No. 15 | ... | ... | ... | ... | 1,199,419 | 17 | 5 |
| British and Australian Telegram Account | ... | ... | ... | ... | 8,914 | 0 | 7 |
| Railway Store Account | ... | ... | ... | ... | 108,783 | 19 | 6 |
| Imperial Pension Fund Account | ... | ... | ... | ... | 7 | 17 | 8 |
| Over-issues | ... | ... | ... | ... | 101,437 | 2 | 0 |
| Treasurer's Advance Account | ... | ... | ... | ... | 59,320 | 12 | 2 |
| Gold Fields Survey Fee Account | ... | ... | ... | ... | 153 | 8 | 11 |
| Advances to Contractors Account | ... | ... | ... | ... | 783 | 2 | 2 |
| San Francisco Mail Service Account | ... | ... | ... | ... | 4,655 | 18 | 9 |
| New Zealand Cable Account | ... | ... | ... | ... | 1,841 | 18 | 8 |
| Sheep Account | ... | ... | ... | ... | 3,691 | 13 | 5 |
| Rabbit Account | ... | ... | ... | ... | 3,309 | 17 | 3 |
| Orient Mail Service Account | ... | ... | ... | ... | 5,242 | 12 | 10 |
| Sundry Deposits | ... | ... | ... | ... | 131,480 | 16 | 8 |
| | | | | | 2,146,038 | 15 | 7 |
| The Colonial Treasurer's Master in Equity Account | ... | ... | ... | ... | 237,370 | 6 | 1 |
| TOTAL PUBLIC ACCOUNT | ... | ... | ... | ... | £ 3,781,494 | 15 | 8 |
| LOANS. | | | | | | | |
| LESS DEBIT BALANCE :— | | | | | | | |
| GENERAL LOAN ACCOUNT | ... | ... | ... | ... | 2,695,878 | 13 | 7 |
| TOTAL | ... | ... | ... | ... | £ 1,035,616 | 2 | 1 |

The Treasury, New South Wales,
Sydney, 19th November, 1884.

and the distribution of the same, on the 31st October, 1884.

| DISTRIBUTION OF THE BALANCES. | | | | | | | |
|--|------------|-----------|----|----|-------------|----|----|
| | | £ | s. | d. | £ | s. | d. |
| CASH— | | | | | | | |
| Special Deposits— | | | | | | | |
| From the Public Account— | | | | | | | |
| Bank of New South Wales, Sydney | | 500,000 | 0 | 0 | | | |
| City Bank | | 60,260 | 0 | 0 | | | |
| Oriental Bank | | 60,260 | 0 | 0 | | | |
| Australian Joint Stock Bank | | 48,214 | 8 | 0 | | | |
| English, Scottish, and Australian Chartered Bank ... | | 42,180 | 16 | 0 | | | |
| London Chartered Bank | | 42,180 | 16 | 0 | | | |
| Mercantile Bank | | 42,180 | 16 | 0 | | | |
| Union Bank | | 42,180 | 16 | 0 | | | |
| | | | | | 837,457 | 12 | 0 |
| Bank of New South Wales— | | | | | | | |
| London Public Account | | | | | 961,784 | 14 | 7 |
| | | | | | 1,799,242 | 6 | 7 |
| Less— | | | | | | | |
| Bank of New South Wales— | | | | | | | |
| Sydney Account— | | | | | | | |
| Overdraft on the General Loans' Account | | 2,695,878 | 13 | 7 | | | |
| Deduct— | | | | | | | |
| Credit Balance on Public Account ... | £1,051,948 | 17 | 9 | | | | |
| Colonial Treasurer's Master in Equity | | | | | | | |
| Account | 237,370 | 6 | 1 | | | | |
| | | 1,289,319 | 3 | 10 | | | |
| | | | | | 1,406,559 | 9 | 9 |
| | | | | | | | |
| Net Cash Balance | | | | | 392,682 | 16 | 10 |
| SECURITIES— | | | | | | | |
| Treasury Chest— | | | | | | | |
| Police Reward and Superannuation | | | | | | | |
| Fund—Debentures | | 30,200 | 0 | 0 | | | |
| Public Instruction Endowment Account— | | | | | | | |
| Debentures | £68,400 | 0 | 0 | | | | |
| New South Wales Four per Cents | 106,781 | 19 | 3 | | | | |
| | | 175,181 | 19 | 3 | | | |
| Assurance Fund—Real Property Act—Debentures ... | | 22,000 | 0 | 0 | | | |
| Government Savings Bank Fund— | | | | | | | |
| Debentures | £89,200 | 0 | 0 | | | | |
| New South Wales Four per Cents | 296,466 | 13 | 11 | | | | |
| | | 385,666 | 13 | 11 | | | |
| Miscellaneous | | 29,284 | 12 | 1 | | | |
| | | | | | 642,333 | 5 | 3 |
| Bank of New South Wales— | | | | | | | |
| Debentures—Lunacy Trust, 42 Vic. No. 7. | | | | | 600 | 0 | 0 |
| | | | | | | | |
| TOTAL | | | | | £ 1,035,616 | 2 | 1 |

JAMES PEARSON,
Accountant.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

SECOND REPORT

ON THE

CREATION, INSCRIPTION, AND ISSUE OF STOCK,

UNDER THE PROVISIONS OF THE

“INSCRIBED STOCK ACT OF 1883”

(46 VIC. No. 12).

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
25 *November*, 1884.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1884.

SECOND REPORT

ON

THE CREATION, INSCRIPTION, AND ISSUE OF STOCK,

UNDER THE PROVISIONS OF THE

“INSCRIBED STOCK ACT OF 1883” (46 VIC. No. 12).

To the Honorable GEORGE RICHARD DIBBS, M.P., Colonial Treasurer.

The Treasury, New South Wales,

Sydney, 25th November, 1884.

Sir,

In obedience to the direction contained in the thirteenth clause of the “Inscribed Stock Act of 1883,” I have now the honor to submit the Second Annual Report “showing the particulars of every creation and inscription of Stock, whether such Stock was created for the purpose of raising a Loan or for the conversion of outstanding Debentures—the capital amount of such Stock—the rate of interest thereon, and its currency and condition of redemption—also, particulars of every redemption or payment of the capital amount of any Loan or of any portion thereof; together with copies of all agreements, appointments, rules and regulations effected, entered into, or made under authority of this Act, prior to such date of meeting.”

Following the Loan of 17th July, 1883, a further issue of Stock to the extent of £3,000,000, inscribed by the Bank of England, was effected on the 20th of December of the same year. Copy of the Agent-General’s letter to the Bank of England, dated 9th January, 1884, and of the Deed Poll and Declaration required by the Colonial Stock Act will be found in the Appendix.

On the 7th of October instant a further Loan of £5,500,000, at the reduced interest rate of $3\frac{1}{2}$ per cent. per annum, was issued and inscribed by the Bank of England. The documents connected with this transaction have not yet been received at the Treasury.

The time allowed for the conversion of the Two Million Debenture Loan of 1882 into Inscribed Stock expired on the 30th June, 1884, at which date inscription to the extent of £1,186,300 had taken place, leaving £813,700 outstanding as a Debenture Debt.

The following is a statement of the Stock created and inscribed under the provisions of the Act of 1883 :—

FIRST INSCRIBED LOAN.

Created for the conversion of outstanding Debentures, on which a Loan had been raised on the 8th June, 1882, under authority of the Acts 41 Vic. No. 7 and 43 Vic. No. 11, with an obligation on the part of the Government to convert same into Inscribed Stock :—

| | |
|-------------------------------------|---|
| Capital amount of such Stock | *£1,186,300. |
| Rate of interest thereon... .. | 4 per cent. per annum, payable half-yearly. |
| Currency... .. | Fifty years. |
| Condition of redemption | Payment on maturity, at par. |

SECOND INSCRIBED LOAN.

Created for the purpose of raising a Loan under authority of the Acts 41 Vic. No. 7 and 43 Vic. No. 11 :—

| | |
|------------------------------------|---|
| Capital amount of such Stock... .. | £3,000,000. |
| Rate of interest thereon | 4 per cent. per annum, payable half-yearly. |
| Currency | Fifty years. |
| Condition of redemption | Payment on maturity, at par. |

THIRD INSCRIBED LOAN.

Created for the purpose of raising a Loan under the authority of the Acts 43 Vic. No. 11, 44 Vic. No. 12, and 44 Vic. No. 28 :—

| | |
|------------------------------------|---|
| Capital amount of such Stock... .. | £3,000,000. |
| Rate of interest thereon | 4 per cent. per annum, payable half-yearly. |
| Currency | Fifty years. |
| Condition of redemption | Payment on maturity, at par. |

FOURTH INSCRIBED LOAN.

Created for the purpose of raising a Loan under the authority of the Acts 44 Vic. No. 28, and 46 Vic. No. 12 :—

| | |
|------------------------------------|--|
| Capital amount of such Stock... .. | £5,500,000. |
| Rate of interest thereon | 3½ per cent. per annum, payable half-yearly. |
| Currency | Forty years. |
| Condition of redemption | Payment on maturity, at par. |

I have, &c.,

G. EAGAR,

Under Secretary for Finance and Trade.

APPENDIX.

* The balance of this Loan, £813,700, is outstanding in Debentures.

APPENDIX.

AUSTRALIA.—New South Wales Government Loan for £3,000,000, in 4 per cent. Inscribed Stock. Authorized by the Colonial Parliament under Acts 43 Victoria, No. 11, assented to 24th July, 1879; 44 Victoria, No. 12, assented to 12th July, 1880; 44 Victoria, No. 28, assented to 6th April, 1881, for the construction of railways and other public works already sanctioned, secured upon the consolidated revenues of the Colony and repayable at par on 1st July, 1883.

The Bank of New South Wales, Financial Agents for the Government of New South Wales, have been instructed to negotiate the said loan of £3,000,000, being portion of the amount authorized to be raised under the above-mentioned Acts.

The stock will be in addition to, and will rank *pari passu* with the New South Wales Stock already created.

The stock will be inscribed under the provisions of the Act 46 Vic., No. 12, of the New South Wales Parliament, and in accordance with the "Colonial Stocks Act, 1877," of the Imperial Parliament, 40 and 41 Vic., cap. 59, in the books of the "New South Wales Stock," kept by the Bank of England.

The stock will be transferable without charge and free of stamp duty at that Bank, either by the stockholders personally or by their attorneys. The interest at the rate of 4 per cent. per annum, will be payable by the Bank of England, on the 1st January and the 1st July in each year, by dividend warrants, which can be sent by post to the stockholders if desired, the first dividend being payable on the 1st July next.

The revenues of the Colony of New South Wales alone are liable in respect of this stock and the dividends thereon, and the Consolidated Fund of the United Kingdom, and the Commissioners of Her Majesty's Treasury are not directly or indirectly liable or responsible for the payment of the stock or of the dividends thereon, or for any matter relating thereto. 40 and 41 Vic., cap. 52, sec. 19.

Copies of the Acts can be seen at the Bank of New South Wales.

Tenders in the form annexed will be received at the Bank of New South Wales, No. 64, Old Broad street, until 2 o'clock on Thursday, the 20th instant, where and when they will be opened in the presence of the Agent-General of the Colony and of such of the applicants as may attend.

The stock will be allotted to the highest bidders, but no tender will be accepted at less than £100 for every £100 in stock.

Tenders for other than even hundreds of stock, or at a price including a fraction of a shilling other than sixpence, will not be accepted, and should the equivalent tenders exceed the stock to be allotted a *pro rata* distribution will be made.

Payment of the stock will require to be made at the Bank of New South Wales as follows, viz. :— 5 per cent. on application; a further sum on 7th January next (when the scrip will be delivered) to reduce the amount unpaid to £90 per cent.; 10 per cent. on the 3rd March, 20 per cent. on the 2nd April, 20 per cent. on the 2nd May, 40 per cent. on the 3rd June.

Payment can be made in full on any of the above-mentioned dates upon which instalments fall due under discount at the then Bank of England rate.

Allotments will be represented by scrip certificates to bearer, which after all the payments have been made, and upon being lodged at the Bank of England, will be inscribed in the books of the stock.

Forms of tender can be obtained at the Bank of New South Wales, and at the office of the Agent-General, 5, Westminster-chambers, Victoria-street, S.W.

Bank of New South Wales, London, 13th December, 1883.

No. _____

Form of Tender for New South Wales Government Inscribed Four per cent. Stock.

Bank of New South Wales, London.

Gentlemen, _____ hereby tender for £ _____ (the amount also in words) stock of the New South Wales Government Inscribed Four per cent. Loan, according to the annexed notice of the 13th December, 1883, on which _____ enclose the required deposit of £ _____, and undertake to pay £ _____ (the amount also in words) for every £100 in stock, and to accept the same or any less amount that may be allotted to _____, and to pay the balance in conformity with the terms of the said notice.

Name
Address
Date December, 1883.

N.B.—Tenders at different prices must be on separate forms.

The Agent-General to The Bank of England.

£3,000,000 Loan, third issue, December, 1883.

Gentlemen,

9 January, 1884.

Referring to my previous letters to you, and to the documents which have been furnished to you and to your letter to me of the 8th June last, I now have to request that you will be good enough to undertake the inscription of the loan of £3,000,000, which has been raised by the New South Wales Government through the New South Wales Bank in terms of the Prospectus, a print of which I send herewith.

For this purpose I and Mr. Donald Larnach, in exercise of the powers conferred upon us, have created stock, to be called "New South Wales Stock," and have determined that an amount not exceeding £3,000,000 of such stock should be issued at the rate of £100 for every nominal amount of £100 represented by the scrip certificates or letters of allotment, respectively issued to subscribers for any part of the said loan of £3,000,000, and I send a copy of the Deed Poll under date of the 13th of December last, executed by us in evidence thereof, which has been duly enrolled.

To enable you to carry out the inscription and management of this further amount of stock under the Colonial Stock Act, I have duly made and lodged with the Inland Revenue Board the necessary declaration to bring the stock under the provisions of that Act, a print of which declaration I send herewith.

In

In exercise of the powers conferred upon me by the Letters Patent of the 14th April, 1883, with which you are acquainted, I beg to adopt and confirm, with reference to this new issue of New South Wales Stock so created as aforesaid, the terms and conditions for the inscription and management of the same by you set out in your letter, above referred to, to me of the 8th of June last.

Arrangements have been made with the Commissioners of Inland Revenue for the payment of the composition for stamp duty, so as to enable the stock, after it shall be inscribed in your books, to be transferred free of duty, and the Commissioners are willing to receive the duty from you under a similar arrangement to that made with reference to the previous issues of New South Wales Stock.

On behalf of the New South Wales Government I have to request that you will be good enough to carry out this arrangement, and to pay to the Commissioners the amount of composition payable for stamp duty in respect of the stock as inscribed in your books.

On behalf of such Government I authorize you, on the terms of your letter to me of the 8th of June, above referred to, to issue to the holders of inscribed stock, who may desire the same, from time to time, stock certificates to bearer, in pursuance of the provisions of the Colonial Stock Act, 1877. And I further authorize you to transmit the Dividend Warrants by post in the same manner and upon the same conditions as the warrants for dividends on the Government funds are sent.

I have, &c.,
SAUL SAMUEL,
Agent-General for New South Wales.

Deed Poll, dated 13 December, 1883.

To all to whom these presents shall come, Sir Saul Samuel, Knight Commander of the Most Distinguished Order of St. Michael and St. George, Agent-General Resident in London of the Colony of New South Wales, Sir Daniel Cooper, Baronet, Knight Commander of the Most Distinguished Order of St. Michael and St. George, Donald Larnach, Esq., Frederick Holkham Dangar, Esq., and The Honorable Edward Knox, a Member of the Legislative Council of the Colony of New South Wales, send greeting:

Whereas by an Act passed by the Legislature of the Colony of New South Wales entitled "The Public Works Loan Act of 1879," it was enacted that it should be lawful for the Governor of the said Colony, with the advice of the Executive Council of the said Colony, to raise by sale of debentures secured upon the Consolidated Revenue Fund of the Colony, and bearing interest at the rate of not exceeding 4 per centum per annum, such several sums of money not exceeding in the whole the sum of £7,350,768 as might be required for the purposes in the said Act mentioned. And whereas in pursuance of the said Act, the Governor with the advice of the Executive Council, in the month of June, 1882, raised the sum of £2,000,000 sterling, by the issue of debentures secured upon the Consolidated Revenue Fund of the Colony, payable on the 1st July, 1910, and bearing interest in the meantime at the rate aforesaid, which debentures are entitled the "New South Wales £2,000,000 Loan, 1882," and are numbered Series T 4, Nos. 23,408 to 29,407 both inclusive, for £100 each; Series U 4, Nos. 4,395 to 6,394 both inclusive, for £500 each; and Series V 4, Nos. 1,232 to 1,631 both inclusive, for £1,000 each. And whereas by another Act of the said Legislature entitled "The Inscribed Stock Act of 1883," it was amongst other things enacted that whenever by any Act then or thereafter in force power should be given to the Governor (in the said Act defined to mean the Governor with the advice of the Executive Council) to raise any sum or sums of money by way of loan for the public service of the Colony, it should be lawful for the Governor to raise the whole or any portion of such sum or sums in the form of inscribed stock thereafter termed "stock," that all such stock should be styled "New South Wales Stock," and, subject to the provisions of the now reciting Act, should be issued in such amounts, in such manner, at such times, bearing interest at such rate not exceeding 4 per centum per annum, and should be redeemable at such times and upon such conditions, and should be subject to such terms and conditions as the Governor before exercising the aforesaid power should from time to time determine and appoint. And it was further enacted that the Governor should have and might exercise the following powers and authorities or any of them, that was to say:—He might from time to time declare all or any of the debentures issued under the authority of any Act of Parliament to be convertible into stock redeemable at such times and subject to such terms and conditions as he might before the creation thereof determine and appoint. He might authorize the issue of an equivalent amount of such stock in exchange for debentures, and he might on such conditions as he might determine authorize the creation and issue of any stock for the purpose of converting any outstanding debentures into stock, and to pay any expenses in connection with such conversions or in carrying out the provisions of the Act. And it was further enacted that the Governor might appoint two or more Agents in London for the purposes of the Act, of whom one should be the Agent-General of the said Colony for the time being, and might empower such Agents or any one or more of them to exercise the powers of the Act exercisable by the Governor, or as the Governor might authorize or direct. And whereas Sir Augustus William Frederick Spencer Loftus (commonly called Lord Augustus Loftus), Knight Grand Cross of the Most Honorable Order of the Bath, a Member of Her Majesty's Most Honorable Privy Council, the Governor and Commander-in-Chief of the said Colony and its Dependencies, with the advice of the Executive Council, by Letters Patent under the Great Seal of the Colony, and bearing date the 14th day of April, 1883, in virtue of the powers conferred by "The Inscribed Stock Act of 1883," did appoint the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and Edward Knox, Agents in London for the purposes of the same Act, and did thereby empower them or any one or more of them to exercise such powers as are by the Governor exercisable under the same Act, and the said Sir Saul Samuel was thereby appointed to be the Chairman of such Commission. And whereas by a Deed Poll under the hands and seals of two of them, the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and Edward Knox, dated the 26th day of June, 1883, they did declare that they had created a stock to be called "New South Wales Stock," and had determined that an amount not exceeding two million pounds of such stock should be issued at the rate of one hundred pounds for every one hundred pounds represented by a debenture issued as aforesaid in respect of the loan of two million pounds raised as aforesaid under "The Public Works Loan Act of 1879," to any holder or holders of such debenture who should desire to convert and exchange such debenture into such stock at any time between the first day of July, one thousand eight hundred and eighty-three, and the thirtieth day of June, one thousand eight hundred and eighty-four, and that the interest or dividend to be paid on the said stock so created by them as aforesaid, or on so much thereof as should be so issued, should be

at

at the rate of four pounds per centum per annum, and be payable half-yearly at the Bank of England on the first day of January and the first day of July in each year until and including the first day of July, one thousand nine hundred and thirty-three, and that on the said first day of July, one thousand nine hundred and thirty-three, the capital of the same stock should be repaid at par at the same place.

And whereas by a Deed Poll under the hands and seals of two of them the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and Edward Knox, dated the 16th day of July, 1883, after reciting as is hereinbefore recited and reciting that the Governor, with the advice of the Executive Council of the said Colony, was about to borrow and raise in Great Britain under the authority of and for the purposes in the said firstly recited Act mentioned, a further sum of money in 4 per cent. Inscribed Stock, it is witnessed that they, the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and Edward Knox, in exercise of the powers conferred upon them by the said Letters Patent, and by virtue of "The Inscribed Stock Act of 1883," did declare that they had created a further amount of three million pounds sterling of capital stock to be called "New South Wales Stock" in addition to and to rank *pari passu* with the said amount of two million pounds of New South Wales Stock theretofore created as aforesaid, or so much thereof as should be issued as aforesaid, and they had determined that such stock should be issued at the rate of one hundred pounds of stock for every nominal amount of one hundred pounds which should be represented by the scrip certificates or letters of allotment respectively to be issued to subscribers for any part of the said sum or sums then about to be borrowed and raised by the Government of the Colony as aforesaid, when the instalments payable thereon should have been fully paid, and that the interest or dividend to be paid on the said amount of three million pounds sterling of stock so created by them as aforesaid, or any lesser amount which should be issued, should be at rate of four pounds per centum per annum, and should be payable half-yearly at the Bank of England, on the first day of January and the first day of July in each year until and including the first day of July, one thousand nine hundred and thirty-three. And further, that on the said first day of July, one thousand nine hundred and thirty-three, the capital should be repaid at par at the same place.

And whereas by another Act of the said Legislature entitled "The Public Works Loan Act of 1880," it was enacted that it should be lawful for the Governor, with the advice of the Executive Council, to raise by the sale of debentures secured upon the Consolidated Revenue Fund of the Colony, and bearing interest at a rate not exceeding four per centum per annum, such several sums of money, not exceeding in the whole the sum of £1,262,000, as might be required for the purposes in the same Act mentioned.

And whereas by another Act of the said Legislature entitled "The Public Works Loan Act of 1881," it was enacted that it should be lawful for the Governor, with the advice of the Executive Council, to raise by the sale of debentures secured upon the Consolidated Revenue Fund of the Colony, and bearing interest at a rate not exceeding four per centum per annum, such several sums of money, not exceeding in the whole the sum of £7,807,500, as might be required for the purposes in the same Act mentioned.

And whereas the Governor, with the advice of the Executive Council of the said Colony, is about to borrow and raise in Great Britain under the authority of the said recited Acts for the purposes in the said firstly and two lastly recited Loan Acts respectively mentioned, a further sum of money in four per cent. Inscribed Stock, for which purpose the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and Edward Knox, have determined to create and issue a further amount of not exceeding three million pounds sterling of New South Wales Stock, to be in addition to, and to rank *pari passu* with the New South Wales Stock so created and so issued or to be issued as aforesaid, and have determined and appointed the time at which the same shall be redeemable and the terms and conditions on which the same shall be issued. And whereas it is expedient that such determination and appointment should be declared and manifested under the hands and seals of one or more of them:—

Now therefore these presents witness that they, the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and Edward Knox, in exercise of the powers conferred upon them by the said Letters Patent, and by virtue of "The Inscribed Stock Act of 1883," do by these presents declare that they have created a further amount of three million pounds sterling of capital stock to be called "New South Wales Stock," in addition to and to rank *pari passu* with the said amount of two million pounds of "New South Wales Stock" heretofore created as aforesaid, or so much thereof as shall have been or shall be issued as aforesaid, and also to and with the said amount of three million pounds of "New South Wales Stock" so created and issued or to be issued as aforesaid; and they have determined that such capital stock shall be issued at the rate of one hundred pounds of stock for every nominal amount of one hundred pounds which shall be represented by the scrip certificates or letters of allotment respectively to be issued to subscribers for any part of the said sum or sums intended to be and about to be borrowed and raised by the Government of the Colony as aforesaid, when the instalments payable thereon shall have been fully paid, and that the interest or dividend to be paid on the said amount of three million pounds sterling of stock so lastly created by them as aforesaid, or any lesser amount which shall be issued, shall be at the rate of four pounds per centum per annum, and shall be payable half-yearly at the Bank of England, on the first day of January and the first day of July in each year until and including the first day of July, one thousand nine hundred and thirty-three; and that the first half of a year's interest or dividend shall be payable on the first day of July, one thousand eight hundred and eighty-four. And further, that on the said first day of July, one thousand nine hundred and thirty-three, the capital shall be repaid at par at the same place.

And they do further declare that the revenues of the Colony of New South Wales alone are liable in respect of the stock hereinbefore described and the dividends thereon, and that the Consolidated Fund of the United Kingdom and the Commissioners of Her Majesty's Treasury are not directly or indirectly liable or responsible for the payment of the stock, or of the dividends thereon, or for any matter relating thereto.

In witness whereof two of them, the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and Edward Knox, have hereunto set their hands and seals the thirteenth day of December, one thousand eight hundred and eighty-three.

SAUL SAMUEL. (L.S.)
D. LARNACH. (L.S.)

Signed, sealed, and delivered by the above-named Sir Saul Samuel
and Donald Larnach, in the presence of,—

JOHN MACKRELL,
Solicitor, 21, Cannon-street.

Declaration

Declaration of Stock, dated 8 January, 1884.

It is hereby declared that by an Act of the Legislature of the Colony of New South Wales, being Act 46 Vic., No. 12, to be cited as "The Inscribed Stock Act of 1883," provision is made in the terms following, that is to say:—

Section 2.—Whenever by any Act, now or hereafter in force, power is given to the Governor to raise any sum or sums of money by way of Loan for the Public Service of the Colony, it shall be lawful for the Governor to raise the whole or any portion of such sum or sums in the form of Inscribed Stock (hereinafter termed "Stock").

Section 3.—All such stock shall be styled "New South Wales Stock," and subject to the provisions of this Act, shall be issued in such amounts, in such manner, at such times, bear interest at such rate (not exceeding 4 per centum per annum), and shall be redeemable at such times and on such conditions, and shall be subject to such terms and conditions as the Governor, before exercising the aforesaid power, shall from time to time determine and appoint.

Section 4.—The Governor shall have and may exercise the following powers and authorities, or any of them:—

- (i.) He may, from time to time, declare all or any of the debentures, issued under the authority of any Act of Parliament, to be convertible into stock, redeemable at such times, and subject to such terms and conditions, as he may, before the creation thereof, determine and appoint.
- (ii.) He may authorize the issue of an equivalent amount of such Stock in exchange for such debentures.
- (iii.) He may, on such conditions as he may determine, authorize the creation and issue of any stock for the purpose of converting any outstanding debentures into stock, and of paying any expenses in connection with such conversion or in carrying out the provisions of this Act. * * *

Section 7.—The Governor may, from time to time, enter into such agreement with any Bank carrying on business in London as to him seems fit to provide for all or any of the following matters (*inter alia*):—

- (i.) For the inscription and issue of stock.
- (ii.) For effecting the conversion of debentures into stock and regulating transfers of stock.
* * * * *
- (iv.) For issuing stock certificates, and as often as occasion shall require, re-inscribing or re-issuing such certificates.
* * * * *
- (viii.) For conducting generally all business connected with stock or loans.
* * * * *

Section 8.—Every agreement made with any such Bank shall be as valid and effectual as if the terms thereof had been enacted by this Act. * * * *

Section 9.—The Governor may appoint two or more persons in London as Agents, for the purposes of this Act, of whom one shall be the Agent-General of the Colony for the time being, and may empower such Agents, or any one or more of them, to exercise such powers, by this Act exercisable by the Governor, as the said Governor may authorize or direct.

Section 14.—The word "Governor" in this Act means "Governor with the advice of the Executive Council."

And it is hereby further declared that by another Act of the said Legislature, entitled "The Public Works Loan Act of 1879," it was enacted that it should be lawful for the Governor of the said Colony, with the advice of the Executive Council of the said Colony, to raise by sale of debentures secured upon the Consolidated Revenue Fund of the Colony, and bearing interest at the rate not exceeding 4 per centum per annum, such several sums of money not exceeding in the whole the sum of £7,350,768 as might be required for the purposes in such Act mentioned.

And it is hereby further declared that in pursuance of the same Act, the Governor, with the advice of the Executive Council, in the month of June, 1882, raised the sum of £2,000,000 sterling by the issue of debentures secured upon the Consolidated Revenue Fund of the Colony, payable on the 1st July, 1910, and bearing interest in the meantime at the rate aforesaid, which debentures are entitled the "New South Wales £2,000,000 Loan, 1882," and are numbered Series T 4, Nos. 23,408 to 29,407, both inclusive, for £100 each; Series U 4, Nos. 4,395 to 6,394, both inclusive, for £500 each; and Series V 4, Nos. 1,232 to 1,631, both inclusive, for £1,000 each.

And it is hereby further declared that Sir Augustus William Frederick Spencer Loftus, Knight Grand Cross of the Most Honourable Order of the Bath, a Member of Her Majesty's Most Honourable Privy Council, Governor and Commander-in-Chief of the Colony of New South Wales and its Dependencies, with the advice of the Executive Council, by Letters Patent under the Great Seal of the said Colony, and bearing date the 14th day of April, 1883, in virtue of the powers conferred by "The Inscribed Stock Act of 1883," did appoint Sir Saul Samuel, Knight Commander of the Most Distinguished Order of St. Michael and St. George, Agent-General Resident in London of the said Colony of New South Wales; Sir Daniel Cooper, Baronet, Knight Commander of the Most Distinguished Order of St. Michael and St. George; Donald Larnach, Esq.; Frederick Holkham Dangar, Esq.; and the Hon. Edward Knox, a Member of the Legislative Council of the said Colony of New South Wales, Agents in London for the purposes of the same Act, and did thereby empower them, or any one or more of them, to exercise such powers as are by the Governor exercisable under the same Act, and the said Sir Saul Samuel was thereby appointed to be the Chairman of such Commission.

And it is hereby further declared that, by a Deed Poll under the hands and seals of two of them, the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and the Honorable Edward Knox, bearing date the 26th day of June, 1883, they did declare that they had created a stock to be called "New South Wales Stock," and had determined that an amount not exceeding £2,000,000 of such stock should be issued at the rate of £100 for every £100 represented by a debenture issued as aforesaid in respect of the said loan of £2,000,000 raised as aforesaid under the "Public Works Loan Act of 1879" to any holder or holders of such debenture who should desire to convert and exchange such debenture into

into such stock at any time between the 1st day of July, 1883, and the 30th day of June, 1884, and that the interest or dividend to be paid on the said stock so created by them as aforesaid, or on so much thereof as should be so issued, should be at the rate of 4 per centum per annum, and be payable half-yearly at the Bank of England on the 1st day of January and the 1st day of July in each year, until and including the 1st day of July, 1933; and that on the said 1st day of July, 1933, the capital of the same stock should be repaid at par at the same place.

And it is hereby further declared that by a Deed Poll under the hands and seals of two of them, the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and the Honorable Edward Knox, bearing date the 16th day of July, 1883, after reciting that the Governor of the said Colony, with the advice of the Executive Council of the said Colony, had determined to borrow and raise in Great Britain, for the purposes in the "Public Works Loan Act of 1879" mentioned, a further sum of money in Four per cent. Inscribed Stock, they did declare that they had created a further amount of £3,000,000 sterling of capital stock, to be called "New South Wales Stock," in addition to and to rank *pari passu* with the said amount of £2,000,000 of New South Wales Stock theretofore created as aforesaid, or so much thereof as should be issued as aforesaid, and had determined that such stock should be issued at the rate of £100 of stock for every nominal amount of £100 which should be represented by the scrip certificates or letters of allotment respectively, to be issued to subscribers for any part of the said sum or sums intended to be and about to be borrowed and raised by the Government of the Colony, as aforesaid, when the instalments payable thereon should have been fully paid, and that the interest or dividend to be paid on the said amount of £3,000,000 sterling of stock so created by them as aforesaid, or any lesser amount which should be issued, should be at the rate of £4 per centum per annum, and should be payable half-yearly at the Bank of England on the 1st day of January and the 1st day of July in each year, until and including the 1st day of July, 1933; and that on the said 1st day of July, 1933, the capital of the same stock should be repaid at par at the same place.

And it is hereby further declared that by another Act of the said Legislature, entitled "The Public Works Loan Act of 1880," it was enacted that it should be lawful for the Governor, with the advice of the Executive Council, to raise by the sale of Debentures, secured upon the Consolidated Revenue Fund of the Colony, and bearing interest at a rate not exceeding Four per centum per annum, such several sums of money, not exceeding in the whole the sum of £1,262,000, as might be required for the purposes in the said Act mentioned.

And it is hereby further declared that by another Act of the said Legislature, entitled "The Public Works Loan Act of 1881," it was enacted that it should be lawful for the Governor, with the advice of the Executive Council, to raise by the sale of Debentures, secured upon the Consolidated Revenue Fund of the Colony, and bearing interest at a rate not exceeding Four per centum per annum, such several sums of money, not exceeding in the whole the sum of £7,807,500, as might be required for the purposes in the said Act mentioned.

And it is hereby further declared that by a Deed Poll under the hands and seals of two of them, the said Sir Saul Samuel, Sir Daniel Cooper, Donald Larnach, Frederick Holkham Dangar, and the Honorable Edward Knox, bearing date the 13th day of December, 1883, after reciting that the Governor of the said Colony, with the advice of the Executive Council of the said Colony, had determined to borrow and raise in Great Britain, under the authority of the said recited Acts, for the purposes in the said firstly and two lastly recited Loan Acts respectively mentioned, a further sum of money in Four per cent. Inscribed Stock, they did declare that they had created a further amount of £3,000,000 sterling of Capital Stock, to be called "New South Wales Stock," in addition to and to rank *pari passu* with the said amount of £2,000,000 of New South Wales Stock theretofore created as aforesaid, or so much thereof as should have been or should be issued as aforesaid, and also to and with the said amount of £3,000,000 of "New South Wales Stock" so created and issued or to be issued as aforesaid, and had determined that such Capital Stock should be issued at the rate of £100 of Stock for every nominal amount of £100 which should be represented by the scrip certificates or letters of allotment respectively to be issued to subscribers for any part of the said sum or sums intended to be and about to be borrowed and raised by the Government of the Colony, as aforesaid, when the instalments payable thereon should have been fully paid and that the interest or dividend to be paid on the said amount of £3,000,000 sterling of stock so lastly created by them as aforesaid or any lesser amount which should be issued, should be at the rate of £4 per centum per annum, and should be payable half-yearly at the Bank of England on the 1st day of January and the 1st day of July in each year, until and including the 1st day of July, 1933. And that on the said 1st day of July, 1933, the capital of the same stock should be repaid at par at the same place.

And it is hereby further declared that the Governor of the said Colony, with the advice of the Executive Council of the said Colony, has now borrowed and raised for the purposes mentioned in the Schedules to the "Public Works Loan Act of 1879," the "Public Works Loan Act of 1880," and the "Public Works Loan Act of 1881," respectively, or some of them, a sum or sums of money by issuing or agreeing to issue scrip certificates or letters of allotment for the total amount of £3,000,000 sterling, such scrip certificates or letters of allotment respectively to be converted into New South Wales Stock, at the rate of £100 of such stock for every nominal amount of £100 represented by a scrip certificate or letter of allotment.

And it is hereby further declared that in further pursuance of the said "Inscribed Stock Act of 1883," and by virtue of the said Letters Patent, the said Sir Saul Samuel and Donald Larnach have entered into an agreement with the Governor and Company of the Bank of England, providing amongst other things for the inscription in a register kept in England by the said Bank of the said stock mentioned in the said last mentioned Deed Poll to have been created, and for the transfer of such stock.

And it is hereby further declared that the stock to be inscribed and transferred in conformity with such provision is "New South Wales Stock" mentioned in the said last-mentioned Deed Poll.

And it is hereby further declared that the revenues of the Colony of New South Wales alone are liable in respect of the stock hereinbefore described, and the dividends thereon, and that the Consolidated Fund of the United Kingdom, and the Commissioners of Her Majesty's Treasury, are not directly or indirectly liable or responsible for the payment of the stock or of the dividends thereon, or for any matter relating thereto.

And

And it is hereby further declared that His Excellency the said Lord Augustus Loftus, as the Governor and Commander-in-Chief of the Colony of New South Wales and its Dependencies, by Letters Patent under the Great Seal of the Colony, and dated the 11th day of August, 1880, appointed the said Sir Saul Samuel, then Saul Samuel, Esq., to be Agent-General for the said Colony Resident in London, to act under such instructions as he should from time to time receive from the Government of the said Colony, to transact such business of the Government as might be specially entrusted to him, or such as might necessarily arise in the absence of such instructions, and in all things whatsoever to serve the Colony to the best of his judgment and ability.

In witness whereof, the said Sir Saul Samuel, in exercise of the powers conferred upon him by the said Letters Patent of the 11th day of August, 1880, under the Great Seal of the said Colony, hath hereunto set his hand this eighth day of January, one thousand eight hundred and eighty-four.

SAUL SAMUEL.

Witness,—

JNO. MACKRELL,
Solicitor,
21, Cannon-street.

1884.

NEW SOUTH WALES.

BANK LIABILITIES AND ASSETS.

(QUARTER ENDED 30 SEPTEMBER, 1884.)

Presented to Parliament, pursuant to Act 4 Vic. No. 13.

GENERAL ABSTRACT of the Sworn Returns, rendered pursuant to the Act of Council 4th Victoria No. 13, of the Average ASSETS and LIABILITIES, and of the CAPITAL and PROFITS of the undermentioned BANKS of the Colony of New South Wales, for the Quarter ended 30th September, 1884.

| BANKS. | LIABILITIES. | | | | | | ASSETS. | | | | | | | CAPITAL AND PROFITS. | | | |
|--|-----------------------|-----------------------|------------------------------|--------------------------------|----------------------------|--------------------|---------------|--------------|------------------|-------------------------------|--------------------------------|---|-----------------|----------------------|----------------------------------|---------------------|--|
| | Notes in Circulation. | Bills in Circulation. | Balances due to other Banks. | Deposits not bearing interest. | Deposits bearing interest. | Total Liabilities. | Coin. | Bullion. | Landed Property. | Notes & Bills of other Banks. | Balances due from other Banks. | Notes and Bills discounted, and all other Debts due to the Banks. | Total Assets. | Capital paid up. | Rate per Annum of last Dividend. | Amount of Dividend. | Amount of Reserved Profits at the time of declaring such Dividend. |
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| New South Wales | 501,534 6 11 | 8,276 18 2 | 39,226 13 11 | 3,321,767 12 9 | 4,764,344 18 9 | 7,635,150 10 6 | 945,257 10 1 | 35,102 11 1 | 182,092 7 10 | 2,040 3 1 | 2,280,637 5 8 | 5,743,861 12 0 | 9,188,991 9 9 | 1,000,000 0 0 | 17 1/2 cent. | 87,500 0 0 | 550,000 0 0 |
| Commercial Bank, Sydney | 401,630 6 1 | 9,626 9 9 | 56,904 3 11 | 1,957,912 9 7 | 4,674,970 10 3 | 7,101,043 19 7 | 785,560 15 2 | 8,402 11 6 | 212,800 15 2 | 36,873 15 11 | 813,031 12 9 | 46,679,530 2 8 | 5,536,299 13 2 | 600,000 0 0 | 25 cent. | 75,000 0 0 | 677,042 7 8 |
| Commercial Bank of Australia. | ..... | 315 19 3 | 130,974 10 11 | 18,606 12 0 | 48,369 12 3 | 198,266 14 5 | 35,435 11 1 | ..... | ..... | 362 13 4 | *23 2 10 | 164,088 4 2 | 199,909 11 5 | 500,000 0 0 | 10 cent. | 24,166 13 4 | 120,055 5 8 |
| Commercial Bank of South Australia. | 6,771 0 0 | ..... | 30 13 11 | 22,974 15 0 | 3,100 10 3 | 32,877 1 2 | 5,457 9 9 | ..... | 885 5 0 | 434 17 2 | 4,877 9 6 | 2,198 10 7 | 13,853 12 0 | 400,000 0 0 | 8 cent. | 15,833 6 8 | 80,000 0 0 |
| Australasia | 114,879 1 7 | 7,326 12 7 | 5,015 14 5 | 527,918 15 10 | 978,431 16 7 | 1,633,572 1 0 | 323,889 12 11 | 1,422 14 1 | 54,192 12 2 | 12,874 18 8 | 15,507 9 6 | 1,993,482 11 9 | 2,401,369 19 1 | 1,600,000 0 0 | 14 cent. | 112,000 0 0 | 853,623 16 5 |
| Union of Australia..... | 51,072 0 1 | 9,217 7 1 | 399 17 6 | 287,109 4 2 | 754,433 0 11 | 1,102,231 9 9 | 482,470 16 5 | 844 8 2 | 25,553 1 7 | 8,046 16 1 | 89 8 7 | 1,988,187 19 4 | 2,505,192 10 2 | 1,500,000 0 0 | 11 1/2 cent. | 120,000 0 0 | 1,099,118 9 5 |
| Australian Joint Stock.... | 255,202 6 11 | 6,994 1 3 | 31,558 4 4 | 928,184 12 7 | 2,431,827 10 0 | 3,653,766 15 1 | 447,825 16 6 | 17,671 7 8 | 118,718 3 7 | 31,581 16 11 | 126,312 13 4 | 3,872,863 8 0 | 4,614,973 6 0 | 500,000 0 0 | 12 1/2 cent. | 31,250 0 0 | 236,633 13 0 |
| London Chartered of Australia. | 26,393 0 0 | 559 0 10 | 14,211 4 6 | 148,160 16 0 | 451,790 8 3 | 641,114 9 7 | 89,060 11 5 | 565 17 1 | 29,865 7 4 | 3,237 5 8 | 1,063 1 9 | 1,284,961 16 7 | 1,408,753 19 10 | 1,000,000 0 0 | 5 cent. | 25,000 0 0 | 52,504 16 11 |
| English, Scottish, and Australian Chartered. | 76,084 4 7 | 4,900 8 8 | 1,227 10 1 | 320,120 14 7 | 920,428 6 2 | 1,322,761 4 1 | 165,267 18 10 | ..... | 44,017 8 8 | 12,153 13 6 | 962 10 7 | 1,543,779 4 2 | 1,766,180 15 9 | 720,000 0 0 | 10 cent. | 36,000 0 0 | 175,000 0 0 |
| City | 51,822 18 5 | 237 8 5 | 10,853 14 4 | 312,568 1 8 | 958,624 16 11 | 1,334,106 19 9 | 85,451 5 10 | 1,109 11 11 | 29,926 8 1 | 1,255 15 5 | 41,061 9 11 | 1,527,871 11 4 | 1,689,676 2 6 | 240,000 0 0 | 12 1/2 cent. | 15,000 0 0 | 108,891 9 6 |
| Mercantile Bank | 35,631 3 4 | 461 15 9 | 82,541 2 3 | 225,041 16 0 | 1,171,482 14 8 | 1,515,158 12 0 | 105,295 15 5 | ..... | 55,018 10 10 | 5,396 7 4 | *115,789 6 10 | 1,696,687 19 1 | 1,978,187 19 6 | 300,000 0 0 | 9 cent. | 13,500 0 0 | 140,132 19 3 |
| Federal Bank of Australia. | 14,463 2 7 | 2 16 1 | ..... | ..... | 289,151 5 4 | 303,617 4 0 | 31,356 19 8 | ..... | 30,268 14 4 | 2,196 0 0 | ..... | 317,873 7 0 | 381,695 1 0 | 262,000 0 0 | 6 cent. | 5,895 0 0 | 12,371 9 3 |
| Queensland National Bank. | ..... | 1,716 0 9 | ..... | 28,126 4 4 | 184,973 9 5 | 214,815 14 6 | 80,432 12 3 | ..... | 14,851 7 3 | 1,673 1 7 | *42,394 2 2 | 74,875 7 10 | 214,226 11 1 | 600,000 0 0 | 15 cent. | 40,000 0 0 | 265,043 17 5 |
| Bank of New Zealand ... | 36,638 0 0 | 3,106 15 8 | *215,806 8 11 | 185,606 12 1 | 632,996 16 3 | 1,074,154 13 11 | 80,034 9 0 | 1,505 12 4 | 19,500 0 0 | ..... | ..... | 1,001,547 8 3 | 1,102,587 9 7 | 1,000,000 0 0 | 15 cent. | 75,000 0 0 | 721,093 17 7 |
| TOTALS | £1,572,121 10 6 | 52,741 15 3 | 588,749 19 0 | 7,284,098 6 7 | 18,264,925 18 0 | 27,762,637 9 4 | 3,662,797 4 4 | 66,624 13 10 | 817,690 1 10 | 118,127 4 8 | 3,444,749 13 5 | 27,891,909 2 9 | 36,001,898 0 10 | 10,222,000 0 0 | ..... | 676,145 0 0 | 5,091,512 2 1 |

* And Branches. † 12 cent. per annum, with bonus of 3 cent. ‡ And bonus. § Including £559,569 4s. 7d., average amount of Government Securities held. ¶ Dividend of 15 cent., and bonus of 2 1/2 cent. ** Dividend, £75,000; bonus, £12,500. †† And from branches of this Bank. ††† Including £79,211 5s., average amount of New South Wales Government Debentures. †††† 10 cent. and 5 cent. bonus: equal to 15 cent. per annum. ††††† Dividend of 14 cent., and bonus of 5s. per share.

The Treasury, New South Wales,
Sydney, 3rd November, 1884.

JAMES PEARSON,
Accountant.

GEORGE R. DIBBS,
Treasurer.

1884.

NEW SOUTH WALES.

CUSTOMS REGULATION ACT.

(TREASURY ORDER—DUTY ON PULP FRUIT.)

Presented to Parliament, pursuant to Act 42 Vic. No. 19, sec. 133.

The Treasury, New South Wales, 18 November, 1884.

NOTICE is hereby given that the undermentioned article is liable to a duty of one penny per pound, under the provisions of section 133 of the Customs Regulation Act (42 Victoria No. 19), as possessing properties in the whole or in part which can be used or are intended to be applied for a purpose similar to articles on which duty is payable under the Tariff Act, 34 Victoria No. 21.

The said article approximating in its qualities or uses to Preserves and Jams, upon each of which a duty of one penny per pound is leviable, His Excellency the Governor, with the advice of the Executive Council, directs that *Pulp Fruit* shall be subject to a similar rate of duty,—to be charged and collected on and from this date.

GEORGE R. DIBBS.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

MINERAL CONDITIONAL PURCHASES.

(MADE SINCE 1 JANUARY, 1870.)

Ordered by the Legislative Assembly to be printed, 21 November, 1884.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 24th October, 1883, That there be laid upon the Table of this House,—

“A Return giving the date of each Mineral Conditional Purchase made since the 1st January, 1870, the Lands Office made in, the area of each, the name of the applicant, date of declaration received, the nature of improvements, name of person who inspected improvements, and nature of his report; date of transfers of same, and name of transferee, distinguishing additional from originals, also specifying all that have been declared void, and grounds of voidance.”

(Mr. W. J. Fergusson.)

MINERAL CON-

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|--|----------------------|--|-----------|
| | | | n. r. p. | | | | £ s. d. |
| 72-4444 | Albury | 3 Oct., 1872 | 40 0 0 | Ebenezer Vickory | | | |
| 6445 | " | 3 " " | 40 0 0 | " | | | |
| 6446 | " | 3 " " | 40 0 0 | " | | | |
| 6447 | " | 3 " " | 40 0 0 | " | | | |
| 6448 | " | 3 " " | 40 0 0 | " | | | |
| 6449 | " | 3 " " | 40 0 0 | John Keep | | | |
| 6450 | " | 3 " " | 40 0 0 | " | | | |
| 6451 | " | 3 " " | 40 0 0 | " | | | |
| 6452 | " | 3 " " | 40 0 0 | " | | | |
| 6453 | " | 3 " " | 40 0 0 | " | | | |
| 75- 975 | " | 2 Dec., 1875 | 80 0 0 | R. D. Thompson and J. H. Davey | | | |
| 76- 38 | " | 10 Feb., 1876 | 40 0 0 | James Henry Davey | 23 June, 1879 | £2 per acre in mining operations | 80 0 0 |
| 34 | " | 10 " " | 80 0 0 | Robert Dunlop Thompson | 20 " " | " | 160 0 0 |
| 94 | " | 13 April, " | 80 0 0 | R. D. Thompson and J. H. Davey | 20 " " | " | 160 0 0 |
| 202 | " | 2 Nov., " | 80 0 0 | Robert Dunlop Thompson | 25 Nov., " | " | 160 0 0 |
| 77- 28 | " | 11 Jan., 1877 | 40 0 0 | " | | | |
| 92 | " | 15 Feb., " | 40 0 0 | " | | | |
| 80- 132 | " | 24 June, 1880 | 640 0 0 | L. Dale | 8 June, 1883 | Mining operations, 25s. per acre | |
| 133 | " | 24 " " | 640 0 0 | Thomas Breen | | | |
| 140 | " | 1 July, " | 640 0 0 | Daniel Slattery | | | |
| 167 | " | 19 Aug., " | 40 0 0 | Jingellic Tin Lodes Mining Co. (Ltd.) | | | |
| 168 | " | 19 " " | 40 0 0 | R. W. Blythman | | | |
| 81- 62 | " | 7 April, 1881 | 40 0 0 | Jingellic Tin Lodes Mining Co. (Ltd.) | | | |
| 75 | " | 28 " " | 40 0 0 | " | | | |
| 116 | " | 23 June, " | 40 0 0 | " | | | |
| 179 | " | 1 Sept., " | 40 0 0 | J. H. Wymond | | | |
| 316 | " | 29 Dec., " | 100 0 0 | Jingellic Tin Lodes Mining Co. (Ltd.) | | | |
| 82- 77 | " | 20 April, 1882 | 200 0 0 | Arthur Andrews | | | |
| 78 | " | 20 " " | 200 0 0 | Conrad ten Brink | | | |
| 118 | " | 1 June, " | 40 0 0 | Michael Ryan | | | |
| 125 | " | 1 " " | 181 2 0 | Alex. Ross, junr. | | | |
| 126 | " | 1 " " | 40 0 0 | Henry Jas. Vipan | | | |
| 133 | " | 22 " " | 40 0 0 | James H. Davey | | | |
| 210 | " | 19 Oct., " | 80 0 0 | Benjamin Clay Hutchinson | | | |
| 83- 169 | " | 11 " " | 40 0 0 | Thomas Keighran | | | |
| 72-3745 | Armidale | 20 June, 1872 | 40 0 0 | Wm. Wilberforce Frazer | | | |
| 73-3161 | " | 7 Aug., 1873 | 240 0 0 | Wm. Millis | 1 Aug., 1876 | £2 per acre on mining operations | 480 0 0 |
| 74- 367 | " | 8 Jan., 1874 | 40 0 0 | Edw. Markham | 24 Feb., 1877 | House, fencing, garden, &c. | 600 0 0 |
| 368 | " | 8 " " | 320 0 0 | Walter Russell Hall | | | |
| 369 | " | 8 " " | 200 0 0 | " | 13 Sept., 1877 | Mining operations, £5 per acre | 1,000 0 0 |
| 370 | " | 8 " " | 280 0 0 | " | | " on 160 acres. Application made for reduction of area. | 500 0 0 |
| 3270 | " | 12 Mar., " | 40 0 0 | Lew's Markham | | | |
| 4713 | " | 23 April, " | 80 0 0 | D. S. Anderson and C. Leigh | | | |
| 4714 | " | 23 " " | 80 0 0 | " | | | |
| 4715 | " | 23 " " | 80 0 0 | " | | | |
| 12653 | " | 1 Oct., " | 160 0 0 | J. Moore, P. Speare, J. Williams, and A. J. Seivers. | 30 Nov., 1874 | Mining operations, £2 per acre | 320 0 0 |
| 5040 | " | 7 May, " | 40 0 0 | J. E. and M. J. St. Clair | | | |
| 78- 577 | " | 1 Aug., 1878 | 40 0 0 | A. H. Belfield | | | |
| 657 | " | 12 Sept., " | 40 0 0 | C. R. Blaxland | | | |
| 694 | " | 19 " " | 40 0 0 | A. H. Belfield | | | |
| 80- 141 | " | 11 Mar., 1880 | 100 0 0 | T. S. M. Tourle | | | |
| 148 | " | 18 " " | 275 0 0 | " | | | |
| 357 | " | 29 July, " | 100 0 0 | John M'Carthy | 24 Oct., 1883 | £8 per acre on mining operations | 800 0 0 |
| 364 | " | 5 Aug., " | 40 0 0 | " | | | |
| 375 | " | 12 " " | 40 0 0 | " | | | |
| 376 | " | 12 " " | 40 0 0 | Alex. Borthwick | | | |
| 387 | " | 26 " " | 100 0 0 | John M'Carthy | | | |
| 81- 39 | " | 17 Feb., 1881 | 40 0 0 | R. W. Brereton and J. Gallagher | | | |
| 42 | " | 24 " " | 42 0 0 | R. Hudson | | | |
| 54 | " | 3 Mar., " | 80 0 0 | J. Powrie and J. Glass | | | |
| 55 | " | 3 " " | 42 0 0 | R. Hudson | | | |
| 58 | " | 3 " " | 40 0 0 | J. Rawthburne | | | |
| 87 | " | 24 " " | 42 0 0 | R. Hudson | | | |
| 119 | " | 7 April, " | 40 0 0 | W. Western | | | |
| 126 | " | 14 " " | 40 0 0 | R. W. Brereton | | | |
| 133 | " | 21 " " | 40 0 0 | R. Hudson | | | |
| 148 | " | 5 May, " | 40 0 0 | " | | | |
| 183 | " | 2 June, " | 40 0 0 | J. Gallagher and W. R. Brereton | | | |
| 186 | " | 9 " " | 40 0 0 | Wm. Bischoff | | | |
| 252 | " | 8 Sept., " | 40 0 0 | D. M'Kinlay | | | |
| 263 | " | 22 " " | 40 0 0 | H. E. Bigg | | | |
| 266 | " | 29 " " | 80 0 0 | John Moore | | | |
| 270 | " | 6 Oct., " | 80 0 0 | J. I. Moore, J. Moore, junr., and John Moore | | | |
| 274 | " | 13 " " | 40 0 0 | John Moore | | | |

DITIONAL PURCHASES.

| Inspector. | Improvements reported by Inspector. | Value. | Allience. | Date of Transfer. | Present state of Application. |
|------------------|---|-----------|--|-------------------|---|
| | | £ s. d. | | | Withdrawn on account of non-survey. |
| | | | | | " |
| | | | | | " |
| | | | | | " |
| | | | | | " |
| | | | | | " |
| J. S. M'Phillamy | Open prospecting cutting tramway £60; horse road, £3. | 88 0 0 | Jingellic Tin Lodes Mining Co. (Limited). | 14 April, 1877 | Void. Application made by an agent. Approved by Minister. |
| " | Tunnel, £150; open cutting, £25. | 175 0 0 | " | 10 Feb., 1878 | " |
| " | No. 1 tunnel, 162 ft., £162; wenza, 26 ft., £32 10s.; open cutting, £15; No. 3 tunnel, 116 ft., £58; No. 4 tunnel, 350 ft., £262; wenza, 60 ft., £60; open cutting, £100; dams, £40 & £20; kiln for burning quartz, £20; 10 chains road, £5; tin dressing tables. | 324 10 0 | " | 27 Aug., " | " |
| " | Water-race, £20; open cutting, £20; tunnel, £150. | 190 0 0 | " | 22 Mar., 1880 | " |
| | | | Jingellic Tin Lodes Mining Co. (Ltd) Lawrence Dale and John M'Gee | 27 Aug., 1878 | Void, being within a reserve. Being dealt with. |
| | | | Jingellic Tin Lodes Mining Co. (Limited). | 20 Jan., 1881 | Void. Vagueness of description. Withdrawn. Non-survey within twelve months. Awaiting declaration. |
| | | | | | Being dealt with. |
| | | | | | Void. Made by an agent. Being dealt with. |
| J. M'Phillamy | Improvements prior to date of selection, £10; fence erected, August, 1878, £12; ringing, £7 10s.; clearing, £9. | 38 10 0 | | | Awaiting further report from inspector. |
| | | | Arthur Andrews | 20 Mar., 1882 | |
| | | | Alexander Ross, junr. | 1 Nov., 1882 | Void. Land previously selected. |
| | | | | | Withdrawn. Non-survey within twelve months. Void. Area available less than 40 acres. Lapsed, 31 Oct., 1876. Deed prepared, 15 Dec., 1879. |
| W. E. Rogers | Weatherboard cottage, £90; tin receiving houses, £40 and £30; shaft, £100; work performed on creek, £5,000; work performed on back portion of mineral conditional purchase, £5,000. | 5,820 0 0 | Wm. Millis, J. Tysoe, Rev. W. Moore, S. W. Moore, Rev. Francis Tait. | 20 Mar., 1876 | |
| " | House, £320; kitchen, £14; orchard and garden, £40; wages expended on mining operations on selection, £225. | 599 0 0 | | | Declaration approved by Minister, 19 Sept., 1879. |
| F. Trollope | Pudding machine and engine, £600; 16,000 yards stripping, £800; shafts, £160. | 1,560 0 0 | | | Void. Should have been applied for in two blocks. Approved by Minister. |
| | | | | | Not finally dealt with. |
| | | | | | Lapsed. |
| W. Harper | No improvements. | | | | " |
| " | Do. | | | | " |
| Nil | Nil. | | | | Deed prepared, 26 March, 1875. |
| | | | | | Lapsed, 16 February, 1878. |
| | | | | | Lapsed, 27 April, 1882. |
| | | | Rich. Hudson | 3 July, 1880 | Withdrawn. Non-survey. |
| | | | Do. | 3 " | Void. Made by an agent. |
| F. Carper | Buildings, &c. (in 1881) | 281 15 0 | Jas. Glass and J. Powrie | 31 Jan., 1881 | Under reference to inspector. |
| | | | J. Glass, J. Moore, and J. Powrie. | 10 Sept., " | |
| | | | J. Glass and J. Powrie | 31 Jan., " | Void. Contained improvements. |
| | | | J. Glass, J. Moore, and J. Powrie. | 10 Sept., " | " |
| | | | J. Glass and J. Powrie | 31 Jan., " | " |
| | | | J. Glass, J. Moore, and J. Powrie. | 10 Sept., " | Void. Previously selected. |
| | | | J. Glass and J. Powrie | 31 Jan., 1881 | Void. Contained improvements. |
| | | | J. Glass, J. Moore, and J. Powrie. | 10 Sept., " | Void. Made by an agent. |
| | | | J. Powrie, J. Glass, and J. Moore. | 10 Sept., 1881 | Declaration not due. |
| | | | | | Void. Made by an agent. |
| | | | | | Declaration not due. |
| | | | | | Void. Made by an agent. |
| | | | | | Withdrawn. Non-survey. |
| | | | | | Declaration not due. |
| | | | | | Void. Included in C.P. 81-1. |
| | | | | | Declaration not due. |
| | | | Robt. Phillips | 7 Sept., 1881 | " |
| | | | W. Bischoff, C. Bischoff, A. Friedman, & A. Kissler. | 16 Nov., " | " |
| | | | Michael Gingni | 16 " | " |
| | | | | | Withdrawn. Non-survey. |
| | | | | | Declaration not due. |
| | | | J. I. Moore, J. Moore, jun., and Peter Spare. | 10 Aug., 1883 | " |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|---|----------------------|---|----------|
| | | | a. r. p. | | | | £ s. d. |
| 81- 291 | Armidale | 27 Oct., 1881 | 40 0 0 | J. Moore and R. Palmer | | | |
| 303 | " | 15 Dec., " | 40 0 0 | R. F. Spencer | | | |
| 82- 45 | " | 23 Feb., 1832 | 40 0 0 | B. G. Brereton | | | |
| 45 | " | 2 Mar., " | 40 0 0 | S. O. Brereton | | | |
| 151 | " | 22 June, " | 40 0 0 | A. Bailey and G. Roberts | | | |
| 223 | " | 23 Sept., " | 40 0 0 | R. Hudson | | | |
| 270 | " | 30 Nov., " | 40 0 0 | J. Moore | | | |
| 272 | " | 7 Dec., " | 40 0 0 | J. Bracken and P. Daley | 26 Oct., 1888 | £2 12s. 6d. per acre in mining operations | 105 0 0 |
| 273 | " | 7 " " | 40 0 0 | Wm. and J. Miller | | | |
| 274 | " | 7 " " | 40 0 0 | Duncan J. Mackie | | | |
| 277 | " | 14 " " | 40 0 0 | G. Allingham | | | |
| 278 | " | 14 " " | 40 0 0 | P. and P. J. McKinlay | | | |
| 83- 110 | " | 5 July, 1883 | 40 0 0 | Michael Gingni | | | |
| 71-3485 | Bathurst | 28 Sept., 1871 | 40 0 0 | Walter R. Hall | | | |
| 8489 | " | 28 " " | 200 0 0 | " | | | |
| 3799 | " | 19 Oct., " | 60 0 0 | J. W. Hall and P. A. Wright | | | |
| 72-2559 | " | 9 May, 1872 | 40 0 0 | C. W. Croaker and W. C. Greville | | | |
| 2300 | " | 9 " " | 100 0 0 | Lewis Lloyd, C. W. Croaker, and C. W. Croaker, jun. | | | |
| 2551 | " | 16 " " | 40 0 0 | J. Hardman, A. Lester, G. Arthur, F. B. Hales, P. Furness, and J. and R. Cock. | | | |
| 2552 | " | 16 " " | 40 0 0 | J. Hardman, A. Lester, G. Arthur, P. Owen, J. Whalan. | | | |
| 2550 | " | 16 " " | 40 0 0 | J. Hardman, A. Lester, G. Arthur, F. B. Hales, P. Furness, and R. and J. Cock. | | | |
| 2713 | " | 23 " " | 60 0 0 | P. Cullen and W. J. S. and C. W. Croaker. | 17 Aug., 1875 | Mining operations, £2 per acre | 120 0 0 |
| 2714 | " | 23 " " | 40 0 0 | C. W. and T. L. Croaker | 12 " " | " " " | 80 0 0 |
| 2715 | " | 23 " " | 40 0 0 | C. W. Croaker | 12 " " | " " " | 80 0 0 |
| 2834 | " | 30 " " | 51 0 0 | " | 18 April, 1874 | " " " | 102 0 0 |
| 3062 | " | 6 June " | 40 0 0 | S. Croaker, W. Thompson, and W. Johnstone. | | | |
| 3063 | " | 6 " " | 56 1 0 | W. Thompson, C. W. Croaker, and Emily Love. | | | |
| 3068 | " | 6 " " | 60 0 0 | E. Curtis, P. Furness, J. Hardman, A. Lester, G. Arthur, and G. Roberts. | | | |
| 3250 | " | 13 " " | 37 3 11 | C. W. Croaker | 2 Dec., 1875 | Mining operations, £2 per acre | -75 12 6 |
| 3251 | " | 13 " " | 53 2 0 | Saul Samuel and A. S. Webster | 2 " " | " " " | 117 0 0 |
| 3252 | " | 13 " " | 38 2 37 | " | 2 " " | " " " | 78 5 0 |
| 3253 | " | 13 " " | 60 0 0 | " | 2 " " | " " " | 120 0 0 |
| 3254 | " | 13 " " | 60 0 0 | R. C. Want, J. F. Clements, and S. Samuel. | 2 " " | " " " | 120 0 0 |
| 3255 | " | 13 " " | 80 0 0 | " | 2 " " | " " " | 160 0 0 |
| 3349 | " | 4 July, " | 40 0 0 | Hen. Butler | | | |
| 3852 | " | 4 " " | 80 0 0 | C. W. Croaker and J. M. Marsh | | | |
| 8858 | " | 4 " " | 80 0 0 | " | | | |
| 7559 | " | 23 Nov., " | 40 0 0 | Chas. Wm. Croaker | 18 April, 1874 | Mining operations, £2 per acre | 80 0 0 |
| 7560 | " | 23 " " | 40 0 0 | " | 18 " " | " " " | 80 0 0 |
| 7501 | " | 23 " " | 40 0 0 | " | 18 " " | " " " | 80 0 0 |
| 7562 | " | 23 " " | 51 1 0 | " | 18 " " | " " " | 102 10 0 |
| 7563 | " | 23 " " | 40 0 0 | Charles Bate | 18 " " | " " " | 80 0 0 |
| 7564 | " | 23 " " | 40 0 0 | " | 18 " " | " " " | 80 0 0 |
| 7565 | " | 23 " " | 40 0 0 | D. Breatheath and C. W. Croaker and Wm. Sawyer, senr. | | | |
| 7566 | " | 23 " " | 40 0 0 | A. M. Allen and G. A. Mansfield | | | |
| 7567 | " | 23 " " | 40 0 0 | " | | | |
| 7568 | " | 23 " " | 40 0 0 | " | | | |
| 7569 | " | 23 " " | 40 0 0 | " | | | |
| 73-5387 | " | 20 May, 1873 | 40 0 0 | J. Cock and W. J. S. Croaker | | | |
| 5383 | " | 20 " " | 40 0 0 | " | | | |
| 9917 | " | 25 Sept., " | 40 0 0 | G. S. Caird and W. Friend | | | |
| 10060 | " | 2 Oct., " | 120 0 0 | George A. Wray | | | |
| 10062 | " | 2 " " | 260 0 0 | W. Morgan, junr., T. G. Morgan, W. G. Thompson, C. J. West, and H. W. Thompson. | 23 Jan., 1877 | Mining operations, £2 per acre | 520 0 0 |
| 10063 | " | 2 " " | 50 0 0 | " | 23 " " | " " " | 100 0 0 |
| 13124 | " | 2 " " | 40 0 0 | C. W. Croaker | | | |
| 74- 11 | " | 8 Jan., 1874 | 198 0 0 | J. Lucas, J. Byrnes, and Sir Jas. Martin | | | |
| 12 | " | 8 " " | 90 0 0 | Sir Jas. Martin and J. Lucas | | | |
| 75- 25 | " | 26 Mar., 1875 | 40 0 0 | John Tom | 12 June, 1878 | | |
| 56 | " | 24 June, " | 60 0 0 | P. Furness, E. Antiss, W. H. Rowe, T. S. Lister, H. Stephen, and J. H. A. Lister. | 1 July, " | | |
| 58 | " | 1 July, " | 80 0 0 | Wm. Tom, junr. | 1 " " | | |
| 59 | " | 1 " " | 40 0 0 | P. Furness, J. H. A. Lister, R. Atken, and J. Tom. | 1 " " | | |
| 60 | " | 1 " " | 40 0 0 | " | 1 " " | | |
| 77 | " | 9 Sept., " | 80 0 0 | J. H. A. Lister, W. Tom, junr., N. Tom, A. Stevens, T. S. Lister, F. J. Lister, W. H. Rowe, and P. Furness. | 6 Dec., 1878 | | |
| 89 | " | 21 Oct., " | 40 0 0 | Enoch Hughes | | | |
| 101 | " | 16 Dec., " | 80 0 0 | R. C. Want, Saul Samuel, and J. F. Clements. | | | |
| 105 | " | 30 " " | 100 0 0 | Mary Walters, C. S. Bransby, J. Booth, and D. S. Todd. | 28 Mar., 1879 | Mining operations, £3 per acre | 300 0 0 |
| 106 | " | 30 " " | 97 0 0 | Mary Walters, executrix of late F. Walters. | 28 " " | " " " | 194 0 0 |
| 107 | " | 30 " " | 48 1 0 | " | 28 " " | " " " | 96 0 0 |
| 79- 10 | " | 9 Jan., 1879 | 62 0 0 | Christopher Newton | 15 April, 1882 | " " " | 124 0 0 |
| 13 | " | 9 " " | 40 0 0 | T. Cartwright Ashe and J. M. Phillamy | | | |
| 72-3354 | " | 4 July, 1872 | 80 0 0 | C. W. Greville and C. W. Croaker | | | |
| 4051 | " | 11 " " | 80 0 0 | W. Morgan, P. Furness, M. M. McGirr, and F. B. Hales. | | | |
| 4053 | " | 11 " " | 40 0 0 | J. Whalan and G. T. Croaker | | | |
| 4054 | " | 11 " " | 40 2 0 | S. H. Croaker and J. Cock | | | |
| 4055 | " | 11 " " | 40 0 0 | J. F. Clements and S. H. Croaker | | | |
| 4056 | " | 11 " " | 60 0 0 | J. Staines and W. D. Matthews | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Alience. | Date of Transfer. | Present state of Application. |
|--------------|--|------------|--|-------------------|--|
| | | £ s. d. | J. Moore and P. Speare | 10 Aug., 1838 | Declaration not due. Void. Vagueness of description. Declaration not due. |
| W. Harper | Shaft, £15; tunnel, £39; drive, £22; shaft, £93; shaft, £10; powder magazine, £12; stable, £4; hut, £10. | 222 10 0 | | | Void. Made by an agent. Void. Included in mineral leases. Inspector's report not finally dealt with. |
| | | | B. A. Moses and J. Bracken | 28 June, 1832 | Void. Includes mineral leases. Declaration not due. Void. Embraces a mineral lease. Void. Not sufficient land available. Void. Within a gold-field. Lapsed, Gazette, 12 July, 1875. " 31 October, 1876. " " " " " " |
| | Not referred to Inspector | | | | Forfeited 16 June, 1832. Declaration approved. |
| | " " | | C. W. Croaker and C. Smith | 23 Oct., 1873 | " " Lapsed, 31 October, 1876. " " " " |
| J. C. Page | Smelting works | 6,000 0 0 | A. S. Webster | 2 June, 1872 | Approved by Minister. |
| " | Clearing timber and erecting huts | 460 0 0 | Saul Samuel and A. S. Webster | 3 Feb., 1873 | " " |
| " | " | 240 0 0 | | | " " |
| " | Seven shafts, £400; clearing, £120 | 520 0 0 | | | " " |
| " | " | 520 0 0 | A. S. Webster | 26 June, 1872 | " " |
| " | General report on this and the five selections above noted. Improvements on the whole valued at | 30,000 0 0 | Saul Samuel and A. S. Webster | 3 Feb., 1873 | " " |
| | | | | | Void. Held under mineral lease. Lapsed, 31 October, 1876. |
| | | | C. W. Croaker and C. Smith | 15 Jan., 1873 | Approved by Ministerial minute, 28 Sept., 1874. |
| | | | " " | 15 " " | " " |
| | | | " " | 15 " " | " " |
| | | | " " | 15 " " | " " |
| | | | " " | 9 " " | " " |
| | | | " " | 9 " " | " " |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | | | Void. Land applied for under mineral lease. " " " " " " " " " Lapsed, 9 Oct., 1877. |
| | | | R. W. Walters, J. N. McIntosh, and H. Butterworth. | 9 Dec., 1873 | Void. Within Native Creek Gold-field Reserve. Void. Within population reserve of Apsley. Certificate of approval issued, 11 Feb., 1879. |
| J. C. Page | Shed and smelting machinery, £400; manager's house, £180; shafts, adets, and ground workings, £6,000. | 0,500 0 0 | | | " " |
| " | The above report refers to the two C.P's., 73-10062 and 73-10063. | | | | Lapsed, Gazette, 16 May, 1877. " " 9 Oct., 1877. Papers referred to Commissioner Johnstone. " " " " " " |
| | | | | | Void. Land not available. Lapsed, 7 Aug., 1879. |
| P. W. Street | Inspector reports extensive mining operations. The tunnelling cost £3 10s. per foot; houses, clearing, and cultivation, £393; £637 is sworn, before Commissioner Johnstone, to have been spent in mining operations. C.P's. 75-105, 106, and 107 treated conjointly. | | Mary Walters | 30 Dec., 1873 | Certificate of approval issued, 30 Jan., 1883. " " " " |
| Edw. Evans | Main shaft, 350 ft.; three shafts, 60 to 80 ft.; shaft, 50 ft.; drives, remains of buildings, and fixings for machinery. | 1,000 0 0 | Edward Locke | 11 Oct., 1883 | Declaration approved by the Minister, 2 Oct., 1883. Void. Within Oberon Gold-field Reserve. Void. Held under mineral lease. " " Lapsed, 31 Oct., 1876. " " Void. Land not available. |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|--|----------------------|---|------------|
| | | | a. r. p. | | | | £ s. d. |
| 72-4281 | Bathurst | 18 July, 1872 | 60 0 0 | D. Gaynor, W. Reynolds, and C. W. Croaker. | | | |
| 4282 | " | 18 " | 60 0 0 | Janet Smith, Annie Stuart, and Mary Jane Croaker. | | | |
| 4284 | " | 18 " | 40 0 0 | W. Cook, J. Staines, & W. D. Matthews | | | |
| 4288 | " | 18 " | 80 0 0 | P. Cullen, T. M. Sloman, C. W. Croaker, jun., J. Whalan, and W. Johnstone. | | | |
| 4478 | " | 25 " | 80 0 0 | Daniel Kinna | | | |
| 4479 | " | 25 " | 60 0 0 | W. C. Kelk, D. Larnach, R. Knott, and Jas. Wilson. | | | |
| 4482 | " | 25 " | 40 0 0 | C. H. Batty, W. Anderson, H. Hughes, and J. Lee. | | | |
| 4483 | " | 25 " | 40 0 0 | Alfred Keightly | | | |
| 4484 | " | 25 " | 40 0 0 | P. Cullen, C. W. Croaker, jun., and J. S. Croaker. | | | |
| 4679 | " | 1 Aug., " | 40 0 0 | Thos. Cheney, R. Hawke, and Wm. Thompson. | | | |
| 4680 | " | 1 " | 80 0 0 | W. C. Wilson, E. Curtis, and P. Furness | | | |
| 4681 | " | 1 " | 40 0 0 | Wm. Barry Burge Cooke | | | |
| 4682 | " | 1 " | 60 0 0 | Henry Butler | | | |
| 4847 | " | 8 " | 60 0 0 | Alfred P. Burt. | | | |
| 4849 | " | 8 " | 40 0 0 | H. Hamilton and W. Ewer | | | |
| 4852 | " | 8 " | 40 0 0 | Joseph Golsby and C. W. Croaker | | | |
| 4853 | " | 8 " | 40 0 0 | " | | | |
| 5008 | " | 15 " | 40 0 0 | John C. Brooks | | | |
| 5009 | " | 15 " | 40 0 0 | " | | | |
| 5010 | " | 15 " | 40 0 0 | William Ford | | | |
| 5011 | " | 15 " | 40 0 0 | " | | | |
| 5014 | " | 15 " | 200 0 0 | W. C. Greville, J. Busby, and C. W. Croaker. | | | |
| 5235 | " | 22 " | 40 0 0 | T. Shalley, T. Simmons, G. Draper, and J. Rosebotham. | | | |
| 5236 | " | 22 " | 80 0 0 | John C. Brooks. | | | |
| 5237 | " | 22 " | 80 0 0 | " | | | |
| 5238 | " | 22 " | 40 0 0 | Chas. Wm. Croaker. | | | |
| 5239 | " | 22 " | 260 3 33 | C. W. Croaker, S. Samuel, & R. C. Want | | | |
| 5993 | " | 19 Sept., " | 171 1 18 | C. W. Croaker | | | |
| 5999 | " | 19 " | 80 0 0 | C. Bate | | | |
| 6173 | " | 19 " | 40 0 0 | C. W. Croaker and W. C. Greville | | | |
| 6174 | " | 26 " | 80 0 0 | J. Cook and W. J. S. Croaker | | | |
| 7420 | " | 21 Nov., " | 60 0 0 | C. W. Croaker and L. Lloyd | | | |
| 7431 | " | 21 " | 40 0 0 | Daniel Kinna. | | | |
| 70-2316 | Borrina | 14 July, 1870 | 60 0 0 | J. C. Tucker and E. B. Hemming | 6 Aug., 1873 | Mining operations | 2,000 0 0 |
| 2548 | " | 28 " | 40 0 0 | " | | | |
| 73-3242 | " | 14 Aug., 1873 | 120 0 0 | R. F. Pockley | | | |
| 10186 | " | 2 Oct., " | 60 0 0 | Edward Carter | | | |
| 10465 | " | 0 " | 60 0 0 | " | 23 Sept., 1875 | Mining operations, £2 per acre | 120 0 0 |
| 11874 | " | 13 Nov., " | 60 0 0 | " | 23 " | " | 120 0 0 |
| 12826 | " | 4 Dec., " | 40 0 0 | Fitzroy Iron Company | | | |
| 12621 | " | 4 " | 40 0 0 | " | | | |
| 12622 | " | 4 " | 40 0 0 | " | | | |
| 12623 | " | 4 " | 40 0 0 | " | | | |
| 12624 | " | 4 " | 40 0 0 | " | | | |
| 12625 | " | 4 " | 40 0 0 | " | | | |
| 12626 | " | 4 " | 40 0 0 | " | | | |
| 12627 | " | 4 " | 40 0 0 | " | | | |
| 12628 | " | 4 " | 40 0 0 | " | | | |
| 13154 | " | 13 " | 40 0 0 | John Fraser | | | |
| 13155 | " | 13 " | 40 0 0 | David Smith | | | |
| 74-733 | " | 22 Jan., 1874 | 40 0 0 | " | | | |
| 784 | " | 22 " | 40 0 0 | " | | | |
| 4168 | " | 9 April, " | 40 0 0 | " | | | |
| 4169 | " | 9 " | 40 0 0 | " | | | |
| 7806 | " | 16 July, " | 40 0 0 | " | | | |
| 11713 | " | 1 Oct., " | 40 0 0 | George Larkin | 25 Sept., 1877 | Mining operations, £2 per acre | 80 0 0 |
| 12610 | " | 29 " | 160 0 0 | Bessemer Steel, Hematite Steel, Coal, and Iron Company | | | |
| 12738 | " | 5 Nov., " | 40 0 0 | J. J. O. Atkinson | | | |
| 12794 | " | 5 " | 40 0 0 | " | | | |
| 13755 | " | 10 Dec., " | 40 0 0 | M. Larkin, sen. | | | |
| 75-5 | " | 23 Jan., 1875 | 40 0 0 | Edward Carter | 23 Sept., 1878 | Mining operations, £2 per acre | |
| 6 | " | 23 " | 45 0 0 | " | 23 " | " | |
| 8 | " | 28 " | 40 0 0 | J. S. Whitehead and J. J. O. Atkinson | | | |
| 31 | " | 13 May, " | 40 0 0 | Martin Larkin | | | |
| 59 | " | 22 July, " | 40 0 0 | David Smith | | Drives and road | 200 0 0 |
| 71 | " | 26 Aug., " | 40 0 0 | Edward Carter | 23 Sept., 1878 | Mining operations, £2 per acre | 80 0 0 |
| 79 | " | 7 Oct., " | 80 0 0 | Thos. Cosgrove. | | | |
| 70-24 | " | 6 April, 1870 | 40 0 0 | David Smith | | | |
| 41 | " | 22 June, " | 100 0 0 | W. M'Court and P. Larkin | 31 July, 1877 | Mining operations, £2 per acre | 200 0 0 |
| 75 | " | 14 Dec., " | 80 0 0 | J. de V. Lamb | 15 June, 1879 | " | 160 0 0 |
| 77-2 | " | 1 Feb., 1877 | 40 0 0 | T. F. Knox | | | |
| 6 | " | 22 " | 40 0 0 | E. Carter | | | |
| 9 | " | 8 March, " | 360 0 0 | J. de V. Lamb | 15 June, 1880 | Mining operations, £2 per acre | 720 0 0 |
| 10 | " | 8 " | 360 0 0 | " | 3 March, " | " | 720 0 0 |
| 11 | " | 8 " | 40 0 0 | " | 15 June, " | " | 80 0 0 |
| 21 | " | 26 April, " | 90 0 0 | " | 21 April, " | " | 180 0 0 |
| 25 | " | 3 May, " | 40 0 0 | " | | | |
| 26 | " | 3 " | 40 0 0 | " | | | |
| 27 | " | 3 " | 40 0 0 | " | | | |
| 49 | " | 2 Aug., " | 40 0 0 | J. de V. Lamb, C. Parbury, R. Saddington, W. Lamb, and T. F. Knox. | 7 July, 1882 | Mining plant, buildings, furnaces, &c., on the adjoining lands. | 80,000 0 0 |
| 51 | " | 0 " | 40 0 0 | G. Hill and J. Fuller | | | |
| 59 | " | 30 " | 40 0 0 | J. J. Warren | | | |
| 60 | " | 6 Sept., " | 40 0 0 | G. Hill, J. Fuller, F. and J. Draper, J. Mealing, E. Cuppett, and J. Wright. | | | |
| 61 | " | 13 " | 40 0 0 | John de V. Lamb | 12 Oct., 1880 | Mining operations, £2 per acre | 80 0 0 |
| 76 | " | 20 Nov., " | 40 0 0 | W. Lamb and W. O. Gilchrist | | | |
| 77 | " | 29 " | 40 0 0 | " | | | |
| 78 | " | 29 " | 40 0 0 | J. de V. Lamb | 29 Nov., 1880 | Mining operations, £2 per acre | 80 0 0 |
| 79 | " | 29 " | 40 0 0 | " | 29 " | " | 80 0 0 |
| 80 | " | 29 " | 80 0 0 | " | 29 " | " | 160 0 0 |
| 84 | " | 13 Dec., " | 50 0 0 | E. Carter | | | |
| 88 | " | 27 " | 60 0 0 | A. A. Carter | | | |
| 78-11 | " | 21 Feb., 1878 | 40 0 0 | W. Lamb and W. O. Gilchrist | | | |
| 12 | " | 21 " | 40 0 0 | " | | | |
| 21 | " | 21 Mar., " | 46 0 0 | E. A. Baker and D. Smith | | | |
| 23 | " | 18 April, " | 40 0 0 | Mary Smith | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|-----------------|--|-----------|---|---|---|
| | | £ s. d. | | | Lapsed, 31 Oct., 1876. |
| | | | | | " " |
| | | | | | Void. Land previously selected. |
| | | | | | " " |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | | | Void. Land previously selected. |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | C. W. Croaker | 7 Feb., 1873 | Void. Portion applied for contained only 36a. 1r. Lapsed, 31 Oct., 1876. |
| | | | | | Void. Contains land previously applied for. |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | | | Void. Not sufficient land available. |
| | | | | | Void. Within population boundary of Apsley. |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | | | Void. Land previously selected. |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | | | Void. Included in an unexpired pastoral lease. |
| | | | | | Void. Held under mineral lease. |
| | | | | | Void. Previously applied for as mineral lease. |
| | | | | | " " |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | | | " " |
| | | | | | Void. Land previously applied for. |
| | | | | | Void. Within reserve No. 23. |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | | | Void. Re-selected in smaller portions. |
| | | | | | " " |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | | | Void, as it includes two portions. |
| | | | | | Void. Within population boundary of Apsley. |
| | | | | | Lapsed, 31 Oct., 1876. |
| | | | W. Tucker, J. C. Tucker, R. F. Poekley, J. Milson, jun., and M. Larkin, sen. | | Deed prepared, 28 May, 1875. |
| | | | | | Lapsed. Gazette, 31 October, 1876. |
| | | | | | Void. Land not available. |
| | | | | | Void. Not made on a Lands Office day. |
| | | | | | Approved by Minister. |
| | | | | | " " |
| | | | | | Withdrawn. Non-survey within twelve months. |
| | | | | | Lapsed, 16 May, 1877. |
| | | | | | " " |
| | | | | | " " |
| | | | | | " " |
| | | | | | Void. Previously applied for as mineral lease. |
| | | | | | Void. Non-survey within twelve months. |
| | | | | | Lapsed. |
| | | | | | Withdrawn. Non-survey. |
| | | | | | " " |
| | | | | | Lapsed. |
| | | | | | " " |
| Commr. Johnston | Reports improvements to be worth | 95 0 0 | | | Void. Non-survey. Approved by Minister. Void. Being for part of measured portion. |
| | | | | | Withdrawn. Non-survey. |
| | | | | | Withdrawn. Held under Mineral Lease. |
| Geo. Smith | Breaks, wire ropes, skips, wag-gons, &c. | 49 0 0 | | | Void. Not sufficient land available. Deed prepared, 14 February, 1881. |
| | | | | | Void. Non-survey within twelve months. |
| | | | | | Void. Cannot be measured as applied for. |
| | | | | | Void. Forms part of measured portion. |
| | | | | | Void. Not sufficient land available. |
| | | | | | Lapsed. |
| G. Smith | Tunnelling, £65; cutting, £110; shed, tramway, &c., £80. | 255 0 0 | D. T. Smith Edw. Carter C. Parbury, R. Saddington, and J. de V. Lamb. Australian Kerosene Oil and Mineral Company. | 16 Sept., 1879 3 Sept., 1877 16 May, 1879 7 Mar., 1884 | Withdrawn. Non-survey. Approved by Minister. " " " " |
| " | Tunnel and platform | 32 5 0 | | | Deed prepared, 10 October, 1877. Void. Only 19a. 3r. 32p. available. |
| G. Smith | Tunnels, drives, and tramways | 992 5 0 | | | Void. Held under Mineral Lease. |
| " | Tunnels, roads, railways, &c. | 7,000 0 0 | Australian Kerosene Oil Company | 17 Mar., 1884 | Deed prepared, 19 October, 1877. Approved by Minister. |
| " | Huts and sawpit | 22 0 0 | Australian Kerosene Oil Company | 17 Mar., 1884 | " " |
| " | Improvements on adjoining por-tions | | | | " " |
| | | | | | Withdrawn. Non-survey. |
| | | | | | " " |
| G. Smith | ¼ mile of tramway | 125 0 0 | | | Approved by Minister. |
| " | | | | | Lapsed, 25 February, 1881. |
| " | | | | | Withdrawn. Non-survey. |
| " | | | | | Lapsed, 25 February, 1881. |
| " | Improvements on adjoining lands | | Australian Kerosene Oil Company | 26 Oct., 1880 | Approved by Minister. Void. Made by agent. |
| " | Improvements on adjoining lands | | Australian Kerosene Mineral Oil Company. | 30 Nov., 1880 | Approved by Minister. |
| " | " | | " | 30 " " | " " |
| " | " | | " | 30 " " | " " |
| " | | | | | Void. Land held under mineral lease. |
| " | | | | | Void. Land previously selected. |
| " | | | | | Withdrawn. Non-survey. |
| " | | | | | Void. Land not available. |
| " | | | | | Withdrawn. Non-survey. |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|--------------------|--|----------------------|--|-------------------|
| 78- 31 | Berrima | 30 May, 1878 | a. r. p. 40 0 0 | R. Longmore | 2 Aug., 1883 | Mining operations, £2 per acre | £ s. d. 49 0 0 |
| 32 | " | 30 " " | 40 0 0 | G. Ruane | 4 " 1881 | " " | 49 0 0 |
| 38 | " | 30 " " | 40 0 0 | R. Snowden | 4 " " | " " | 49 0 0 |
| 34 | " | 30 " " | 40 0 0 | E. A. Baker | 4 " " | " " | 49 0 0 |
| 46 | " | 4 July, " | 40 0 0 | W. Lamb and W. O. Gilchrist | " " | " " | " " |
| 48 | " | 11 " " | 40 0 0 | D. Smith | " " | " " | " " |
| 49 | " | 18 " " | 40 0 0 | J. de V. Lamb | 13 Oct., 1881 | Water pipe, &c. | 200 0 0 |
| 50 | " | 18 " " | 40 0 0 | " | 13 " " | Buildings, &c. | 100 0 0 |
| 51 | " | 18 " " | 40 0 0 | " | " " | " " | " " |
| 52 | " | 18 " " | 40 0 0 | " | 27 Oct., 1881 | Nil | " " |
| 55 | " | 8 Aug., " | 40 0 0 | R. Snowden and J. Mealing | 4 Aug., " | Mining improvements, £2 per acre | 80 0 0 |
| 67 | " | 15 " " | 60 0 0 | W. M'Court | " " | " " | " " |
| 64 | " | 31 Oct., " | 40 0 0 | J. Coady | " " | " " | " " |
| 79- 1 | " | 2 Jan., 1879 | 40 0 0 | John de V. Lamb | " " | " " | " " |
| 3 | " | 6 Feb., " | 80 0 0 | Campbell Mitchell | 6 May, 1882 | Mining operations, £2 per acre | 160 0 0 |
| 4 | " | 6 " " | 60 0 0 | " | 2 " " | " 24s. per acre | " " |
| 5 | " | 6 " " | 80 0 0 | " | 2 " " | " " | " " |
| 6 | " | 6 " " | 80 0 0 | " | 5 " " | " " | " " |
| 7 | " | 6 " " | 40 0 0 | " | 5 " " | " " | " " |
| 8 | " | 6 " " | 40 0 0 | W. Napier | 29 Mar., " | Water Pipe | 80 0 0 |
| 11 | " | 27 " " | 40 0 0 | B. Backhouse | 12 Sept., " | Mining operations | 88 0 0 |
| 12 | " | 27 " " | 40 0 0 | " | 12 " " | " 24s. per acre | " " |
| 15 | " | 24 April, " | 40 0 0 | S. Dixon | 18 April, " | " £2 per acre | 80 0 0 |
| 21 | " | 5 June, " | 40 0 0 | C. Mitchell | " " | " " | " " |
| 30 | " | 31 July, " | 40 0 0 | W. Napier | " " | " " | " " |
| 46 | " | 27 Nov., " | 40 0 0 | J. de V. Lamb | 27 Nov., 1882 | £2 per acre on land held in conjunction | " " |
| 80- 9 | " | 26 Feb., 1880 | 40 0 0 | S. Dixon | 25 May, " | Mining operations, £2 per acre | " " |
| 29 | " | 22 July, " | 40 0 0 | E. B. Barber | " " | " " | " " |
| 80 | " | 22 " " | 40 0 0 | J. Slocombe | " " | " " | " " |
| 33 | " | 26 Aug., " | 40 0 0 | E. B. Barber | " " | " " | " " |
| 39 | " | 26 " " | 80 0 0 | J. Slocombe | " " | " " | " " |
| 43 | " | 2 Sept., " | 80 0 0 | E. B. Barber | 20 Nov., 1883 | £2 per acre on adjoining land held in conjunction. | " " |
| 82- 72 | " | 6 July, 1882 | 140 0 0 | C. Bennett | " " | " " | " " |
| 74 | " | 6 " " | 120 0 0 | F. W. Suttor | " " | " " | " " |
| 77 | " | 13 " " | 40 0 0 | E. A. Baker | " " | " " | " " |
| 79 | " | 13 " " | 160 0 0 | T. Marshall | " " | " " | " " |
| 80 | " | 18 " " | 80 0 0 | G. T. Somerville | " " | " " | " " |
| 83 | " | 20 " " | 40 0 0 | Jas. Larkin | " " | " " | " " |
| 89 | " | 20 " " | 40 0 0 | M. Larkin, sen. | " " | " " | " " |
| 90 | " | 27 " " | 200 0 0 | A. Phillips | " " | " " | " " |
| 93 | " | 27 " " | 40 0 0 | M. Larkin, sen. | " " | " " | " " |
| 94 | " | 27 " " | 40 0 0 | S. Smart | " " | " " | " " |
| 101 | " | 17 Aug., " | 400 0 0 | C. Mitchell | " " | " " | " " |
| 102 | " | 17 " " | 240 0 0 | W. F. Mackenzie | " " | " " | " " |
| 104 | " | 24 " " | 40 0 0 | T. P. Galbraith | " " | " " | " " |
| 105 | " | 24 " " | 40 0 0 | W. M'Court | " " | " " | " " |
| 106 | " | 24 " " | 60 0 0 | J. J. O. Atkinson | " " | " " | " " |
| 107 | " | 24 " " | 100 0 0 | R. V. Saddington | " " | " " | " " |
| 109 | " | 24 " " | 100 0 0 | C. Bennett | " " | " " | " " |
| 110 | " | 31 " " | 120 0 0 | C. Cowper | " " | " " | " " |
| 111 | " | 31 " " | 40 0 0 | R. V. Saddington | " " | " " | " " |
| 114 | " | 31 " " | 40 0 0 | J. J. O. Atkinson | " " | " " | " " |
| 115 | " | 7 Sept., " | 50 0 0 | Martin Larkin, sen. | " " | " " | " " |
| 124 | " | 12 Oct., " | 80 0 0 | J. M. Wallace | " " | " " | " " |
| 180 | " | 2 Nov., " | 40 0 0 | S. T. Day | " " | " " | " " |
| 185 | " | 14 Dec., " | 80 0 0 | H. Childs and W. M'Court | " " | " " | " " |
| 186 | " | 21 " " | 46 2 38 | R. V. Saddington | " " | " " | " " |
| 83- 1 | " | 4 Jan., 1883 | 600 0 0 | G. T. Somerville | " " | " " | " " |
| 2 | " | 4 " " | 40 0 0 | A. Crawford | " " | " " | " " |
| 8 | " | 18 " " | 331 2 0 | T. Marshall | " " | " " | " " |
| 18 | " | 25 " " | 200 0 0 | M. Larkin, sen., and P. F. & T. Larkin | " " | " " | " " |
| 14 | " | 1 Feb., " | 100 0 0 | " | " " | " " | " " |
| 16 | " | 15 " " | 46 2 38 | R. V. Saddington | " " | " " | " " |
| 26 | " | 22 Mar., " | 520 0 0 | " | " " | " " | " " |
| 27 | " | 22 " " | 450 0 0 | P. T. Taylor | " " | " " | " " |
| 28 | " | 22 " " | 80 0 0 | A. Russell | " " | " " | " " |
| 29 | " | 22 " " | 280 0 0 | A. A. Fairgrieve | " " | " " | " " |
| 31 | " | 29 " " | 120 0 0 | R. V. Saddington | " " | " " | " " |
| 82 | " | 20 " " | 40 0 0 | A. Russell | " " | " " | " " |
| 35 | " | 5 April, " | 40 0 0 | R. V. Saddington | " " | " " | " " |
| 36 | " | 19 " " | 160 0 0 | " | " " | " " | " " |
| 37 | " | 19 " " | 40 0 0 | A. Russell | " " | " " | " " |
| 38 | " | 19 " " | 56 0 0 | O. Doyle | " " | " " | " " |
| 39 | " | 8 May, " | 44 0 0 | " | " " | " " | " " |
| 61 | " | 5 July, " | 300 0 0 | J. S. Martin | " " | " " | " " |
| 76 | " | 26 " " | 150 0 0 | J. M. Wallace | " " | " " | " " |
| 79 | " | 9 Aug., " | 40 0 0 | R. F. Stubbs | " " | " " | " " |
| 85 | " | 6 Sept., " | 100 0 0 | M. Larkin, sen., P. F. & T. Larkin | " " | " " | " " |
| 87 | " | 13 " " | 100 0 0 | M. Larkin, sen. | " " | " " | " " |
| 94 | " | 18 Oct., " | 300 0 0 | John Kent | " " | " " | " " |
| 80- 44 | " | 9 Sept., 1880 | 640 0 0 | W. Davies (for Berrima Coal and Railway Co.) | 12 Jan., 1884 | Mining operations, £2 per acre | 1,230 0 0 |
| 51 | " | 23 " " | 40 0 0 | John Slocombe | 21 Dec., 1883 | " " | 80 0 0 |
| 52 | " | 23 " " | 40 0 0 | E. B. Barber | 20 Nov., " | £2 per acre on lands held in conjunction | " " |
| 56 | " | 7 Oct., " | 40 0 0 | " | 20 " " | " " | " " |
| 60 | " | 14 " " | 80 0 0 | J. Slocombe | " " | " " | " " |
| 67 | " | 25 " " | 200 0 0 | E. B. Barber | 20 Nov., 1883 | £2 per acre on lands held in conjunction | " " |
| 68 | " | 25 " " | 80 0 0 | J. Slocombe | 20 " " | " " | " " |
| 81- 3 | " | 24 Feb., 1881 | 80 0 0 | T. Chalder | 15 May, 1884 | Mining operations, £2 per acre | 160 0 0 |
| 4 | " | 24 " " | 40 0 0 | R. Longmore | " " | " " | " " |
| 12 | " | 24 Mar., " | 160 0 0 | T. Chalder | " " | " " | " " |
| 13 | " | 24 " " | 40 0 0 | " | " " | " " | " " |
| 17 | " | 31 " " | 40 0 0 | R. N. Matthews | " " | " " | " " |
| 22 | " | 21 April, " | 640 0 0 | H. Harper | " " | " " | " " |
| 27 | " | 19 May, " | 200 0 0 | " | " " | " " | " " |
| 28 | " | 19 " " | 80 0 0 | F. T. Humphrey | " " | " " | " " |
| 32 | " | 2 June, " | 40 0 0 | F. H. Gall | " " | " " | " " |
| 33 | " | 2 " " | 40 0 0 | W. Jones | " " | " " | " " |
| 36 | " | 9 " " | 40 0 0 | R. Chapman, junr. | " " | " " | " " |
| 38 | " | 23 " " | 114 0 0 | E. A. Baker | 17 Jan., 1883 | Mining operations, £2 per acre | 228 0 0 |
| 39 | " | 30 " " | 40 0 0 | W. Jones | " " | " " | " " |
| 40 | " | 30 " " | 100 0 0 | F. H. Gall | " " | " " | " " |

| Inspector. | Improvements reported by Inspector. | Value. | Allenee. | Date of Transfer. | Present state of Application. |
|------------|--|--------------------|--|-------------------|---|
| G. Smith | Tunnel, 150 feet through rocks, £3 per foot. | £ s. d. 450 0 0 | Nattai Coal-mining Company | 21 Sept., 1881 | Approved by Minister. |
| " | 2 drives | 200 0 0 | " | 12 Aug., " | " |
| " | Road, £100; 2 shafts through rock, £240. | 340 0 0 | " | 4 " " | " |
| " | Road to tunnel | 60 0 0 | " | 7 Feb., 1882 | Void. Made by an agent. |
| G. Smith | Water pipes and cutting | 30 0 0 | " | " | Void. Land previously selected. |
| " | House, water pipes, cutting, &c. | 90 0 0 | " | " | Approved by Minister. |
| G. Smith | Improvements on adjoining lands | 30,000 0 0 | Australian Kerosene Oil and Mineral Company. | 29 Oct., 1881 | Void. Previously selected. |
| " | Road, shaft, and drives | 209 0 0 | Nattai Coal-mining Company | 4 Aug., " | Approved by Minister. |
| " | " | " | J. de V. Lamb | 28 Feb., 1879 | Void. Applicant declined to accept increased area. Lapsed, 28 July, 1882. |
| G. Smith | Cottage, shaft, clearing and fencing | 204 16 0 | " | " | Approved by Minister. |
| " | Shaft, 20 feet, £40; drive, 410 yards, £246. | 286 0 0 | " | " | Not finally dealt with. |
| " | Cottage and fencing, £92; shaft and cutting, £164 10s. | 256 10 0 | " | " | " |
| " | Nil | " | " | " | " |
| " | Nil | " | " | " | " |
| " | ½-mile water pipe, tank, &c. | 85 0 0 | J. de V. Lamb | 15 Feb., 1879 | Approved by Minister. |
| " | " | " | Australian Kerosene Oil and Mineral Company. | 17 Dec., 1884 | " |
| " | " | " | " | " | Not finally dealt with. |
| G. Smith | Tunnel, 90 yards, at £2 per yard | 180 0 0 | " | " | Approved by Minister. |
| " | " | " | " | " | Void. Application received through the post. |
| G. Smith | Water pipes | 5 0 0 | " | " | Void. 40 acres not available. |
| " | Tunnel, shaft, drive | 200 0 0 | " | " | Approved by Minister. |
| " | " | " | " | " | Deed prepared, 24 September, 1883. |
| " | " | " | " | " | Lapsed, 17 June, 1884. |
| " | " | " | " | " | Void. No subdivision fee paid. |
| " | " | " | " | " | Void. Land held under mineral lease. |
| " | " | " | " | " | Awaiting Inspector's report. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | " | " | " |
| G. Smith | Improvements, nil | " | E. A. Baker and M. A. Betts | 9 Feb., 1884 | Awaiting declaration. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | " | " | Withdrawn. Non-survey. |
| " | " | " | Andrew Armstrong | 28 July, 1882 | Awaiting declaration. |
| " | " | " | " | " | Withdrawn. Non-survey. |
| " | " | " | Australian Kerosene Oil & Mineral Company. | 8 Oct., 1883 | Declaration not due. |
| " | " | " | " | " | Notice of abandonment lodged. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | " | " | Withdrawn. Non-survey. |
| " | " | " | Australian Kerosene Oil & Mineral Company. | 30 Nov., 1882 | Declaration not due. |
| " | " | " | " | " | Withdrawn. Non-survey. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | Australian Kerosene Oil & Mineral Company. | 30 Nov., 1882 | Void. Form of measurement objectionable. |
| " | " | " | " | " | Withdrawn. Non-survey. |
| " | " | " | Anthony Duke | 12 Oct., 1882 | Declaration not due. |
| " | " | " | " | " | " |
| " | " | " | " | " | Void. Only 5s. per acre tendered with application. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | " | " | " |
| " | " | " | " | " | " |
| " | " | " | " | " | Void. 4/3/84. No land available in position described. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | Australian Kerosene Oil & Mineral Company. | 28 Mar., 1883 | Void. Land already selected by J. de V. Lamb. |
| " | " | " | " | " | Void. Land previously selected. |
| " | " | " | " | " | " |
| " | " | " | " | " | " |
| " | " | " | " | " | " |
| " | " | " | " | " | Void. Selection barred by improvements. |
| " | " | " | " | " | Void. 15/10/83. No subdivision fee paid. |
| " | " | " | " | " | Void. Land previously alienated. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | " | " | " |
| " | " | " | " | " | " |
| " | " | " | Anthony Duke | 26 July, 1883 | Void. Land previously selected. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | " | " | " |
| " | " | " | " | " | " |
| G. Smith | Railway, £2,000; houses, sheds, bark huts, fencing, &c., £485. | 2,485 0 0 | " | " | Approved by Minister. |
| " | " | " | Thos. Marshall | 28 July, 1883 | No report from inspector. |
| " | " | " | " | " | " |
| " | " | " | E. B. Barber | 31 July, 1883 | Declaration not received. |
| " | " | " | " | " | No report from inspector. |
| " | " | " | " | " | " |
| " | " | " | " | " | Awaiting inspector's report. |
| " | " | " | " | " | Void. Freehold, held by E. Vickery. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | " | " | Void. Second application on same day. |
| " | " | " | Berrima Coal-mining and Railway Co. | 10 April, 1884 | Declaration not due. |
| " | " | " | " | " | Withdrawn. Non-survey. |
| " | " | " | " | " | " |
| " | " | " | " | " | Void. Form of measurement objectionable. |
| " | " | " | " | " | Void. Previously selected. |
| " | " | " | " | " | " |
| " | " | " | " | " | " |
| G. Smith | Weatherboard cottage, £100; eight log huts for miners, £120. | 280 0 0 | E. A. Baker and A. M. Betts | 9 Feb., 1884 | Not finally dealt with. |
| " | " | " | " | " | Declaration not due. |
| " | " | " | " | " | " |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|--|--|---------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 81- 41 | Berrima | 30 June 1881 | 80 0 0 | H. Harper | | | |
| 46 | " | 7 July, " | 40 0 0 | W. Jones | | | |
| 51 | " | 14 " " | 50 0 0 | " | | | |
| 53 | " | 28 " " | 100 0 0 | A. R. Gall | | | |
| 54 | " | 28 " " | 40 0 0 | F. H. Gall | | | |
| 59 | " | 18 Aug., " | 230 0 0 | J. S. Martin | | | |
| 69 | " | 29 Sept., " | 640 0 0 | T. Marshall, G. T. Smeville, and A. Crawford. | | | |
| 75 | " | 27 Oct., " | 40 0 0 | E. Carter | | | |
| 81 | " | 8 Dec., " | 40 0 0 | J. M'Glynn | 30 Mar., 1883 | Mining operations, £2 per acre | 80 0 0 |
| 82- 8 | " | 2 Feb., 1882 | 40 0 0 | D. Morrice | | | |
| 9 | " | 2 " " | 40 0 0 | G. Prosser | | | |
| 12 | " | 16 " " | 40 0 0 | S. Dixon | 29 May, 1882 | Mining operations, £2 per acre | 80 0 0 |
| 15 | " | 2 Mar., " | 156 0 0 | T. Chalder | | | |
| 23 | " | 23 " " | 100 0 0 | M. Larkin, senr. | | | |
| 24 | " | 30 " " | 410 0 0 | C. Mitchell | | | |
| 25 | " | 30 " " | 80 0 0 | S. L. Bensusan | | | |
| 28 | " | 30 " " | 80 0 0 | A. Duke | | | |
| 29 | " | 30 " " | 240 0 0 | C. Mitchell | | | |
| 30 | " | 13 April, " | 40 0 0 | R. F. Stubbs | | | |
| 31 | " | 13 " " | 400 0 0 | C. Mitchell | | | |
| 32 | " | 13 " " | 420 0 0 | S. Dixon | | | |
| 37 | " | 27 " " | 110 0 0 | C. Mitchell | | | |
| 43 | " | 18 May, " | 140 0 0 | J. Slade | | | |
| 44 | " | 18 " " | 640 0 0 | A. Turnbull | | | |
| 45 | " | 18 " " | 640 0 0 | A. Armstrong | | | |
| 47 | " | 25 " " | 400 0 0 | T. Marshall | | | |
| 48 | " | 25 " " | 190 0 0 | A. Crawford | | | |
| 49 | " | 25 " " | 40 0 0 | D. Morrice | | | |
| 53 | " | 8 June, " | 180 0 0 | Campbell Mitchell | | | |
| 77- 26 | Bingera | 19 July, 1877 | 100 0 0 | Thomas Connolly | | | |
| 80 | " | 13 Dec., " | 40 0 0 | Louis Edward Johnson | | | |
| 82- 33 | " | 10 Aug., 1882 | 40 0 0 | James Lander Nicholls | | | |
| 37 | " | 24 " " | 40 0 0 | " | | | |
| 83- 60 | " | 4 Oct., 1883 | 100 0 0 | Henry Watson Powell | | | |
| 62 | " | 11 " " | 40 0 0 | " | | | |
| 76- 101 | Bombala | 13 May, 1876 | 40 0 0 | John Cameron | | | |
| 252 | " | 12 Oct., " | 40 0 0 | Joshua Lewis Josephson | | | |
| 255 | " | 12 " " | 40 0 0 | Emmanuel Jonas | | | |
| 80- 34 | " | 13 May, 1880 | 40 0 0 | H. T. Edwards | | | |
| 81- 58 | " | 7 April, 1881 | 50 0 0 | " | | | |
| 83- 232 | " | 18 Oct., 1883 | 40 0 0 | " | | | |
| 70-1239 | Burrowa | 14 April, 1870 | 75 0 0 | W. D. Campbell | | | |
| 2134 | " | 30 June, " | 40 0 0 | G. Youngson | | | |
| 72-3443 | " | 20 " 1872 | 40 0 0 | A. Kinghorne | 14 Sept., 1875 Amended, 22 Aug., 1878. | Mining operations, £2 per acre | |
| 4192 | " | 11 July, " | 40 0 0 | P. H. Scott | | | |
| 4193 | " | 11 " " | 40 0 0 | S. L. Bensusan, S. Franck, and W. M'Donnell. | | | |
| 4194 | " | 11 " " | 40 0 0 | " | | | |
| 4247 | " | 18 " " | 40 0 0 | P. H. Scott, J. Jones, P. Maloney, P. Malone, T. Maloney, J. Flanagan, M. Donohoe, J. Carey, & W. Scott. | | | |
| 4646 | " | 1 Aug., " | 40 0 0 | J. J. Ryan | | | |
| 5700 | " | 5 Sept., " | 40 0 0 | J. Frost | | | |
| 5701 | " | 5 " " | 40 0 0 | J. O'Connor | | | |
| 5708 | " | 5 " " | 60 0 0 | G. Frost, T. Anthony, G. Prosser, J. O'Connor, J. Frost, W. Wetton, F. Deacon, K. Frost, P. H. Scott, and A. E. Middleton. | | | |
| 74-11912 | " | 15 Oct., 1874 | 40 0 0 | D. T. O'Neill | 15 Jan., 1878 | Excavation, tank and hut | 80 0 0 |
| 18306 | " | 26 Nov., " | 80 0 0 | W. M. & J. A. Thomas & J. Thynne | 21 Feb., 1878 | Mining operations, £2 per acre | 160 0 0 |
| 76- 77 | " | 11 Feb., 1875 | 40 0 0 | P. Hannon | | | |
| 489 | " | 2 Dec., " | 40 0 0 | " | 7 Feb., 1877 | Mining operations and buildings | 80 0 0 |
| 76- 46 | " | 8 Feb., 1876 | 40 0 0 | " | 23 Dec., 1879 | Mining operations, £2 per acre | 80 0 0 |
| 369 | " | 30 Nov., " | 40 0 0 | A. E. Middleton | | | |
| 77- 27 | " | 25 Jan., 1877 | 40 0 0 | J. Sheedy | 27 April, 1880 | Houses, shafts, &c. | 80 0 0 |
| 62 | " | 22 Feb., " | 40 0 0 | J. O'Connor | | | |
| 103 | " | 15 Mar., " | 40 0 0 | " | | | |
| 132 | " | 5 April, " | 40 0 0 | Isaac Stevenson | 1 Sept., 1881 | Stone and flagging | 80 0 0 |
| 78- 36 | " | 25 Feb., 1878 | 80 0 0 | W. & J. O'Connor | 25 May, " | Mining operations | 160 0 0 |
| 171 | " | 8 Aug., " | 40 0 0 | O. Handcock | | | |
| 81- 7 | " | 18 Jan., 1881 | 40 0 0 | W. Welch, W. Turnbull, Robt. Adams, and J. H. Vicq | | | |
| 22 | " | 27 " " | 40 0 0 | " | | | |
| 76 | " | 24 Mar., " | 40 0 0 | J. O'Connor | | | |
| 95 | " | 14 April, " | 40 0 0 | J. H. Vicq | | | |
| 258 | " | 27 Oct., " | 40 0 0 | G. A. Welsh | | | |
| 82- 42 | " | 2 Mar., 1882 | 40 0 0 | J. O'Connor | | | |
| 56 | " | 8 " " | 40 0 0 | " | | | |
| 126 | " | 4 May, " | 40 0 0 | " | | | |
| 229 | " | 7 Sept., " | 40 0 0 | W. O'Connor | | | |
| 269 | " | 12 Oct., " | 40 0 0 | J. O'Connor | | | |
| 282 | " | 2 Nov., " | 60 0 0 | G. A. Welsh | | | |
| 83- 144 | " | 31 May, 1883 | 50 0 0 | M. Drummond | | | |
| 252 | " | 15 " " | 120 0 0 | W. Weston | | | |
| 72-5593 | Braidwood | 5 Sept., 1872 | 40 0 0 | John Irwin | | | |
| 8022 | " | 12 Dec., " | 40 0 0 | John H. Blatchford | | | |
| 73-12910 | " | 11 " 1873 | 80 0 0 | J. H. Dunn, J. R. Broderick, and J. T. Hinwood. | | | |
| 12911 | " | 11 " " | 80 0 0 | " | | | |
| 12912 | " | 11 " " | 80 0 0 | " | | | |
| 76- 79 | " | 5 Oct., 1876 | 40 0 0 | Roderick M'Donald | | | |
| 82- 92 | " | 2 Nov., 1882 | 160 0 0 | Jas. M'Donald | | | |
| 93 | " | 2 " " | 40 0 0 | Wm. Clarke | | | |
| 95 | " | 2 " " | 80 0 0 | Thos. Harrington | | | |
| 94 | " | 2 " " | 40 0 0 | Joseph Lavers | | | |
| 102 | " | 16 " " | 50 0 0 | Jas. M'Donald | | | |
| 77- 43 | Brewarrina | 31 May, 1877 | 40 0 0 | Andrew C. Doyle | | | |
| 81- 1 | " | 13 Jan., 1881 | 40 0 0 | Patrick D. M'Elligott | | | |
| 3 | " | 20 " " | 40 0 0 | Cedric Hall | | | |
| 82- 15 | " | 13 April, 1882 | 40 0 0 | John A. Yeomans | | | |
| 24 | " | 18 May, " | 40 0 0 | Thomas Thompson | | | |
| 25 | " | 18 " " | 40 0 0 | James Patrick | | | |
| 26 | " | 18 " " | 40 0 0 | Wm. Kirkpatrick | | | |
| 27 | " | 18 " " | 40 0 0 | Jas. Richard Kelly | | | |
| 31 | " | 6 July, " | 40 0 0 | John Henderson | | | |
| 32 | " | 13 " " | 70 0 0 | " | | | |
| 38 | " | 21 Sept., " | 40 0 0 | Thos. Jas. Elliott | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|-------------------|--------------------|----------|--|------------------------------------|---|-----------|
| | | | a. r. p. | | | | £ s. d. |
| 83- 26 | Brewarrina | 31 May, 1883 | 40 0 0 | Lewis Jones | | | |
| 32 | " | 14 June, " | 40 0 0 | James Heane | | | |
| 33 | " | 14 " " | 40 0 0 | Michael Quinlan | | | |
| 34 | " | 14 " " | 42 0 0 | Thomas Thompson | | | |
| 35 | " | 14 " " | 40 0 0 | Joseph John Molloy | | | |
| 36 | " | 14 " " | 40 0 0 | Walter C. Colless | | | |
| 37 | " | 14 " " | 40 0 0 | Wm. Leith Morton | | | |
| 38 | " | 14 " " | 40 0 0 | Frank Murphy | | | |
| 39 | " | 14 " " | 40 0 0 | John May | | | |
| 40 | " | 14 " " | 40 0 0 | Wm. Munro | | | |
| 52 | " | 19 July, " | 40 0 0 | Wm. Strangham | | | |
| 59 | " | 23 Aug., " | 40 0 0 | Edward D. Millen | | | |
| 74-3760 | Brisbane Water .. | 2 April, 1874 | 320 0 0 | John Pope and George Hardie | 13 May, 1877 | Mining improvements, £2 per acre..... | 640 0 0 |
| 3761 | " .. | 2 " " | 320 0 0 | " .. | 13 " " | " .. | 640 0 0 |
| 3762 | " .. | 2 " " | 320 0 0 | " .. | 13 May, 1877 | Mining improvements, £2 per acre..... | 160 0 0 |
| 3763 | " .. | 2 " " | 80 0 0 | " .. | | | |
| 3764 | " .. | 2 " " | 320 0 0 | " .. | 18 " " | " .. | 640 0 0 |
| 3765 | " .. | 2 " " | 320 0 0 | " .. | 13 " " | " .. | 640 0 0 |
| 3766 | " .. | 2 " " | 240 0 0 | " .. | 13 " " | " .. | 480 0 0 |
| 3767 | " .. | 2 " " | 160 0 0 | " .. | 13 " " | " .. | |
| 3768 | " .. | 2 " " | 190 0 0 | " .. | 13 " " | " .. | |
| 3769 | " .. | 2 " " | 200 0 0 | " .. | 13 " " | " .. | |
| 6694 | " .. | 18 June, " | 320 0 0 | J. Pope, G. Hardie, and J. Higgins | | Mining improvements, £2 per acre..... | 520 0 0 |
| 6695 | " .. | 18 " " | 320 0 0 | " .. | | | |
| 10606 | " .. | 17 Sept., " | 265 0 0 | Hon. J. L. Montefiore and T. Hale | 12 Oct., 1874 | | |
| 79- 7 | " .. | 1 May, 1879 | 640 0 0 | Henry Copeland | | | |
| 8 | " .. | 1 " " | 640 0 0 | Robert Amos | | | |
| 14 | " .. | 8 " " | 640 0 0 | J. de V. Lamb and R. Saddington | 8 May, 1882 and 4 Mar., 1884 | Mining improvements on this and five following conditional purchases. | 6,000 0 0 |
| 16 | " .. | 15 " " | 640 0 0 | " .. | " .. | See above, conditional purchase 79-14 | |
| 26 | " .. | 3 July, " | 83 0 0 | " .. | " .. | " .. | |
| 28 | " .. | 24 " " | 685 0 0 | " .. | " .. | " .. | |
| 29 | " .. | 31 " " | 640 0 0 | " .. | " .. | " .. | |
| 34 | " .. | 21 Aug., " | 320 0 0 | " .. | " .. | " .. | |
| 81- 12 | " .. | 24 Mar., 1881 | 40 0 0 | Henry Copeland | | | |
| 13 | " .. | 24 " " | 40 0 0 | " .. | | | |
| 33 | Broulee | 16 Aug., " | 80 0 0 | Francis Guy | | | |
| 72-4627 | Bourke | 25 July, 1872 | 40 0 0 | Henry Wm. Nancarrow | | | |
| 4794 | " .. | 1 Aug., " | 80 0 0 | John Barrett | | | |
| 4795 | " .. | 1 " " | 80 0 0 | " .. | | | |
| 4796 | " .. | 1 " " | 80 0 0 | " .. | | | |
| 4797 | " .. | 1 " " | 80 0 0 | " .. | | | |
| 4798 | " .. | 1 " " | 80 0 0 | Thomas Edward Roberts | | | |
| 5183 | " .. | 15 " " | 40 0 0 | James Dockard, William Bennett, William Webb | | | |
| 5374 | " .. | 22 " " | 40 0 0 | James Dockard, William Webb, Joseph Becker | | | |
| 5375 | " .. | 22 " " | 40 0 0 | James Dockard, William Bennett, Joseph Becker, William Webb | | | |
| 73- 354 | " .. | 16 Jan., 1873 | 60 0 0 | John Connelly, John Wm. Colless, William Swift, Henry Colless, Geo. Samson Gibb | | | |
| 1230 | " .. | 13 Feb., " | 60 0 0 | John William Colless, Henry Colless, John Connelly, William Swift, Geo. Samson Gibb | | | |
| 1231 | " .. | 13 " " | 60 0 0 | Alexander Ogilvie, William Good | | | |
| 1412 | " .. | 20 " " | 40 0 0 | Richard Nancarrow, Malcolm Scrym- gour, Edwin Robins, Geo. Gold- finch, Thomas O'Brien | | | |
| 1694 | " .. | 27 " " | 60 0 0 | Henry Colless, John Wm. Colless | | | |
| 3420 | " .. | 27 Mar., " | 40 0 0 | Henry Colless, John Raynor | | | |
| 3427 | " .. | 27 " " | 40 0 0 | " .. | | | |
| 3429 | " .. | 27 " " | 40 0 0 | John Curran, James Payne, Geo. Hitchcock, Wm. Moir, John Raynor | | | |
| 10629 | " .. | 16 Oct. " | 60 0 0 | Jos. Gillibrand Beazley, Joseph Becker | | | |
| 75- 22 | " .. | 23 Dec., 1875 | 40 0 0 | Arthur Chesney Wilson | | | |
| 76- 20 | " .. | 28 June, 1876 | 40 0 0 | James Nathan Taylor | | | |
| 21 | " .. | 20 July, " | 40 0 0 | " .. | | | |
| 77- 21 | " .. | 26 " 1877 | 40 0 0 | John Edward Kelly | | | |
| 78- 1 | " .. | 17 Jan., 1878 | 40 0 0 | Oliver Sproute | | | |
| 80- 48 | " .. | 2 Sept., 1880 | 60 0 0 | John Little, Cavendish Lister Nevill .. | | | |
| 82- 51 | " .. | 15 June, 1882 | 40 0 0 | Henry Woodruff Hill | | | |
| 53 | " .. | 17 Aug., " | 40 0 0 | Mathew Good | | | |
| 83- 47 | " .. | 23 June, 1883 | 40 0 0 | Alexander Gow | | | |
| 52 | " .. | 12 July, " | 40 0 0 | Michael M'Inerney, Cavendish Lister Nevill | | | |
| 62 | " .. | 9 Aug., " | 40 0 0 | John Edwin Austin | | | |
| 51- 84 | Coonamble | 23 June, 1881 | 40 0 0 | James Patrick | | | |
| 85 | " .. | 30 " " | 246 1 0 | James Murphy, Jun | | | |
| 142 | " .. | 4 Aug., " | 40 0 0 | Denis Patrick Keogh | | | |
| 143 | " .. | 4 " " | 40 0 0 | " .. | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|---------------------------|----------------------|---------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 81- 204 | Coonamble | 6 Oct., 1881 | 40 0 0 | William C. a'Beckett | | | |
| 205 | " | 6 " | 40 0 0 | Henry T. Beresford | | | |
| 207 | " | 18 " | 40 0 0 | Joseph B. M. White | | | |
| 210 | " | 18 " | 40 0 0 | Henry Palmer Blake | | | |
| 211 | " | 18 " | 40 0 0 | Wm. C. a'Beckett | | | |
| 213 | " | 18 " | 80 0 0 | George E. Traquair | | | |
| 215 | " | 18 " | 40 0 0 | James Murphy, jun | | | |
| 217 | " | 18 " | 40 0 0 | Richard Hughes | | | |
| 218 | " | 18 " | 40 0 0 | Charles F. Ashford | | | |
| 221 | " | 27 " | 100 0 0 | Adam Armstrong | | | |
| 222 | " | 27 " | 100 0 0 | Joseph B. M. White | | | |
| 228 | " | 3 Nov., | 40 0 0 | Wm. C. a'Beckett | | | |
| 229 | " | 3 " | 40 0 0 | Robert D. Barton | | | |
| 230 | " | 3 " | 40 0 0 | Charles F. Ashford | | | |
| 232 | " | 10 " | 40 0 0 | George F. H. Blackett | | | |
| 236 | " | 10 " | 40 0 0 | George Alfred Lloyd, jun. | | | |
| 237 | " | 10 " | 40 0 0 | Samuel Lawson Nail | | | |
| 238 | " | 10 " | 40 0 0 | Auguste L. Brucke | | | |
| 240 | " | 10 " | 40 0 0 | Richard Hughes | | | |
| 241 | " | 10 " | 40 0 0 | Wm. A. Stokes | | | |
| 248 | " | 17 " | 40 0 0 | Frederick P. Talbot | | | |
| 249 | " | 17 " | 820 0 0 | Leslie A. Chambers | | | |
| 250 | " | 17 " | 80 0 0 | Sydney H. Gurner | | | |
| 252 | " | 17 " | 80 0 0 | John Sharp McIntosh | | | |
| 256 | " | 17 " | 40 0 0 | Samuel Lawson Nail | | | |
| 257 | " | 17 " | 40 0 0 | George Alfred Lloyd, jun. | | | |
| 259 | " | 17 " | 40 0 0 | Henry P. Blake | | | |
| 261 | " | 17 " | 40 0 0 | Joseph B. M. White | | | |
| 262 | " | 17 " | 40 0 0 | John Augustus Ibbott | | | |
| 264 | " | 24 " | 320 0 0 | Leslie A. Chambers | | | |
| 272 | " | 24 " | 40 0 0 | Samuel Lawson Nail | | | |
| 273 | " | 24 " | 40 0 0 | Frederick P. Talbot | | | |
| 275 | " | 24 " | 06 0 0 | James Murphy, jun. | | | |
| 279 | " | 1 Dec., | 100 0 0 | Adam Armstrong | | | |
| 282 | " | 1 " | 100 0 0 | Sydney H. Gurner | | | |
| 287 | " | 1 " | 40 0 0 | Richard F. Irving | | | |
| 288 | " | 1 " | 40 0 0 | John Augustus Ibbott | | | |
| 289 | " | 1 " | 40 0 0 | Wm. C. a'Beckett | | | |
| 294 | " | 1 " | 50 0 0 | Walter Smith | | | |
| 295 | " | 8 " | 40 0 0 | Barthold Stenglin | | | |
| 302 | " | 8 " | 40 0 0 | Arthur Thos. Tuckey | | | |
| 312 | " | 15 " | 40 0 0 | Herbert G. Loder | | | |
| 313 | " | 15 " | 30 0 0 | David M. Irving | | | |
| 314 | " | 15 " | 40 0 0 | Denis P. Keogh | | | |
| 315 | " | 15 " | 40 0 0 | Solomon O. Nelson | | | |
| 319 | " | 15 " | 40 0 0 | Frederick P. Talbot | | | |
| 320 | " | 22 " | 40 0 0 | William Welsh | | | |
| 330 | " | 29 " | 40 0 0 | Morris Herrmann | | | |
| 331 | " | 29 " | 40 0 0 | Chas. F. Ashford | | | |
| 82- 2 | | 5 Jan., 1882 | 40 0 0 | | | | |
| 3 | " | 5 " | 40 0 0 | Arthur Collinge | | | |
| 7 | " | 5 " | 60 0 0 | William C. a'Beckett | | | |
| 15 | " | 12 " | 40 0 0 | Morris Herrmann | | | |
| 16 | " | 12 " | 40 0 0 | Samuel Lawson Nail | | | |
| 20 | " | 19 " | 40 0 0 | Edward Spencer Leonard | | | |
| 21 | " | 19 " | 40 0 0 | John Victor Hellmann | | | |
| 22 | " | 2 Feb., | 40 0 0 | Alexander M'Leay | | | |
| 23 | " | 2 " | 40 0 0 | Edward S. Leonard | | | |
| 25 | " | 2 " | 46 0 0 | James Norman Black | | | |
| 28 | " | 9 " | 40 0 0 | Thomas Jones | | | |
| 31 | " | 9 " | 40 0 0 | Arthur Collinge | | | |
| 32 | " | 9 " | 40 0 0 | Richard H. Jones | | | |
| 33 | " | 16 " | 272 0 0 | Sydney H. Gurner | | | |
| 34 | " | 16 " | 50 0 0 | Charles Tighe | | | |
| 35 | " | 16 " | 40 0 0 | Tom Monaghan Keogh | | | |
| 37 | " | 16 " | 40 0 0 | Ambrose Wood | | | |
| 39 | " | 16 " | 40 0 0 | James Wood | | | |
| 41 | " | 23 " | 40 0 0 | Neil Campbell Moore | | | |
| 42 | " | 23 " | 40 0 0 | F. R. Gordon | | | |
| 43 | " | 23 " | 40 0 0 | Arthur Collinge | | | |
| 44 | " | 23 " | 40 0 0 | Vizer Bridge | | | |
| 45 | " | 23 " | 40 0 0 | Richard Devine | | | |
| 46 | " | 23 " | 40 0 0 | R. W. H. Parkinson | | | |
| 48 | " | 23 " | 40 0 0 | Wm. Smith | | | |
| 49 | " | 23 " | 40 0 0 | Peter Lucas | | | |
| 50 | " | 23 " | 40 0 0 | C. H. Fitzhardinge | | | |
| 51 | " | 23 " | 40 0 0 | Francis Wm. Adams | | | |
| 52 | " | 23 " | 40 0 0 | John Aslug | | | |
| 53 | " | 23 " | 40 0 0 | Alexander Lawrence | | | |
| 54 | " | 23 " | 40 0 0 | James Cahill | | | |
| 55 | " | 23 " | 40 0 0 | William Cave | | | |
| 56 | " | 23 " | 40 0 0 | John Vail | | | |
| 57 | " | 23 " | 40 0 0 | Wm. Stuart | | | |
| 58 | " | 23 " | 40 0 0 | John Purdy | | | |
| 59 | " | 23 " | 40 0 0 | John Davis | | | |
| 60 | " | 23 " | 40 0 0 | John Knight | | | |
| 70 | " | 9 Mar., | 40 0 0 | David M. Irving | | | |
| 65 | " | 2 " | 40 0 0 | Tom M. Keogh | | | |
| 74 | " | 9 " | 40 0 0 | Wm. Welsh | | | |
| 75 | " | 9 " | 40 0 0 | Morris Herrmann | | | |
| 76 | " | 9 " | 40 0 0 | Herbert G. Loder | | | |
| 80 | " | 9 " | 40 0 0 | Alfred Short | | | |
| 83 | " | 16 " | 40 0 0 | Henry James Ryder | | | |
| 86 | " | 16 " | 40 0 0 | Aubert Loughnan | | | |
| 88 | " | 16 " | 40 0 0 | Fredk. P. Talbot | | | |
| 89 | " | 16 " | 40 0 0 | Alfred Short | | | |
| 91 | " | 16 " | 40 0 0 | Morris Herrmann | | | |
| 92 | " | 16 " | 40 0 0 | Edward Turner | | | |
| 98 | " | 16 " | 40 0 0 | John Victor Hellmann | | | |
| 97 | " | 23 " | 40 0 0 | Thomas Jones | | | |
| 98 | " | 23 " | 40 0 0 | Henry L. I. C. Scotson | | | |
| 99 | " | 23 " | 40 0 0 | Wm. Stuart | | | |
| 100 | " | 23 " | 40 0 0 | John Fagan | | | |
| 104 | " | 30 " | 45 0 0 | Charles Aicher | | | |
| 105 | " | 30 " | 45 0 0 | Henry Lyons | | | |
| 106 | " | 30 " | 40 0 0 | Alfred Short | | | |
| 107 | " | 30 " | 40 0 0 | John Jas. Parkinson | | | |
| 109 | " | 6 April, | 50 0 0 | Tom. Monaghan Keogh | | | |
| 112 | " | 13 " | 50 0 0 | Walter Smith | | | |
| 119 | " | 13 " | 40 0 0 | Moore N. Campbell | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|------------|-------------------------------------|---------|--|-------------------------------|--|
| | | £ s. d. | W. C. a'Beckett. Henry P. Blake. | 8 Oct., 1881 7 June, 1882 | Void. Subdivision objectionable. |
| | | | Wm. C. a'Beckett. | 10 Jan., 1882 | Void. Vagueness of description. Void. Measurement objectionable. |
| | | | George Alfred Lloyd, jun. | 1 Aug., 1882 | |
| | | | George Alfred Lloyd, jun. | 27 Mar., 1882 | |
| | | | H. P. Blake. Wm. C. a'Beckett. | 28 June, 1882 9 Dec., 1881 | Void. On water reserve; made within 30 days of revocation. |
| | | | Wm. C. a'Beckett. | 9 Dec., 1881 | Void. Vagueness of description. Void. Form of subdivision objectionable. Void. Within water reserve 1,748. |
| | | | Wm. C. a'Beckett. | 9 Dec., 1881 | " " " 1,154. |
| | | | W. C. a'Beckett. | 10 Jan., 1882 | " " " " |
| | | | George Edw. Traquair | 8 Feb., 1882 | Void. Improvements bar selection. |
| | | | Messrs. Ryder Bros. | 9 Feb., 1882 | Withdrawn. Non-survey. |
| | | | Henry R. C. Bird. | 23 Feb., 1882 | Withdrawn. Non-survey. |
| | | | Henry R. C. Bird. | 23 Feb., 1882 | |
| | | | Henry R. C. Bird. | 28 Feb., 1882 | |
| | | | Henry R. C. Bird. | 23 June, 1882 | |
| | | | Henry R. C. Bird. | 23 Mar., 1882 | |
| | | | Henry R. C. Bird. | 23 June, 1882 | |
| | | | Henry R. C. Bird. | 23 Feb., 1882 | |
| | | | Henry R. C. Bird. | 15 Nov., 1882 | Void. Land embraced by prior C.P. C.P. stands good. |
| | | | Henry R. C. Bird. | 4 Mar., 1882 | Void. Land embraced by prior C.P. |
| | | | Henry R. C. Bird. | 23 Feb., " | Void. Included in a prior C.P. |
| | | | | | Void. Form objectionable. |
| | | | | | Withdrawn. Non-survey. |
| | | | | | Withdrawn. Non-survey. |
| | | | | | Void. Form of measurement objectionable. |
| | | | | | Void. Measurement objectionable. |
| | | | | | Void. Vagueness of description. |
| | | | Hugh Gordon. | 21 April, 1882 | Void. Selected within 30 days of cancellation of water reserve 477A. |
| | | | W. H. Morse, G. P. Morse, and T. S. M. Tourie. | 22 Oct., 1883 | |
| | | | A. J. Dolds, D. P. Dickson, J. Marks, and R. Jones, jun. | 23 " " | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|-----------------|--------------------|--------------------|------------------------------|----------------------|---------------------------|---------|
| 82- 120 | Coonamble | 13 April, 1882 | a. r. p. 40 0 0 | Edward A. Martin | | | £ s. d. |
| 122 | " | 13 " | 40 0 0 | Alfred Short | | | |
| 124 | " | 13 " | 40 0 0 | Chas. F. Ashford | | | |
| 125 | " | 13 " | 40 0 0 | R. W. H. Parkinson | | | |
| 126 | " | 13 " | 40 0 0 | W. C. a'Beckett | | | |
| 130 | " | 20 " | 60 0 0 | John Asling | | | |
| 131 | " | 20 " | 60 0 0 | Alfred Short | | | |
| 137 | " | 27 " | 40 0 0 | George D. Lane | | | |
| 133 | " | 27 " | 60 0 0 | Alfred King | | | |
| 150 | " | 4 May, | 40 0 0 | Patrick Veech | | | |
| 156 | " | 4 " | 40 0 0 | Alfred Short | | | |
| 157 | " | 4 " | 80 0 0 | Alfred King | | | |
| 173 | " | 18 " | 40 0 0 | Thos. O'Halloran | | | |
| 174 | " | 25 " | 237 0 0 | Adam Armstrong | | | |
| 175 | " | 25 " | 209 2 0 | Barthold Stenglin | | | |
| 176 | " | 25 " | 202 1 0 | Thos. Augustus Jones | | | |
| 182 | " | 25 " | 40 0 0 | R. W. H. Parkinson | | | |
| 183 | " | 25 " | 40 0 0 | John V. Hellmann | | | |
| 184 | " | 25 " | 40 0 0 | J. J. Parkinson | | | |
| 185 | " | 25 " | 270 0 0 | H. W. Willmott | | | |
| 187 | " | 1 June, | 256 0 0 | Adam Armstrong | | | |
| 188 | " | 1 " | 266 0 0 | H. W. Willmott | | | |
| 200 | " | 8 " | 40 0 0 | Wm. Patrick | | | |
| 201 | " | 8 " | 40 0 0 | Thomas Farley | | | |
| 232 | " | 8 " | 40 0 0 | G. H. Saunders | | | |
| 208 | " | 15 " | 40 0 0 | F. H. Forbes | | | |
| 209 | " | 15 " | 40 0 0 | Samuel Thorburn | | | |
| 210 | " | 15 " | 40 0 0 | Alfred K. Holden | | | |
| 211 | " | 15 " | 40 0 0 | Henry P. Blake | | | |
| 212 | " | 15 " | 40 0 0 | Wm. J. Crook | | | |
| 214 | " | 15 " | 40 0 0 | Vizer Bridge | | | |
| 215 | " | 15 " | 40 0 0 | James Lane | | | |
| 216 | " | 15 " | 40 0 0 | Mary Marshall (widow) | | | |
| 218 | " | 22 " | 204 0 0 | Robert Frowen | | | |
| 219 | " | 22 " | 40 0 0 | Hugh Gordon | | | |
| 220 | " | 22 " | 40 0 0 | F. H. Forbes | | | |
| 223 | " | 22 " | 40 0 0 | J. F. Smith | | | |
| 224 | " | 22 " | 40 0 0 | Samuel Thorburn | | | |
| 225 | " | 29 " | 40 0 0 | Hugh Gordon | | | |
| 227 | " | 29 " | 40 0 0 | John Jas. Parkinson | | | |
| 229 | " | 29 " | 40 0 0 | Robert Read | | | |
| 230 | " | 29 " | 40 0 0 | Wm. Stevenson | | | |
| 232 | " | 29 " | 40 0 0 | Thos. John Wrigley | | | |
| 238 | " | 6 July, | 40 0 0 | James Wesley | | | |
| 239 | " | 6 " | 40 0 0 | Alfred Short | | | |
| 244 | " | 6 " | 40 0 0 | John Stanley Wright | | | |
| 247 | " | 13 " | 40 0 0 | Peter Cook | | | |
| 250 | " | 13 " | 40 0 0 | Alfred Short | | | |
| 251 | " | 13 " | 40 0 0 | John Stanley Wright | | | |
| 260 | " | 13 " | 40 0 0 | Denis P. Keogh | | | |
| 264 | " | 13 " | 40 0 0 | James Patrick | | | |
| 268 | " | 20 " | 40 0 0 | Peter Cook | | | |
| 273 | " | 20 " | 40 0 0 | George H. Saunders | | | |
| 276 | " | 20 " | 40 0 0 | John Colclough | | | |
| 277 | " | 20 " | 40 0 0 | Denis P. Keogh | | | |
| 282 | " | 20 " | 40 0 0 | Edward Diggs | | | |
| 283 | " | 20 " | 40 0 0 | John Fagan | | | |
| 285 | " | 20 " | 40 0 0 | John Chapman | | | |
| 287 | " | 20 " | 40 0 0 | James M. M'Mahon | | | |
| 288 | " | 20 " | 40 0 0 | Henry P. Blake | | | |
| 289 | " | 20 " | 40 0 0 | Barthold Stenglin | | | |
| 291 | " | 20 " | 40 0 0 | John S. M'Intosh | | | |
| 300 | " | 3 Aug., | 40 0 0 | Thos. Jones | | | |
| 312 | " | 3 " | 40 0 0 | Harry D. Watson | | | |
| 319 | " | 3 " | 40 0 0 | Thos. H. Brady | | | |
| 320 | " | 3 " | 40 0 0 | John Fagan | | | |
| 321 | " | 3 " | 60 0 0 | John Stanley Wright | | | |
| 324 | " | 3 " | 40 0 0 | Joseph H. Rendall | | | |
| 325 | " | 3 " | 40 0 0 | John M. Irving | | | |
| 327 | " | 3 " | 40 0 0 | Barthold Stenglin | | | |
| 328 | " | 3 " | 40 0 0 | Hugh Gordon | | | |
| 330 | " | 3 " | 40 0 0 | Alfred Short | | | |
| 331 | " | 3 " | 40 0 0 | Robert D. M'Rae | | | |
| 332 | " | 3 " | 100 0 0 | Sydney H. Gurner | | | |
| 335 | " | 3 " | 40 0 0 | John Kavanagh | | | |
| 342 | " | 10 " | 364 3 0 | Leslie Arthur Chambers | | | |
| 343 | " | 10 " | 40 0 0 | William D. Rose | | | |
| 344 | " | 10 " | 40 0 0 | Barthold Stenglin | | | |
| 346 | " | 10 " | 40 0 0 | James Turner | | | |
| 365 | " | 17 " | 40 0 0 | Alfred Short | | | |
| 366 | " | 17 " | 100 0 0 | Wilfred Willmott | | | |
| 367 | " | 17 " | 40 0 0 | Edward A. Blackett | | | |
| 368 | " | 17 " | 40 0 0 | George Wm. Bloodworth | | | |
| 370 | " | 17 " | 40 0 0 | George F. H. Blackett | | | |
| 371 | " | 17 " | 100 0 0 | Adam Armstrong | | | |
| 373 | " | 17 " | 40 0 0 | Wm. Jno. Taylor | | | |
| 377 | " | 24 " | 40 0 0 | Barthold Stenglin | | | |
| 378 | " | 24 " | 40 0 0 | William Hood | | | |
| 379 | " | 24 " | 40 0 0 | David Ritchie | | | |
| 381 | " | 24 " | 360 0 0 | Hugh Gordon | | | |
| 380 | " | 31 " | 40 0 0 | F. P. Bailey | | | |
| 387 | " | 31 " | 40 0 0 | R. D. M'Rae | | | |
| 392 | " | 31 " | 40 0 0 | G. D. Lane | | | |
| 395 | " | 31 " | 80 0 0 | Hugh Gordon | | | |
| 405 | " | 7 Sept., | 40 0 0 | Wm. C. a'Beckett | | | |
| 410 | " | 14 " | 122 0 0 | Alfred Short | | | |
| 413 | " | 14 " | 50 0 0 | John Sharp Mcintosh | | | |
| 414 | " | 14 " | 227 0 0 | Wilfred Willmott | | | |
| 425 | " | 21 " | 40 0 0 | Thos. O'Halloran | | | |
| 432 | " | 28 " | 40 0 0 | Leslie A. Chambers | | | |
| 434 | " | 28 " | 40 0 0 | Daniel J. M'Mahon | | | |
| 449 | " | 2 Nov., | 40 0 0 | Denis P. Keogh | | | |
| 465 | " | 30 " | 40 0 0 | Jns. Augustus Lane | | | |
| 466 | " | 30 " | 40 0 0 | Joseph Harris, jun. | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|------------|-------------------------------------|---------|--|-------------------|--|
| | | £ s. d. | Hugh Gordon | 31 May, 1882 | |
| | | | W. H. Morse, G. P. Morse, and T. S. M. Tourle | 22 Oct., 1883 | |
| | | | A. J. Dodds, D. P. Dickson, J. Marks, and R. Jones, jun. | 23 " " | |
| | | | Hugh Gordon | 21 April, 1882 | Void. Within reserve No. 282. |
| | | | W. C. a'Beckett | 14 " " | |
| | | | Hugh Gordon | 21 April, 1882 | Void. Within water reserve 104. |
| | | | " | 21 " " | " " |
| | | | " | " " | Void. Land less than 60 chains depth. |
| | | | Andrew Tobin | 11 Sept., 1882 | |
| | | | " | 31 Aug., " | Void. Form described is objectionable. |
| | | | " | " " | " " |
| | | | Hugh Gordon | 28 July, 1882 | Void. Vagueness of description. |
| | | | " | " " | " " |
| | | | Hugh Gordon | 1 July, 1882 | " " |
| | | | " | " " | " " |
| | | | Hugh Gordon | 7 July, 1882 | " " |
| | | | " | 7 " " | " Cannot be measured as described |
| | | | " | " " | " " |
| | | | Hugh Gordon | 28 July, 1882 | Void. Vagueness of description. |
| | | | " | " " | " " |
| | | | " | " " | " " |
| | | | W. H. Morse, G. P. Morse, and T. S. M. Tourle | 22 Oct., 1883 | |
| | | | A. J. Dodds, D. P. Dickson, J. Marks, and R. Jones, jun. | 23 " " | Void. Within water reserve 104. |
| | | | " | " " | " " |
| | | | Geo. Alfred Lloyd, jun. | 7 July, 1882 | |
| | | | " | " " | |
| | | | " | " " | Void. Within water reserve 90. |
| | | | " | " " | Void. Vagueness of description. |
| | | | " | " " | " Within water reserve 90. |
| | | | " | " " | " " |
| | | | " | " " | Void. Form of measurement objectionable. |
| | | | " | " " | " " |
| | | | James Patrick | 12 Feb., 1884 | Void. Within water reserve 105. |
| | | | George Wm. Bloodworth | 15 Sept., 1882 | |
| | | | " | " " | |
| | | | Hen. Jas. Ryder | 13 Sept., 1882 | |
| | | | " | 18 Feb., 1884 | |
| | | | Andrew Tobin | 31 Aug., 1882 | Void. Within water reserves 1,389 and 1,000. |
| | | | " | " " | Void. Within water reserve 1,000. |
| | | | " | " " | " 801. |
| | | | " | " " | Vagueness of description. |
| | | | " | " " | " " |
| | | | W. H. Morse, G. P. Morse, and T. S. M. Tourle | 22 Oct., 1883 | |
| | | | A. J. Dodds, D. P. Dixon, J. Marks, and R. Jones, jun. | 23 " " | Void. Vagueness of description. |
| | | | " | " " | " " |
| | | | W. H. and G. P. Morse and T. S. M. Tourle | 22 Oct., 1883 | |
| | | | A. J. Dodds, D. P. Dixon, J. Marks, and R. Jones, jun. | 23 " " | |
| | | | Andrew Tobin | 14 Sept., 1882 | Void. Form of measurement objectionable. |
| | | | Andrew Tobin | 14 Sept., 1882 | |
| | | | " | " " | Void. Embraced in C.P. 82-285. |
| | | | " | " " | " Encroaches on C.P. 81-158. |
| | | | " | " " | Void. Encroaches on prior C.P. |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|-------------------------------|----------------------|----------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 82-400 | Coonamble | 7 Dec., 1882 | 40 0 0 | Tom Monahan Keogh | | | |
| 83-1 | " | 4 Jan., 1883 | 40 0 0 | Alex. Leonard | | | |
| 5 | " | 11 " " | 40 0 0 | Tom Monahan Keogh | | | |
| 14 | " | 18 " " | 40 0 0 | Geo. Dalton Lane | | | |
| 17 | " | 18 " " | 40 0 0 | Daniel D. McMahon | | | |
| 42 | " | 22 Feb., " | 40 0 0 | George D. Lane | | | |
| 44 | " | 22 " " | 40 0 0 | W. C. M. Lane | | | |
| 47 | " | 1 Mar., " | 40 0 0 | Jas. Augustus Lane | | | |
| 48 | " | 1 " " | 40 0 0 | Joseph Harris, jun. | | | |
| 55 | " | 1 " " | 40 0 0 | John Charles Darke | | | |
| 57 | " | 1 " " | 40 0 0 | Henry P. Blake | | | |
| 68 | " | 8 " " | 293 0 0 | Wm. C. a'Beckett | | | |
| 64 | " | 8 " " | 180 0 0 | James Lane | | | |
| 65 | " | 8 " " | 180 0 0 | W. C. M. Lane | | | |
| 66 | " | 8 " " | 40 0 0 | George Dalton Lane | | | |
| 84 | " | 15 " " | 40 0 0 | Thos. P. Fagan | | | |
| 85 | " | 15 " " | 40 0 0 | Henry Delaney | | | |
| 97 | " | 22 " " | 40 0 0 | Tom Monahan Keogh | | | |
| 98 | " | 22 " " | 40 0 0 | Edward Maybury | | | |
| 99 | " | 22 " " | 40 0 0 | George Dalton Lane | | | |
| 101 | " | 29 " " | 40 0 0 | Thos. Reveley | | | |
| 113 | " | 5 April, " | 40 0 0 | F. R. Gordon | | | |
| 116 | " | 12 " " | 40 0 0 | Hen. P. Blake | | | |
| 129 | " | 26 " " | 40 0 0 | Walter Smith | | | |
| 137 | " | 26 " " | 40 0 0 | Hen. P. Blake | | | |
| 138 | " | 3 May, " | 40 0 0 | " | | | |
| 165 | " | 17 " " | 40 0 0 | " | | | |
| 171 | " | 7 June, " | 40 0 0 | George Dalton Lane | | | |
| 178 | " | 7 " " | 40 0 0 | John V. Hellmann | | | |
| 180 | " | 7 " " | 40 0 0 | Henry J. King | | | |
| 185 | " | 28 " " | 240 0 0 | Adam Armstrong | | | |
| 201 | " | 5 July, " | 50 0 0 | Vincent Jas. Dowling | | | |
| 205 | " | 5 " " | 40 0 0 | Hen. Jas. Ryder | | | |
| 208 | " | 12 " " | 41 3 0 | Radford Papworth | | | |
| 217 | " | 12 " " | 40 0 0 | Denis Patrick Keogh | | | |
| 218 | " | 12 " " | 40 0 0 | John Kavanah | | | |
| 219 | " | 12 " " | 40 0 0 | Henry Ricketson | | | |
| 235 | " | 26 " " | 80 0 0 | Alfred King | | | |
| 236 | " | 26 " " | 60 0 0 | Radford Papworth | | | |
| 246 | " | 2 Aug., " | 40 0 0 | Charles Byrne | | | |
| 249 | " | 9 " " | 40 0 0 | James Juchan, jun. | | | |
| 252 | " | 9 " " | 80 0 0 | James Peacock | | | |
| 255 | " | 9 " " | 41 0 0 | Tom Monahan Keogh | | | |
| 256 | " | 9 " " | 40 0 0 | Sydney Jas. Barden | | | |
| 257 | " | 9 " " | 40 0 0 | Henry Balchin | | | |
| 263 | " | 16 " " | 40 0 0 | Sydney Jas. Barden | | | |
| 269 | " | 30 " " | 40 0 0 | Tom Monahan Keogh | | | |
| 272 | " | 30 " " | 123 0 0 | Harry Balchin | | | |
| 294 | " | 1 Nov., " | 40 0 0 | Radford Papworth | | | |
| 301 | " | 22 " " | 40 0 0 | Charles Byrne | | | |
| 302 | " | 22 " " | 40 0 0 | James Wilkie | | | |
| 74-13310 | Campbelltown | 26 " 1874 | 320 0 0 | Alexander Stuart | 14 Feb., 1878 | Mining improvements, £2 per acre | |
| 13311 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13312 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13313 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13314 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13315 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13316 | " | 26 " " | 200 0 0 | " | 14 " " | " | |
| 13317 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13318 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13319 | " | 26 " " | 60 0 0 | " | 14 " " | " | |
| 13320 | " | 26 " " | 40 0 0 | " | 14 " " | " | |
| 13321 | " | 26 " " | 40 0 0 | " | 14 " " | " | |
| 13322 | " | 26 " " | 40 0 0 | " | 14 " " | " | |
| 13323 | " | 26 " " | 80 0 0 | " | 14 " " | " | |
| 13324 | " | 26 " " | 80 0 0 | " | 14 " " | " | |
| 13325 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13326 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13327 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 13328 | " | 26 " " | 100 0 0 | " | 14 " " | " | |
| 13329 | " | 26 " " | 50 0 0 | " | 14 " " | " | |
| 13330 | " | 26 " " | 320 0 0 | " | 14 " " | " | |
| 78-1 | " | 26 " " | 574 3 0 | " | 7 Oct., " | " | |
| 2 | " | 26 " " | 320 0 0 | " | 7 " " | " | |
| 82-211 | Carroar | 30 " 1882 | 40 0 0 | John Brownlow | | | |
| 88-41 | " | 3 May, 1883 | 40 0 0 | Henry Hackey and James Barnes | | | |
| 77-1 | Casino | 4 Jan., 1877 | 56 0 0 | Marianna Chauvel | | | |
| 2 | " | 4 " " | 40 0 0 | " | | | |
| 3 | " | 4 " " | 40 0 0 | " | | | |
| 4 | " | 4 " " | 40 0 0 | " | | | |
| 214 | " | 9 Aug., " | 40 0 0 | Hon. Edward D. S. Ogilvie | | | |
| 220 | " | 16 " " | 40 0 0 | Chas. Anstey | | | |
| 221 | " | 16 " " | 40 0 0 | William Penrose | | | |
| 222 | " | 16 " " | 40 0 0 | Francis Thomas Sharpe | | | |
| 223 | " | 16 " " | 40 0 0 | Edward Moran | | | |
| 245 | " | 30 " " | 40 0 0 | William Davis | | | |
| 246 | " | 30 " " | 40 0 0 | Samuel Gordon | | | |
| 247 | " | 30 " " | 40 0 0 | James Young | | | |
| 248 | " | 30 " " | 40 0 0 | John Hobson | | | |
| 270 | " | 13 Sept., " | 40 0 0 | Hon. Edward D. S. Ogilvie | | | |
| 271 | " | 13 " " | 40 0 0 | John Thomas | | | |
| 287 | " | 11 Oct., " | 40 0 0 | Hon. Edward D. S. Ogilvie | | | |
| 289 | " | 11 " " | 50 0 0 | Emily Atkinson | | | |
| 307 | " | 25 " " | 100 0 0 | Henry Barnes | | | |
| 308 | " | 25 " " | 40 0 0 | Hon. Edward D. S. Ogilvie | | | |
| 309 | " | 1 Nov., " | 136 0 0 | Henry F. Smith | | | |
| 310 | " | 1 " " | 40 0 0 | Emily Atkinson | | | |
| 311 | " | 1 " " | 40 0 0 | Charles Edwards | | | |
| 312 | " | 1 " " | 40 0 0 | John Charles Edwards | | | |
| 313 | " | 1 " " | 40 0 0 | Charles Edwards | | | |
| 314 | " | 1 " " | 40 0 0 | Emily Atkinson | | | |
| 343 | " | 20 Dec., " | 140 0 0 | W. C. Bundock | | | |
| 340 | " | 20 " " | 72 0 0 | " | | | |
| 78-44 | " | 31 Jan., 1878 | 40 0 0 | Hon. Edward D. S. Ogilvie | | | |
| 45 | " | 31 " " | 40 0 0 | " | | | |
| 46 | " | 31 " " | 40 0 0 | Henry Townsend | | | |
| 47 | " | 31 " " | 40 0 0 | William Penrose | | | |
| 203 | " | 16 May, " | 100 0 0 | Hon. Edward D. S. Ogilvie | | | |
| 209 | " | 16 " " | 100 0 0 | " | | | |
| 210 | " | 16 " " | 85 0 0 | " | | | |
| 362 | " | 8 Aug., " | 40 0 0 | M. S. E. Haydou | | | |
| 368 | " | 8 " " | 40 0 0 | Marianna Chauvel | | | |
| 370 | " | 15 " " | 47 0 0 | Chas. Hy. Edward Chauvel | 10 Sept., 1883 | Mining operations, £2 per acre | 94 0 0 |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|---|----------------------|--|---------|
| | | | a. r. p. | | | | £ s. d. |
| 78- 371 | Casino | 15 Aug., 1878 | 40 0 0 | Chas. Hy. Edward Chauvel | | | |
| 417 | " | 10 Sept., " | 40 0 0 | Hon. Edward D. S. Ogilvie | | | |
| 419 | " | 19 " | 40 0 0 | Chas. Hy. Edward Chauvel | | | |
| 449 | " | 11 Oct., " | 40 0 0 | Hon. Edward D. S. Ogilvie | | | |
| 79- 205 | " | 19 June, 1879 | 40 0 0 | Chas. Hy. Edward Chauvel | | | |
| 268 | " | 23 Aug., " | 80 0 0 | W. and F. Fanning | | | |
| 81- 37 | " | 24 Feb., 1881 | 41 0 0 | Marianna Chauvel | | | |
| 181 | " | 20 Oct., " | 80 0 0 | John Henry Munro | | | |
| 132 | " | 20 " | 80 0 0 | Fraucis Wm. King | | | |
| 82- 86 | " | 29 June, 1882 | 40 0 0 | Chas. Hy. Edward Chauvel | | | |
| 87 | " | 29 " | 40 0 0 | " | | | |
| 115 | " | 31 Aug., " | 40 0 0 | Charles A. Bruxner | | | |
| 83- 2 | " | 4 Jan., 1883 | 200 0 0 | Henry Barnes | | | |
| 6 | " | 4 " | 72 1 0 | " | | | |
| 18 | " | 15 Feb., " | 90 0 0 | " | | | |
| 54 | " | 21 June, " | 78 0 0 | John M'Lean | | | |
| 59 | " | 5 July, " | 61 0 0 | Robert S. Jones | | | |
| 61 | " | 5 " | 158 0 0 | Henry W. Blomfield | | | |
| 63 | " | 5 " | 80 0 0 | G. A. Ravenscroft | | | |
| 70 | " | 12 " | 153 0 0 | Michael Jordan | | | |
| 83 | " | 9 Aug., " | 80 0 0 | John M'Lean | | | |
| 76- 212 | Cassilis | 14 Sept., 1876 | 40 0 0 | Alexander M'Donald | | | |
| 82- 121 | Camden | 10 Oct., 1882 | 83 2 0 | Alexander Busby | | | |
| 5 | " | 20 April, " | 40 0 0 | Albert Harcourt | | | |
| 6 | " | 20 " | 40 0 0 | Robert Fitzstubs | | | |
| 7 | " | 20 " | 40 0 0 | Percy Fitzstubs | | | |
| 8 | " | 20 " | 40 0 0 | Ligar Fitzstubs | | | |
| 9 | " | 20 " | 40 0 0 | Ernest F. Ickerson | | | |
| 10 | " | 20 " | 40 0 0 | Sidney Thos. Day | | | |
| 11 | " | 20 " | 40 0 0 | Samuel Dixon | | | |
| 12 | " | 27 " | 40 0 0 | Ligar Fitzstubs | | | |
| 13 | " | 27 " | 40 0 0 | Louis Cohen | | | |
| 14 | " | 27 " | 40 0 0 | Sidney Thos. Day | | | |
| 15 | " | 27 " | 40 0 0 | Albert Harcourt | | | |
| 16 | " | 27 " | 40 0 0 | Robert Fitzstubs | | | |
| 17 | " | 4 May " | 40 0 0 | Albert Harcourt | | | |
| 18 | " | 4 " | 40 0 0 | Ligar Fitzstubs | | | |
| 19 | " | 4 " | 40 0 0 | Sidney Thos. Day | | | |
| 20 | " | 4 " | 40 0 0 | Robert Fitzstubs | | | |
| 21 | " | 11 " | 40 0 0 | Albert Harcourt | | | |
| 22 | " | 11 " | 40 0 0 | Ligar Fitzstubs | | | |
| 23 | " | 11 " | 40 0 0 | Sidney Thos. Day | | | |
| 24 | " | 11 " | 40 0 0 | Robert Fitzstubs | | | |
| 28 | " | 1 June, " | 120 0 0 | John Donelan | | | |
| 29 | " | 1 " | 140 0 0 | Robert Shankland | | | |
| 30 | " | 1 " | 120 0 0 | Isaac Rodd | | | |
| 35 | " | 7 Sept., " | 40 0 0 | Geo. T. Titterton | | | |
| 40 | " | 5 Oct., " | 40 0 0 | Robert Fitzstubs | | | |
| 48 | " | 2 Nov., " | 40 0 0 | William C. Goddard | | | |
| 51 | " | 14 Dec., " | 40 0 0 | Kate Fitzstubs | | | |
| 52 | " | 14 " | 40 0 0 | Linda Fitzstubs | | | |
| 53 | " | 14 " | 40 0 0 | Armand Kellerman | | | |
| 54 | " | 21 " | 40 0 0 | Rosina Fitzstubs | | | |
| 55 | " | 21 " | 40 0 0 | Kate Fitzstubs | | | |
| 56 | " | 21 " | 40 0 0 | Linda Fitzstubs | | | |
| 83- 5 | " | 27 Mar., 1883 | 40 0 0 | " | | | |
| 6 | " | 27 " | 40 0 0 | Fulvia Fitzstubs | | | |
| 8 | " | 5 April, " | 40 0 0 | Linda Fitzstubs | | | |
| 9 | " | 5 " | 40 0 0 | Fulvia Fitzstubs | | | |
| 19 | " | 15 Nov., " | 40 0 0 | George Goode, John Curry, Arthur Lenon. | | | |
| 70-4103 | Carcoar | 24 , 1870 | 290 0 0 | George Wigram Allen, Andrew M. Allen, and J. Greer. | 31 Dec., 1875 | Mining operations, £2 per acre | 580 0 0 |
| 71-1225 | " | 13 April, 1871 | 80 0 0 | " | 31 " | " | 160 0 0 |
| 1226 | " | 13 " | 80 0 0 | " | 31 " | " | 160 0 0 |
| 3477 | " | 21 Sept., " | 60 0 0 | George Wigram Allen and James Greer | | | |
| 4404 | " | 7 Dec., " | 43 0 0 | George Wigram Allen, Andrew M. Allen, and James Greer. | 31 Dec., 1875 | Mining operations, £2 per acre | 86 0 0 |
| 72-3787 | " | 27 June, 1872 | 60 0 0 | Thomas Martin Sloman and James Rutherford. | | | |
| 4572 | " | 25 July, " | 40 0 0 | James L. Cobb, James Byrne, and Edward J. C. North. | | | |
| 5308 | " | 20 Aug., " | 100 0 0 | Thomas Hilliar, George W. Allen, and Thomas R. Ickley. | | | |
| 5309 | " | 29 " | 40 0 0 | Patk. Flynn, John Flynn, C. Dempsey, T. Dempsey, and E. J. C. North. | | | |
| 5725 | " | 5 Sept., " | 80 0 0 | George W. Allen, Andrew M. Allen, and James Greer. | 31 Dec., 1875 | Mining operations, £2 per acre | 160 0 0 |
| 6000 | " | 19 " | 40 0 0 | Robt. and Thomas Neville, J. Lynch, and Thomas Martin. | | | |
| 6213 | " | 26 " | 80 0 0 | G. Wigram Allen, Andrew M. Allen, and J. Greer. | 31 Dec., 1875 | Mining operations, £2 per acre | 160 0 0 |
| 6746 | " | 17 Oct. " | 40 0 0 | Emanuel Solomon | | | |
| 6747 | " | 17 " | 40 0 0 | " | | | |
| 6748 | " | 17 " | 40 0 0 | " | | | |
| 6749 | " | 17 " | 40 0 0 | G. W. Allen, Andrew M. Allen, and J. Greer. | | | |
| 73- 358 | " | 16 Jan., 1873 | 40 0 0 | " | | | |
| 359 | " | 16 " | 40 0 0 | " | | | |
| 77- 95 | " | 3 May, 1877 | 40 0 0 | Ezekiel A. Baker | | | |
| 78- 137 | " | 27 Aug., 1878 | 80 0 0 | Henry Hackey | 1 Aug., 1883 | Mining operations, £2 per acre | 160 0 0 |
| 153 | " | 17 Oct., " | 80 0 0 | Thomas Hackney | 5 Jan., 1882 | " | 160 0 0 |
| 79- 104 | " | 24 July, 1879 | 40 0 0 | Patk. Brown, D. M'Kay, R. Martin, R. W. Robberts, and Thomas Neville. | 24 July, " | Mining operations to the value of £50 on freehold adjoining. | |
| 105 | " | 24 , " | 40 0 0 | " | 24 " | " | |
| 106 | " | 24 " " | 40 0 0 | " | 24 " " | Mining operations, £2 per acre on freehold adjoining. | |
| 107 | " | 24 " " | 40 0 0 | " | | | |
| 108 | " | 24 " " | 40 0 0 | " | | | |
| 185 | " | 20 Nov., " | 80 0 0 | " | | Mining improvements on original land. | 50 0 0 |
| 80- 180 | " | 4 , 1880 | 40 0 0 | Charles Bennett | | | |
| 81- 8 | " | 20 Jan., 1881 | 40 0 0 | Emma S. Brownlow and party | | | |
| 103 | " | 18 Aug., " | 40 0 0 | John Brownlow | | | |
| 104 | " | 18 " " | 80 0 0 | Lewis Lloyd | 4 Jan., 1882 | Mining and smelting operations, £2 per acre | 160 0 0 |

| Inspector | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|--------------|---|-----------|--|-------------------|---|
| | | £ s. d. | | | Void, 12 Dec., 1879. Encroaches on Reserve 342. Lapsed, Gazette, 27 April, 1882. |
| | | | | | " " " " 23 July, 1882. |
| | | | | | Void, 8 June, 1880. Land embraced on previous C.P. |
| | | | | | Lapsed, 7 July, 1883. |
| | | | | | Void, 13 April, 1881. Made by an agent. |
| | | | | | Void 25 April, 1883. Land previously selected. |
| | | | | | " 16 November, 1882. Second application on same day. |
| | | | | | Withdrawn, 16 November, 1877. Non-survey within twelve months. |
| | | | George Kennedy King | 12 July, 1884 | |
| | | | " | " | |
| | | | George Kennedy King | 27 Nov., 1882 | |
| George Smith | Slab house for miners, shaft, and clearing. | 200 0 0 | George Kennedy King | 23 Oct., 1882 | Void, 20 September, 1883. Land improved. |
| | | | George Kennedy King | 30 May, 1884 | |
| | | | George Kennedy King | 30 May, 1884 | |
| | | | George Kennedy King | 28 May, 1884 | |
| | | | George Kennedy King | 30 May, 1884 | |
| | | | George Kennedy King | 30 May, 1884 | |
| | | | | | Void, 6 June, 1883. Land not available as described. |
| | | | | | " " " " " " |
| | | | | | " 25 September, 1883. Land not available as described. |
| | | | Geo. K. King and Thos. J. Boyd | 19 Mar., 1883 | |
| | | | George K. King | 30 May, 1884 | |
| | | | | | Void, 16 February, 1883. Applicant a married woman. |
| | | | | | " " " " |
| | | | | | " " " " |
| | | | Sir George W. Allen and Hon. John B. Watt. | 25 May, 1883 | Approved by Minister, 30 September, 1875. |
| | | | " | 25 " " | " " " " |
| | | | " | 25 " " | " " " " |
| | | | Sir George W. Allen and Hon. John B. Watt. | 25 May, 1883 | Void, being situate in village reserve of Bombah. Approved by Minister, 30 September, 1875. |
| | | | | | Lapsed, Gazette, 31 October, 1876. |
| | | | | | " 3 April, 1879. |
| | | | | | Cancelled, as interfering with gold-mining operations. |
| | | | | | Cancelled. Previously selected by Cogan and party. |
| | | | Sir George W. Allen and Hon. John B. Watt. | 25 May, 1883 | Approved by Minister, 30 September, 1875. |
| | | | Sir George W. Allen and Hon. John B. Watt. | 25 May, 1883 | " " " " |
| | | | | | Lapsed, Gazette, 31 October, 1876. |
| | | | | | " " " " |
| | | | | | " 25 November, 1879. |
| | | | | | " 7 May, 1877. |
| T. A. Davies | Prospecting shafts | 350 0 0 | | | Void, having been previously selected. |
| " | " | 223 0 0 | | | Approved by Minister, 2 October, 1883. |
| " | Nil | | | | " 12 July, 1883. |
| " | Improvements nil | | | | |
| " | " | | | | |
| | | | | | Void, 29 October, 1879. Land not open to selection. |
| | | | | | " 30 November, 1883, having been declared invalid by Supreme Court. |
| T. A. Davies | Improvements nil | | | | Declared void, 25 June, 1881, having been made by an agent. |
| | | | | | Declared void, 21 June, 1881. Land held under mineral lease. |
| T. A. Davies | Smelting furnaces, sheds, dams, shafts, and numerous buildings. | 2,700 0 0 | | | Deed prepared, 16 March, 1883. |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|--------------------|--|----------------------|----------------------------------|--------------------|
| 81- 105 | Carcoar | 18 Aug., 1881 | a. r. p. 30 0 0 | Lewis Lloyd | 4 Jan., 1882 | Mining operations, £2 per acre | £ s. d. 160 0 0 |
| 141 | " | 20 Sept., " | 80 0 0 | " | | | |
| 193 | " | 1 Dec., " | 40 0 0 | " | | | |
| 199 | " | 15 " | 80 0 0 | George A. Welsh | | | |
| 82- 138 | " | 3 Aug., 1882 | 40 0 0 | Lewis Lloyd | | | |
| 139 | " | 3 " | 40 0 0 | " | | | |
| 70-8616 | Cobar | 6 Oct., 1870 | 40 0 0 | Chas. Campbell, Joseph Becker, Thos. Hartmann, and Geo. Gibb. | 6 Feb., 1873 | Mining operations, £2 per acre | 80 0 0 |
| 71-1745 | " | 25 May, 1871 | 40 0 0 | Joseph Becker | 2 Sept., 1874 | " " | 80 0 0 |
| 1820 | " | 1 June " | 40 0 0 | " | 18 July, " | " " | 80 0 0 |
| 4334 | " | 30 Nov., " | 120 0 0 | Joseph Becker, Daniel A. Byrne, and Joseph Beazley. | | | |
| 4835 | " | 30 " | 40 0 0 | " " | | | |
| 4386 | " | 30 " | 40 0 0 | " " | | | |
| 72- 303 | " | 1 Feb., 1872 | 40 0 0 | F. W. Nancarrow, R. Nancarrow, G. Gibb, and John Connolly. | | | |
| 804 | " | 1 " | 40 0 0 | Alexr. Ogilvie, Patk. Murray, Fredk. W. Mackey, Thomas Lean. | 21 April, 1875 | Mining operations, £2 per acre | 80 0 0 |
| 1260 | " | 21 Mar., " | 40 0 0 | P. J. Brady and Jas. McCabe | | | |
| 1816 | " | 18 April, " | 40 0 0 | F. W. Nancarrow, R. Nancarrow, Jas. Nancarrow, G. Gibb, and John Connolly. | | | |
| 2849 | " | 23 May, " | 60 0 0 | Alexr. Ogilvie, Patrick Murray, and Fredk. Wm. Mackey | 10 June, 1875 | Mining operations, £2 per acre | 120 0 0 |
| 2850 | " | 23 " | 40 0 0 | " " | 10 " | " " | 80 0 0 |
| 3049 | " | 30 " | 60 0 0 | Joseph Becker | 10 " | " " | 120 0 0 |
| 3050 | " | 30 " | 80 0 0 | " | 10 July " | " " | 160 0 0 |
| 3051 | " | 30 " | 40 0 0 | " | 10 " | " " | 80 0 0 |
| 3052 | " | 30 " | 40 0 0 | Alexander Ogilvie | | | |
| 3053 | " | 30 " | 40 0 0 | Joseph Becker | | | |
| 3054 | " | 30 " | 40 0 0 | James Addison | | | |
| 3055 | " | 30 " | 64 0 0 | Alexr. Ogilvie Grant | | | |
| 3236 | " | 6 June, " | 40 0 0 | William Forlonge | | | |
| 3406 | " | 13 " | 40 0 0 | F. W. Nancarrow, G. Gibb, W. V. Wallace, Hy. Collins, and J. Connolly. | | | |
| 3407 | " | 13 " | 40 0 0 | Joseph Becker | | | |
| 3408 | " | 13 " | 40 0 0 | " | | | |
| 3409 | " | 18 " | 40 0 0 | " | | | |
| 3410 | " | 18 " | 40 0 0 | Alex. Ogilvie, P. Murray, and F. W. Mackey. | 10 June, 1875 | Mining operations, £2 per acre | 80 0 0 |
| 3411 | " | 13 " | 40 0 0 | Edward L. Jones and Alex. Ogilvie | | | |
| 3412 | " | 13 " | 60 0 0 | Alex. Ogilvie, P. Murray, F. W. Mackey | 10 June, 1875 | Mining operations, £2 per acre | 120 0 0 |
| 3413 | " | 13 " | 40 0 0 | W. Forlonge, M. O'Shannassy, A. Becker. | | | |
| 3414 | " | 13 " | 40 0 0 | " | | | |
| 3415 | " | 13 " | 40 0 0 | W. Forlonge, A. Becker, H. Collis, M. O'Shannassy, E. L. Jones. | | | |
| 3416 | " | 18 " | 40 0 0 | J. Nancarrow, F. W. Nancarrow, R. Nancarrow, R. Forlonge, and H. Collis. | | | |
| 3417 | " | 18 " | 40 0 0 | " " | | | |
| 3418 | " | 13 " | 40 0 0 | " " | | | |
| 3419 | " | 13 " | 40 0 0 | " " | | | |
| 3056 | " | 13 " | 40 0 0 | A. Becker, W. Forlonge, M. O'Shannassy. | | | |
| 3784 | " | 27 " | 40 0 0 | H. Collis, J. McCabe, and M. Scrymgeour. | | | |
| 8785 | " | 27 " | 40 0 0 | Anna L. Grant and A. Becker | | | |
| 3780 | " | 27 " | 40 0 0 | " | | | |
| 3005 | " | 4 July, " | 120 0 0 | George Mathew | | | |
| 4000 | " | 4 " | 40 0 0 | J. Becker, W. Bradley, H. Colless, R. Barton, R. M. Hughes. | 22 July, 1877 | Mining improvements, £2 per acre | 80 0 0 |
| 3655 | " | 20 June, " | 40 0 0 | J. F. Wall, W. Forlonge, Hy. Colless. | | | |
| 3056 | " | 20 " | 40 0 0 | T. Byrne, M. O'Shannassy, W. Forlonge, A. Becker. | | | |
| 3657 | " | 20 " | 40 0 0 | " | | | |
| 3658 | " | 20 " | 40 0 0 | Anne Street Denman | | | |
| 3659 | " | 20 " | 40 0 0 | J. Connolly and J. F. Wall | | | |
| 3061 | " | 20 " | 40 0 0 | R. Maxwell, W. Webb, W. Forlonge | | | |
| 3062 | " | 20 " | 40 0 0 | W. Webb and W. Forlonge | | | |
| 8776 | " | 27 " | 40 0 0 | A. Becker, M. O'Shannassy, V. Dowling, T. Byrne, T. McNevin, W. Forlonge. | | | |
| 3771 | " | 27 " | 40 0 0 | Kate Tower Hughes | | | |
| 3773 | " | 27 " | 40 0 0 | F. J. Cornish, H. Terry, T. Hartmann, and G. Gibb. | | | |
| 3779 | " | 27 " | 40 0 0 | " | | | |
| 3780 | " | 27 " | 40 0 0 | J. Nancarrow, H. W. Nancarrow, and W. Neville. | | | |
| 3781 | " | 27 " | 40 0 0 | W. Webb and H. J. Cornish | | | |
| 3783 | " | 27 " | 40 0 0 | J. Mackey and J. N. Taylor | | | |
| 4007 | " | 4 July, " | 100 0 0 | J. Becker, A. Becker, V. Dowling | | | |
| 4003 | " | 4 " | 40 0 0 | H. Colless, M. O'Shannassy | | | |
| 4219 | " | 4 " | 40 0 0 | W. Forlonge, M. O'Shannassy, A. Becker, E. L. Jones, and H. Colless. | | | |
| 4220 | " | 4 " | 40 0 0 | H. Colless | | | |
| 4221 | " | 4 " | 40 0 0 | G. S. Gibb, W. V. Wallace, H. Colless, J. Connolly, F. W. Nancarrow. | | | |
| 4222 | " | 4 " | 40 0 0 | W. Bradley and J. Becker | | | |
| 4223 | " | 4 " | 40 0 0 | " | | | |
| 4224 | " | 4 " | 40 0 0 | " | | | |
| 4225 | " | 4 " | 40 0 0 | " | | | |
| 4451 | " | 18 " | 40 0 0 | W. Forlonge, M. O'Shannassy, H. Colless, A. Becker, E. L. Jones. | | | |
| 4452 | " | 18 " | 40 0 0 | Alexander Ogilvie | | | |
| 4453 | " | 18 " | 40 0 0 | " | | | |
| 4454 | " | 18 " | 40 0 0 | Henry Colless | | | |
| 4455 | " | 18 " | 40 0 0 | " | | | |
| 4456 | " | 18 " | 40 0 0 | August Becker | | | |
| 4457 | " | 18 " | 40 0 0 | " | | | |
| 4458 | " | 18 " | 40 0 0 | Mathew O'Shannassy | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|---|----------------------|--------------------------------|---------|
| 72-4459 | Cobar | 18 July, 1872 | a. r. p. | H. Colless, J. Becker, and A. Becker | | | £ s. d. |
| 4480 | " | 18 " | 40 0 0 | " | | | |
| 4481 | " | 18 " | 40 0 0 | " | | | |
| 4482 | " | 18 " | 40 0 0 | " | | | |
| 4483 | " | 18 " | 40 0 0 | " | | | |
| 4484 | " | 18 " | 40 0 0 | " | | | |
| 4485 | " | 18 " | 40 0 0 | " | | | |
| 4486 | " | 18 " | 40 0 0 | " | | | |
| 4487 | " | 18 " | 40 0 0 | " | | | |
| 4488 | " | 18 " | 40 0 0 | Joseph Becker | | | |
| 4489 | " | 18 " | 40 0 0 | " | | | |
| 4470 | " | 18 " | 40 0 0 | A. Becker, H. Colless, T. E. Roberts | | | |
| 4471 | " | 18 " | 40 0 0 | J. Becker, H. Colless, and A. Becker | | | |
| 4472 | " | 18 " | 60 0 0 | H. Colless and W. Forlonge | | | |
| 4473 | " | 18 " | 200 0 0 | J. Becker, M. O'Shannassy, S. Smith, and A. Becker. | | | |
| 4474 | " | 18 " | 40 0 0 | Joseph Becker | | | |
| 4475 | " | 18 " | 60 0 0 | Henry Colless | | | |
| 4620 | " | 25 " | 100 0 0 | Edward L. Jones and Alexander Ogilvie. | | | |
| 4624 | " | 25 " | 60 0 0 | A. Becker, M. O'Shannassy, and W. W. Davis. | | | |
| 4625 | " | 25 " | 40 0 0 | Joseph Becker | | | |
| 4626 | " | 25 " | 40 0 0 | H. Colless, J. Becker, M. O'Shannassy | | | |
| 4623 | " | 25 " | 300 0 0 | P. Brady, H. Colless, J. Becker | | | |
| 4629 | " | 25 " | 40 0 0 | A. Becker, H. Colless, W. W. Davis | | | |
| 4630 | " | 25 " | 40 0 0 | " | | | |
| 4631 | " | 25 " | 60 0 0 | " | | | |
| 4793 | " | 1 Aug., | 100 0 0 | Joseph Becker | 10 July, 1875 | Mining operations, £2 per acre | 200 0 0 |
| 4799 | " | 1 " | 40 0 0 | H. Colless and W. Forlonge | | | |
| 4800 | " | 1 " | 40 0 0 | M. O'Shannassy and H. Colless | | | |
| 4801 | " | 1 " | 40 0 0 | W. Forlonge and A. Becker | | | |
| 4802 | " | 1 " | 40 0 0 | A. Becker and E. L. Jones | | | |
| 4803 | " | 1 " | 40 0 0 | August Becker | | | |
| 4804 | " | 1 " | 40 0 0 | " | | | |
| 4970 | " | 1 " | 40 0 0 | Russell Barton | | | |
| 4971 | " | 8 " | 40 0 0 | " | | | |
| 4972 | " | 8 " | 40 0 0 | " | | | |
| 4973 | " | 8 " | 40 0 0 | W. W. Davis | | | |
| 4974 | " | 8 " | 40 0 0 | " | | | |
| 4975 | " | 8 " | 40 0 0 | August Becker | | | |
| 4976 | " | 8 " | 40 0 0 | Oscar Hughan | | | |
| 4977 | " | 8 " | 40 0 0 | Alex. G. Ramsay | | | |
| 4978 | " | 8 " | 40 0 0 | John F. Wall | | | |
| 5053 | " | 15 " | 40 0 0 | Thomas Hartman | | | |
| 5181 | " | 15 " | 46 0 0 | A. Becker, A. S. Denman, Josephine A. Becker. | | | |
| 5182 | " | 15 " | 72 0 0 | August Becker, H. Colless, Matthew O'Shannassy. | | | |
| 5183 | " | 15 " | 40 0 0 | James Dochard and William Bennett and William Webb. | | | |
| 5184 | " | 15 " | 40 0 0 | William J. A. Neville | | | |
| 5185 | " | 15 " | 80 0 0 | E. Good and W. J. Tinson | | | |
| 5709 | " | 29 " | 40 0 0 | Edward C. Bayly | | | |
| 5710 | " | 29 " | 40 0 0 | Joseph Becker and Henry Colless | | | |
| 5711 | " | 29 " | 40 0 0 | " | | | |
| 5712 | " | 29 " | 60 0 0 | Joseph Becker, Wm. W. Davis, John Curran, and W. Moir. | | | |
| 5763 | " | 5 Sept., | 40 0 0 | Wm. Ross and Hy. Colless, John Wm. Colless. | | | |
| 5769 | " | 5 " | 40 0 0 | " | | | |
| 5770 | " | 5 " | 40 0 0 | John F. Wall and E. L. Jones | | | |
| 5771 | " | 5 " | 40 0 0 | Thomas Blakey | | | |
| 5772 | " | 5 " | 40 0 0 | Chas. K. Moore, Chas. Cowper, Oscar Hughan. | | | |
| 5628 | " | 5 " | 40 0 0 | James Struth | | | |
| 6129 | " | 19 " | 40 0 0 | Thomas Meagher | | | |
| 6130 | " | 19 " | 40 0 0 | William Sloan | | | |
| 6131 | " | 19 " | 40 0 0 | " | | | |
| 6132 | " | 19 " | 40 0 0 | Joseph Becker | | | |
| 6133 | " | 19 " | 40 0 0 | John Kenny | | | |
| 6332 | " | 3 Oct., | 40 0 0 | James Struth | | | |
| 6333 | " | 3 " | 40 0 0 | Ellan Campbell | | | |
| 6510 | " | 3 " | 40 0 0 | " | | | |
| 6765 | " | 17 " | 40 0 0 | Robert A. Hughan, Jas. M'Kinley, Thomas H. F. Griffin, Oscar Hughan. | | | |
| 6831 | " | 24 " | 40 0 0 | Simon Moss | | | |
| 6882 | " | 24 " | 40 0 0 | " | | | |
| 6883 | " | 24 " | 40 0 0 | " | | | |
| 7220 | " | 7 Nov., | 50 0 0 | Joseph Becker, Russell Barton, Richard Nancarrow, W. W. Davis. | | | |
| 7221 | " | 7 " | 50 0 0 | " | | | |
| 7875 | " | 14 " | 40 0 0 | Simon Moss | | | |
| 7876 | " | 14 " | 40 0 0 | " | | | |
| 7377 | " | 14 " | 40 0 0 | Charles Campbell | | | |
| 73-721 | " | 30 Jan., 1873 | 64 0 0 | James Nathan Taylor | | | |
| 722 | " | 30 " | 40 0 0 | Daniel A. Byrne, E. J. Bloxham, August Becker, W. A. Kelly. | | | |
| 723 | " | 30 " | 40 0 0 | Patk. J. Brady, Geo. Harris, Henry E. Cobden, Geo. S. Gibb. | | | |
| 1411 | " | 20 Feb., | 60 0 0 | Thomas O'Brien, Hy. Cornish, George Goldfinch, John Conely. | | | |
| 1412 | " | 20 " | 40 0 0 | Richd. Nancarrow, M. Scrymgeour, E. Robins, G. Goldfinch, T. O'Brien. | | | |
| 1413 | " | 20 " | 40 0 0 | Richd. Nancarrow, Hy. Cornish, E. Robins, G. Goldfinch, and T. O'Brien. | | | |
| 3901 | " | 17 April, | 60 0 0 | Russell Barton | | | |
| 4517 | " | 1 May, | 40 0 0 | Oscar Hughan | | | |
| 4518 | " | 1 " | 40 0 0 | " | | | |
| 4519 | " | 1 " | 40 0 0 | " | | | |
| 4520 | " | 1 " | 60 0 0 | R. Nancarrow, W. T. Foster, P. J. Brady, Chas. Stuart, Peter Weltie, F. Williams, and H. E. Cobden. | | | |
| 4743 | " | 8 " | 80 0 0 | J. Goldsworthy, E. Robins, F. W. Mackey, M. M'Neil. | | | |
| 4744 | " | 8 " | 80 0 0 | " | | | |
| 6004 | " | 5 June, | 40 0 0 | F. Dural, R. S. Thomason, T. Scott, R. D. Jones. | | | |
| 6005 | " | 5 " | 40 0 0 | " | | | |
| 6006 | " | 5 " | 40 0 0 | " | | | |
| 7233 | " | 17 July, | 40 0 0 | H. Colless, T. Reynolds, D. M'Donald, W. Gillett, Thos. Oats. | | | |
| 8166 | " | 24 " | 40 0 0 | W. Webb, A. M'Hooley, W. T. Forster, J. D. Stewart. | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|-------------------|--------------------|----------|--|----------------------|---|-----------|
| | | | a. r. p. | | | | £ s. d. |
| 73-10867 | Cobar | 9 Oct., 1873 | 40 0 0 | Joseph Becker, Richd. Nancarrow | | | |
| 74-8560 | " | 9 July, 1874 | 250 0 0 | R. Miller and L. Foucart | | | |
| 8561 | " | 9 " | 250 0 0 | " | | | |
| 75- 11 | " | 15 " 1875 | 60 0 0 | G. H. Cox and Richard Jones | 24 Sept., 1878 | Mining operations, £2 per acre | 120 0 0 |
| 18 | " | 29 " " | 40 0 0 | " | 24 " " | " | 50 0 0 |
| 14 | " | 29 " " | 120 0 0 | " | 24 " " | " | 240 0 0 |
| 76- 18 | Bourke, now Cobar | 29 June, 1876 | 40 0 0 | Great Cobar Copper-mining Company (Limited). | | | |
| 25 | " | 2 Nov., " | 40 0 0 | Richard Green | 16 Feb., 1880 | Mining operations, £2 per acre | 80 0 0 |
| 103 | Cobar | 11 May, " | 200 0 0 | John S. Lands | | | |
| 12 | " | 4 May, 1876 | 40 0 0 | Great Cobar Copper-mining Company (Limited). | | | |
| 18 | " | 29 June, " | 40 0 0 | " | | | |
| 25 | " | 2 Nov., " | 40 0 0 | Richard Green | 16 Feb., 1880 | Mining operations, £2 per acre | 50 0 0 |
| 277 | " | 16 " " | 30 0 0 | Henry Manley | 19 Jan., " | Mining improvements, £2 per acre | 160 0 0 |
| 77- 26 | " | 22 Feb., 1877 | 40 0 0 | John Andrew | | | |
| 100 | " | 6 Sept., " | 80 0 0 | Wicksteed C. Barton | 20 Sept., 1880 | Mining operations, £2 per acre | 160 0 0 |
| 78- 27 | " | 20 June, 1878 | 40 0 0 | Russell Barton | | | |
| 80- 25 | " | 11 Mar., 1880 | 60 0 0 | Philip Davis | | | |
| 26 | " | 11 " " | 60 0 0 | " | | | |
| 27 | " | 11 " " | 60 0 0 | " | | | |
| 28 | " | 11 " " | 60 0 0 | " | | | |
| 45 | " | 22 April, " | 40 0 0 | Thomas Hartman, R. Green, P. Murray | | | |
| 46 | " | 22 " " | 40 0 0 | " | | | |
| 47 | " | 22 " " | 40 0 0 | " | | | |
| 48 | " | 22 " " | 40 0 0 | " | | | |
| 49 | " | 22 " " | 40 0 0 | " | | | |
| 58 | " | 6 May, " | 81 3 20 | C. H. Fitzhardinge | 3 May, 1883 | Mining operations, £2 per acre | 103 15 0 |
| 72 | " | 3 June, " | 40 0 0 | William W. Richardson | 22 " " | " | 80 1 0 |
| 78 | " | 3 " " | 40 0 0 | " | | | |
| 43 | " | 6 May, " | 40 0 0 | John Andrew | 28 Feb., 1882 | Shafts, drives, & general mining improvements | 1,000 0 0 |
| 84 | " | 10 June, " | 80 0 0 | C. E. Christensen | 17 Aug., 1883 | Mining improvements, £2 per acre | 160 0 0 |
| 89 | " | 17 " " | 50 0 0 | " | 17 " " | " | 160 0 0 |
| 103 | " | 29 July, " | 100 0 0 | William W. Richardson | | | |
| 104 | " | 29 " " | 80 0 0 | Thomas Hartman | | | |
| 107 | " | 5 Aug., " | 40 0 0 | William and Samuel J. Moffatt | | | |
| 111 | " | 12 " " | 40 0 0 | John N. Moffatt | | | |
| 112 | " | 12 " " | 40 0 0 | Julius Caro | | | |
| 114 | " | 19 " " | 40 0 0 | George Barrett | | | |
| 115 | " | 19 " " | 40 0 0 | William Moffatt and Chas. A. Samuels | | | |
| 116 | " | 19 " " | 40 0 0 | John Studd Brown | | | |
| 118 | " | 19 " " | 40 0 0 | P. V. Byrne and Fred. Visenmaier | | | |
| 120 | " | 26 " " | 40 0 0 | George Barrett | | | |
| 121 | " | 26 " " | 40 0 0 | Charles Young | | | |
| 129 | " | 2 Sept., " | 100 0 0 | C. H. Fitzhardinge | | | |
| 53 | " | 23 " " | 100 0 0 | Edmund John Barton | | | |
| 142 | " | 23 " " | 100 0 0 | William W. Richardson | 18 Dec., 1883 | Shafts, huts, tank | 250 0 0 |
| 144 | " | 23 " " | 100 0 0 | " | " " | Shafts, huts, &c. | 250 0 0 |
| 174 | " | 21 Oct., " | 40 0 0 | John Studd Brown | | | |
| 193 | " | 25 Nov., " | 80 0 0 | Charles E. Christensen | | | |
| 26 | " | 11 Mar., " | 320 0 0 | Edmund J. Barton | 28 Nov., 1883 | Mining operations, £2 per acre | 640 0 0 |
| 60 | " | 10 June, " | 40 0 0 | M. Gorman Lees | 4 Sept., " | " | 80 0 0 |
| 70 | " | 1 July, " | 80 0 0 | Henry Bentwich | | | |
| 71 | " | 1 " " | 80 0 0 | Alexander P. Stewart | 31 Aug., 1883 | Mining improvements, £2 per acre | 160 0 0 |
| 72 | " | 1 " " | 40 0 0 | William Ryan | | | |
| 73 | " | 15 " " | 160 0 0 | Alexander P. Stewart | 31 Aug., 1883 | Mining improvements, £2 per acre | 320 0 0 |
| 81- 36 | " | 22 April, " | 40 0 0 | Lewis M'Kenzie | | | |
| 22 | " | 23 June, 1881 | 50 0 0 | Thomas Hartman | | | |
| 23 | " | 30 " " | 80 0 0 | John A. Fotheringham | | | |
| 22a | " | 10 Mar., " | 200 0 0 | Wm. W. Richardson | | | |
| 141 | " | 7 April, " | 200 0 0 | John S. Brown | | | |
| 37 | " | 11 Aug., " | 40 0 0 | Michael O'Neill | | | |
| 38 | " | 11 " " | 40 0 0 | John A. Fotheringham | | | |
| 40 | " | 25 " " | 160 0 0 | Chas. E. Christensen | | | |
| 44 | " | 25 " " | 60 0 0 | James Ramsay | | | |
| 56 | " | 29 Sept., " | 92 0 0 | Pierce Gould and James Crow | | | |
| 58 | " | 29 " " | 40 0 0 | Patrick Fitzgerald | | | |
| 60 | " | 6 Oct., " | 287 3 0 | Grainger Barton | | | |
| 61 | " | 6 " " | 320 0 0 | " | | | |
| 62 | " | 6 " " | 120 0 0 | Great Cobar Copper-mining Company (Limited). | | | |
| 80 | " | 3 Nov., " | 178 0 0 | Charles E. Christensen | | | |
| 101 | " | 29 Dec., " | 40 0 0 | Henry J. Cornish and Lewis Hopkin | | | |
| 82- 7 | " | 2 Mar., 1882 | 40 0 0 | Francis Jolly | | | |
| 10 | " | 2 " " | 80 0 0 | Henry Ellis | | | |
| 11 | " | 2 " " | 40 0 0 | Hartwood Copper-mining Company (Limited). | | | |
| 18 | " | 11 May, " | 100 0 0 | Isaac S. Little | | | |
| 22 | " | 25 " " | 80 0 0 | John Allen and James Morrissey | | | |
| 24 | " | 16 June, " | 40 0 0 | Henry J. Cornish and James Budd | | | |
| 27 | " | 29 " " | 40 0 0 | James Cotton | | | |
| 28 | " | 29 " " | 40 0 0 | Hans Carl Andra | | | |
| 29 | " | 20 " " | 40 0 0 | Walter L. Williams | | | |
| 32 | " | 6 July, " | 120 0 0 | Wm. J. Hogan, Neil Morrison, Thomas C. O'Brien, Hans C. Andra, Hopkin Lewis, and Wm. Morgan. | | | |
| 84 | " | 13 " " | 40 0 0 | Walter S. Williams | | | |
| 36 | " | 20 " " | 80 0 0 | Grainger Barton | | | |
| 38 | " | 27 " " | 40 0 0 | William J. Hogan and John Hutchins. | | | |
| 39 | " | 27 " " | 40 0 0 | William S. Williams | | | |
| 41 | " | 27 " " | 60 0 0 | John D. Geldard | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|--|----------------------|---------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 82- 43 | Cobar | 27 July, 1882 | 40 0 0 | Richard Thomas | | | |
| 44 | " | 27 " | 40 0 0 | Hopkin Lewis, E. Freeman, and Daniel Pope. | | | |
| 45 | " | 27 " | 40 0 0 | James Cotton and Robt. Lorensen | | | |
| 47 | " | 10 Aug., " | 100 0 0 | John A. Fotheringham | | | |
| 48 | " | 10 " | 80 0 0 | Andrew Thomson and Fredk. Smith | | | |
| 50 | " | 17 " | 40 0 0 | Robert Gregson and William B. Dawson | | | |
| 52 | " | 7 Sept., " | 186 2 0 | Charles E. Christensen | | | |
| 53 | " | 7 " | 40 0 0 | Thomas Hartman | | | |
| 55 | " | 7 " | 200 0 0 | Hugh Kennedy and Wm. N. Willis | | | |
| 72 | " | 16 Nov., " | 200 0 0 | Chas. E. Christensen, T. Hartman, and Charles Campbell. | | | |
| 77 | " | 7 Dec., " | 40 0 0 | William Joseph Hogan | | | |
| 83- 1 | " | 11 Jan., 1883 | 40 0 0 | James R. Hewat | | | |
| 4 | " | 1 Feb., " | 40 0 0 | Charles E. Christensen | | | |
| 8 | " | 15 Mar., " | 40 0 0 | James Core | | | |
| 9 | " | 15 " | 40 0 0 | George F. Judd | | | |
| 12 | " | 5 April, " | 80 0 0 | Charles E. Christensen | | | |
| 22 | " | 14 June, " | 80 0 0 | William H. Pettett | | | |
| 26 | " | 19 July, " | 40 0 0 | Patrick Smith | | | |
| 72-4445 | Cooma | 25 July, 1872 | 80 0 0 | William Pritchard | | | |
| 4661 | " | 1 Aug., " | 80 0 0 | Archibald Forsyth | | | |
| 5037 | " | 15 " | 80 0 0 | Peter Campbell Curtis | | | |
| 5927 | " | 19 Sept., " | 80 0 0 | Archibald Forsyth | | | |
| 6318 | " | 3 Oct., " | 40 0 0 | William Pritchard | | | |
| 73- 393 | " | 16 Jan., 1873 | 40 0 0 | Henry Reynolds | | | |
| 77- 82 | " | 5 April, 1877 | 40 0 0 | " | 16 April, 1880 | Mining operations | 80 0 0 |
| 80- 347 | " | 16 Dec., 1880 | 40 0 0 | Charles Fergus | | | |
| 81- 278 | " | 14 April, 1881 | 40 0 0 | John Edward Wright | | | |
| 82- 126 | " | 9 Mar., 1882 | 70 0 0 | Richard G. Pratt | | | |
| 146 | " | 16 " | 40 0 0 | " | | | |
| 384 | " | 25 May, " | 45 0 0 | Samuel Alfred Pratt | | | |
| 497 | " | 22 June, " | 45 0 0 | Edward Pratt, sen. | | | |
| 604 | " | 3 Aug., " | 40 0 0 | " | | | |
| 763 | " | 5 Oct., " | 40 0 0 | Frederick Reynolds | | | |
| 83- 352 | " | 13 Sept., 1883 | 40 0 0 | Nicholas Price Carver | | | |
| 424 | " | 8 Nov., " | 40 0 0 | Samuel Alfred Pratt | | | |
| 76- 138 | Coonabarabran | 14 Dec., 1876 | 40 0 0 | Andrew Town | | | |
| 82- 6 | " | 2 Feb., 1882 | 60 0 0 | George H. F. Cox | | | |
| 7 | " | 2 " | 40 0 0 | Charles Smith | | | |
| 8 | " | 2 " | 40 0 0 | Vivian Cox | | | |
| 18 | " | 25 May, " | 40 0 0 | James O. Miller | | | |
| 19 | " | 25 " | 40 0 0 | Graham M. Clarke | | | |
| 20 | " | 25 " | 40 0 0 | George H. Wilton | | | |
| 21 | " | 25 " | 40 0 0 | Dugald Cameron | | | |
| 23 | " | 1 June, " | 40 0 0 | Cecil W. E. Bedford | | | |
| 24 | " | 1 " | 40 0 0 | Herbert H. Smith | | | |
| 25 | " | 1 " | 40 0 0 | Graham M. Clarke | | | |
| 26 | " | 1 " | 40 0 0 | Samuel H. Wilton | | | |
| 27 | " | 1 " | 40 0 0 | William L. Nicholson | | | |
| 28 | " | 1 " | 40 0 0 | Jethro White | | | |
| 29 | " | 1 " | 40 0 0 | William L. Edwards | | | |
| 30 | " | 1 " | 60 0 0 | Arthur Mackie | | | |
| 32 | " | 15 " | 40 0 0 | Graham M. Clarke | | | |
| 33 | " | 15 " | 40 0 0 | Robert E. Nicholson | | | |
| 34 | " | 15 " | 40 0 0 | Richard J. Parker | | | |
| 35 | " | 22 " | 40 0 0 | John M. Master, jun. | | | |
| 36 | " | 29 " | 40 0 0 | Cecil W. E. Bedford | | | |
| 83- 80 | " | 22 Nov., 1888 | 40 0 0 | Robert Porteous | | | |
| 84 | " | 29 " | 40 0 0 | " | | | |
| 76- 188 | Corowa | 23 Nov., 1876 | 54 2 0 | William Hay | | | |
| 70-3076 | Cowra | 1 Sept., 1870 | 40 0 0 | James Robertson, George Rae, Richard Rowe. | | | |
| 3077 | " | 1 " | 40 0 0 | Wm. White, E. Bennett, W. H. Allen, Wm. Dower, R. Kendall, J. Luke, Thos. Williams, Rd. Rowe, Walter Friend. | | | |
| 82- 43 | " | 9 Mar., 1882 | 40 0 0 | Richard Neville | | | |
| 123 | " | 8 June, " | 40 0 0 | A. J. C. Single | | | |
| 83- 10 | Condobolin | 26 April, 1883 | 40 0 0 | James Byrum | | | |
| 12 | " | 26 " | 40 0 0 | Thomas James Glynn | | | |
| 15 | " | 26 " | 40 0 0 | William Sinclair | | | |
| 16 | " | 26 " | 40 0 0 | William Stone | | | |
| 17 | " | 3 May, " | 40 0 0 | Henry Alex. Richards | | | |
| 18 | " | 17 " | 40 0 0 | Hugh E. Stevenson | | | |
| 19 | " | 17 " | 40 0 0 | Asher J. Prior | | | |
| 21 | " | 31 May, " | 80 0 0 | Daniel M'Lean and Cornelius Bryum | | | |
| 22 | " | 5 July, " | 40 0 0 | Edward Kolges | | | |
| 23 | " | 28 " | 40 0 0 | Alex. J. S. Colquhoun | | | |
| 24 | " | 26 " | 40 0 0 | George Kevil, Thomas Byrum, and Hyam John Phillips. | | | |
| 25 | " | 26 " | 40 0 0 | John Roset | | | |
| 26 | " | 20 Sept., " | 40 0 0 | Herbert C. Jeffreys | | | |
| 27 | " | 27 " | 40 0 0 | James Byrum and Thomas Glynn | | | |
| 28 | " | 27 " | 40 0 0 | Thomas W. Ging, Thomas Byrum | | | |
| 30 | " | 11 Oct., " | 40 0 0 | James Byrum | | | |
| 31 | " | 11 " | 40 0 0 | Thomas W. Ging and Thomas Byrum | | | |
| 82- 5 | Deniliquin | 12 Jan., 1882 | 40 0 0 | Alexander Thomson Greswick | | | |
| 72-8841 | Dubbo | 24 Oct., 1872 | 80 0 0 | Robert Kendall | | | |
| 80- 184 | " | 21 " | 40 0 0 | Josiah J. Hamilton | | | |
| 165 | " | 21 " | 240 0 0 | Edward F. Rogers | | | |
| 166 | " | 21 " | 240 0 0 | Robert Pitt | | | |
| 167 | " | 21 " | 240 0 0 | Michael Quinlan | | | |
| 168 | " | 21 " | 240 0 0 | James Robertson | | | |
| 169 | " | 21 " | 40 0 0 | Charles Stewart | | | |
| 170 | " | 21 " | 80 0 0 | John O'Neill | | | |
| 172 | " | 21 " | 90 0 0 | Robert Wilson | | | |
| 189 | " | 11 Nov., " | 50 0 0 | James B. Brown | | | |
| 192 | " | 18 " | 601 0 0 | John S. Brown | | | |
| 195 | " | 18 " | 50 0 0 | James B. Brown | | | |
| 202 | " | 25 " | 224 0 0 | John Studd Brown | | | |
| 221 | " | 16 Dec., " | 160 0 0 | John Cassells Byrie | | | |
| 221 | " | 16 " | 40 0 0 | William Atison, junr. | | | |
| 227 | " | 23 " | 50 0 0 | James Holmes | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|-----------------|--|--------|--|-------------------|--|
| | | £ s d. | | | Void, 26 October, 1883. Form of measurement applied for is objectionable. |
| | | | | | " " " " |
| | | | Girilambone Copper-mining Company (Limited). | 16 Oct., 1882. | " 18 January, 1883. Land previously selected. |
| | | | | | Void, 11 June, 1883. Land previously selected. |
| | | | | | " " " " |
| | | | Girilambone Copper-mining Company (Limited). | 31 Jan., 1883. | Void, 16 June, 1883. Vagueness of description. |
| | | | | | Void, 3 March, 1884. Vagueness of description. |
| | | | | | Cancelled, 3 December, 1872, mineral lease of same land not having been declared forfeited at date of selection. |
| | | | | | Void, 1 July, 1875, for non-measurement. Lapsed, Gazette, 31 October, 1876. |
| | | | | | Cancelled, 5 February, 1873. Previously selected. |
| | | | | | Void, 9 April, 1875. Non-survey within twelve months. |
| | | | | | Lapsed, Gazette, 7 May, 1877. |
| | | | | | Approved by Minister, 2 June, 1881. |
| | Evidence before Commissioner King shows improvements to be copper ore, shed, and shop. | 94 0 0 | | | |
| William Spicer | Improvements not stated | | | | |
| | | | | | Lapsed, Gazette, 24 September, 1880. |
| | | | | | Void, 28 February, 1882. Made by an agent. |
| | | | | | " 24 " " |
| | | | | | Void, 28 November, 1882. Within land district of Dubbo. |
| | | | | | " 22 " " |
| J. H. Handsaker | No improvements. | | | | Withdrawn, 15 September, 1879. Non-survey within twelve months. |
| | | | | | Cancelled, 11 July, 1871. Private property. |
| | | | | | " " " |
| | | | | | Void, April, 1883. Form of survey objectionable. |
| | | | | | Void, 11/6/83. Second application same day. |
| | | | | | Void, 10/4/84. Within travelling stock reserve 1379. |
| | | | | | " 17/4/84. " " |
| | | | | | Void, 23/2/84. Land applied for situate in Parkes district. |
| | | | | | Void, 26/3/84. Land situated in district of Parkes. |
| | | | | | Void, 17/4/84. Within travelling stock reserve 1379. |
| | | | | | " " " |
| | | | | | Lapsed, Gazette, 10 October, 1873. |
| | | | | | Withdrawn, 11/4/82. Non-survey within twelve months. |
| | | | | | " 31/1/82. " " |
| | | | | | " " " " |
| | | | | | " " " " |
| | | | | | " 11/4/82. " " |
| | | | | | " " " " |
| | | | | | " " " " |
| | | | Tottenham Lee Richardson | 8 Dec., 1880 | Case under reference to Commissioner for inquiry. |
| | | | Tottenham Leo Richardson | 8 Dec., 1880 | " " |
| | | | | | Void, 8/5/81. Form of measurement objectionable. |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|---------------------|------------------------------------|----------------------|---------------------------|---------|
| | | | | | | | £ s. d. |
| 80- 228 | Dubbo | 23 Dec., 1880 | a. r. p. 100 0 0 | Robert Booth | | | |
| 229 | " | 23 " | 50 0 0 | Matthew M'Alister | | | |
| 230 | " | 23 " | 50 0 0 | Archibald Kennedy | | | |
| 232 | " | 23 " | 50 0 0 | John Cassels Rylie | | | |
| 233 | " | 23 " | 50 0 0 | William Moffatt | | | |
| 234 | " | 23 " | 50 0 0 | William G. Orbell | | | |
| 235 | " | 23 " | 50 0 0 | John Studd Brown | | | |
| 236 | " | 23 " | 50 0 0 | Thomas G. Vyner | | | |
| 237 | " | 23 " | 50 0 0 | James Byrnes | | | |
| 238 | " | 23 " | 50 0 0 | William K. Garnsey | | | |
| 239 | " | 23 " | 50 0 0 | Thomas Baird | | | |
| 81- 5 | " | 6 Jan., 1881 | 40 0 0 | John Cassels Rylie | | | |
| 6 | " | 6 " | 40 0 0 | Matthew Macalister | | | |
| 90 | " | 8 Mar., " | 640 0 0 | John Studd Brown | | | |
| 96 | " | 10 " | 150 0 0 | John Studd Brown | | | |
| 105 | " | 17 " | 40 0 0 | George E. Murdock | | | |
| 120 | " | 24 " | 40 0 0 | Wm. Geo. Reakes and John T. Croft. | | | |
| 160 | " | 14 April, 1880 | 40 0 0 | Edward S. Antill | | | |
| 169 | " | 28 " | 640 0 0 | John Reid | | | |
| 170 | " | 28 " | 640 0 0 | Alex. Stephen Balcombe | | | |
| 174 | " | 28 " | 640 0 0 | William K. Garnsey | | | |
| 175 | " | 28 " | 640 0 0 | John Studd Brown | | | |
| 180 | " | 23 " | 40 0 0 | John Cassels Rylie | | | |
| 181 | " | 23 " | 40 0 0 | Robert Booth | | | |
| 182 | " | 23 " | 40 0 0 | Thomas Bartlett | | | |
| 183 | " | 23 " | 40 0 0 | William George Orbell | | | |
| 225 | " | 26 May, " | 100 0 0 | James Holmes | | | |
| 226 | " | 28 " | 40 0 0 | John Cassels Rylie | | | |
| 245 | " | 16 June, 1881 | 40 0 0 | Thomas Chapman | | | |
| 248 | " | 16 " | 40 0 0 | Edward H. Kater | | | |
| 250 | " | 16 " | 40 0 0 | Robert Davidson | | | |
| 261 | " | 30 " | 40 0 0 | Joseph H. Rendall | | | |
| 264 | " | 30 " | 40 0 0 | Robert G. Dalhenty | | | |
| 267 | " | 30 " | 40 0 0 | Thomas Baird | | | |
| 271 | " | 7 July, " | 40 0 0 | William B. Wilkinson | | | |
| 278 | " | 7 " | 40 0 0 | Joseph H. Rendall | | | |
| 282 | " | 14 " | 40 0 0 | William B. Wilkinson | | | |
| 283 | " | 14 " | 40 0 0 | John Studd Brown | | | |
| 284 | " | 14 " | 40 0 0 | William G. Orbell | | | |
| 337 | " | 1 Sept., " | 40 0 0 | James Henderson | | | |
| 338 | " | 1 " | 40 0 0 | Thomas John Oliver | | | |
| 339 | " | 1 " | 40 0 0 | William B. Wilkin-on | | | |
| 340 | " | 1 " | 40 0 0 | Edward James Stonton | | | |
| 342 | " | 1 " | 40 0 0 | John Studd Brown | | | |
| 348 | " | 1 " | 80 0 0 | Frederick E. Body | | | |
| 344 | " | 1 " | 40 0 0 | Joshua Gill | | | |
| 345 | " | 1 " | 40 0 0 | Joseph Stevens | | | |
| 376 | " | 22 " | 40 0 0 | James Holmes | | | |
| 377 | " | 22 " | 40 0 0 | William Robinson | | | |
| 378 | " | 22 " | 40 0 0 | Joseph H. Rendall | | | |
| 379 | " | 22 " | 40 0 0 | Lachlan M'Kay | | | |
| 384 | " | 22 " | 40 0 0 | Julius Caro | | | |
| 452 | " | 1 Dec., " | 40 0 0 | James Henderson | | | |
| 462 | " | 8 " | 60 0 0 | Matthew Macalister | | | |
| 463 | " | 8 " | 40 0 0 | Joseph H. Rendall | | | |
| 465 | " | 15 " | 40 0 0 | James Henderson | | | |
| 483 | " | 15 " | 40 0 0 | Edward J. Stevens | | | |
| 469 | " | 15 " | 40 0 0 | Robert Booth | | | |
| 470 | " | 15 " | 40 0 0 | Alfred H. Benton | | | |
| 471 | " | 15 " | 40 0 0 | Alexander K. Mackenzie | | | |
| 472 | " | 15 " | 40 0 0 | John Studd Brown | | | |
| 473 | " | 15 " | 40 0 0 | Henry L. Nathan | | | |
| 474 | " | 15 " | 40 0 0 | Augustus V. Nathan | | | |
| 481 | " | 15 " | 40 0 0 | Alfred C. Samuels | | | |
| 482 | " | 15 " | 40 0 0 | Joseph H. Rendall | | | |
| 483 | " | 15 " | 40 0 0 | Joseph G. Grange | | | |
| 486 | " | 15 " | 40 0 0 | William B. Oliver | | | |
| 483 | " | 15 " | 40 0 0 | Frederick E. Body | | | |
| 490 | " | 15 " | 40 0 0 | James Samuels, jun | | | |
| 495 | " | 22 " | 40 0 0 | William Bowen | | | |
| 493 | " | 22 " | 40 0 0 | James Henderson | | | |
| 487 | " | 22 " | 40 0 0 | Alfred Charles Samuels | | | |
| 498 | " | 22 " | 40 0 0 | John Studd Brown | | | |
| 490 | " | 22 " | 40 0 0 | William K. Garnsey | | | |
| 500 | " | 22 " | 40 0 0 | Joseph H. Rendall | | | |
| 501 | " | 22 " | 40 0 0 | Edward J. Stevens | | | |
| 502 | " | 22 " | 40 0 0 | Augustus V. Nathan | | | |
| 503 | " | 22 " | 40 0 0 | Raby Wilson | | | |
| 504 | " | 22 " | 40 0 0 | John R. Ross | | | |
| 505 | " | 22 " | 40 0 0 | Robert Booth | | | |
| 82- 3 | " | 5 Jan., 1882 | 40 0 0 | Francis W. Knyvott | | | |
| 5 | " | 6 " | 40 0 0 | Richard Nancarrow | | | |
| 6 | " | 6 " | 40 0 0 | Raby Wilson | | | |
| 7 | " | 5 " | 40 0 0 | Joseph H. Rendall | | | |
| 8 | " | 5 " | 40 0 0 | Henry Duley | | | |
| 9 | " | 5 " | 40 0 0 | Vernon Nathan | | | |
| 10 | " | 5 " | 40 0 0 | David Forr ster | | | |
| 11 | " | 5 " | 40 0 0 | James S. Weldon | | | |
| 15 | " | 5 " | 40 0 0 | Walter Hardy | | | |
| 21 | " | 5 " | 40 0 0 | Harry Rossiter | | | |
| 22 | " | 5 " | 40 0 0 | Fredk. Bowman | | | |
| 26 | " | 5 " | 610 0 0 | John Cassels Rylie | | | |
| 42 | " | 19 Jan., " | 40 0 0 | Frederick E. Body | | | |
| 43 | " | 19 " | 40 0 0 | Alfred H. Benton | | | |
| 44 | " | 19 " | 40 0 0 | William G. Orbell | | | |
| 45 | " | 19 " | 40 0 0 | John Harriett | | | |
| 46 | " | 19 " | 40 0 0 | William H. Deane | | | |
| 47 | " | 19 " | 40 0 0 | John Studd Brown | | | |
| 48 | " | 19 " | 40 0 0 | Joseph Penzer | | | |
| 49 | " | 19 " | 40 0 0 | James Henderson | | | |
| 50 | " | 19 " | 40 0 0 | Robert Booth | | | |
| 51 | " | 19 " | 40 0 0 | Alfred Chas. Samuels | | | |
| 52 | " | 19 " | 40 0 0 | Joseph H. Rendall | | | |
| 53 | " | 19 " | 40 0 0 | Alexander Bertram | | | |
| 60 | " | 2 Feb., " | 63 0 0 | Richard Peck, junr. | | | |
| 67 | " | 2 " | 40 0 0 | Andrew H. M'ulloch, junr. | | | |
| 74 | " | 3 " | 40 0 0 | William L. Crellin | | | |
| 75 | " | 9 " | 40 0 0 | Charles Mackinnon | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------------------------|--------------------|----------|--|----------------------|--------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 82- 79 | Dubbo | 16 Feb., 1882 | 40 0 0 | James Rodda | | | |
| 80 | " | 16 " | 40 0 0 | Thomas Egan | | | |
| 81 | " | 16 " | 40 0 0 | Francis Gilroy, junr. | | | |
| 82 | " | 16 " | 40 0 0 | Robert Booth | | | |
| 83 | " | 16 " | 40 0 0 | James Spencer Stevens | | | |
| 84 | " | 16 " | 40 0 0 | James Mullon | | | |
| 86 | " | 16 " | 40 0 0 | Edward J. Stevens | | | |
| 87 | " | 16 " | 40 0 0 | John Egan | | | |
| 91 | " | 23 " | 45 0 0 | John Edward Kelly | | | |
| 92 | " | 23 " | 45 0 0 | Joseph Kelly | | | |
| 93 | " | 23 " | 45 0 0 | Richard Nancarrow | | | |
| 95 | " | 23 " | 45 0 0 | William H. Tuck | | | |
| 96 | " | 25 " | 40 0 0 | George Furney, senr. | | | |
| 97 | " | 23 " | 40 0 0 | Alexander H. Macfarlane | | | |
| 99 | " | 23 " | 40 0 0 | Frank Day | | | |
| 103 | " | 2 Mar., " | 40 0 0 | Herbert Lander | | | |
| 109 | " | 9 " | 320 0 0 | Edwin Davies | | | |
| 110 | " | 9 " | 40 0 0 | Frederick J. Fuller | | | |
| 111 | " | 9 " | 40 0 0 | William Lambert | | | |
| 118 | " | 9 " | 50 0 0 | James Henderson | | | |
| 114 | " | 9 " | 40 0 0 | Robert Kerr Gillespie | | | |
| 127 | " | 30 " | 40 0 0 | John B. Dulhunty | | | |
| 128 | " | 30 " | 40 0 0 | William Loftus Murphy | | | |
| 131 | " | 6 April, " | 80 0 0 | Ernest W. Soane | | | |
| 132 | " | 6 " | 80 0 0 | John B. Dulhunty | | | |
| 136 | " | 20 " | 80 0 0 | Lachlan P. McKillop | | | |
| 137 | " | 20 " | 40 0 0 | Frederick Bowman | | | |
| 151 | " | 8 June, " | 40 0 0 | Joseph H. Rendall | | | |
| 152 | " | 8 " | 40 0 0 | Charles Macgregor | | | |
| 153 | " | 8 " | 40 0 0 | Robert R. Wilson | | | |
| 185 | " | 31 Aug., " | 100 0 0 | John Strahorn, sen. | | | |
| 186 | " | 31 " | 40 0 0 | Robert Booth | | | |
| 188 | " | 31 " | 60 0 0 | James R. Johnstone | | | |
| 205 | " | 12 Oct., " | 300 0 0 | Samuel Marsden | | | |
| 228 | " | 16 Nov., " | 40 0 0 | Walter R. Cornish | | | |
| 229 | " | 16 " | 60 0 0 | William J. Stocker | | | |
| 235 | " | 23 " | 40 0 0 | John Studd Brown | | | |
| 240 | " | 30 " | 40 0 0 | Richd. Nancarrow, Wm. J. Statham | | | |
| 241 | " | 30 " | 60 0 0 | John Studd Brown | | | |
| 247 | " | 7 Dec., " | 100 0 0 | " | | | |
| 250 | " | 14 " | 40 0 0 | William Patrick | | | |
| 252 | " | 21 " | 200 0 0 | George White | | | |
| 83- 8 | " | 11 Jan., 1883 | 40 0 0 | Robert Booth | | | |
| 12 | " | 13 " | 40 0 0 | Thomas M. Scott | | | |
| 13 | " | 18 " | 40 0 0 | Frederick Bowman | | | |
| 14 | " | 18 " | 40 0 0 | Howard Macfarlane | | | |
| 21 | " | 1 Feb., " | 60 0 0 | Thomas Yeo, Michael Yeo, and Christopher A. Yeo. | | | |
| 35 | " | 22 " | 40 0 0 | Owen Cunningham, Isaac Roberts, Thomas Dugan, Julius Caro. | | | |
| 54 | " | 15 Mar., " | 88 0 0 | Raby Wilson | | | |
| 58 | " | 22 " | 640 0 0 | James Samuels, jun. | | | |
| 63 | " | 22 " | 40 0 0 | Richard Nancarrow | | | |
| 67 | " | 29 " | 40 0 0 | John Studd Brown | | | |
| 73 | " | 5 April, " | 77 2 0 | " | | | |
| 79 | " | 12 " | 320 0 0 | William McCullough | | | |
| 91 | " | 17 May, " | 300 0 0 | { Samuel Marsden, F. H. Burslem, } Alexander Hamilton. | | | |
| 93 | " | 31 " | 80 0 0 | Richard Nancarrow | | | |
| 94 | " | 31 " | 40 0 0 | Frederick H. Burslem | | | |
| 110 | " | 5 July, " | 60 0 0 | Thomas Yeo, Michael Yeo, Christopher A. Yeo. | | | |
| 119 | " | 2 Aug., " | 40 0 0 | Harry A. Patrick | | | |
| 124 | " | 9 " | 100 0 0 | Charles H. Fitzgerald | | | |
| 76- 18 | Forbes | 14 Jan., 1875 | 40 0 0 | Joseph Geo. Wood | | | |
| 19 | " | 14 " | 40 0 0 | " | | | |
| 76- 261 | Forbes, now Parkes | 31 Aug., 1876 | 40 0 0 | James Ralston | | | |
| 77- 277 | Forbes | 12 " | 40 0 0 | Reginald Dowling | | | |
| 278 | " | 12 " | 40 0 0 | Ernest U. Bowler | | | |
| 279 | " | 12 " | 40 0 0 | Herbert S. Harwood | | | |
| 78- 3 | " | 10 Jan., 1878 | 40 0 0 | " | 8 April, 1881 | Mining operations, £2 per acre | 80 0 0 |
| 82- 108 | { Forbes, now } Condobolin. } | 6 July, 1882 | 40 0 0 | Richard Fitzgerald | | | |
| 125 | " | 27 " | 127 2 0 | " | | | |
| 72- 3956 | Glen Innes | 4 " | 40 0 0 | Hugh Henry Fraser | | | |
| 6108 | " | 19 Sept., " | 260 0 0 | Henry Lewis and Robert A. Lewis | 15 Feb., 1878 | Mining operations, £2 per acre | 520 0 0 |
| 6109 | " | 19 " | 240 0 0 | Thomas Elder | 15 " | " | 480 0 0 |
| 6110 | " | 19 " | 80 0 0 | Malcolm C. Machardy | 15 Sept., 1875 | " | 160 0 0 |
| 73- 643 | " | 23 Jan., 1873 | 50 0 0 | Henry Lewis, Robert A. Lewis, and Thos. Elder. | | | |
| 74- 230 | " | 8 " | 120 0 0 | Thomas Elder | | | |
| 231 | " | 8 " | 40 0 0 | " | | | |
| 232 | " | 8 " | 40 0 0 | " | | | |
| 233 | " | 8 " | 40 0 0 | " | | | |
| 234 | " | 8 " | 40 0 0 | " | | | |
| 285 | " | 8 " | 80 0 0 | Edward Wm. Reynolds | | | |
| 2918 | " | 12 Mar., " | 40 0 0 | John Lemon | | | |
| 2020 | " | 12 " | 40 0 0 | " | | | |
| 7147 | " | 25 June, " | 40 0 0 | Wm. Alexander Fraser | | | |
| 7834 | " | 16 July, " | 40 0 0 | Herbert Campbell Fraser | | | |
| 14329 | " | 24 Dec., " | 40 0 0 | Peter Colin Campbell | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|----------------|---|-----------|---|-------------------|--|
| | | £ s. d. | | | |
| | | | | | Declared void, 23 November, 1882. Land applied for situate on reserve 1,034. |
| | | | John Edward Kelly | 12 July, 1882 | |
| | | | " | 13 " " | Declared void, 25 August, 1884. Almost wholly within reserve 1,052. |
| | | | " | 13 " " | Declared void, 17 September, 1883. Within water reserve 1,052. |
| | | | | | Declared void, 3 March, 1884. Form of measurement described objectionable. |
| | | | | | Declared void, 12 January, 1884. Form of measurement described objectionable. |
| | | | | | Declared void, 20 March, 1883. Form of measurement described objectionable. |
| | | | | | Declared void, 20 November, 1883. Form of measurement described objectionable. |
| | | | { Richd. Nancarrow, Saml. Marsden, W. J. Strathorn, Francis H. Burslem, John Wilson, Geo. White, Geo. Hawke, Jacob Russart, Jas. R. Glasson, Henry W. Nancarrow, Wm. Edmunds. } | 12 Oct., 1882 | { Declared void, 25 April, 1883, as the description is objectionable. |
| | | | Walter R. Cornish | 16 Nov., 1882 | Declared void, 16 August, 1884, at applicant's request. |
| | | | { Geo. White, Wm. J. Statham, Richd. Nancarrow, H. W. Nancarrow, Francis Hy. Burslem. } | 22 Dec., 1882 | |
| | | | { Chas. J. Berry, John T. Croft, John F. Smith, Geo. P. Croft, Wm. H. Croft, Jas. Woolcock, Chas. King. } | 24 Aug., 1883 | |
| | | | John Chas. Berry | 1 " " | |
| | | | { Ernest J. Mathews, Wm. Henderson, Thomas Yeo, Michael Yeo, Christopher S. Yeo, Wm. Yeo, Ellen Yeo, George S. Yeo. } | 6 July, 1883 | |
| | | | Tottenham Lee Richardson | 25 April, 1883 | |
| | | | " | 25 " " | Declared void, 20 December, 1883. Greater part of C.P. within Dubbo population boundary. |
| | | | { R. Nancarrow & Co. } | 17 May, 1883 | |
| | | | " | 1 Aug., " | |
| J. C. Page | Improvements, nil | | | | Lapsed, Gazette, 10 Oct., 1878. |
| | | | | | " " 10 " " |
| | | | | | " " 28 " " |
| | | | | | " " 25 Feb., 1881. |
| | | | | | " " 25 " " |
| | | | | | " " 25 " " |
| Joseph C. Page | Slabbed well 130 feet deep, 20 chains log fence, 40 acres ringbarked. | 140 10 0 | | | Approved by Minister, 1 July, 1874. |
| F. Trollope | Steam engine, steam puddlers, jiggling machine, dam. | 2,000 0 0 | Thomas Elder & Robt. A. Lewis | 27 Oct., 1876 | Lapsed, Gazette, 31 Oct., 1876. |
| | | | | | Approved by Minister, 12 Sept., 1879. |
| | | | Alfred Cadell & John Reid | 20 Feb., 1883 | " " 21 June, 1880. |
| | | | | | " " 21 Feb., 1883. |
| | | | | | Lapsed, Gazette, 7 May, 1877. |
| | | | | | " " 9 Oct., " |
| | | | | | " " 0 " " |
| | | | | | Declared void, 28 March, 1876. Cannot be measured in accordance with Regulations. |
| | | | | | Lapsed, Gazette, 9 Oct., 1877. |
| | | | | | Declared void, 28 March, 1876. Cannot be measured in accordance with the Regulations. |
| | | | | | Declared void, 11 Feb., 1875. Land applied for held under mineral lease. |
| | | | | | Lapsed, Gazette, 16 Feb., 1878. |
| | | | | | " " 4 May, " |
| | | | | | " " 20 July, " |

| C.P. No. | Land District | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|---------------|--------------------|--------------------|--|----------------------|--|--------------------|
| 74-14424 | Glen Innes | 31 Dec., 1874 | a. r. p. 80 0 0 | Walter Russell Hall | 3 Jan., 1878 | Mining operations, £2 per acre | £ s. d. 160 0 0 |
| 14425 | " | 31 " | 80 0 0 | " | 3 " | " | 160 0 0 |
| 75- 65 | " | 29 April, 1875 | 20 0 0 | Alexander Thomson | " | " | " |
| 73 | " | 1 July, " | 40 0 0 | Ed. Irby, Augustus G. Andrews, D. M. O'Connell. | 24 Feb., 1876 | Mining operations, £2 per acre | 80 0 0 |
| 77 | " | 22 " | 40 0 0 | Catherine Lemon (now Fitzgerald) | " | " | " |
| 83 | " | 23 Sept., " | 40 0 0 | Oswald Bloxsome | 6 Mar., 1878 | Mining operations, £2 per acre | 80 0 0 |
| 101 | " | 16 Dec., " | 60 0 0 | John Wesley Hall | 10 " 1879 | " | 120 0 0 |
| 102 | " | 16 " | 100 0 0 | Walter Russell Hall | 10 " " | " | 200 0 0 |
| 108 | " | 16 " | 40 0 0 | " | 10 " " | " | 80 0 0 |
| 104 | " | 16 " | 40 0 0 | " | 10 " " | " | 80 0 0 |
| 105 | " | 16 " | 45 0 0 | " | " | " | " |
| 106 | " | 16 " | 40 0 0 | " | 10 Mar., 1879 | Mining operations, £2 per acre | 80 0 0 |
| 107 | " | 16 " | 80 0 0 | " | 10 " " | " | 160 0 0 |
| 108 | " | 16 " | 160 0 0 | John Anderson and Chas. Hanson | 27 Jan., " | " | 320 0 0 |
| 114 | " | 30 " | 200 0 0 | Richard Reilly, Sydney Cohen, Chas. B. Lowe, John M'Master. | 28 Mar., " | " | 320 0 0 |
| 76- 14 | " | 16 Mar., 1876 | 60 0 0 | Gabriel de Milhan and Jas. W. Hall | " | " | " |
| 31 | " | 30 " | 200 0 0 | Walter Russell Hall | 23 July, 1878 | Dam, machinery, and mining labour, &c. | 500 0 0 |
| 52 | " | 27 April, " | 40 0 0 | Hugh Gordon | " | " | " |
| 102 | " | 23 Sept., " | 80 0 0 | Edward Irby, Augustus G. Andrews, Daniel M. O'Donnell. | 20 Oct., 1880 | Mining operations, £2 per acre | 160 0 0 |
| 103 | " | 28 " | 40 0 0 | " | 26 " " | " | 80 0 0 |
| 105 | " | 23 " | 180 0 0 | William Hy. Wesley | 17 Sept., 1879 | " | 360 0 0 |
| 121 | " | 30 Nov., " | 40 0 0 | Alfred Cadell and Alfred Mitchell | 11 Nov., 1878 | " | 80 0 0 |
| 122 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 123 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 124 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 125 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 126 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 127 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 128 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 129 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 130 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 131 | " | 30 " | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 132 | " | 30 " | 60 0 0 | " | 11 " " | " | 120 0 0 |
| 77- 113 | " | 22 " 1877 | 40 0 0 | " | 11 " " | " | 80 0 0 |
| 6 | " | 25 Jan., " | 40 0 0 | Joshua Charles Gross | 7 Jan., 1880 | " | 80 0 0 |
| 30 | " | 3 May, " | 40 0 0 | Joseph Marks | 30 " " | " | 80 0 0 |
| 94 | " | 20 Sept., " | 40 0 0 | William Penrose | " | " | " |
| 78- 169 | " | 27 June, 1878 | 58 2 0 | Hugh Gordon | 25 June, 1881 | Mining operations, £2 per acre | 107 0 0 |
| 206 | " | 8 Aug., " | 40 0 0 | Peter Colin Campbell, Chas. B. Lowe, and William J. Fergusson. | 6 " " | " | 80 0 0 |
| 240 | " | 26 Sept., " | 40 0 0 | John Worth | " | " | " |
| 241 | " | 26 " | 40 0 0 | Edward D. Ogilvie | " | " | " |
| 242 | " | 26 " | 40 0 0 | " | " | " | " |
| 79- 84 | " | 1 May, 1879 | 20 0 0 | Christopher Thos. Lagot | " | " | " |
| 125 | " | 17 July, " | 40 0 0 | Hugh Gordon | 9 Sept., 1882 | Mining operations, £2 per acre | 80 0 0 |
| 148 | " | 18 Sept., " | 40 0 0 | Walker Kennedy and John Salmon | 18 " " | Mining operations, £3 per acre | 120 0 0 |
| 163 | " | 9 Oct., " | 60 0 0 | Thomas Elder and Robert A. Lewis | " | " | " |
| 80- 1 | " | 8 Jan., 1880 | 60 0 0 | Francis Buokle and John Paul | 22 Mar., 1883 | Mining operations, £300 per acre | 18,000 0 0 |
| 9 | " | 5 Feb., " | 60 0 0 | James Martin | " | " | " |
| 16 | " | 4 Mar., " | 60 0 0 | John Reid and John Moffat | " | " | " |
| 81- 7 | " | 13 Jan., 1881 | 60 0 0 | John Fredk. Utz and Robert Arden Lewis. | 9 Jan., 1884 | Mining operations, £2 per acre | 120 0 0 |
| 135 | " | 26 May, " | 120 0 0 | Peter Colin Campbell | 27 Sept., 1882 | " | 240 0 0 |
| 177 | " | 11 Aug., " | 40 0 0 | Bernard O. Holsermann | " | " | " |
| 194 | " | 15 Sept., " | 60 0 0 | William Walter Farmer | " | " | " |
| 202 | " | 29 " " | 40 0 0 | William N. Keyes | " | " | " |
| 205 | " | 6 Oct., " | 40 0 0 | Samuel W. Burridge | " | " | " |
| 225 | " | 27 " " | 40 0 0 | Thomas P. Clark | " | " | " |
| 249 | " | 1 Dec., " | 00 0 0 | John Adam Boyd | " | " | " |
| 260 | " | 22 " " | 40 0 0 | William H. Yates | " | " | " |
| 267 | " | 29 " " | 40 0 0 | George Carvell | " | " | " |
| 82- 81 | " | 16 Feb., 1882 | 50 0 0 | John A. Boyd and Geo. W. Harris | 9 Jan., 1884 | Mining operations, £2 per acre | 100 0 0 |
| 33 | " | 16 " | 40 0 0 | John F. Utz and Robert A. Lewis | 9 " " | " | 80 0 0 |
| 84 | " | 16 " " | 40 0 0 | " | " | " | " |
| 85 | " | 16 " " | 80 0 0 | " | " | " | " |
| 37 | " | 16 " " | 40 0 0 | Glen Innes Bismuth Company | " | " | " |
| 63 | " | 16 Mar., " | 40 0 0 | John F. Utz and Robert A. Lewis | " | " | " |
| 64 | " | 16 " " | 40 0 0 | John James Cotton | " | " | " |
| 71 | " | 30 " " | 00 0 0 | Robert Arden Lewis | " | " | " |
| 72 | " | 30 " " | 40 0 0 | William T. Cadden, John A. M'Kee, and Arthur J. Dodd. | " | " | " |
| 75- 87 | " | 30 Sept., 1875 | 180 0 0 | George Judah Cohen and Robert Hyndes. | 6 Sept., 1878 | Mining operations, £2 per acre | " |
| 88 | " | 30 " " | 200 0 0 | " | 6 " " | " | " |
| 89 | " | 21 Oct., " | 540 0 0 | " | 6 " " | " | " |
| 91 | " | 21 " " | 100 0 0 | " | 6 " " | " | " |
| 99 | " | 16 Dec., " | 60 0 0 | " | 6 " " | " | " |
| 100 | " | 16 " " | 80 0 0 | " | 6 " " | " | " |
| 76- 3 | " | 3 Feb., 1876 | 60 0 0 | " | 6 " " | " | " |
| 6 | " | 10 " " | 40 0 0 | " | 6 " " | " | " |
| 25 | " | 30 Mar., " | 40 0 0 | Alfred Cadell and John I. O'Daly | 21 Oct., " | " | " |
| 26 | " | 30 " " | 40 0 0 | Alfred Cadell and John Ingram O'Daly | 21 " " | " | " |
| 27 | " | 30 " " | 40 0 0 | " | 21 " " | " | " |
| 28 | " | 30 " " | 40 0 0 | " | 21 " " | " | " |
| 29 | " | 30 " " | 40 0 0 | " | 21 " " | " | " |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|--------------------|---|----------------------|----------------------------------|---------|
| 76-30 | Glen Innes | 30 Mar., 1876 | a. r. p. 40 0 0 | Alfred Cadell and John Ingram O'Daly | 21 Oct., 1878 | Mining operations, £2 per acre | £ s. d. |
| 83 | " | 17 Aug., " | 40 0 0 | Alfred Cadell, John I. O'Daly, and Montague Marks. | 3 " 1879 | " " | " |
| 86 | " | 24 " " | 40 0 0 | " " | 3 " " | " " | " |
| 97 | " | 7 Sept., " | 40 0 0 | " " | 3 " " | " " | " |
| 98 | " | 7 " " | 40 0 0 | " " | 3 " " | " " | " |
| 106 | " | 5 Oct., " | 40 0 0 | Alfred Cadell | 27 Dec., " | " " | " |
| 107 | " | 5 " " | 40 0 0 | " " | 27 " " | " " | " |
| 113 | " | 19 " " | 44 0 0 | Alfred Cadell & John Ingram O'Daly | 3 Oct., " | " " | " |
| 114 | " | 19 " " | 40 0 0 | " " | 3 " " | " " | " |
| 82-78 | " | 30 Mar., 1882 | 40 0 0 | John James Cotton | | | |
| 85 | " | 6 April, " | 40 0 0 | Duncan M'Rae | | | |
| 86 | " | 6 " " | 40 0 0 | Walter Lee and Mathew M'Ivor | | | |
| 87 | " | 6 " " | 40 0 0 | Lionel Claude Bloxsome | | | |
| 88 | " | 6 " " | 40 0 0 | Cecil Bloxsome | | | |
| 91 | " | 13 " " | 60 0 0 | Duncan M'Rae | | | |
| 92 | " | 13 " " | 40 0 0 | Lionel Claude Bloxsome | | | |
| 93 | " | 13 " " | 40 0 0 | Cecil Bloxsome | | | |
| 101 | " | 18 " " | 40 0 0 | Walter Lee | | | |
| 102 | " | 20 " " | 40 0 0 | George Kennedy King | | | |
| 115 | " | 20 " " | 40 0 0 | Robert Arden Lewis | | | |
| 120 | " | 27 " " | 60 0 0 | Thomas Johnson | | | |
| 123 | " | 27 " " | 40 0 0 | George Kennedy King | | | |
| 125 | " | 4 May, " | 50 0 0 | " | | | |
| 126 | " | 4 " " | 100 0 0 | George Edwin Cass | | | |
| 131 | " | 4 " " | 40 0 0 | George Carvell | | | |
| 133 | " | 11 " " | 40 0 0 | George Edwin Cass | | | |
| 134 | " | 11 " " | 80 0 0 | George Kennedy King | | | |
| 142 | " | 11 " " | 40 0 0 | John Adair Boyd | | | |
| 144 | " | 18 " " | 40 0 0 | " | | | |
| 145 | " | 18 " " | 60 0 0 | George Kennedy King | | | |
| 149 | " | 25 " " | 60 0 0 | John Adair Boyd | | | |
| 150 | " | 25 " " | 40 0 0 | George William Harris | | | |
| 152 | " | 25 " " | 40 0 0 | George Kennedy King | | | |
| 153 | " | 1 June, " | 40 0 0 | The Glen Innes Bismuth Coy. | | | |
| 159 | " | 8 " " | 80 0 0 | John James Cotton | | | |
| 184 | " | 18 July, " | 60 0 0 | Duncan M'Rae | | | |
| 206 | " | 10 Aug., " | 50 0 0 | Cecil E. H. Hoskins | | | |
| 221 | " | 31 " " | 40 0 0 | Arthur W. King | | | |
| 223 | " | 7 Sept., " | 40 0 0 | George Carvell | | | |
| 233 | " | 5 Oct., " | 40 0 0 | Moreton H. Fitzhardinge | | | |
| 246 | " | 5 " " | 80 0 0 | Robert Arden Lewis and John Fredk. Utz | 9 Jan., 1884 | Mining operations, £2 per acre | 160 0 0 |
| 250 | " | 20 " " | 40 0 0 | Louis Fontaine and Wm. B. Fitzgerald | | | |
| 260 | " | 23 Nov., " | 140 0 0 | Arthur W. King | | | |
| 83-27 | " | 15 Feb., 1883 | 60 0 0 | Robert Arden Lewis and John Fredk. Utz | 9 Jan., 1884 | Mining operations, £2 per acre | 120 0 0 |
| 28 | " | 15 " " | 40 0 0 | Arthur W. King | | | |
| 29 | " | 15 " " | 60 0 0 | John James Cotton | | | |
| 33 | " | 22 " " | 40 0 0 | Arthur W. King | | | |
| 38 | " | 1 Mar., " | 120 0 0 | " | | | |
| 42 | " | 15 " " | 40 0 0 | " | | | |
| 56 | " | 12 April, " | 70 0 0 | " | | | |
| 59 | " | 19 " " | 40 0 0 | George K. King | | | |
| 67 | " | 17 May, " | 40 0 0 | Arthur W. King | | | |
| 97 | " | 26 July, " | 60 0 0 | James Munro | | | |
| 112 | " | 30 Aug., " | 80 0 0 | Hugh E. H. Gordon | | | |
| 114 | " | 30 " " | 40 0 0 | Arthur W. King | | | |
| 122 | " | 13 Sept., " | 70 0 0 | " | | | |
| 125 | " | 27 " " | 40 0 0 | Joseph Gundry | | | |
| 126 | " | 27 " " | 40 0 0 | Richard Bennett | | | |
| 134 | " | 4 Oct., " | 40 0 0 | " | | | |
| 133 | " | 11 " " | 80 0 0 | Arthur W. King | | | |
| 146 | " | 25 " " | 60 0 0 | Alfred Cadell | | | |
| 147 | " | 25 " " | 80 0 0 | Joseph Gundry | | | |
| 148 | " | 25 " " | 40 0 0 | Richard Bennett | | | |
| 77-190 | Goulburn | 29 Nov., 1877 | 60 0 0 | Edward Irby and others | 21 Feb., 1881 | Mining improvements, £2 per acre | 120 0 0 |
| 72-5120 | " | 15 Aug., 1872 | 40 0 0 | William Hemming | | | |
| 6603 | " | 5 Sept., " | 40 0 0 | Charles Mossman, Henry Simpson, Peter Curtis, Geo. Reid, and Fredk. Vale. | | | |
| 5609 | " | 5 " " | 40 0 0 | " | | | |
| 5610 | " | 5 " " | 40 0 0 | " | | | |
| 73-784 | " | 30 Jan., 1873 | 40 0 0 | William Joseph Neville | | | |
| 1150 | " | 18 Feb., " | 40 0 0 | Selby Mars Morton | | | |
| 74-5618 | " | 6 Aug., 1874 | 40 0 0 | John Young | | | |
| 75-395 | " | 30 Dec., 1875 | 40 0 0 | Augustine M. Betts | 29 Mar., 1879 | Mining operations, £3 per acre | 80 0 0 |
| 76-2 | " | 6 Jan., 1876 | 20 0 0 | William Jobson and Jeremiah Topham | | | |
| 259 | " | 8 June " | 40 0 0 | George Yabsley | | | |
| 348 | " | 7 Sept., " | 40 0 0 | Augustine M. Betts | 20 Dec., 1879 | Mining operations, £5 per acre | 200 0 0 |
| 77-75 | " | 19 April, 1877 | 40 0 0 | Francis H. Gall | 22 July, 1880 | Mining operations, £2 per acre | 80 0 0 |
| 78-212 | " | 13 June, 1878 | 40 0 0 | William Jobson and Jeremiah Topham | 8 Sept., 1881 | " | 80 0 0 |
| 232 | " | 27 " " | 40 0 0 | David E. Jones | | | |
| 80-62 | " | 8 April, 1880 | 100 0 0 | Nicholas Colston Lockyer | | | |
| 180 | " | 23 Sept., " | 40 0 0 | William Neville | | | |
| 81-234 | " | 3 Nov., 1881 | 40 0 0 | Francis H. Gall | | | |
| 83-137 | " | 10 May, 1882 | 40 0 0 | James Armstrong and Michael Perry | | | |
| 192 | " | 19 July, " | 40 0 0 | James Armstrong | | | |

| O.P. No. | Land District | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|---------------|--------------------|--------------------|---|----------------------|--------------------------------|---------|
| 83- 233 | Goulburn..... | 13 Sept., 1883 | a. r. p. 40 0 0 | David Strang, junr., & Jas. M'C. Brady | | | £ s. d. |
| 235 | " | 13 " " | 40 0 0 | Andrew O'Keefe and Hugh Goodwin | | | |
| 268 | " | 25 Oct., " | 40 0 0 | John Ellis | | | |
| 73-7946 | Grafton..... | 31 July, 1878 | 80 0 0 | Thomas Bawden and Thomas Fisher | | | |
| 8030 | " | 7 Aug., " | 80 0 0 | " " | 8 Aug., 1878 | Mining operations, £2 per acre | 160 0 0 |
| 74- 765 | " | 15 Jan., 1874 | 40 0 0 | " " | 22 Feb., 1877 | " " | 80 0 0 |
| 10616 | " | 17 Sept., " | 80 0 0 | Joseph Page | 4 Sept., 1877 | " " | 160 0 0 |
| 12467 | " | 29 Oct., " | 40 0 0 | John Eastwood | | | |
| 18809 | " | 26 Nov., " | 40 0 0 | " | 7 Feb., 1878 | Mining operations, £2 per acre | 80 0 0 |
| 75- 98 | " | 3 June, 1875 | 40 0 0 | Thomas Flintoff | | | |
| 193 | " | 23 Sept., " | 40 0 0 | Edward C. Batt, R. J. W. Jervaux, Julius M'Kee, and Charles M'Kee. | | | |
| 205 | " | 18 Nov., " | 60 0 0 | Joseph Page | 4 Sept., 1877 | Mining operations, £2 per acre | 120 0 0 |
| 76- 90 | " | 6 July, 1876 | 60 0 0 | " | | | |
| 77- 64 | " | 30 Aug., 1877 | 40 0 0 | Henry Baines, Thomas H. Smith, and Henry F. Smith. | | | |
| 80- 29 | " | 13 May, 1880 | 40 0 0 | Thomas Fisher | | | |
| 30 | " | 13 " " | 40 0 0 | " | | | |
| 31 | " | 20 " " | 40 0 0 | " | | | |
| 82- 12 | " | 2 Feb., 1882 | 80 0 0 | Thomas Rose | | | |
| 61 | " | 16 Mar., " | 153 0 0 | " | | | |
| 78 | " | 28 Mar., " | 80 0 0 | " | | | |
| 112 | " | 27 April, " | 160 0 0 | Thomas Birrell | | | |
| 81- 128 | Grenfell | 16 June, 1881 | 40 0 0 | Thomas M'Nevin | | | |
| 188 | " | 13 Oct., " | 40 0 0 | " | | | |
| 83- 51 | " | 3 May, 1883 | 50 0 0 | Thomas H. Pateman | | | |
| 82- 237 | Gundagai | 21 Sept., 1882 | 80 0 0 | Samuel Samper | | | |
| 72-4364 | Gunnedah | 18 July, 1872 | 41 0 0 | Robert G. Higgins | | | |
| 4365 | " | 18 " " | 41 0 0 | Charles Smith | | | |
| 76- 22a | " | 25 Dec., 1875 | 160 0 0 | Frederick J. Parks | | | |
| 27a | " | 30 " " | 40 0 0 | " | | | |
| 28a | " | 30 " " | 40 0 0 | Martin Gillon | | | |
| 29a | " | 30 " " | 40 0 0 | John Jordan | | | |
| 30a | " | 30 " " | 40 0 0 | William Brown | | | |
| 31a | " | 30 " " | 40 0 0 | Thomas Smith | | | |
| 32a | " | 30 " " | 40 0 0 | Francis Pelham | | | |
| 33a | " | 30 " " | 40 0 0 | Thomas Mathers | | | |
| 34a | " | 30 " " | 40 0 0 | Henry Mathers | | | |
| 35a | " | 30 " " | 40 0 0 | Alfred Paine | | | |
| 36a | " | 30 " " | 40 0 0 | Donald M'Intosh | | | |
| 37a | " | 30 " " | 40 0 0 | Richard Jones | | | |
| 38a | " | 30 " " | 40 0 0 | David Kassell | | | |
| 39a | " | 30 " " | 40 0 0 | David Johnson | | | |
| 40a | " | 30 " " | 40 0 0 | Henry Farrell | | | |
| 41a | " | 30 " " | 40 0 0 | John Maher | | | |
| 42a | " | 30 " " | 40 0 0 | Michael Coyne | | | |
| 76- 26 | " | 2 Mar., 1876 | 160 0 0 | John Bassett Christian | | | |
| 33 | " | 30 " " | 40 0 0 | William M. Christian | | | |
| 34 | " | 30 " " | 40 0 0 | " | | | |
| 35 | " | 30 " " | 40 0 0 | John Bassett Christian | | | |
| 36 | " | 30 " " | 40 0 0 | " | | | |
| 37 | " | 30 " " | 40 0 0 | " | | | |
| 50 | " | 25 May, " | 40 0 0 | " | | | |
| 51 | " | 25 " " | 40 0 0 | William M. Christian | | | |
| 54 | " | 1 June, " | 123 0 0 | Frederick J. Parks | | | |
| 55 | " | 1 " " | 57 0 0 | John B. Christian | | | |
| 78 | " | 20 July, " | 40 0 0 | " | | | |
| 79 | " | 20 " " | 91 1 0 | " | | | |
| 80 | " | 20 " " | 40 0 0 | William M. Christian | | | |
| 81 | " | 20 " " | 40 0 0 | " | | | |
| 82 | " | 20 " " | 40 0 0 | John Bassett Christian | | | |
| 89 | " | 10 Aug., " | 45 0 0 | John B. Christian | | | |
| 116 | " | 7 Sept., " | 160 0 0 | Alfred Paine | | | |
| 120 | " | 21 " " | 64 0 0 | John B. Christian | | | |
| 135 | " | 19 Oct., " | 40 0 0 | " | | | |
| 134 | " | 19 " " | 40 0 0 | " | | | |
| 136 | " | 19 " " | 40 0 0 | William M. Christian | | | |
| 143 | " | 16 Nov., " | 164 0 0 | John B. Christian | | | |
| 158 | " | 7 Dec., " | 40 0 0 | William Clift, Joseph Clift, Samuel Clift, and George Clift. | | | |
| 159 | " | 7 " " | 40 0 0 | " | | | |
| 77- 22 | " | 22 Feb., 1877 | 80 0 0 | Arthur Henry Bray | | | |
| 29 | " | 1 Mar., " | 40 0 0 | John Bassett Christian | | | |
| 30 | " | 1 " " | 80 0 0 | " | | | |
| 44 | " | 10 April " | 50 0 0 | Andrew Town | | | |
| 52 | " | 17 May, " | 62 0 0 | Frederick J. Parks | | | |
| 58 | " | 17 " " | 62 0 0 | " | | | |
| 54 | " | 17 " " | 64 0 0 | John McKay | | | |
| 91 | " | 23 June, " | 50 0 0 | William G. Borron | | | |
| 92 | " | 28 " " | 50 0 0 | " | | | |
| 78- 28 | " | 4 April, 1878 | 40 0 0 | " | | | |
| 80- 38 | " | 1 July, 1880 | 320 0 0 | Henry Charles White | | | |
| 89 | " | 1 " " | 100 0 0 | H. H. Kelly | | | |
| 81- 46 | " | 31 Mar., 1881 | 200 0 0 | James Wm. Jones | | | |
| 49 | " | 31 " " | 200 0 0 | Michael Fenders | | | |
| 50 | " | 31 " " | 200 0 0 | James Maxwell | | | |
| 51 | " | 31 " " | 200 0 0 | William Grace | | | |
| 52 | " | 31 " " | 200 0 0 | Edward Grace | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|------------------|--------------------|----------|---|----------------------|--------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 81- 54 | Gunnedah | 7 April, 1881 | 200 0 0 | Michael Ryan | | | |
| 55 | " | 7 " " | 200 0 0 | Patrick Byrnes | | | |
| 56 | " | 7 " " | 200 0 0 | Patrick Butler | | | |
| 57 | " | 7 " " | 160 0 0 | William Smithers | | | |
| 62 | " | 21 " " | 110 0 0 | James Butler | | | |
| 63 | " | 21 " " | 160 0 0 | James Wm. Jones | | | |
| 83 | " | 9 June, " | 225 1 0 | " | | | |
| 84 | " | 9 " " | 200 0 0 | James P. Butler | | | |
| 89 | " | 16 " " | 160 0 0 | " | | | |
| 90 | " | 18 " " | 57 2 0 | James W. Jones | | | |
| 131 | " | 8 Sept., " | 100 0 0 | " | | | |
| 152 | " | 17 Nov., " | 145 1 0 | " | | | |
| 153 | " | 24 " " | 148 1 0 | " | | | |
| 82- 76 | " | 15 June, 1882 | 95 2 0 | John Noumen | | | |
| 76 | " | 15 " " | 80 0 0 | James Wm. Jones | | | |
| 108 | " | 27 July, " | 40 0 0 | James Waite | | | |
| 113 | " | 17 Aug., " | 272 2 0 | William Grace | | | |
| 114 | " | 17 " " | 161 0 0 | Edward Grace | | | |
| 122 | " | 31 " " | 40 0 0 | John Joseph Pools | | | |
| 127 | " | 14 Sept., " | 157 0 0 | James William Jones | | | |
| 129 | " | 14 " " | 188 3 0 | James Butler | | | |
| 137 | " | 5 Oct., " | 165 1 0 | James William Jones | | | |
| 148 | " | 19 " " | 40 0 0 | Murray W. Sheppard | | | |
| 156 | " | 2 Nov., " | 80 0 0 | James Wm. Jones | | | |
| 156 | " | 2 " " | 40 0 0 | James Butler | | | |
| 159 | " | 2 " " | 52 0 0 | Henry J. Swann | | | |
| 160 | " | 2 " " | 100 0 0 | Thomas Butler | | | |
| 168 | " | 2 " " | 200 0 0 | Samuel Melvil | | | |
| 166 | " | 16 " " | 160 0 0 | " | | | |
| 169 | " | 23 " " | 80 0 0 | Henry John Swann | | | |
| 83- 1 | " | 4 Jan., 1883 | 200 0 0 | James W. Jones | | | |
| 17 | " | 1 Feb., " | 50 0 0 | Louis Delavigne | | | |
| 18 | " | 1 " " | 80 0 0 | George M'Donagh | | | |
| 19 | " | 1 " " | 40 0 0 | Murray W. Sheppard | | | |
| 21 | " | 8 " " | 75 0 0 | Thomas Dea | | | |
| 67 | " | 21 June, " | 90 0 0 | John Craven Laycock | | | |
| 73-6004 | Hay, now Cobar.. | 5 " 1873 | 40 0 0 | Ferdinand Duval, R. S. Thomason, Thomas Scott, and Richd. D. Jones. | | | |
| 6005 | " | 5 " " | 40 0 0 | " " " | | | |
| 6006 | " | 5 " " | 40 0 0 | " " " | | | |
| 75- 222 | Hay | 23 Sept., 1875 | 40 0 0 | James Ford | | | |
| 73- 35 | " | 28 Mar., 1878 | 200 0 0 | John Walker, sen. | 19 July, 1881 | Mining operations, £2 per acre | 400 0 0 |
| 89 | " | 20 June, " | 224 0 0 | " | 10 " " | " | 448 0 0 |
| 81- 69 | " | 15 Sept., 1881 | 179 0 0 | Thomas Gowans | | | |
| 147 | " | 29 Dec., " | 40 0 0 | George Matthews | | | |
| 148 | " | 29 " " | 40 0 0 | Henry Francis Creswick | | | |
| 149 | " | 29 " " | 40 0 0 | George Thrift Lloyd | | | |
| 150 | " | 29 " " | 40 0 0 | Francis Calvert | | | |
| 151 | " | 29 " " | 40 0 0 | Jane Williams | | | |
| 152 | " | 29 " " | 40 0 0 | William Henry Dalzell | | | |
| 153 | " | 29 " " | 40 0 0 | Frank Alfred Meakes | | | |
| 154 | " | 29 " " | 40 0 0 | Peter M'Dowell | | | |
| 155 | " | 29 " " | 40 0 0 | Franklin E. Fay | | | |
| 156 | " | 29 " " | 40 0 0 | Robert Chas. Patterson | | | |
| 157 | " | 29 " " | 40 0 0 | James M'Kenna | | | |
| 158 | " | 29 " " | 40 0 0 | George N. Magill | | | |
| 159 | " | 29 " " | 40 0 0 | Joseph Burke | | | |
| 160 | " | 29 " " | 40 0 0 | Robert Moreland | | | |
| 161 | " | 29 " " | 40 0 0 | William R. Raleigh | | | |
| 162 | " | 29 " " | 40 0 0 | James Gillespie | | | |
| 163 | " | 29 " " | 40 0 0 | John Carey | | | |
| 164 | " | 29 " " | 40 0 0 | Thomas Dickson | | | |
| 165 | " | 29 " " | 40 0 0 | James Gaull | | | |
| 166 | " | 29 " " | 40 0 0 | David M'Caughy | | | |
| 167 | " | 29 " " | 40 0 0 | Robert A. Carse | | | |
| 168 | " | 29 " " | 40 0 0 | Christina Carse | | | |
| 82- 3 | " | 12 Jan., 1883 | 40 0 0 | Robert Moreland | | | |
| 4 | " | 12 " " | 40 0 0 | Henry Francis Creswick | | | |
| 5 | " | 12 " " | 40 0 0 | George Neale Magill | | | |
| 6 | " | 12 " " | 40 0 0 | James Gaull | | | |
| 7 | " | 12 " " | 40 0 0 | John Carey | | | |
| 8 | " | 12 " " | 40 0 0 | Edward Tippet | | | |
| 98 | " | 1 June, 1882 | 640 0 0 | Henry Hill | | | |
| 105 | " | 8 " " | 640 0 0 | " | | | |
| 111 | " | 15 " " | 320 0 0 | Peter Job Firth, jun. | | | |
| 112 | " | 15 " " | 220 0 0 | Hector M'Innes | | | |
| 116 | " | 15 " " | 320 0 0 | Henry Hill | | | |
| 122 | " | 22 " " | 40 0 0 | " | | | |
| 123 | " | 22 " " | 40 0 0 | Walter Wheeler | | | |
| 141 | " | 18 July, " | 474 2 0 | Fitzwilliam Wentworth | | | |
| 142 | " | 18 " " | 145 2 0 | Henry Hill | | | |
| 148 | " | 27 " " | 120 0 0 | Alfred Brown | | | |
| 171 | " | 24 Aug., " | 110 0 0 | Hector M'Innes | | | |
| 83- 70 | " | 12 July, 1883 | 40 0 0 | Henry Pether, sen. | | | |
| 72-6384 | Hillston | 8 Oct., 1872 | 40 0 0 | Charles Campbell | | | |
| 6975 | " | 31 " " | 40 0 0 | James Struth | | | |
| 73-7085 | " | 31 July, 1873 | 40 0 0 | Robert Fisher | 27 Sept., 1876 | Mining operations, £2 per acre | 80 0 0 |
| 7086 | " | 31 " " | 40 0 0 | Robert Alex. Brown | 27 " " | " | 80 0 0 |
| 7087 | " | 31 " " | 40 0 0 | " | 27 " " | " | 80 0 0 |
| 8792 | " | 28 Aug., " | 40 0 0 | James M'Gregor, jun. | | | |
| 8798 | " | 28 " " | 40 0 0 | " | | | |
| 8794 | " | 28 " " | 40 0 0 | " | | | |
| 8795 | " | 28 " " | 40 0 0 | " | | | |
| 8796 | " | 28 " " | 40 0 0 | Frank Johns and Bernard F. Blake | | | |
| 8797 | " | 28 " " | 40 0 0 | " | | | |
| 9664 | " | 18 Sept., " | 40 0 0 | Charles Wickham | | | |
| 9665 | " | 18 " " | 40 0 0 | James M'Gregor, jun. | | | |
| 9666 | " | 18 " " | 40 0 0 | Henry Thomson Davidson | | | |
| 9667 | " | 18 " " | 40 0 0 | " | | | |
| 9668 | " | 18 " " | 40 0 0 | " | | | |
| 9669 | " | 18 " " | 40 0 0 | James Edward Warby | | | |
| 9670 | " | 18 " " | 40 0 0 | James M'Gregor, jun. | | | |
| 9671 | " | 18 " " | 40 0 0 | " | | | |
| 9672 | " | 18 " " | 40 0 0 | " | | | |
| 9673 | " | 18 " " | 40 0 0 | Henry Thomson Davidson | | | |
| 9674 | " | 18 " " | 40 0 0 | " | | | |
| 12372 | " | 27 Nov., " | 40 0 0 | Frank Johns | | | |
| 74- 61 | " | 8 Jan., 1874 | 40 0 0 | Lewis M'Kenzie | 28 Jan., 1877 | Mining operations, £2 per acre | 80 0 0 |
| 62 | " | 8 " " | 40 0 0 | " | 28 " " | " | 80 0 0 |
| 2804 | " | 12 Mar., " | 40 0 0 | " | 23 " " | " | 80 0 0 |
| 65 | " | 8 Jan., " | 40 0 0 | James M'Gregor | | | |
| 464 | " | 15 " " | 40 0 0 | Frank Johns and John Patterson | | | |

| C.P. No. | Land District | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|---------------|--------------------|--------------------|--|----------------------|----------------------------------|---------|
| 74-485 | Hillston | 15 Jan., 1874 | a. r. p. 40 0 0 | Frank Johns and John Patterson | | | £ s. d. |
| 468 | " | 15 " " | 40 0 0 | " | | | |
| 840 | " | 22 " " | 40 0 0 | William Clarke | | | |
| 1054 | " | 29 " " | 40 0 0 | Robert Alex. Brown | 12 Mar., 1877 | Mining operations, £2 per acre | 80 0 0 |
| 1055 | " | 29 " " | 40 0 0 | " | 12 " " | " | 80 0 0 |
| 1056 | " | 29 " " | 40 0 0 | " | 12 " " | " | 80 0 0 |
| 1060 | " | 29 " " | 40 0 0 | Donald Campbell | 9 Aug., " | " £5 per acre | 80 0 0 |
| 1912 | " | 19 Feb., " | 40 0 0 | James Kennedy | | | |
| 2145 | " | 26 " " | 40 0 0 | Henry O. Gilbert and Richd. D. Jones | | | |
| 2140. | " | 26 " " | 40 0 0 | Henry Ockerby Gilbert | | | |
| 2147 | " | 26 " " | 40 0 0 | " | | | |
| 2803 | " | 12 Mar., " | 40 0 0 | W. A. Wallace | | | |
| 5207 | " | 14 May, " | 40 0 0 | James Foy and James Crosby | | | |
| 7811 | " | 16 July, " | 40 0 0 | William Latham Smith | 8 Mar., 1878 | Mining operations, £2 per acre | 80 0 0 |
| 75- 22 | " | 18 Feb., 1875 | 40 0 0 | Robina Hope Brown | 20 April, " | " | 80 0 0 |
| 49 | " | 18 Mar., " | 40 0 0 | William Sabine | | | |
| 78- 59 | " | 23 May, 1878 | 40 0 0 | Andrew L. Sorensen | | | |
| 80- 36 | " | 22 April, " | 40 0 0 | Lewis M'Kenzie | | | |
| 70-4414 | Hartley | 29 Dec., 1870 | 128 0 0 | Thos. J. Hutchinson | 5 Aug., 1874 | Mining operations, £2 per acre | 240 0 0 |
| 71- 248 | " | 2 Feb., 1871 | 100 0 0 | J. Poole, Nathaniel Wooley, and Robt. Anderson. | 27 April, " | £2 per acre on mining operations | 200 0 0 |
| 72- 541 | " | 15 Feb., 1872 | 320 0 0 | John Busby | 11 Feb., 1875 | " | 640 0 0 |
| 542 | " | 15 " " | 56 0 0 | Edward Gell | | " | 112 0 0 |
| 4302 | " | 18 " " | 60 0 0 | Campbell Mitchell | | " | |
| 4803 | " | 18 " " | 60 0 0 | " | | " | |
| 4304 | " | 18 " " | 60 0 0 | " | | " | |
| 5781 | " | 12 Aug., " | 320 0 0 | Patrick Higgins | 28 Sept., 1875 | £2 per acre on mining operations | 640 0 0 |
| 5782 | " | 12 " " | 320 0 0 | Thos. T. Wilton | 28 " " | " | 640 0 0 |
| 5785 | " | 12 Sept., " | 230 0 0 | J. Lucas, G. W. Allen, James Martin, and Geo. Ford. | | " | |
| 5786 | " | 12 " " | 50 0 0 | Thos. Ware Smart | 30 Mar., 1876 | £2 per acre on mining operations | 640 0 0 |
| 6412 | " | 3 Oct., " | 320 0 0 | " | | " | |
| 6418 | " | 3 " " | 320 0 0 | Fredk. H. Dangar | 30 " " | " | 640 0 0 |
| 6414 | " | 3 " " | 60 0 0 | John de V. Lamb | | " | |
| 6501 | " | 10 " " | 200 0 0 | Thos. Talbot Wilton | 18 Sept., 1875 | £2 per acre on mining operations | 400 0 0 |
| 6751 | " | 17 " " | 130 0 0 | Thos. Saywell | | " | |
| 7069 | " | 31 " " | 180now 45 0 0 | Aaron Wheeler | 23 Mar., 1876 | £5 per acre on mining operations | 225 0 0 |
| 7283 | " | 14 Nov., " | 320 0 0 | John Dobbie | 18 Nov., " | £2 " " | 640 0 0 |
| 7284 | " | 14 " " | 320 0 0 | T. M. Sloman, C. W. Croaker, and W. Cock. | | " | |
| 8264 | " | 26 Dec., " | 40 0 0 | C. W. Croaker, T. M. Sloman, Jas. Cock, and J. Dobbie. | 18 Nov., 1876 | £2 per acre on mining operations | 80 0 0 |
| 73-1157 | " | 6 Feb., 1873 | 40 0 0 | W. F. Mackenzie | | " | |
| 3298 | " | 3 April, " | 40 0 0 | John W. Watkins | | " | |
| 8299 | " | 3 " " | 60 0 0 | " | | " | |
| 5378 | " | 12 June, " | 60 0 0 | C. W. Croaker, J. Cock, J. Dobbie, and T. M. Sloman. | 25 Aug., 1874 | £2 per acre on mining operations | 120 0 0 |
| 6338 | " | 26 " " | 40 0 0 | Walter F. Mackenzie | 26 June, 1873 | Mining and machinery | 80 0 0 |
| 7992 | " | 7 Aug., " | 40 0 0 | Thos. Saywell | 14 May, 1877 | Mining operations, £2 per acre | 80 0 0 |
| 7993 | " | 7 " " | 40 0 0 | " | 14 " " | " | 80 0 0 |
| 7994 | " | 7 " " | 40 0 0 | " | 14 " " | " | 80 0 0 |
| 7995 | " | 7 " " | 40 0 0 | " | 14 " " | " | 80 0 0 |
| 9469 | " | 18 Sept., " | 40 0 0 | Geo. Lee, W. Glover, and N. Wooley | 18 Feb., 1878 | Sinking and driving for coal | 80 0 0 |
| 9470 | " | 18 " " | 40 0 0 | " | 18 " " | " | 80 0 0 |
| 11752 | " | 30 Nov., " | 40 0 0 | Thos. Sutcliffe Mort | 15 June, 1876 | £2 per acre, mining operations | 80 0 0 |
| 74-2297 | " | 5 Mar., 1874 | 40 0 0 | D. Macarthur and J. Robertson | | " | |
| 2298 | " | 5 " " | 40 0 0 | " | | " | |
| 6432 | " | 21 May, " | 40 0 0 | " | | " | |
| 8950 | " | 13 Aug., " | 60 0 0 | T. W. Smart and F. H. Dangar | | " | |
| 10518 | " | 17 Sept., " | 40 0 0 | J. W. Watkin and C. H. Livingstone | | " | |
| 10519 | " | 17 " " | 200 0 0 | " | | " | |
| 10520 | " | 17 " " | 80 0 0 | " | | " | |
| 10521 | " | 17 " " | 50 0 0 | " | | " | |
| 10522 | " | 17 " " | 50 0 0 | " | | " | |
| 10523 | " | 17 " " | 300 0 0 | " | | " | |
| 10524 | " | 17 " " | 300 0 0 | " | | " | |
| 10525 | " | 17 " " | 300 0 0 | " | | " | |
| 10526 | " | 17 " " | 300 0 0 | " | | " | |
| 10527 | " | 17 " " | 40 0 0 | " | | " | |
| 13968 | " | 17 Dec., " | 109 0 0 | Harry Winters | | " | |
| 13969 | " | 17 " " | 320 0 0 | " | | " | |
| 13870 | " | 17 " " | 100 0 0 | " | | " | |
| 13871 | " | 17 " " | 80 0 0 | " | | " | |
| 75- 2 | " | 21 Jan., 1875 | 320 0 0 | Edward Gell | | " | |
| 3 | " | 28 " " | 320 0 0 | John Busby | | " | |
| 4 | " | 28 " " | 80 0 0 | " | | " | |
| 6 | " | 4 Feb., " | 40 0 0 | Harry Winters | | " | |
| 7 | " | 4 " " | 100 0 0 | " | | " | |
| 8 | " | 4 " " | 100 0 0 | " | | " | |
| 9 | " | 4 " " | 40 0 0 | " | | " | |
| 10 | " | 4 " " | 40 0 0 | " | | " | |
| 11 | " | 4 " " | 92 0 0 | " | | " | |
| 12 | " | 4 " " | 100 0 0 | " | | " | |
| 13 | " | 4 " " | 40 0 0 | " | | " | |
| 18 | " | 25 " " | 40 0 0 | " | | " | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to | Value. |
|----------|----------------|--------------------|--------------------|-------------------------------------|----------------------|--|----------|
| 75- 69 | Hartley | 12 Aug., 1875 | n. r. p. 40 0 0 | Walter F. Mackenzie | | | £ s. d. |
| 70 | " | 12 " " | 40 0 0 | " | | | |
| 71 | " | 12 " " | 40 0 0 | " | 8 Nov., 1878 | | |
| 74 | " | 9 Sept., " | 50 0 0 | L. A. Weinert and J. Lonergan | | | |
| 79 | " | 16 " " | 44 0 0 | G. Lee and Wm. Glover | | | |
| 76- 47 | " | 20 April, 1876 | 40 0 0 | John L. Meads | | | |
| 62 | " | 13 July, " | 80 0 0 | Fredk. Stavely | | | |
| 72 | " | 24 Aug., " | 40 0 0 | " | 20 Nov., 1879 | £2 per acre, mining operations | 80 0 0 |
| 77 | " | 31 " " | 80 0 0 | Walter F. Mackenzie | 29 " " | " | 160 0 0 |
| 78 | " | 31 " " | 40 0 0 | " | | " | 80 0 0 |
| 79 | " | 31 " " | 40 0 0 | " | | " | 80 0 0 |
| 80 | " | 31 " " | 40 0 0 | " | | " | 80 0 0 |
| 81 | " | 31 " " | 50 0 0 | " | | " | 160 0 0 |
| 82 | " | 31 " " | 40 0 0 | " | | " | 80 0 0 |
| 83 | " | 31 " " | 40 0 0 | Charles Kelso Moore | | | |
| 92 | " | 21 Dec., " | 92 0 0 | Thos. W. Smart & Fred. H. Dangar | 22 Dec., 1879 | Mining operations, £2 per acre | 184 0 0 |
| 93 | " | 21 " " | 60 0 0 | " | 22 " " | " | 120 0 0 |
| 77- 2 | " | 4 Jan., 1877 | 54 1 24 | Robert H. Reynolds & John B. North | 10 Mar., 1880 | " | 108 15 0 |
| | " | 4 " " | 80 0 0 | " | 10 " " | " | 160 0 0 |
| 4 | " | 4 " " | 80 0 0 | " | 10 " " | " | 160 0 0 |
| 5 | " | 4 " " | 40 0 0 | " | 10 " " | " | 80 0 0 |
| 6 | " | 4 " " | 40 0 0 | " | 10 " " | " | 80 0 0 |
| 7 | " | 4 " " | 40 0 0 | " | 10 " " | " | 80 0 0 |
| 8 | " | 4 " " | 40 0 0 | " | 10 " " | " | 80 0 0 |
| 9 | " | 4 " " | 40 0 0 | " | 10 " " | " | 80 0 0 |
| 10 | " | 4 " " | 40 0 0 | " | 10 " " | " | 80 0 0 |
| 11 | " | 4 " " | 44 3 0 | " | 10 " " | " | 89 10 0 |
| 13 | " | 11 " " | 40 0 0 | Enoch Hughes | 9 April, 1880 | " | 80 0 0 |
| 40 | " | 23 Mar., " | 145 0 0 | James Alexr. Brown | | " | |
| 51 | " | 17 May, " | 60 0 0 | Campbell Mitchell | 16 Aug., 1880 | Mining operations, £2 per acre | 120 0 0 |
| 52 | " | 17 " " | 120 0 0 | " | 16 " " | " | 240 0 0 |
| 53 | " | 17 " " | 40 0 0 | " | 16 " " | " | 40 0 0 |
| 54 | " | 17 " " | 61 0 0 | Thomas T. Wilton | 3 July, 1880 | Mining operations on adjoining land, £2 per acre | |
| 55 | " | 17 " " | 40 0 0 | Walter F. McKenzie | 17 Aug., 1880 | Mining operations, £2 per acre | 80 0 0 |
| 70 | " | 5 July, " | 40 0 0 | Thomas Saywell | 14 July, 1880 | " | 80 0 0 |
| 71 | " | 5 " " | 80 0 0 | " | 14 " " | " | 160 0 0 |
| 76 | " | 19 " " | 40 0 0 | Thos. Saywell and Campbell Mitchell | 14 " " | " | 80 0 0 |
| 77 | " | 19 " " | 40 0 0 | " | 14 " " | " | 80 0 0 |
| 78 | " | 19 " " | 40 0 0 | " | 14 " " | " | 80 0 0 |
| 93 | " | 27 Sept., " | 92 0 0 | New South Wales Shale and Oil Co. | 14 Mar., 1889 | " | |
| 73- 55 | " | 21 Mar., 1878 | 50 0 0 | John B. North | | " | |
| 81 | " | 23 May, " | 300 0 0 | Thomas Chalder | | " | |
| 82 | " | 23 " " | 40 0 0 | " | | " | |
| 83 | " | 23 " " | 40 0 0 | " | | " | |
| 84 | " | 23 " " | 120 0 0 | " | | " | |
| 85 | " | 23 " " | 80 0 0 | " | | " | |
| 94 | " | 27 June, " | 40 0 0 | James C. Tucker and E. B. Henning | 20 June, 1881 | Mining operations, £2 per acre | 80 0 0 |
| 115 | " | 3 Oct., " | 40 0 0 | Robert H. Reynolds & John B. North | 6 Mar., 1882 | Shafts and mining improvements | 160 0 0 |
| 143 | " | 28 Nov., " | 60 0 0 | Enoch Hughes | | " | |
| 163 | " | 19 Dec., " | 96 1 36 | Thos. Chalder | | " | |
| 79- 84 | " | 3 April, 1879 | 40 0 0 | Thos. Smith and Patrick Carmichael | | " | |
| 87 | " | 3 " " | 40 0 0 | David Macarthur | | " | |
| 88 | " | 3 " " | 40 0 0 | " | | " | |
| 89 | " | 3 " " | 101 0 0 | John B. North | 6 Oct., 1880 | Mining operations, £2 per acre | 202 0 0 |
| 99 | " | 24 " " | 41 3 0 | Robert Jas. Fisher | 13 May, 1882 | " £4 per acre | 167 0 0 |
| 104 | " | 15 May, " | 40 0 0 | Wm. Wilson and Thos. Saywell | | " | |
| 112 | " | 17 July, " | 40 0 0 | David Macarthur | 20 July, 1882 | Mining operations, £2 per acre | 80 0 0 |

| Inspector. | Improvements reported by Inspector. | Value. | Alience. | Date of Transfer. | Present state of Application. |
|--------------|---|-----------|---|-------------------|--|
| P. W. Street | Cuttings, £30 and £12; tunnel, £45 | 87 0 0 | | | Lapsed, Gazette, 3 April, 1879. |
| " | Adits, £50; shaft, £10; house, £35 | 95 0 0 | | | Certificate issued 8 July, 1881. |
| " | Nil | | | | Lapsed, Gazette, 3 April, 1879. |
| " | | | | | " 10 October, 1879. |
| G. Smith | Hut, £20; shaft, £38 16s.; platform, £6; shed, £10; shaft, £38 5s.; platform, £6; sheds, £10 and £2. | 130 0 0 | J. George Cousins, H. L. Dunn, J. J. Burt, J. P. Lester, and F. Stavelly. | 13 Feb., 1878 | Void. Within water reserve. Deed prepared 21 June, 1880. |
| " | Road, £10; 2 adits, £50; 2 tunnels, £240; timber, £8; cuttings and platform, £24; tramway, £10; trucks, £20; tunnel, £30; cutting, £12. | 404 0 0 | J. G. Cousins, H. L. Dunn, J. J. Burt, J. P. Lister, and Anne A. Meads. | 19 Dec., " | Certificate issued, 2 February, 1881. |
| " | 2 adits, £20; cuttings, £12 | 32 0 0 | | | " " |
| " | 4 adits, £27; cuttings, £20 | 47 0 0 | | | " " |
| " | 2 shafts, £40; road, £10 | 50 0 0 | | | " " |
| " | 3 shafts, £30; 2 adits, £6; 2 cuttings, £12; 2 adits, £18; 2 adits, £45; 2 shafts, £11. | 122 0 0 | | | " " |
| " | Tunnel, £75; shaft, £5 | 80 0 0 | | | " " |
| E. Evans | Sufficient improvements on C.P.'s held in conjunction. | | N. S. Wales Shale & Oil Co. | 26 April, 1878 | Lapsed, Gazette, 24 September, 1880. Deed prepared, 13 August, 1883. |
| G. Smith | Tunnel, 8 chains | 800 0 0 | | 26 " | Approved by Minister, 23 July, 1883. |
| " | Engule and boiler | 1,460 0 0 | John B. North | 12 May, 1879 | " 14 " 1880. |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | 4 tunnels, £231 10s.; cottages, £115 | 390 10 0 | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | 40-chain road | 20 0 0 | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | Improvements, nil | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | 20-chain road | 10 0 0 | John B. North | 12 May, 1879 | Deed prepared, 23 May, 1881. |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 12 May, 1879 | Approved by Minister, 14 July, 1880. |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
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| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
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| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
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| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
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| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
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| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
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| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
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| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
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| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
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| " | | | Montague Levey | 23 July, 1880 | " " |
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| " | | | Montague Levey | 23 July, 1880 | " " |
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| " | | | Montague Levey | 23 July, 1880 | " " |
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| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
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| " | | | Henry Holston | 7 Nov., " | " " |
| " | | | Montague Levey | 23 July, 1880 | " " |
| " | | | John B. North | 8 May, 1882 | " " |
| " | | | London Chartered Bank | 9 " | " " |
| " | | | John B. North | 12 " 1879 | " " |
| " | | | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|--|----------------------|----------------------------------|----------|
| | | | a. r. d. | | | | £ s. d. |
| 79-124 | Hartley | 2 Oct., 1879 | 120 0 0 | Campbell Mitchell | | | |
| 129 | " | 30 " | 40 0 0 | " | | | |
| 182 | " | 11 Dec., " | 50 0 0 | John B. North | 10 Mar., 1880 | Mining operations, £2 per acre | 100 0 0 |
| 80-10 | " | 19 Feb., 1880 | 40 0 0 | " | 10 " | " | 80 0 0 |
| 11 | " | 26 " | 40 0 0 | " | | | |
| 13 | " | 4 Mar., " | 320 0 0 | Charles Smith | 6 June, 1883 | Mining operations | 720 0 0 |
| 22 | " | 29 April, " | 50 0 0 | John B. North | — May, " | " £2 per acre | |
| 25 | " | 20 May, " | 40 0 0 | Michael J. Moloney | 14 Dec., " | " 24s. per acre | 48 0 0 |
| 26 | " | 20 " | 40 0 0 | " | 14 " | " | 48 0 0 |
| 28 | " | 20 " | 40 0 0 | " | | | |
| 29 | " | 27 " | 40 0 0 | " | | | |
| 30 | " | 27 " | 40 0 0 | " | | | |
| 31 | " | 27 " | 40 0 0 | " | | | |
| 34 | " | 24 June, " | 40 0 0 | John B. North | 6 Oct., 1880 | Mining operations, £2 per acre | 80 0 0 |
| 35 | " | 24 " | 40 0 0 | " | | | |
| 36 | " | 24 " | 50 0 0 | " | | | |
| 37 | " | 24 " | 50 0 0 | " | | | |
| 38 | " | 24 " | 50 0 0 | " | | | |
| 40 | " | 8 July, " | 40 0 0 | Charles Smith | 6 June, 1883 | Mining operations | 720 0 0 |
| 41 | " | 8 " | 40 0 0 | " | | | |
| 42 | " | 8 " | 40 0 0 | Campbell Mitchell | | | |
| 43 | " | 8 " | 40 0 0 | John B. North | 23 June, 1882 | Mining operations, £2 per acre | 80 0 0 |
| 44 | " | 8 " | 40 0 0 | " | | | |
| 45 | " | 8 " | 40 0 0 | " | | | |
| 46 | " | 8 " | 40 0 0 | " | | | |
| 47 | " | 8 " | 40 0 0 | " | | | |
| 48 | " | 8 " | 40 0 0 | " | | | |
| 49 | " | 15 " | 40 0 0 | " | 23 June, 1882 | Mining operations, £2 per acre | 80 0 0 |
| 50 | " | 15 " | 40 0 0 | " | | | |
| 51 | " | 15 " | 40 0 0 | " | | | |
| 54 | " | 22 " | 40 0 0 | Campbell Mitchell | | | |
| 56 | " | 29 " | 100 0 0 | Thos. Chalder | 11 Oct., 1883 | Mining operations, £2 per acre | 200 0 0 |
| 57 | " | 29 " | 100 0 0 | " | | | |
| 58 | " | 29 " | 40 0 0 | John B. North | 23 June, 1882 | Mining operations, £2 per acre | 80 0 0 |
| 59 | " | 29 " | 40 0 0 | " | | | |
| 60 | " | 29 " | 40 0 0 | " | | | |
| 62 | " | 12 Aug., " | 250 0 0 | " | 23 June, 1882 | Mining operations, £2 per acre | 500 0 0 |
| 63 | " | 12 " | 100 0 0 | John George North | 23 " | " | 820 0 0 |
| 64 | " | 12 " | 40 0 0 | Richard Roe | | | |
| 65 | " | 19 " | 240 0 0 | John B. North | 6 Oct., 1880 | Mining operations, £2 per acre | 480 0 0 |
| 66 | " | 19 " | 72 0 0 | John George North | 23 June, 1882 | " | 144 0 0 |
| 68 | " | 19 " | 40 0 0 | Campbell Mitchell and H. Barton | | | |
| 69 | " | 19 " | 40 0 0 | " | | | |
| 70 | " | 26 " | 40 0 0 | John B. North | 30 Nov., 1880 | Mining operations, £2 per acre | 80 0 0 |
| 71 | " | 26 " | 80 0 0 | John G. North | 23 June, 1882 | " | 160 0 0 |
| 73 | " | 26 " | 40 0 0 | Thomas Lonergan and Wm. Hart | | | |
| 74 | " | 26 " | 40 0 0 | James Lonergan | 4 Aug., 1883 | Mining operations, 24s. per acre | 48 0 0 |
| 77 | " | 9 Sept., " | 44 0 0 | Geo. Lee and Wm. Gliver | | | |
| 78 | " | 9 " | 50 0 0 | John B. North | 6 Oct., 1880 | Mining operations, £2 per acre | 100 0 0 |
| 82 | " | 23 " | 50 0 0 | " | 14 June, 1883 | " | 120 0 0 |
| 83 | " | 23 " | 100 0 0 | Thomas Chalders | 18 Dec., " | " | 200 0 0 |
| 87 | " | 30 " | 70 0 0 | John B. North | 30 Nov., 1880 | " | 140 0 0 |
| 92 | " | 14 Oct., " | 30 0 0 | Robert H. Reynolds | 19 July, 1883 | " | 160 0 0 |
| 93 | " | 21 " | 100 0 0 | Wm. Kelynack | | | |
| 94 | " | 21 " | 80 0 0 | Benjamin Beckhouse | 19 July, 1883 | Mining operations, £2 per acre | 160 0 0 |
| 97 | " | 28 " | 40 0 0 | Michael J. Moloney | | | |
| 98 | " | 28 " | 40 0 0 | William Joseph Cocks | | | |
| 99 | " | 28 " | 40 0 0 | Thos. F. Chapman | | | |
| 81-15 | " | 17 Feb., 1881 | 80 0 0 | John B. North | 23 June, 1882 | Mining operations, £2 per acre | 160 0 0 |
| 16 | " | 17 " | 80 0 0 | Robert H. Reynolds | 19 July, 1883 | " | 160 0 0 |
| 17 | " | 17 " | 50 0 0 | Margaret A. Reynolds | | | |
| 19 | " | 24 " | 40 0 0 | Robert H. Reynolds | 19 July, 1883 | Mining operations, £2 per acre | 80 0 0 |
| 20 | " | 24 " | 40 0 0 | Margaret A. Reynolds | | | |
| 81-21 | " | 24 Mar., " | 40 0 0 | Michael J. Hagan and Patrick Carmichael | 24 April, 1884 | Mining operations, £2 per acre | 80 0 0 |
| 23 | " | 31 " | 108 0 0 | John Sutherland | 20 Jan., 1884 | " | 216 0 0 |
| 24 | " | 31 " | 80 0 0 | James Rutherford | | | |
| 35 | " | 31 " | 104 0 0 | Robert Kelly | | | |
| 36 | " | 31 " | 135 0 0 | Charles F. Whitney | | | |
| 37 | " | 31 " | 50 0 0 | Enoch Hughes | | | |
| 39 | " | 7 April, " | 40 0 0 | Henry Scullin and Jas. Jones | 19 June, 1884 | Mining operations, 28s. per acre | |
| 41 | " | 14 " | 60 0 0 | Edric H. Brady | 10 April, " | " £2 per acre | 120 0 0 |
| 43 | " | 21 " | 40 0 0 | Robert H. Reynolds | 19 July, 1883 | " | 80 0 0 |
| 44 | " | 21 " | 40 0 0 | John G. Cousins | | | |
| 45 | " | 21 " | 60 0 0 | Margaret A. Reynolds | | | |
| 46 | " | 28 " | 40 0 0 | David John Cooper | 9 April, 1884 | Mining operations, £2 per acre | 80 0 0 |
| 47 | " | 5 May, " | 40 0 0 | " | 9 " | " | 80 0 0 |
| 48 | " | 5 " | 40 0 0 | James Fullford | 7 Mar., " | " | 80 0 0 |
| 50 | " | 12 " | 109 3 0 | Enoch Hughes | 10 May, " | " | 219 10 0 |
| 51 | " | 19 " | 123 0 0 | John Sutherland | 8 July, " | " | 246 0 0 |
| 52 | " | 19 " | 178 0 0 | Enoch Hughes | | | |
| 57 | " | 9 June, " | 40 0 0 | Geo. W. Alkin, Henry B. Lee, and Geo. Hy. Lovett | | | |
| 60 | " | 16 " | 50 0 0 | Robert Hy. Reynolds | 19 July, 1883 | Mining operations, £2 per acre | 100 0 0 |
| 63 | " | 7 July, " | 40 0 0 | Alfred Nathan | | | |
| 64 | " | 21 " | 80 0 0 | Charles Bennett | | | |
| 65 | " | 28 " | 76 0 0 | Campbell Mitchell | | | |
| 67 | " | 28 " | 40 0 0 | John M. Gardner | | | |
| 76 | " | 8 Sept., " | 40 0 0 | Jas. Macdonald & Jason Irving | | | |
| 78 | " | 15 " | 40 0 0 | John G. Cousins & Jason Irving | | | |
| 79 | " | 15 " | 40 0 0 | Enoch Hughes | | | |
| 80 | " | 15 " | 40 0 0 | Andrew E. Hughes | | | |
| 81 | " | 15 " | 40 0 0 | Samuel Hughes | | | |
| 84 | " | 6 Oct., " | 60 0 0 | George Cook | | | |
| 85 | " | 6 " | 40 0 0 | Jas. McDonald & Jason Irving | | | |
| 86 | " | 6 " | 40 0 0 | Jason Irving | | | |

| Inspector | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|----------------|--|-----------|--|-------------------|---|
| | | £ s. d. | Walter Fawkes M'Kenzie | 22 Feb., 1888 | |
| | | | " | 22 " " | |
| G. Smith | Saw-mill, steam-engine, tramway-houses. | 1,000 0 0 | Montague Levey | 28 July, 1880 | Void. Vagueness of description. |
| | | | John B. North | 8 May, 1882 | Approved by Minister. |
| | | | London Chartered Bank | 9 " " | " |
| " | Part of main road to mine | 10 0 0 | Montague Levey | 23 July " | " |
| | | | John B. North | 8 May, " | " |
| | | | London Chartered Bank | 9 " " | " |
| Geo. Smith | Clearing and fencing a freestone quarry. | 120 0 0 | W. E. and E. M. Mort | 6 Jan., 1883 | Referred to Inspector for report. |
| | | | Montague Levey | 23 July, 1880 | Approved by Minister. |
| | | | John B. North | 8 May, 1882 | " |
| | | | London Chartered Bank | 9 " " | " |
| | | | Australian Kerosene Oil and Mineral Co. | 8 July, 1880 | Referred to Inspector for report. |
| | | | " | 8 " " | " |
| | | | " | 8 " " | " |
| | | | " | " | Void. Second application on one day. |
| | | | " | " | Third application on one day. |
| George Smith | Portion of main road to mine | 10 0 0 | London Chartered Bank | 9 May, 1882 | Approved by Minister, 22 August, 1883. |
| | | | " | " | Void. Second selection on one day. |
| | | | " | " | Third selection on one day. |
| | | | " | " | Fourth selection on one day. |
| | | | " | " | Fifth selection on one day. |
| | | | W. E. and E. M. Mort | 6 Jan., 1883 | Referred to Inspector for report. |
| George Smith | Improvements, nil | | " | " | Void. Second application on same day. |
| | | | " | " | Lapsed, Gazette, 17 June, 1884. |
| | | | " | " | Being dealt with. |
| | | | " | " | Void. Second selection on same day. |
| | | | " | " | Third selection on same day. |
| | | | " | " | Fourth selection on same day. |
| | | | " | " | Fifth selection on same day. |
| | | | " | " | Sixth selection on same day. |
| George Smith | Improvements, nil | | " | " | Being dealt with. |
| | | | " | " | Void. Second selection on same day. |
| | | | " | " | Third selection on same day. |
| | | | " | " | Not sufficient land available. |
| | | | " | " | Referred to Inspector for report. |
| George Smith | ¼-mile first class road | 40 0 0 | London Chartered Bank | 9 May, 1882 | Void. Second application on same day. |
| | | | " | " | Second selection on same day. |
| George Smith | Road, tunnel, and prospecting shaft | 200 0 0 | London Chartered Bank | 9 May, 1882 | " |
| | Clearing roads and scrubbing | 40 0 0 | John B. North | 8 " " | " |
| | | | London Chartered Bank | 9 " " | " |
| G. Smith | Road to mine | 125 0 0 | London Chartered Bank | 9 May, 1882 | Lapsed, Gazette, 17 June, 1884. |
| | Tracks and road | | John B. North | 8 " " | Approved by Minister. |
| | | | London Chartered Bank | 9 " " | " |
| George Smith | ¼-mile road | 50 0 0 | London Chartered Bank | 9 May, 1882 | Lapsed, Gazette, 17 July, 1884. |
| | | | John B. North | 8 " " | Void. Second application on same day. |
| | | | London Chartered Bank | 9 " " | Awaiting Inspector's report. |
| | | | " | " | " |
| | | | " | " | " |
| George Smith | Improvements, nil | | Geo. Leo's share to Australia Lcc. by Crown Solicitor's certificate. | " | Referred to Inspector for report. |
| | | | London Chartered Bank | 9 May, 1882 | Deed prepared, 21 August, 1883. |
| | | | " | 9 " " | Being dealt with. |
| | | | Wallerawang Coal Company | 11 Aug. " | Referred to Inspector for report. |
| George Smith | Tracks and roads, ¼-mile | 65 0 0 | " | " | Approved by Minister, 15 August, 1883. |
| J. P. M'Guanne | No improvements | | " | " | Referred to Commissioner Street for inquiry |
| J. P. M'Guanne | No improvements | | Robert H. Reynolds | 12 Oct., 1883 | " |
| | | | Australian Kerosene Oil and Mineral Company, Limited. | 9 Dec., 1880 | " |
| | | | " | 9 " " | Void. Land previously selected. |
| | | | " | 9 " " | " |
| J. P. M'Guanne | Improvements on adjoining land | | " | " | " |
| J. P. M'Guanne | Improvements on adjoining land | | " | " | Referred to Commission for inquiry. |
| | | | " | " | Void. Made by an Agent. |
| | | | " | " | Referred to Commission for inquiry. |
| | | | " | " | Void. Made by an Agent. |
| | | | Richard Bullock | 17 April, 1884 | Referred to Inspector for report. |
| | | | " | " | " |
| | | | " | " | Awaiting Inspector's report. |
| | | | " | " | Void. Made by an Agent. |
| | | | " | " | " |
| | | | " | " | " |
| J. P. M'Guanne | Improvements on adjoining land | | James Jones | 4 Oct., 1883 | Being dealt with. |
| | | | " | " | Awaiting Inspector's report. |
| | | | " | " | Being dealt with. |
| J. P. M'Guanne | Two shafts and fence | 83 0 0 | " | " | Awaiting declaration. |
| " | " | 83 0 0 | " | " | Void. Applicant is a married woman. |
| " | " | 83 0 0 | " | " | Being dealt with. |
| E. Evans | Two shafts, 16 panels, 2-rail fence, Tramway and kilns | 800 0 0 | English, Scottish, and Australian Chartered Bank | 8 Sept., 1883 | Deed prepared, 20 August, 1884. |
| | | | " | " | " |
| | | | " | " | Referred to Inspector for report. |
| | | | " | " | Void. Form of measurement objectionable. |
| J. P. M'Guanne | Improvements on adjoining land | | " | " | Awaiting declaration. |
| | | | " | " | Referred to Commission for inquiry. |
| | | | " | " | Awaiting declaration. |
| | | | Richard P. Brickwood | 14 Dec., 1883 | " |
| | | | " | " | " |
| | | | John Garsed & John H. Mulholland | 24 July, 1884 | " |
| | | | Jason Irving, Jas. M'Donald, John Geo. Cousins. | 30 May, 1882 | " |
| | | | " | " | " |
| | | | Fred. C. Hedeman, Jas. M'Donald, John Geo. Cousins. | 4 July, " | " |
| | | | " | " | " |
| | | | English, Scottish, and Australian Chartered Bank | 8 Sept., 1883 | " |
| | | | " | " | " |
| | | | " | " | " |
| | | | John Garsed & John H. Mulholland | 24 July, 1884 | " |
| | | | " | 10 Sept., " | " |
| | | | " | 24 July, " | " |
| | | | Jason Irving, Jas. M'Donald, John G. Cousins. | 30 May, 1882 | " |
| | | | " | " | " |
| | | | Jason Irving, Jas. M'Donald, John Geo. Cousins. | 30 " " | " |
| | | | " | " | " |
| | | | F. C. Hedeman, Jas. M'Donald, John G. Cousins. | 4 July, " | " |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|---|----------------------|---|-----------|
| | | | a. r. p. | | | | £ s. d. |
| 81- 87 | Hartley | 6 Oct., 1881 | 40 0 0 | James Macdonald | | | |
| 89 | " | 13 " | 40 0 0 | Edwin D. Thompson | | | |
| 90 | " | 20 " | 40 0 0 | Samuel Poolman | | | |
| 91 | " | 20 " | 150 0 0 | Andrew E. Hughes | | | |
| 93 | " | 20 " | 40 0 0 | Geo. Hall & Jason Irving | | | |
| 95 | " | 27 " | 40 0 0 | " | | | |
| 96 | " | 27 " | 40 0 0 | John Barnett | | | |
| 97 | " | 27 " | 60 0 0 | Kelso King | | | |
| 98 | " | 27 " | 75 0 0 | William Fox | | | |
| 99 | " | 27 " | 75 0 0 | Geo. Cook and David Steedman | | | |
| 100 | " | 27 " | 50 0 0 | John G. Cousins | | | |
| 101 | " | 3 Nov., " | 500 0 0 | Walter F. Mackenzie | | | |
| 102 | " | 3 " | 60 0 0 | Wm. Fox and T. W. Coulson | | | |
| 103 | " | 3 " | 40 0 0 | George Cook | | | |
| 105 | " | 3 " | 40 0 0 | George K. King | | | |
| 107 | " | 17 " | 40 0 0 | William Fox | | | |
| 110 | " | 24 " | 40 0 0 | George Cook | | | |
| 111 | " | 24 " | 40 0 0 | Valentine H. Brown | | | |
| 119 | " | 8 Dec., " | 40 0 0 | William R. Rowe | | | |
| 122 | " | 15 " | 40 0 0 | Alfred A. Smith | 18 April, 1883 | Mining operations, £2 per acre | 80 0 0 |
| 126 | " | 22 " | 40 0 0 | Morgan Meredith | | | |
| 127 | " | 22 " | 40 0 0 | George Cook | | | |
| 82- 1 | " | 5 Jan., 1882 | 40 0 0 | William R. Row | | | |
| 4 | " | 12 " | 40 0 0 | James Fullford | | | |
| 5 | " | 12 " | 320 0 0 | Wm. Henderson | | | |
| 7 | " | 19 " | 60 0 0 | Kelso King | | | |
| 8 | " | 19 " | 200 0 0 | William Henderson | | | |
| 9 | " | 19 " | 80 0 0 | Valentine H. Brown | | | |
| 10 | " | 19 " | 80 0 0 | David MacArthur | | | |
| 13 | " | 19 " | 82 0 0 | Campbell Mitchell | | | |
| 16 | " | 2 Feb., " | 360 0 0 | Wm. Henderson | | | |
| 17 | " | 2 " | 40 0 0 | John G. Cousins | | | |
| 18 | " | 2 " | 80 0 0 | John B. North | 23 June, 1882 | Mining operations, £2 per acre | 160 0 0 |
| 19 | " | 2 " | 40 0 0 | Edward M. Mumford | | | |
| 21 | " | 9 " | 44 0 0 | Richard Fryer | | | |
| 22 | " | 9 " | 80 0 0 | David MacArthur | | | |
| 25 | " | 16 " | 40 0 0 | Alexander B. Helmrich | | | |
| 26 | " | 16 " | 40 0 0 | Henry Grono | | | |
| 27 | " | 16 " | 40 0 0 | James Wright | | | |
| 41 | " | 30 Mar., " | 127 0 0 | John Meeks | | | |
| 44 | " | 30 " | 80 0 0 | Campbell Mitchell | | | |
| 45 | " | 6 April, " | 302 0 0 | George L. Carter | | | |
| 46 | " | 6 " | 150 0 0 | John D. Young | | | |
| 47 | " | 6 " | 345 0 0 | John Meeks | | | |
| 52 | " | 6 " | 73 1 0 | Campbell Mitchell | | | |
| 55 | " | 27 " | 120 0 0 | John B. North | | | |
| 56 | " | 4 May, " | 640 0 0 | John C. Macnab | | | |
| 58 | " | 11 " | 50 0 0 | John W. Watkin | | | |
| 59 | " | 11 " | 100 0 0 | Henry W. Hammond | | | |
| 60 | " | 11 " | 80 0 0 | David Lawson | | | |
| 67 | " | 18 " | 200 0 0 | Campbell Mitchell | | | |
| 68 | " | 18 " | 50 0 0 | Henry W. Hammond | | | |
| 69 | " | 18 " | 100 0 0 | Joseph Mitchell | | | |
| 71 | " | 25 " | 100 0 0 | David Lawson | | | |
| 73 | " | 25 " | 200 0 0 | Campbell Mitchell | | | |
| 75 | " | 15 June, " | 200 0 0 | John B. North | | | |
| 76 | " | 15 " | 320 0 0 | " | | | |
| 78 | " | 22 " | 80 0 0 | " | | | |
| 80 | " | 29 " | 100 0 0 | " | | | |
| 81 | " | 6 July, " | 40 0 0 | Albert A. Smith | 20 July, 1883 | Saw-mill, engine-house, & other improvement | 1,000 0 0 |
| 82 | " | 6 " | 49 2 0 | Campbell Mitchell | 18 April, " | Mining operations, £2 per acre | |
| 90 | " | 20 " | 50 0 0 | John B. North | | | |
| 94 | " | 27 " | 80 0 0 | James Bates | | | |
| 98 | " | 10 Aug., " | 500 0 0 | John Sutherland | | | |
| 102 | " | 24 " | 640 0 0 | Charles Harman | | | |
| 103 | " | 24 " | 640 0 0 | Robert Hy. Reynolds | | | |
| 104 | " | 24 " | 103 0 0 | Thomas Baker | | | |
| 105 | " | 24 " | 100 0 0 | John B. North | | | |
| 106 | " | 24 " | 100 0 0 | John G. North | | | |
| 109 | " | 7 Sept., " | 120 0 0 | Charles Bennett | | | |
| 111 | " | 14 " | 438 0 0 | John Sutherland | | | |
| 128 | " | 12 Oct., " | 40 0 0 | William Hart, Thomas, John, & James Loneragan | | | |
| 131 | " | 26 " | 213 0 0 | Walter F. Mackenzie | | | |
| 133 | " | 26 " | 40 0 0 | Wm. Hart, Thos., James, and John Loneragan | | | |
| 140 | " | 30 Nov., " | 40 0 0 | Thos. Loneragan and Wm. Hart | | | |
| 142 | " | 14 Dec., " | 195 0 0 | Edward Canshell | | | |
| 83- 5 | " | 1 Feb., 1883 | 40 0 0 | Richard Bullock | 27 Mar., 1884 | Mining operations, £2 per acre | 80 0 0 |
| 8 | " | 1 " | 40 0 0 | John Benson | | | |
| 9 | " | 8 " | 90 0 0 | John Bennett | | | |
| 11 | " | 15 " | 40 0 0 | John B. North | | | |
| 15 | " | 1 Mar., " | 200 0 0 | John Bennett | | | |
| 27 | " | 15 " | 62 0 30 | Walter G. Evans | | | |
| 37 | " | 5 April, " | 40 0 0 | William Wilson | | | |
| 83 | " | 5 " | 160 0 0 | John Wilson | | | |
| 41 | " | 5 " | 40 0 0 | Robert H. Reynolds | 19 July, 1883 | Mining operations, £2 per acre | 80 0 0 |
| 42 | " | 12 " | 80 0 0 | Wm. Wilson | | | |
| 48 | " | 12 " | 40 0 0 | John Wilson | | | |
| 46 | " | 12 " | 40 0 0 | Robert H. Reynolds | 19 July, 1883 | Mining operations, £2 per acre | 80 0 0 |
| 49 | " | 19 " | 80 0 0 | William Wilson | | | |
| 54 | " | 7 June, " | 40 0 0 | Patrick Finn and William Wilson | | | |
| 68 | " | 5 July, " | 640 0 0 | Richard Fryer | | | |
| 69 | " | 5 " | 40 0 0 | Patrick Finn and Wm. Wilson | | | |
| 82 | " | 2 Aug., " | 80 0 0 | John Bennett | | | |
| 83 | " | 9 " | 40 0 0 | John G. Cousins | | | |
| 84 | " | 9 " | 370 0 0 | Chas. A. M. Billyard | | | |
| 86 | " | 16 " | 40 0 0 | Richard Fryer | | | |
| 89 | " | 6 Sept., " | 100 0 0 | Christian Knoblanche & Wm. Wilkins | | | |
| 90 | " | 18 " | 80 0 0 | John Nobbs | | | |
| 91 | " | 13 " | 80 0 0 | Henry Richardson | | | |
| 92 | " | 13 " | 80 0 0 | Francis A. Artlett | | | |
| 93 | " | 13 " | 80 0 0 | John S. Alexander | | | |
| 94 | " | 13 " | 40 0 0 | George Grono | | | |
| 95 | " | 18 " | 40 0 0 | Thomas M. Shepherd | | | |
| 102 | " | 20 " | 100 0 0 | James Cale, jun. | | | |
| 107 | " | 20 " | 228 0 0 | Edward Gell | | | |
| 108 | " | 27 " | 50 0 0 | James Cale, jun. | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|------------------------|--------------------|----------|--|----------------------|------------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 88-111 | Hartley | 4 Oct., 1888 | 40 0 0 | Patrick Finn | | | |
| 112 | " | 4 " " | 40 0 0 | Richard Fryer | | | |
| 114 | " | 18 " " | 375 0 0 | John B. North | | | |
| 115 | " | 18 " " | 302 0 0 | Edmund Webb | | | |
| 116 | " | 18 " " | 200 0 0 | Richard Fryer | | | |
| 118 | " | 25 " " | 80 0 0 | James Cale, jun. | | | |
| 120 | " | 25 " " | 240 0 0 | John G. North | | | |
| 121 | " | 25 " " | 85 0 0 | Clara Minnie North | | | |
| 122 | " | 25 " " | 120 0 0 | John Lucas | | | |
| 90-1 | Hillston | 26 Aug., 1880 | 40 0 0 | James M'Beth Fullarton | Aug., 1888 | Dams, &c. | 700 0 0 |
| 2 | " | 26 " " | 40 0 0 | William Clarke | 15 " " | Shaft for copper, tank | 100 0 0 |
| 3 | " | 26 " " | 40 0 0 | William Malcolm | 5 Nov., " | Mining operations, £2 per acre | 80 0 0 |
| 6 | " | 26 " " | 40 0 0 | John Whitcombe | 29 " " | " " | 80 0 0 |
| 7 | " | 2 Sept., " | 40 0 0 | George Fredk. Cooke | 30 " " | " " | 80 0 0 |
| 8 | " | 2 " " | 40 0 0 | John Whitcombe | 29 " " | " " | 80 0 0 |
| 5 | " | 26 Aug., " | 40 0 0 | George F. Cooke | " " | " " | " " |
| 9 | " | 9 Sept., " | 40 0 0 | Henry Eaton | 29 Nov., 1888 | Mining operations, £2 per acre | 80 0 0 |
| 10 | " | 9 " " | 40 0 0 | Thomas Sanders | 8 " " | Mining operations, £1 4s. per acre | 80 0 0 |
| 11 | " | 9 " " | 40 0 0 | William Malcolm | 5 " " | Mining operations, £2 per acre | 80 0 0 |
| 12 | " | 9 " " | 40 0 0 | John Whitcombe | 29 " " | " " | 80 0 0 |
| 17 | " | 16 " " | 40 0 0 | Robert Alexr. Brown | 8 Dec., " | " " | 80 0 0 |
| 18 | " | 23 " " | 40 0 0 | " | 8 " " | " " | 80 0 0 |
| 19 | " | 23 " " | 80 0 0 | James Brissenden | 5 " " | " " | 160 0 0 |
| 20 | " | 14 Oct., " | 40 0 0 | David Coull | " " | " " | " " |
| 26 | Oxley, now Cobar | 11 " " | 320 0 0 | Edward J. Barton | 12 Nov., 1888 | Mining operations, £2 per acre | 640 0 0 |
| 28 | Hillston | 21 " " | 40 0 0 | George Hardie | 29 " " | " " | 80 0 0 |
| 29 | " | 21 " " | 40 0 0 | John Whitcombe | " " | " " | " " |
| 30 | " | 21 " " | 40 0 0 | Jas. M'Beth Fullarton | " " | " " | " " |
| 37 | " | 11 Nov., " | 40 0 0 | Henry J. Murphy | 12 Nov., 1888 | Mining operations, £2 per acre | 80 0 0 |
| 38 | " | 11 " " | 40 0 0 | Arthur W. Anderson | 12 " " | " " | 80 0 0 |
| 39 | " | 11 " " | 40 0 0 | Robert W. Stewart | 12 " " | " " | 80 0 0 |
| 40 | " | 11 " " | 40 0 0 | Arthur J. E. Goldard | 12 " " | " " | 80 0 0 |
| 52 | " | 16 Dec., " | 40 0 0 | Jas. M'B. Fullarton | 29 " " | " " | 80 0 0 |
| 81-1 | " | 6 Jan., 1881 | 40 0 0 | James M'Beth Fullarton | " " | " " | " " |
| 37 | " | 21 April, " | 40 0 0 | John M'Culloch | " " | " " | " " |
| 44 | " | 28 " " | 40 0 0 | George Edward Rundle | " " | " " | " " |
| 45 | " | 28 " " | 40 0 0 | Matthew Jeffrey | " " | " " | " " |
| 53 | " | 5 May, " | 40 0 0 | William Malcolm | " " | " " | " " |
| 60 | " | 19 " " | 40 0 0 | John Lees | " " | " " | " " |
| 62 | " | 19 " " | 40 0 0 | Edmund Jones Heap | " " | " " | " " |
| 82 | " | 9 June, " | 40 0 0 | Arthur D. Pedley | " " | " " | " " |
| 178 | " | 28 Dec., " | 120 0 0 | Thomas Emery Leak | " " | " " | " " |
| 33 | " | 27 July, 1882 | 40 0 0 | George Fredk. Cooke | " " | " " | " " |
| 44 | " | 12 Oct., " | 40 0 0 | Arthur D. Pedley | " " | " " | " " |
| 45 | " | 7 June, 1883 | 40 0 0 | Charles F. Curzce | " " | " " | " " |
| 67 | " | 30 Aug., " | 40 0 0 | Arthur D. Pedley | " " | " " | " " |
| 79 | " | 29 Nov., " | 80 0 0 | Wm. Joseph Weston | " " | " " | " " |
| 171 | " | 15 Dec., " | 40 0 0 | Lewis M'Kenzie | " " | " " | " " |
| 71-3652 | Inverell | 14 Sept., 1871 | 150 0 0 | C. Ross, J. Kerr, and W. Griggie | " " | " " | " " |
| 72-2930 | " | 30 May, 1872 | 40 0 0 | W. W. Fraser | " " | " " | " " |
| 5966 | " | 12 Sept., " | 840 0 0 | J. G. Barrow | " " | " " | " " |
| 5907 | " | 12 " " | 100 0 0 | Colin Ross | " " | " " | " " |
| 6408 | " | 3 Oct., " | 320 0 0 | A. J. A. Brown, J. G. Barrow, S. S. Austin. | 20 Jan., 1876 | Mining operations, £2 per acre | |
| 6469 | " | 3 " " | 819 0 0 | " | 20 " " | " " | |
| 6470 | " | 3 " " | 320 0 0 | " | 20 " " | " " | |
| 6477 | " | 3 " " | 100 0 0 | W. Millis and W. Fearby | " " | " " | |
| 6941 | " | 24 " " | 60 0 0 | D. Marks and R. Buckwood | " " | " " | |
| 74-3270 | " | 12 Mar., 1874 | 40 0 0 | M. Lewis | " " | " " | |
| 76-19 | " | 10 Feb., 1876 | 60 0 0 | Chisholm Ross | " " | " " | |
| 81 | " | 30 Mar., " | 40 0 0 | Colin Ross | " " | " " | |
| 37 | " | 13 April, " | 40 0 0 | George Woods | " " | " " | |
| 47 | " | 8 June, " | 40 0 0 | Colin Ross | " " | " " | |
| 70 | " | 17 Aug., " | 51 0 0 | Colin A. Fraser & Patk. W. Anderson | " " | " " | |
| 82 | " | 28 Sept., " | 40 0 0 | Colin Ross | " " | " " | |
| 88 | " | 28 " " | 40 0 0 | Chisholm Ross | " " | " " | |
| 102 | " | 21 Dec., " | 40 0 0 | J. B. Watt and Alex. Stuart | " " | " " | |
| 103 | " | 21 " " | 20 0 0 | " | " " | " " | |
| 106 | " | 28 " " | 200 0 0 | Robt. Amos, Hy. Copeland, Wm. E. Wilson. | " " | " " | |
| 77-1 | " | 4 Jan., 1877 | 120 0 0 | Wm. E. Wilson, Daniel Grove | " " | " " | |
| 10 | Warialda, now Inverell | 1 Feb., " | 100 0 0 | Hugh Macdonald | " " | " " | |
| 32 | Inverell | 22 Mar., " | 60 0 0 | Alexander Stuart and John B. Watt | 18 Nov., 1881 | Mining operations, £2 per acre | 120 0 0 |
| 37 | Warialda, now Inverell | 29 " " | 40 0 0 | Hugh Macdonald | " " | " " | |
| 107 | Inverell | 14 June, " | 40 0 0 | Robert Craig | " " | " " | |
| 108 | " | 14 " " | 40 0 0 | Jas. M. Banks, John Lister, A. B. Farquhar. | " " | " " | |
| 24 | Bingera, now Inverell | 19 July, " | 40 0 0 | William John Dangar | " " | " " | |
| 25 | " | 19 " " | 40 0 0 | " | " " | " " | |
| 148 | Inverell | 9 Aug., " | 42 2 34 | Peter Colin and James Campbell | " " | " " | |
| 193 | " | 13 Dec., " | 100 0 0 | William Edward Wilson | 23 July, 1881 | Mining operations, £2 per acre | 200 0 0 |
| 194 | " | 13 " " | 60 0 0 | Alex. Stuart and John B. Watt | 23 " " | " " | 120 0 0 |
| 78-106 | " | 11 July, 1878 | 40 0 0 | George Woods and Richd. Brickwood | 9 Aug., " | " " | 80 0 0 |
| 137 | " | 26 Sept., " | 40 0 0 | " | 13 Oct. " | " " | 80 0 0 |
| 164 | " | 5 Dec., " | 140 0 0 | Daniel Grove, Ed. Wilson, and Wm. Alex. Cross. | 29 Dec., " | " £1 4s. per acre | |
| 166 | " | 12 " " | 80 0 0 | " | 29 " " | " " | |
| 80-26 | " | 27 May, 1880 | 40 0 0 | Wm. Hy. Brown, and Jacob Hunt | " " | " " | |
| 27 | " | 27 " " | 40 0 0 | " | " " | " " | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|----------------------|---|-----------|---|-------------------|--|
| | | £ s. d. | Patrick Finn and Richard Fryer .. | 12 Nov., 1883 | Void, 20 Aug., 1884. Only 25 acres available. Land improved. |
| | | | John B. North and Edmund Webb | 21 Oct., 1883 | " " " " |
| | | | " " " " | 24 Sept., " | " " " " |
| | | | " " " " | 12 Nov., " | " " " " |
| T. B. Carne..... | 7,000 yards excavation, at 1s. 6d. per yard. | 625 0 0 | New Mount Hope Copper-mining Company. | 27 Mar., 1883 | Deed prepared, 10 December, 1883. |
| " | Large hotel, stable, kitchen, and outbuildings. | 800 0 0 | " | " | " 22 September, 1884. |
| " | Improvements nil | " | James M'Beth Fullarton | 5 Jan., 1884 | Under reference to Inspector for report. |
| " | " | " | " | " | Under reference to Inspector for further report. |
| " | " | " | " | " | Not finally dealt with. |
| " | " | " | " | " | Under reference to Inspector for further report. |
| T. B. Carne..... | Improvements nil | " | William Joseph Weston | 13 Mar., 1882 | " |
| " | Weatherboard hotel, stables, tank, kitchen, and outbuildings. | 503 0 8 | John Whitcombe and Jas. M'B. Fullarton. | 10 Aug., " | " |
| " | Improvements nil | " | " | " | " |
| " | " | " | James M'Beth Fullarton | 5 Jan., 1884 | " |
| " | " | " | " | " | Awaiting report from Inspector. |
| " | " | " | " | " | Under reference to Inspector for report. |
| F. A. Thompson.. | Slab cottage, stable and forage room, powder magazine, 60 acres grubbed, 5 miles fencing. | 760 0 0 | John Forrest | 6 May, 1882 | Being dealt with. |
| " | Shaft, 26 feet, £52; tank, 500 yards, £31 6s. | 83 5 0 | " | " | Awaiting further report from Inspector. |
| " | " | " | " | " | Void, 10 December, 1880. Made by agent. |
| " | " | " | George Hardie | 28 Mar., 1881 | Being dealt with. |
| " | " | " | " | 22 " " | " " " |
| " | " | " | " | 22 " " | " " " |
| " | " | " | " | 22 " " | " " " |
| " | " | " | " | 22 " " | " " " |
| " | " | " | " | " | " |
| " | " | " | " | " | Void, 1 October, 1881. Within Bogan Gold-field Reserve. |
| " | " | " | " | " | Void, 27 July, 1881. Within Bogan Gold-field Reserve. |
| " | " | " | " | " | " |
| " | " | " | { James MacDougall | 8 Dec., 1883 | { Being dealt with. |
| " | " | " | { John Alexr. Martin | 6 June, 1884 | { " |
| " | " | " | " | " | Void, 27 July, 1881. Within Bogan Gold-field. |
| " | " | " | " | " | Withdrawn, 9 August, 1882. Non-sur ey. |
| " | " | " | " | " | Referred to Inspector for report. |
| " | " | " | " | " | Void, 18 March, 1883. Within water reserve 2,611. |
| " | " | " | " | " | Void, 1 October, 1883. Forms part of water reserve 2,611. |
| " | " | " | " | " | Void, 12 November, 1883. Forms part of water reserve 2,611. |
| " | " | " | " | " | Void, 17 May, 1882. Previously selected. |
| " | " | " | " | " | Void, 10 June, 1872. Land not available. |
| " | " | " | " | " | Lapsed. |
| " | " | " | " | " | Cancelled, 29 September, 1872. Maximum area exceeded. |
| " | " | " | " | " | Cancelled, 19 February, 1873. Direct opposition to the law. |
| " | " | " | William Edward Wilson..... | 30 Sept., 1878 | Approved by Minister. |
| " | " | " | " | 80 " " | " |
| " | " | " | " | 30 " " | " |
| " | " | " | " | " | Void, 25 September, 1873. Excessive frontage. |
| " | " | " | " | " | Lapsed, 30 October, 1876. |
| " | " | " | " | " | Lapsed, Gazette, 9 October, 1877. |
| " | " | " | " | " | Void, 29 September, 1876. Portions applied for are separated by a creek. |
| " | " | " | " | " | Void, 22 January, 1877. Within reserve No. 101. |
| " | " | " | " | " | Void, 31 July, 1877. Previously applied for as a mineral lease. |
| " | " | " | " | " | Lapsed, Gazette, 8 February, 1880. |
| " | " | " | " | " | Lapsed, Gazette, 24 September, 1880. |
| " | " | " | Alexander Cruickshank | 12 April, 1870 | Void, 7 March, 1877. Within population boundary of Inverell. |
| " | " | " | " | " | Void, 4 February, 1877. |
| " | " | " | " | " | Void, 19 January, 1879. Two portions applied for do not adjoin. |
| " | " | " | " | " | Void, 1 February, 1877. Area applied for below the minimum allowed by law. |
| " | " | " | " | " | Lapsed, Gazette, 24 September, 1880. |
| " | " | " | " | " | Void, 27 April, 1877. Land held under mineral lease. |
| " | " | " | " | " | Lapsed, Gazette, 25 February, 1881. |
| J. S. O'Hara | Shafts and open face workings..... | 200 0 0 | " | " | Approved by Minister, 19 December, 1883. |
| " | " | " | " | " | Lapsed, Gazette, 24 September, 1880. |
| " | " | " | " | " | " |
| " | " | " | " | " | " 25 February, 1881. |
| " | " | " | " | " | " |
| John S. O'Hara | Shafts, surface working, dam, and race. | 500 0 0 | " | " | Approved by Minister, 19 December, 1883. |
| " | " | " | " | " | " |
| John S. O'Hara | Shafts, dams | " | " | " | Void, 31 October, 1881. Land previously selected. |
| " | Open face diggings | 1,500 0 0 | { Richard Brickwood | 20 Mar., 1882 | { Approved, 1 June, 1883. |
| " | " | " | { Brickwood Tin-mining Co. | 13 " 1883 | { " |
| " | " | " | { Richard Brickwood | 20 " 1882 | { Approved by Minister, 1 June, 1883. |
| " | " | " | { Brickwood Tin-mining Co. | 18 " 1883 | { " |
| " | " | " | " | " | Referred to Inspector for report. |
| " | " | " | " | " | Void, 15 August, 1880. " One of applicants having previously selected on the same day. |
| " | " | " | " | " | " |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|---|----------------------|-----------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 80- 28 | Inverell | 27 May, 1880 | 40 0 0 | Wm. Hy. Browne, Jacob Hunt, Denis Lowe, and Peter Gorman. | | | |
| 29 | " | 27 " | 160 0 0 | John Brown Watt | | | |
| 33 | " | 1 July, " | 40 0 0 | George Woods | | | |
| 35 | " | 22 " | 40 0 0 | Denis Lowe | | | |
| 36 | " | 5 Aug., " | 40 0 0 | Thomas Callinan | | | |
| 40 | " | 26 " | 40 0 0 | Jacob Hunt | | | |
| 41 | " | 26 " | 40 0 0 | William Henry Brown | | | |
| 42 | " | 26 " | 40 0 0 | Denis Lowe | | | |
| 45 | " | 2 Sept., " | 40 0 0 | James Ambrose | | | |
| 81- 48 | " | 7 April, 1881 | 42 2 84 | Peter Colin Campbell | 10 June, 1884 | Mining operations | 1 4 0 |
| 163 | " | 25 Aug., " | 45 0 0 | William M. Somerville | | | |
| 161 | " | 1 Sept., " | 45 0 0 | " | | | |
| 167 | " | 8 " | 40 0 0 | Peter Colin Campbell | | | |
| 82- 74 | " | 8 June, 1882 | 40 0 0 | James J. R. Gibson | | | |
| 73 | " | 22 " | 81 1 0 | " | | | |
| 83 | " | 29 " | 40 0 0 | " | | | |
| 97 | " | 13 July, " | 40 0 0 | Peter Colin Campbell | | | |
| 103 | " | 20 " | 53 1 87 | " | | | |
| 83- 80 | " | 21 June, 1883 | 60 0 0 | Lachlan N. Kennedy | | | |
| 81 | " | 21 " | 80 0 0 | William Cooper | | | |
| 91 | " | 28 " | 40 0 0 | Fredk. J. Cooper | | | |
| 92 | " | 23 " | 40 0 0 | Harry E. Vindin | | | |
| 93 | " | 23 " | 40 0 0 | George Woods | | | |
| 96 | " | 5 July, " | 40 0 0 | Fredk. J. Cooper | | | |
| 97 | " | 5 " | 40 0 0 | George Woods | | | |
| 100 | " | 5 " | 40 0 0 | William Tudor | | | |
| 101 | " | 5 " | 40 0 0 | John Borthwick | | | |
| 102 | " | 6 " | 40 0 0 | William Hy. King | | | |
| 106 | " | 12 " | 40 0 0 | George T. T. Butler | | | |
| 107 | " | 12 " | 40 0 0 | Frederic J. Cooper | | | |
| 108 | " | 12 " | 60 0 0 | George Woods | | | |
| 110 | " | 12 " | 40 0 0 | Herbert B. Cooper | | | |
| 111 | " | 12 " | 40 0 0 | William Tudor | | | |
| 117 | " | 19 " | 120 0 0 | George Woods | | | |
| 118 | " | 19 " | 40 0 0 | George T. T. Butler | | | |
| 119 | " | 19 " | 40 0 0 | William M. Borthwick | | | |
| 120 | " | 19 " | 40 0 0 | William H. Readett | | | |
| 121 | " | 19 " | 40 0 0 | John Borthwick | | | |
| 122 | " | 19 " | 40 0 0 | Frederic J. Cooper | | | |
| 125 | " | 19 " | 205 0 0 | Robert W. Walmsley | | | |
| 126 | " | 19 " | 40 0 0 | Harry Edmund Vindin | | | |
| 131 | " | 19 " | 40 0 0 | William Onus | | | |
| 132 | " | 28 July, " | 40 0 0 | Frederick J. Cooper | | | |
| 133 | " | 26 " | 40 0 0 | John Borthwick | | | |
| 136 | " | 23 " | 40 0 0 | Henry Plumley | | | |
| 137 | " | 20 " | 40 0 0 | Robert Wm. Walmsley | | | |
| 145 | " | 16 Aug., " | 120 0 0 | William Cooper | | | |
| 149 | " | 16 " | 40 0 0 | Robert W. Walmsley | | | |
| 151 | " | 16 " | 40 0 0 | Frederic J. Cooper | | | |
| 153 | " | 6 Sept., " | 40 0 0 | William Cooper | | | |
| 74-1001 | Kinma | 8 Jan., 1874 | 280 0 0 | George W. Lord | | | |
| 75- 1 | " | 18 Feb., 1875 | 132 0 0 | Henry Parkes and John Sutherland | 26 Feb., 1878 | Mining improvements, £2 per acre. | |
| 2 | " | 18 " | 75 0 0 | " | 26 " | " | |
| 3 | " | 18 " | 90 0 0 | " | 20 " | " | |
| 4 | " | 18 " | 110 0 0 | " | 28 " | " | |
| 10 | " | 21 Dec., " | 162 0 0 | " | | | |
| 11 | " | 21 " | 40 0 0 | " | | | |
| 12 | " | 21 " | 40 0 0 | " | | | |
| 13 | " | 21 " | 40 0 0 | " | | | |
| 14 | " | 21 " | 40 0 0 | " | | | |
| 15 | " | 21 " | 40 0 0 | " | 1 Aug., 1879 | Mining operations, £2 per acre | |
| 16 | " | 21 " | 40 0 0 | " | 1 " | " | |
| 17 | " | 21 " | 43 0 0 | " | 1 " | " | |
| 18 | " | 21 " | 320 0 0 | " | | | |
| 19 | " | 21 " | 290 0 0 | " | 1 Aug., 1879 | Mining operations, £2 per acre | |
| 20 | " | 21 " | 316 0 0 | " | 1 " | " | |
| 21 | " | 21 " | 170 0 0 | " | 1 " | " | |
| 22 | " | 21 " | 280 0 0 | " | | | |
| 23 | " | 21 " | 80 0 0 | " | | | |
| 24 | " | 31 " | 308 0 0 | " | | | |
| 25 | " | 21 " | 274 0 0 | " | | | |
| 26 | " | 21 " | 320 0 0 | " | | | |
| 27 | " | 21 " | 201 0 0 | " | | | |
| 28 | " | 21 " | 205 0 0 | " | | | |
| 29 | " | 21 " | 82 0 0 | " | | | |
| 30 | " | 21 " | 200 0 0 | " | | | |
| 31 | " | 21 " | 200 0 0 | " | | | |
| 32 | " | 21 " | 2440 0 0 | George W. Lord | | | |
| 76- 3 | " | 4 May, 1876 | 72 0 0 | " | | | |
| 80- 2 | " | 22 April, 1880 | 132 0 0 | Saul Samuel and John Fraser | | | |
| 3 | " | 22 " | 76 0 0 | " | | | |
| 4 | " | 22 " | 90 0 0 | " | | | |
| 5 | " | 22 " | 110 0 0 | " | | | |
| 6 | " | 22 " | 162 0 0 | " | | | |
| 7 | " | 22 " | 40 0 0 | " | | | |
| 8 | " | 22 " | 40 0 0 | " | | | |
| 9 | " | 22 " | 40 0 0 | " | | | |
| 10 | " | 22 " | 40 0 0 | " | | | |
| 11 | " | 22 " | 320 0 0 | " | | | |
| 12 | " | 22 " | 302 0 0 | " | | | |
| 13 | " | 22 " | 274 0 0 | " | | | |
| 14 | " | 22 " | 320 0 0 | " | | | |
| 15 | " | 27 May, " | 132 0 0 | " | | | |
| 16 | " | 27 " | 90 0 0 | " | | | |
| 17 | " | 27 " | 110 0 0 | " | | | |
| 18 | " | 27 " | 72 0 0 | " | | | |
| 19 | " | 27 " | 40 0 0 | " | | | |
| 20 | " | 27 " | 40 0 0 | " | | | |
| 21 | " | 27 " | 320 0 0 | " | | | |
| 22 | " | 27 " | 290 0 0 | " | | | |
| 23 | " | 27 " | 130 0 0 | " | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. | | |
|----------|----------------|--------------------|---|---|--------------------------------|------------------------------------|--------|-------|--|
| | | | | | | | £ | s. d. | |
| 81- | Kiama | 21 July, 1881 | 510 0 0 | Harman J. Tarrant | | | £ | s. d. | |
| 6 | | 21 " | 520 0 0 | Charles Wm. Lacey | | | | | |
| 7 | | 21 " | 440 0 0 | John H. Caird | | | | | |
| 8 | | 21 " | 120 0 0 | John Wm. May | | | | | |
| 83- | | 9 Aug., 1883 | 444 0 0 | Alexander L. P. Neill | | | | | |
| 4 | | 9 " | 200 0 0 | William Neill | | | | | |
| 5 | | 9 " | 76 0 0 | John H. Caird | | | | | |
| 6 | | 9 " | 120 0 0 | John Wm. May | | | | | |
| 7 | | 18 " | 110 0 0 | | | | | | |
| 8 | | 16 " | 70 0 0 | Charles Wm. Lacey | | | | | |
| 81- | | Liverpool | 6 Jan., 1881 | 100 0 0 | Emil R. Webber | | | | |
| 2 | | | 6 " | 379 0 0 | Robert Precious | | | | |
| 3 | 13 " | | 200 0 0 | Charles R. Armstrong | | | | | |
| 4 | | | | | | | | | |
| 5 | 10 Feb., " | | 150 0 0 | Richard A. Watson | | | | | |
| 6 | 3 Mar., " | | 150 0 0 | Benjamin Rudd | 29 May, 1884 | Mining operations, £2 per acre | 300 | 0 0 | |
| 7 | 3 " | | 120 0 0 | John Hynes | 29 " | Mining operations | | | |
| 8 | 3 " | | 100 0 0 | Albert M. Smedley | 29 " | Mining operations, £2 per acre | 200 | 0 0 | |
| 9 | 3 " | | 120 0 0 | John Wagner | 29 " | " | 240 | 0 0 | |
| 10 | 3 " | | 240 0 0 | John Wm. Cliff | 29 " | " | 480 | 0 0 | |
| 11 | 3 " | | 139 0 0 | Harnsworth R. Way | 29 " | " | 278 | 0 0 | |
| 12 | 3 " | | 100 0 0 | John Delahunt | 29 " | " | 200 | 0 0 | |
| 13 | | | | | | | | | |
| 15 | | | | | | | | | |
| 51 | Lismore | 17 " | 50 0 0 | Thomas Muridge | | | | | |
| 82-486 | | 26 May, 1882 | 205 0 0 | Emil R. Webber | | | | | |
| 83-103 | | 22 June, 1882 | 640 0 0 | William Alston Hutchinson | | | | | |
| | | 10 May, 1883 | 40 0 0 | John A. Hemphill | | | | | |
| | | | 100 0 0 | Louis H. Robinson, John T. Olive, and Thomas Marshall | | | | | |
| 126 | | 31 " | 100 0 0 | Milton B. Anderson | | | | | |
| 221 | | 9 Aug., " | 100 0 0 | Alex. M'Kinnon, Thomas Spinks, and Thomas and Wm. Robb | | | | | |
| 245 | | 6 Sept., " | 40 0 0 | Nathan Julian Simmons | | | | | |
| 246 | | 6 " | 40 0 0 | Joseph Bernard Simmons | | | | | |
| 259 | | 13 " | 40 0 0 | " | | | | | |
| 260 | | 13 " | 122 0 0 | Nathan Julian Simmons | | | | | |
| 802 | | 8 Nov., " | 100 0 0 | Wm. Robb, Thos. Spinks, and Patk. Malona | | | | | |
| 73 | 19 April, " | 100 0 0 | Edward W. Allingham and Milton B. Anderson | | | | | | |
| 73-7632 | Maitland | 24 July, 1873 | 820 0 0 | John Usher, junior | | | | | |
| 7633 | | 24 " | 320 0 0 | Ebenezer Vickery | | | | | |
| 7634 | | 24 " | 320 0 0 | George G. W. Usher | | | | | |
| 7635 | | 24 " | 320 0 0 | Ebenezer Vickery, junior | | | | | |
| 7636 | | 24 " | 320 0 0 | Mary Usher | | | | | |
| 7637 | | 24 " | 320 0 0 | Elizabeth Jane Usher | | | | | |
| 7638 | | 24 " | 320 0 0 | Robert William Usher | | | | | |
| 7639 | | 24 " | 320 0 0 | Joseph Vickery, junior | | | | | |
| 7640 | | 24 " | 50 0 0 | John Usher, junior | | | | | |
| 9160 | | 28 Aug., " | 250 0 0 | James Price | 9 Sept., 1876 | Mining operations, £2 per acre | 500 | 0 0 | |
| 10528 | | 2 Oct., " | 171 0 0 | G. Allen Mansfield | | | | | |
| 10529 | | 2 " | 320 0 0 | " | | | | | |
| 74-7095 | 25 June, 1874 | 320 0 0 | James Price | | | | | | |
| 7096 | 25 " | 320 0 0 | " | | | | | | |
| 7097 | 25 " | 200 0 0 | " | | | | | | |
| 8071 | 16 July, " | 320 0 0 | " | | | | | | |
| 8072 | 16 " | 80 0 0 | " | | | | | | |
| 11469 | 15 Oct., " | 80 0 0 | Marius Moore and Henry Harpur | | | | | | |
| 82-1 | 2 Feb., 1882 | 320 0 0 | William Frederick Longfield | 13 May, 1884 | Mining operations, £2 per acre | 640 | 0 0 | | |
| 83-2 | 5 July, 1883 | 296 1 0 | James Price | | | | | | |
| 4 | 25 Oct., " | 200 0 0 | Mary Lane | | | | | | |
| 75-20 | Manning River | 2 Dec., 1875 | 200 0 0 | Charles Smith | | | | | |
| 77-139 | | 9 Aug., 1877 | 40 0 0 | William Hogg | 8 Nov., 1880 | Mining operations, £2 per acre | 80 | 0 0 | |
| 173 | " | 25 Oct., " | 40 0 0 | Frederick Lorentson | 28 Oct., " | " | 50 0 0 | | |
| 73-2 | " | 3 Jan., 1878 | 52 0 0 | William Delaforce | 5 Jan., 1881 | " £3 " | 156 | 0 0 | |
| 254 | | 24 Oct., " | 40 0 0 | John Thomas | 31 Mar., " | " £2 " | 80 | 0 0 | |
| 206 | | 8 Aug., " | 40 0 0 | " | 31 " | " " | 30 | 0 0 | |
| 70-48 | " | 13 Mar., 1879 | 40 0 0 | Walter W. Bolt | 28 Oct., 1880 | " £17 10s. " | 17 | 10 0 | |
| 127 | " | 11 Dec., " | 100 0 0 | Frederick Lorentson | 9 April, 1883 | " £2 " | 200 | 0 0 | |
| 80-9 | " | 28 Feb., 1880 | 80 0 0 | John Barrie | | | | | |
| 15 | | 18 Mar., " | 40 0 0 | Henry J. Lane | | | | | |
| 13 | | 11 " | 40 0 0 | Frederick Lorentson | | | | | |
| 16 | | 18 " | 50 0 0 | Chas. Sutherland, Wm. Nance, Llewellyn E. Rudder, W. H. Thornton | | | | | |
| 20 | | 1 April, " | 40 0 0 | " | | | | | |
| 24 | | 15 " | 40 0 0 | Llewellyn B. Rudder and Wm. H. L. Thornton | | | | | |
| 29 | | 22 " | 40 0 0 | John Hand | | | | | |
| 30 | | 22 " | 40 0 0 | Cornelius Hogan | | | | | |
| 31 | | 6 May, " | 40 0 0 | Llewellyn B. Rudder, James Curse, Edith Thornton, and Augustus Rudder | | | | | |
| 32 | | 6 " | 40 0 0 | Enock W. Rudder, Wm. H. L. Thornton, Llewellyn B. Rudder | | | | | |
| 33 | | 6 " | 40 0 0 | Charles L. Gabriel | | | | | |
| 34 | | 6 " | 40 0 0 | Enock Rudder | 9 Aug., 1884 | Mining operations, £1 4s. per acre | 48 | 0 0 | |
| 36 | 13 " | 40 0 0 | Llewellyn B. Rudder | | | | | | |
| 37 | 13 " | 40 0 0 | Charles Maunsell, Douglas Oakes, Robt. Johnstone, Wm. Johnstone, Jas. Johnstone | | | | | | |
| 82-73 | Mitchell | 27 April, 1882 | 120 0 0 | George Kees | | | | | |
| 71-3111 | | 24 Aug., 1871 | 80 0 0 | Patrick Green | | | | | |
| 72-1322 | " | 14 Mar., 1872 | 40 0 0 | Thomas Roberts and Elijah Owen | | | | | |
| 3994 | " | 27 June " | 40 0 0 | Patrick Green | | | | | |
| 5143 | " | 8 Aug., " | 40 0 0 | Elisha Owen | | | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|--|----------------------|--------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 72-5144 | Mitchell | 8 Aug., 1872 | 40 0 0 | Thomas Roberts | | | |
| 5350 | " | 22 " | 40 0 0 | Richard Green | | | |
| 5693 | " | 29 " | 40 0 0 | Patrick Green | | | |
| 5694 | " | 29 " | 40 0 0 | Nicholas Sadlier | | | |
| 5695 | " | 29 " | 40 0 0 | Thomas Nolan | | | |
| 5899 | " | 5 Sept., " | 40 0 0 | John C. Woore | | | |
| 73-4233 | " | 17 April, 1873 | 40 0 0 | " | | | |
| 4234 | " | 17 " | 40 0 0 | " | | | |
| 7080 | " | 3 July, " | 40 0 0 | Patrick Green | | | |
| 7031 | " | 3 " | 40 0 0 | John Norton Wilkinson | | | |
| 7562 | " | 17 " | 40 0 0 | Patrick Green | | | |
| 76- 17 | " | 6 " 1876 | 40 0 0 | " | | | |
| 80- 32 | " | 2 Sept., 1890 | 40 0 0 | Richard Green | | | |
| 81- 7 | " | 27 Jan., 1881 | 40 0 0 | Thomas J. Haydon | | | |
| 80- 49 | " | 28 Oct., 1880 | 40 0 0 | Charles Ottaway | 20 Nov., 1883 | Mining shaft for ore | 100 0 0 |
| 81- 69 | " | 22 Dec., 1881 | 120 0 0 | Walterus Le Brun Brown | | | |
| 82- 27 | " | 3 Aug., 1882 | 40 0 0 | Richard Green | | | |
| 28 | " | 10 " | 40 0 0 | August Wyssenbach | | | |
| 30 | " | 17 " | 40 0 0 | Adèle L. Garot | | | |
| 81 | " | 17 " | 40 0 0 | Thomas J. Haydon | | | |
| 32 | " | 17 " | 82 0 0 | Charles A. Wyssenbach | | | |
| 33 | " | 17 " | 40 0 0 | Michael J. D'Arcy | | | |
| 35 | " | 17 " | 40 0 0 | John Augustus Foley | | | |
| 36 | " | 24 " | 40 0 0 | Charles A. Wyssenbach | | | |
| 41 | " | 7 Sept., " | 40 0 0 | Adèle L. Garot | | | |
| 52 | " | 28 Nov., " | 40 0 0 | Samuel Smith | | | |
| 53 | " | 23 " | 40 0 0 | Aimé Louise Garot | | | |
| 83- 9 | " | 8 Mar., 1883 | 40 0 0 | Arthur K. Raymond | 18 Aug., 1883 | Mining operations, £2 per acre | 80 0 0 |
| 10 | " | 15 " | 40 0 0 | Arthur Raymond | | | |
| 17 | " | 10 May, " | 40 0 0 | " | | | |
| 18 | " | 10 " | 40 0 0 | Walter Sully | | | |
| 19 | " | 10 " | 40 0 0 | Charles G. Woodman | | | |
| 20 | " | 17 " | 40 0 0 | Walter Sully | | | |
| 22 | " | 7 June, " | 40 0 0 | Robert Frew | | | |
| 26 | " | 21 " | 40 0 0 | " | | | |
| 81 | " | 12 July, " | 40 0 0 | Frank Oliver | | | |
| 33 | " | 19 " | 320 0 0 | Robert Frew | | | |
| 87 | " | 9 Aug., " | 40 0 0 | Thomas Ottaway | | | |
| 38 | " | 16 " | 40 0 0 | Thomas John Haydon | | | |
| 41 | " | 30 " | 40 0 0 | Walterus Brown | | | |
| 43 | " | 6 Sept., " | 40 0 0 | Robert Frew | | | |
| 44 | " | 6 " | 40 0 0 | William Chas. Palmer | | | |
| 45 | " | 18 " | 40 0 0 | Robert Frew | | | |
| 46 | " | 20 " | 40 0 0 | " | | | |
| 47 | " | 20 " | 40 0 0 | William Hy. Wright | | | |
| 48 | " | 20 " | 40 0 0 | Montgomery Cairns | | | |
| 49 | " | 20 " | 40 0 0 | William J. Stone | | | |
| 50 | " | 20 " | 40 0 0 | George Henry Stanbury | | | |
| 51 | " | 20 " | 40 0 0 | Alfred Kirkpatrick | | | |
| 52 | " | 20 " | 40 0 0 | John H. Palmer | | | |
| 53 | " | 20 " | 40 0 0 | James M'ulloch Gray | | | |
| 54 | " | 20 " | 40 0 0 | Alexander E. Greet | | | |
| 55 | " | 20 " | 40 0 0 | Frederick A. Tewsley | | | |
| 56 | " | 20 " | 40 0 0 | James K. Brougham | | | |
| 58 | " | 27 " | 40 0 0 | George Hy. Stanbury | | | |
| 59 | " | 27 " | 40 0 0 | Robert Frew | | | |
| 60 | " | 27 " | 40 0 0 | William Hy. Wright | | | |
| 61 | " | 27 " | 40 0 0 | Montgomery Cairns | | | |
| 62 | " | 27 " | 40 0 0 | William J. Stone | | | |
| 63 | " | 27 " | 80 0 0 | Samuel Weaver | | | |
| 64 | " | 27 " | 50 0 0 | Angus Kennedy | | | |
| 65 | " | 4 Oct., " | 40 0 0 | James Campbell Harwood | | | |
| 66 | " | 4 " | 40 0 0 | John Low | | | |
| 67 | " | 4 " | 40 0 0 | Frank Oliver | | | |
| 68 | " | 4 " | 40 0 0 | Thomas A. Bradstreet | | | |
| 69 | " | 4 " | 40 0 0 | Herbert W. Elwes | | | |
| 70 | " | 4 " | 40 0 0 | Alfred E. Slade | | | |
| 71 | " | 11 " | 40 0 0 | Michael O'Farrell | | | |
| 72 | " | 11 " | 40 0 0 | Francis Jones | | | |
| 73 | " | 11 " | 40 0 0 | Robert Frew | | | |
| 74 | " | 18 " | 80 0 0 | Charles Isaac | | | |
| 75 | " | 18 " | 80 0 0 | Josiah Wm. Keeble | | | |
| 76 | " | 18 " | 75 0 0 | James M'ulloch Gray | | | |
| 77 | " | 1 Nov., " | 80 0 0 | Thomas John Haydon | | | |
| 78 | " | 1 " | 40 0 0 | John Ryan | | | |
| 79 | " | 1 " | 40 0 0 | James Crosby Williams | | | |
| 72-2777 | Molong | 23 May, 1872 | 40 0 0 | Thomas Denny | | | |
| 2778 | " | 23 " | 40 0 0 | " | | | |
| 2779 | " | 23 " | 40 0 0 | " | | | |
| 2780 | " | 23 " | 40 0 0 | " | | | |
| 2781 | " | 23 " | 40 0 0 | John Martin Hughes | | | |
| 2931 | " | 30 " | 40 0 0 | Thomas Rees, Alfred Stevens, Hy. Wicker, Henry Unwin, Rb. Randall, and John Willis | | | |
| 3123 | " | 6 June, " | 80 0 0 | Francis Lord and James Torpy | | | |
| 3126 | " | 6 " | 40 0 0 | James Torpy | | | |
| 3127 | " | 6 " | 40 0 0 | " | | | |
| 3305 | " | 13 " | 40 0 0 | W. H. Bennett and Hannah Dalzell | | | |
| 3306 | " | 13 " | 40 0 0 | Jas. Haslam, Henry Packham, George Packham, and Alfred Parkes | | | |
| 3307 | " | 13 " | 40 0 0 | James Greer | | | |
| 3308 | " | 13 " | 40 0 0 | " | | | |
| 3309 | " | 13 " | 80 0 0 | " | | | |
| 3310 | " | 13 " | 80 0 0 | " | | | |
| 3311 | " | 13 " | 80 0 0 | " | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|------------|-------------------------------------|---------|---|-------------------|--|
| | | £ s. d. | | | Lapsed, Gazette, 31 October, 1876. |
| | | | | | Cancelled, 31 January, 1874. Non-measurement. |
| | | | | | " 29 November, 1873. " |
| | | | Francis Martin | 16 Nov., 1873 | Forfeited, Gazette, 5 November, 1880. " |
| | | | | | Lapsed, Gazette, 7 May, 1877. |
| | | | | | Void, 22 February, 1874. Non-survey within twelve months. |
| | | | | | Void, 22 October, 1874. " |
| | | | | | Lapsed, Gazette, 24 September, 1880. |
| | | | | | Void, 18 January, 1881. Land not open to conditional purchase. |
| | | | Richard Green | 18 Sept., 1882 | Awaiting Inspector's report. |
| | | | Richard Cozens and Arthur P. Manton. | 2 May, 1883 | |
| | | | | 18 Feb., 1882 | Void, 21 Sept., 1882. Whole area not available. |
| | | | | | Void, 31 Jan., 1883. Land previously selected. |
| | | | Richard Green | 18 Sept., 1882 | Stands good. |
| | | | John T. Haydon and Michael J. D'Arcy. | 6 Oct., 1883 | |
| | | | Thos. J. Haydon and Michael J. D'Arcy. | 11 " " | |
| | | | | | Stands good. |
| | | | Wm. P. M'Gregor and Thos. F. Cumming. | 15 Aug., 1884 | Void, 4 May, 1883. No land available. |
| | | | Walter Sully | 14 May, 1883 | Stands good. |
| | | | Charles Kingstone | 8 June, 1883 | Void, 31 July, 1884. Land not available. |
| | | | Walter Sully | 8 June, 1883 | |
| | | | Walter Sully | 11 May, 1883 | |
| | | | William Thompson Campbell | 8 June, 1883 | |
| | | | Walter Sully | 22 " " | |
| | | | John Penrose | 14 July, " | |
| | | | Thomas Bond Hawson | 21 " " | |
| | | | Charles Goode Lust | 2 June, 1884 | |
| | | | Angus M'Donald | 23 Oct., 1883 | |
| | | | John Ryan and Angus M'Donald. | 10 Nov., " | |
| | | | John Ryan | 2 April, 1884 | |
| | | | Henry F. Hawson | 18 Sept., 1883 | |
| | | | Charles Goode Lush | 2 June, 1884 | |
| | | | Charles Crisp | 14 Sept., 1883 | |
| | | | Julius Nickel, Henry F. Hawson, Thomas Collins, and Thomas B. Hawson. | 15 Oct., " | |
| | | | Julius Nickel, Henry F. Hawson, Thomas Collins, and Arthur E. Hawson. | 15 " " | |
| | | | Julius Nickel, Henry F. Hawson, Thomas Collins, and Thos. B. Hawson. | 13 " " | |
| | | | Julius Nickel, Henry F. Hawson, Thomas Collins, and Arthur E. Hawson. | 13 " " | |
| | | | Julius Nickel, Henry F. Hawson, Thomas Collins, and Thos. B. Hawson. | 13 " " | |
| | | | " " | 20 Sept., 1883 | |
| | | | Julius Nickel, Henry F. Hawson, Thomas Collins, and Thos. B. Hawson. | 15 Oct., 1883 | |
| | | | " " | 15 " " | |
| | | | Samuel Weaver and Chas. Chappel | 28 Sept., 1883 | |
| | | | Dennis Foley and James White | 23 Oct., " | |
| | | | Samuel Weaver and John Hartigan | 28 Sept., 1883 | |
| | | | Samuel Weaver | 28 " " | |
| | | | William J. Dalzell | 9 July, 1884 | |
| | | | Thomas B. Cuspie | 5 Oct., 1883 | |
| | | | John Low | 4 Oct., 1883 | |
| | | | " | 4 " " | |
| | | | " | 4 " " | |
| | | | " | 4 " " | |
| | | | William T. Bramley | 25 Oct., 1883 | |
| | | | Charles Chapple | 19 " " | |
| | | | Edward J. Elder | 19 " " | |
| | | | John Ryan and Jas. C. Williams. | 3 Nov., " | Void, 25 Jan., 1884. Vagueness of description |
| | | | " " | 10 Nov., 1883 | |
| | | | " " | 10 " " | Lapsed, Gazette, 31 Oct., 1876. |
| | | | " " | " " | " " |
| | | | " " | " " | " " |
| | | | " " | " " | Cancelled, 30 Oct., 1872. Land contains improvements. |
| | | | " " | " " | Lapsed, Gazette, 31 Oct., 1876. |
| | | | " " | " " | " " |
| | | | " " | " " | Cancelled, 29 Oct., 1873. Land not available for selection. |
| | | | " " | " " | Lapsed, Gazette, 31 Oct., 1876. |
| | | | " " | " " | Cancelled, 11 Nov., 1872. Land previously selected. |
| | | | " " | " " | Lapsed, Gazette, 31 Oct., 1876. " |
| | | | " " | " " | Cancelled, 11 Nov., 1872. Land previously selected. |
| | | | " " | " " | " " |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|---|----------------------|--------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 72-3313 | Molong | 18 June, 1872 | 40 0 0 | Luke M'orough and Thos. Hudson | | | |
| 3480 | " | 20 " | 40 0 0 | " | | | |
| 3888 | " | 4 July, " | 40 0 0 | Joseph Passlow | | | |
| 4117 | " | 11 " | 40 0 0 | Francis Lord, Ewin M'Kinnon, Jas. Torpy, Pk. Firth, Archbd. Connelly. | | | |
| 4118 | " | 11 " | 40 0 0 | Francis Lord, Ewin M'Kinnon, Jas. Torpy, Pk. Firth, A. Connelly. | | | |
| 4119 | " | 11 " | 40 0 0 | James Haslam | | | |
| 4448 | " | 25 " | 40 0 0 | John Delaney | | | |
| 4684 | " | 1 Aug., " | 60 0 0 | James W. Grant | | | |
| 4885 | " | 8 " | 40 0 0 | Thos. R. Icely and Arthur Allen | | | |
| 4336 | " | 8 " | 40 0 0 | " | | | |
| 4827 | " | 8 " | 40 0 0 | " | | | |
| 4338 | " | 8 " | 40 0 0 | " | | | |
| 4339 | " | 8 " | 40 0 0 | " | | | |
| 4340 | " | 8 " | 40 0 0 | " | | | |
| 5614 | " | 5 Sept., " | 40 0 0 | James Keay and Ewin M'Kinnon | | | |
| 5615 | " | 5 " | 40 0 0 | " | | | |
| 5936 | " | 19 " | 40 0 0 | Thomas Jenkins | | | |
| 6321 | " | 3 Oct., " | 40 0 0 | James and Thomas Dalton | | | |
| 6630 | " | 17 " | 60 0 0 | James D. Grant | | | |
| 6631 | " | 17 " | 60 0 0 | " | | | |
| 8122 | " | 19 Dec., " | 40 0 0 | Charles Bennett | | | |
| 73-12856 | " | 27 Nov., 1873 | 40 0 0 | F. W. Hume and F. Macnab | | | |
| 12357 | " | 27 " | 40 0 0 | " | | | |
| 74-6164 | " | 11 June, 1874 | 40 0 0 | Michael Balf | | | |
| 76- 62 | " | 4 Mar., 1875 | 40 0 0 | David Joseph O'Neill | | | |
| 63 | " | 4 " | 40 0 0 | " | | | |
| 64 | " | 4 " | 40 0 0 | " | | | |
| 65 | " | 4 " | 40 0 0 | " | | | |
| 167 | " | 29 April, " | 40 0 0 | Alan Campbell | | | |
| 218 | " | 3 June, " | 40 0 0 | Harris L. Nelson | | | |
| 219 | " | 3 " | 80 0 0 | Harris Levi Nelson | | | |
| 220 | " | 3 " | 80 0 0 | " | | | |
| 76- 50 | " | 24 Feb., 1876 | 40 0 0 | George D. Sherwin | | | |
| 365 | " | 7 Sept., " | 40 0 0 | John S. Campbell | | | |
| 77- 8 | " | 11 Jan., 1877 | 40 0 0 | Michael Balf | | | |
| 141 | " | 5 April, " | 40 0 0 | Eric S. Ross | | | |
| 174 | " | 26 " | 40 0 0 | William D. Gibson | | | |
| 230 | " | 21 June, " | 40 0 0 | Thomas Finch | | | |
| 231 | " | 21 " | 40 0 0 | Henry S. M. Betts | | | |
| 82- 80 | " | 9 Mar., 1882 | 40 0 0 | John Black | | | |
| 105 | " | 30 " | 40 0 0 | Andrew Strahorn | | | |
| 206 | " | 13 July, " | 60 0 0 | Harrington M'Culloch | | | |
| 286 | " | 21 Sept., " | 40 0 0 | Lancelot N. Smith | | | |
| 329 | " | 16 Nov., " | 40 0 0 | Henry W. Nancarrow | | | |
| 381 | " | 16 " | 40 0 0 | James Samuels, junr. | | | |
| 81- 34 | Mudgee | 14 July, 1881 | 40 0 0 | Herbert Alexander Cox | | | |
| 73-9536 | Murrurundi | 3 " | 40 0 0 | Michael Metcalf, Septimus Stephen, and Henry Harpur. | 26 Aug., 1875 | Mining operations, £2 per acre | |
| 9587 | " | 3 " | 80 0 0 | " | 26 " | " | |
| 9588 | " | 3 " | 180 0 0 | " | 26 " | " | |
| 13374 | " | 18 Dec., " | 40 0 0 | Benjamin Abbott | | | |
| 76- 30 | " | 70 Feb., 1876 | 40 0 0 | John Dick | | | |
| 152 | " | 20 July, " | 40 0 0 | John Bassett Christian | | | |
| 191 | " | 19 Oct., " | 40 0 0 | " | | | |
| 185 | " | 16 Nov., " | 40 0 0 | " | | | |
| 77- 7 | " | 11 Jan., 1877 | 40 0 0 | Thomas Dowe | | | |
| 8 | " | 11 " | 40 0 0 | Stuart Martyn | | | |
| 9 | " | 11 " | 40 0 0 | Michael Quinlan | | | |
| 10 | " | 11 " | 40 0 0 | Luke O'Meagher Kingsmill | | | |
| 11 | " | 11 " | 40 0 0 | Alexander Brodie | | | |
| 12 | " | 11 " | 40 0 0 | Edward Donohue | | | |
| 58 | " | 1 Mar., " | 40 0 0 | John Bassett Christian | | | |
| 59 | " | 1 " | 40 0 0 | John B. Christian | | | |
| 146 | " | 14 June, " | 40 0 0 | William Geddes Borron | | | |
| 255 | " | 27 Dec., " | 40 0 0 | James E. Wolfe & George Loder | | | |
| 256 | " | 27 " | 40 0 0 | " | | | |
| 257 | " | 27 " | 40 0 0 | " | | | |
| 258 | " | 27 " | 40 0 0 | " | | | |
| 259 | " | 27 " | 40 0 0 | " | | | |
| 260 | " | 27 " | 40 0 0 | " | | | |
| 261 | " | 27 " | 40 0 0 | " | | | |
| 262 | " | 27 " | 40 0 0 | " | | | |
| 263 | " | 27 " | 40 0 0 | " | | | |
| 264 | " | 27 " | 40 0 0 | " | | | |
| 51- 44 | " | 30 June, 1881 | 60 0 0 | George Grace, junr. | | | |
| 69 | " | 22 Dec., " | 40 0 0 | William Edward Abbot | | | |
| 82- 27 | " | 18 May, 1882 | 240 0 0 | Henry John Adams | | | |
| 66 | " | 30 Nov., " | 40 0 0 | " | | | |
| 74 | " | 28 Dec., " | 40 0 0 | " | | | |
| 83- 10 | " | 1 Mar., 1883 | 40 0 0 | " | | | |
| 22 | " | 7 June, " | 100 0 0 | George L. Cooper, George Sidney, and Jacob Hy. Johnston. | | | |
| 25 | " | 14 " | 60 0 0 | " | | | |
| 32 | " | 2 Aug., 1883 | 299 0 0 | Henry John Adams | | | |
| 30- 21 | Muswellbrook | 29 July, 1880 | 40 0 0 | John Black | | | |
| 77- 55 | Moree | 3 May, 1877 | 40 0 0 | John M'Donald | | | |
| 56 | " | 3 " | 40 0 0 | " | | | |
| 57 | " | 3 " | 40 0 0 | " | | | |
| 81- 61 | " | 1 Sept., 1881 | 50 0 0 | John Town, senr. | | | |
| 83 | " | 8 Dec., " | 50 0 0 | Alexander Keen | | | |
| 90 | " | 22 " | 480 2 0 | John Edward Cory | | | |
| 82- 72 | " | 4 May, 1882 | 40 0 0 | John M'Donald | | | |
| 74 | " | 11 " | 40 0 0 | " | | | |
| 70 | " | 11 " | 640 0 0 | Alexander Keen | | | |
| 77 | " | 11 " | 640 0 0 | Owen Williams | | | |
| 78 | " | 11 " | 500 0 0 | William Chas. Billings | | | |
| 79 | " | 11 " | 500 0 0 | James Cairns | | | |
| 80 | " | 11 " | 450 0 0 | Stepano Pine | | | |
| 81- 32 | " | 19 " | 40 0 0 | Bowman Brog. | | | |
| 37 | " | 23 June, " | 40 0 0 | John M'Donald | | | |
| 38 | " | 23 " | 40 0 0 | John M'Donald and Samuel M. Swift | | | |
| 43 | " | 30 " | 40 0 0 | John M'Donald | | | |
| 82- 125 | " | 20 " | 300 0 0 | Alfred Augustus Adams | | | |
| 131 | " | 29 " | 166 0 0 | John Edward Cory | | | |
| 133 | " | 6 July, " | 160 0 0 | Thomas Scott | | | |
| 134 | " | 6 " | 160 0 0 | James Hislop | | | |
| 81 | " | 11 May, " | 120 0 0 | Herbert V. Lewis | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|-----------|-------------------------------------|----------------------|--------------------------------|--------|
| | | | a. r. p. | | | | £ s. |
| 82- 83 | Moree | 11 May, 1882 | 640 0 0 | Alfred A. Adams | | | |
| 85 | " | 11 " | 100 0 0 | Ernest Adams | | | |
| 87 | " | 18 " | 74 0 0 | John M'Donald | | | |
| 89 | " | 18 " | 159 2 0 | John Edward Cory | | | |
| 90 | " | 18 " | 180 0 0 | " | | | |
| 93 | " | 8 June, " | 40 0 0 | John Edward Meynink | | | |
| 101 | " | 15 " | 320 0 0 | John F. Boydell | | | |
| 102 | " | 15 " | 320 0 0 | Arthur F. Smart | | | |
| 105 | " | 22 " | 640 0 0 | Charles Hillas Biddle | | | |
| 106 | " | 22 " | 320 0 0 | John P. E. Meynink | | | |
| 107 | " | 22 " | 320 0 0 | Donald W. M'Donald | | | |
| 111 | " | 22 " | 80 0 0 | Frederick H. Perry | | | |
| 121 | " | 29 " | 640 0 0 | Alex. W. Cruickshank | | | |
| 112 | " | 22 " | 640 0 0 | John M'Donald | | | |
| 124 | " | 29 " | 320 0 0 | William Chas. Billings | | | |
| 120 | " | 29 " | 320 0 0 | Thomas Scott | | | |
| 175 | " | 24 Aug., " | 40 0 0 | John E. Cory | | | |
| 204 | " | 28 Sept., " | 400 0 0 | James W. Scott | | | |
| 214 | " | 19 Oct., " | 50 0 0 | Alfred A. E. Adams | | | |
| 237 | " | 16 Nov., " | 40 0 0 | George R. E. Fergusson | | | |
| 252 | " | 7 Dec., " | 100 0 0 | James Weir Scott | | | |
| 83- 14 | " | 1 Feb., 1889 | 160 0 0 | Robert Dobbie | | | |
| 58 | " | 15 Mar., " | 40 0 0 | John Thomas Weir Scott | | | |
| 64 | " | 22 " | 40 0 0 | William Pearse | | | |
| 102 | " | 26 April, " | 200 0 0 | James R. Lomax | | | |
| 108 | " | 17 May, " | 40 0 0 | William Pearse | | | |
| 111 | " | 31 " | 90 0 0 | William R. King | | | |
| 144 | " | 21 June, " | 40 0 0 | Hugh R. Murray | | | |
| 152 | " | 12 July, " | 40 0 0 | Alexander Benson | | | |
| 159 | " | 19 " | 40 0 0 | Francis N. Bucknell | | | |
| 179 | " | 9 Aug., " | 40 0 0 | Norman C. Bucknell | | | |
| 181 | " | 9 " | 40 0 0 | Hugh R. Murray | | | |
| 193 | " | 30 " | 640 0 0 | John M'Donald | | | |
| 212 | " | 20 Sept., " | 240 0 0 | " | | | |
| 222 | " | 11 Oct., " | 40 0 0 | G. A. W. Stewart | | | |
| 230 | " | 1 Nov., " | 60 0 0 | William Carver | | | |
| 75- 233 | Narrandera | 28 Oct., 1875 | 40 0 0 | Jonas Smiley | | | |
| 76- 308 | " | 26 " 1876 | 40 0 0 | Francis Jenkins | | | |
| 420 | " | 16 Nov., " | 40 0 0 | " | | | |
| 444 | " | 14 Dec., " | 40 0 0 | John Armstrong | | | |
| 285 | " | 21 " " | 40 0 0 | John Clark | | | |
| 296 | " | 21 " " | 40 0 0 | " | | | |
| 77- 8 | " | 4 Jan., 1877 | 80 0 0 | " | | | |
| 18 | " | 25 " " | 40 0 0 | " | | | |
| 28 | " | 22 Feb., " | 80 0 0 | " | | | |
| 78- 1 | " | 10 Jan., 1878 | 50 0 0 | " | | | |
| 2 | " | 17 " " | 50 0 0 | " | | | |
| 73- 11 | " | 29 May, 1879 | 100 0 0 | " | | | |
| 80- 13 | " | 4 Mar., 1880 | 100 0 0 | " | | | |
| 49 | " | 28 Oct., " | 40 0 0 | " | | | |
| 82- 55 | " | 31 Aug., 1882 | 40 0 0 | Duncan Fraser | | | |
| 75- 233 | " | 28 Oct., 1875 | 40 0 0 | Jonas Smiley | | | |
| 76- 296 | " | 21 Dec., 1876 | 40 0 0 | John Clark | | | |
| 77- 8 | " | 4 Jan., 1877 | 80 0 0 | " | | | |
| 18 | " | 25 " " | 40 0 0 | " | | | |
| 76- 295 | " | 21 Dec., 1876 | 50 0 0 | " | | | |
| 77- 23 | " | 7 Feb., 1877 | 80 0 0 | " | | | |
| 76- 56 | Narrabri | 12 Oct., 1876 | 58 0 0 | James Fletcher | | | |
| 77- 81 | " | 15 Mar., 1877 | 40 0 0 | Charles Collins | | | |
| 87 | " | 29 " " | 40 0 0 | William Pirie | | | |
| 44 | " | 19 April, " | 40 0 0 | James Fletcher | | | |
| 82- 125 | " | 1 June, 1882 | 40 0 0 | Andrew Buchanan | | | |
| 126 | " | 1 " " | 326 3 0 | Leslie A. Chambers | | | |
| 151 | " | 22 " " | 40 0 0 | William Henry Gordon | | | |
| 236 | " | 20 July, " | 100 0 0 | Leslie A. Chambers | | | |
| 253 | " | 17 Aug., " | 40 0 0 | William Mackay Chambers | | | |
| 281 | " | 14 Sept., " | 60 0 0 | Charles A. Long | | | |
| 285 | " | 21 " " | 40 0 0 | Frederick Hunsworth | | | |
| 294 | " | 5 Oct., " | 84 0 0 | Charles A. Long | | | |
| 301 | " | 16 Nov., " | 50 0 0 | Edwin Riddle | | | |
| 318 | " | 21 Dec., " | 40 0 0 | William F. Buchanan | | | |
| 83- 7 | " | 11 Jan., 1883 | 60 0 0 | William Buchanan | | | |
| 82 | " | 19 July, " | 40 0 0 | " | | | |
| 99 | " | 1 Nov., " | 40 0 0 | Richard B. Mills | | | |
| 70-3574 | Newcastle | 29 Sept, 1870 | 624 2 0 | Waratah Coal Company | | | |
| 73-6727 | " | 8 July, 1873 | 40 0 0 | Thomas G. Alcock and Fras. Gardiner | | | |
| 6723 | " | 8 " " | 320 0 0 | Francis Gardiner | | | |
| 6729 | " | 3 " " | 230 0 0 | Frederick Alcock | | | |
| 9402 | " | 11 Sept., " | 50 0 0 | Michael Quinn | 4 Nov., 1876 | Mining operations, £2 per acre | |
| 71-2710 | " | 8 Aug., 1871 | 44 1 0 | John Riley | | | |
| 74-12211 | " | 19 Nov., 1874 | 100 0 0 | Edward Greville and Thomas Garrett | 25 Jan., 1878 | Mining operations, £2 per acre | |
| 75- 20 | " | 19 Sept., 1875 | 1,250 0 0 | Waratah Coal Company | 10 Oct., 1877 | " " | |
| 23 | " | 14 Oct., " | 640 0 0 | " | | | |
| 24 | " | 14 " " | 640 0 0 | " | | | |
| 25 | " | 14 " " | 640 0 0 | The Australian Coal Company | | | |
| 26 | " | 14 " " | 414 0 0 | " | | | |
| 27 | " | 21 " " | 229 2 0 | Waratah Coal Company | 23 Sept., 1875 | Mining operations, £2 per acre | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|----------------|---|-------------|---|-------------------|--|
| | | £ s. d. | | | |
| | | | | | Void, 16 June, 1882. Second application on same day. |
| | | | | | Void, 26 July, 1834. Greater part of land within water reserve 916. |
| | | | Alexr. Robertson, John Wagner, S. Booth, and R. Goldsborough. | 16 Feb., 1882 | Void, 14 May, 1883. At applicants' request—land cannot be measured as described. Awaiting declaration. |
| J. S. O'Hara | Improvements, nil | | Alexr. W. Robertson, John Wagner, S. Booth, and R. Goldsborough. | 2 Aug., 1882 | |
| | | | Alexr. and Robert Amos | 12 " " | Void, 6 October, 1883. Form of measurement, objectionable. |
| | | | Alexr. and Robert Amos | 6 July, 1882 | |
| | | | " " | 5 " " | |
| | | | Alexr. and Robert Amos | 2 Feb., 1883 | Void, 14 May, 1883. Made by agent. |
| | | | Frederick Hy. Perry | 20 Sept., 1883 | |
| | | | | | Case under reference to Commissioner for inquiry. Lapsed, Gazette, 24 September, 1880. |
| | | | | | " " " |
| | | | | | " " " |
| | | | | | " " " |
| | | | | | " " " |
| | | | | | " " 28 November, 1881. |
| | | | | | Referred to Commissioner for report. |
| | | | | | Lapsed, Gazette, 16 November, 1883. Under reference to Commissioner for report. |
| | | | | | Lapsed, Gazette, 24 September, 1880. |
| | | | | | " " " |
| | | | | | " " " |
| J. S. O'Hara | Improvements, nil | | | | Void, 17 October, 1878. "Non-survey within twelve months. Lapsed, Gazette, 24 September, 1880. |
| | | | | | Withdrawn, 10 February, 1879. Non-survey within twelve months. |
| | | | | | Withdrawn, 27 December, 1883. Non-survey within twelve months. |
| | | | | | Withdrawn, 20 December, 1883. Non-survey within twelve months. |
| | | | William Frederick Buchanan | 1 June, 1883 | Withdrawn, 27 October, 1883. Non-survey within twelve months. |
| | | | Duncan M'Rae | 31 July, 1883 | |
| | | | | | Void, 27 April, 1883. Form of measurement objectionable. |
| | | | | | Void, 25 July, 1873. Within population boundary of Newcastle. |
| Comr. Bolding | Reports an expenditure of £118 in mining operations. | | Ann Quinn (by certificate from Crown Solicitor), William Walker Johnson. | 7 Sept., 1876 | Approved by Minister, 24 February, 1880. |
| John J. Lawler | 5 acres cleared, at 60s. per acre | | Frederick Alcock | 2 April, 1874 | Deed prepared. |
| | | | Thomas Brooks, Charles F. Stokes, Alex. Brown, Wm. Laidley, and Thomas Garrett. | 13 Mar., 1883 | Approved by Minister, 9 May, 1881. |
| | | | | | Void, 21 December, 1875. Maximum area allowed by law exceeded. |
| | | | | | Void, 18 April, 1878. Within population boundary of Newcastle. |
| | | | | | Void, 3 December, 1875. Within population boundary of Newcastle. |
| Thos. Argent | Pit, 330 feet deep, with necessary plant, £7,064; seven boreholes, equal to 1,053 feet, £525; 89 chains railway, £3,910; 220 chains two-rail fence, £138 10s.; fourteen slab houses, two orchards, and two gardens. | 12,343 10 0 | | | Deed prepared, 7 November, 1882. |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|---------------------|--|----------------------|--------------------------------|-------------|
| 75- 30 | Newcastle | 18 Nov., 1875 | a. r. p. 639 0 0 | Redhead Coal Company | 11 Mar., 1879 | Mining operations, £2 per acre | £ 1,278 0 0 |
| 31 | " | " " | 640 0 0 | " | 11 " " | " " | 1,230 0 0 |
| 32 | " | " " | 540 0 0 | " | 11 " " | " " | 1,080 0 0 |
| 33 | " | " " | 320 0 0 | " | 11 " " | " " | 640 0 0 |
| 34 | " | " " | 640 0 0 | " | 11 " " | " " | 1,230 0 0 |
| 35 | " | " " | 640 0 0 | " | 11 " " | " " | 1,230 0 0 |
| 36 | " | " " | 330 0 0 | " | 11 " " | " " | 678 0 0 |
| 37 | " | " " | 365 0 0 | " | 11 " " | " " | 780 0 0 |
| 77- 3 | " | 31 May, 1877 | 2,953 0 0 | John de Villiers Lamb and Robt. Saddington. | | | |
| 7 | " | 19 July, " | 640 0 0 | " | | | |
| 10 | " | 26 " " | 320 0 0 | " | | | |
| 11 | " | 2 Aug., " | 242 0 0 | " | | | |
| 12 | " | 9 " " | 88 3 0 | " | | | |
| 14 | " | 16 " " | 640 0 0 | " | | | |
| 16 | " | 25 Oct., " | 40 0 0 | Charles Robinson | | | |
| 78- 15 | " | 29 Aug., 1878 | 640 0 0 | Geo. Griffiths and Chas. C. Skarratt | | | |
| 18 | " | 12 Sept., " | 640 0 0 | " | | | |
| 19 | " | 12 " " | 160 0 0 | Allen B. Morgan | | | |
| 21 | " | 19 " " | 40 0 0 | " | | | |
| 22 | " | 3 Oct., " | 393 0 0 | John de V. Lamb & Robt. Saddington | | | |
| 26 | " | 10 " " | 640 0 0 | " | | | |
| 79- 15 | " | 14 Aug., 1879 | 107 0 0 | Caroline Tarrant | | | |
| 81- 3 | " | 24 Feb., 1881 | 423 0 35 | George K. Clark | 8 Mar., 1883 | Mining operations, £2 per acre | 846 8 9 |
| 4 | " | 10 Mar., " | 100 0 0 | Henry Copeland | 10 " 1884 | " " | 200 0 0 |
| 5 | " | 10 " " | 300 0 0 | Alfred Hilder | 30 June, 1883 | " " | 720 0 0 |
| 10 | " | 16 June, " | 518 0 0 | John Frost | | | |
| 25 | " | 29 Sept., " | 600 0 0 | Wm. Pescud, Wm. Beard, and Smith Thomas Greenwell. | | | |
| 82- 29 | " | 1 Dec., " | 320 0 0 | Wm. Pescud and Wm. Beard | | | |
| 2 | " | 1 June, 1882 | 640 0 0 | James and Alex. Brown | | | |
| 2a | " | 15 " " | 639 0 0 | Mary P. Lane | | | |
| 4 | " | 22 " " | 640 0 0 | Alexander Brown, junr. | | | |
| 5 | " | 17 Aug., " | 640 0 0 | Andrew Armstrong | | | |
| 6 | " | 21 " " | 500 0 0 | William Wood | | | |
| 7 | " | 31 " " | 500 0 0 | " | | | |
| 3a | " | 15 June, " | 625 0 0 | Mary Lane | | | |
| 89- 3 | " | 8 Mar., 1883 | 203 0 0 | Henry B. Copeland | 9 July, 1883 | Mining operations, £2 per acre | 416 0 0 |
| 6 | " | 28 June, " | 80 0 0 | Henry E. Stokes | | | |
| 7 | " | 5 July, " | 78 1 0 | " | | | |
| 70-1884 | Orange | 21 April, 1870 | 100 0 0 | William Tom, junr. | 11 June, 1873 | Mining operations, £2 per acre | 200 0 0 |
| 2121 | " | 30 June, " | 94 3 0 | Lewis Lloyd, Thos. M. Sloman, James Robertson, and Chas. W. Croaker. | 11 " " | " " | 139 10 0 |
| 71- 716 | " | 9 Mar., 1871 | 40 0 0 | James Robertson | | | |
| 72- 172 | " | 18 Jan., 1872 | 40 0 0 | Chas. W. Croaker, Jas. Rutherford, Wm. Tom, Jas. Cock, Thomas M. Sloman, and Alfred J. Pechey. | | | |
| 3490 | " | 20 June, " | 40 0 0 | James Robertson | 30 June, 1875 | Mining operations, £2 per acre | 80 0 0 |
| 5701 | " | 12 Sept., " | 60 0 0 | Thomas M. Sloman & Josiah Sloman | | | |
| 6184 | " | 26 " " | 40 0 0 | Richd. Holdsworth & Frodk. Thos. Humphrey. | | | |
| 6185 | " | 26 " " | 40 0 0 | " | | | |
| 6186 | " | 26 " " | 40 0 0 | " | | | |
| 6187 | " | 26 " " | 40 0 0 | " | | | |
| 6188 | " | 26 " " | 40 0 0 | " | | | |
| 6848 | " | 24 Oct., " | 160 0 0 | Samuel D. Gordon & Walter Friend | | | |
| 74-10948 | " | 24 Sept., 1874 | 40 0 0 | Geo. Rae, John Hutchinson, Jas. Burnells, & Richd. Mitchell. | | | |
| 76- 32 | " | 18 May, 1876 | 150 0 0 | The Scottish Australian Mining Co. (Limited). | 12 Aug., 1879 | Mining operations, £2 per acre | 300 0 0 |
| 82- 20 | " | 15 Mar., 1883 | 40 0 0 | Michl. O'Neill | | | |
| 23 | " | 29 " " | 50 0 0 | The Scottish Australian Mining Co. (Limited). | | | |
| 51 | " | 11 Oct., " | 30 0 0 | Peter Speare and Thos. J. Denny | | | |
| 53 | " | 25 " " | 40 0 0 | " | | | |
| 54 | " | 25 " " | 40 0 0 | William Hy. Buckley | | | |
| 55 | " | 25 " " | 40 0 0 | Stephen Thomas | | | |
| 58 | " | 1 Nov., " | 40 0 0 | Mary Keenan | | | |
| 76- 261 | Parkes | 31 Aug., 1876 | 40 0 0 | James Balston | | | |
| 80- 17 | " | 20 May, 1880 | 60 0 0 | Phillip Davies | | | |
| 26 | " | 10 June, " | 40 0 0 | John A. Koso | | | |
| 46 | " | 16 Sept., " | 80 0 0 | Chas. W. Setter and David T. Johnston | | | |
| 60 | " | 21 Oct., " | 40 0 0 | William Henry Tuck, Edwin Davies, and George Links. | | | |
| 61 | " | 28 " " | 40 0 0 | Edwin Davies, Chas. Young, and James Samuels, jun. | | | |
| 81- 23 | " | 5 May, 1881 | 200 0 0 | Tottenham Lee Richardson & Thomas Baxter. | | | |
| 58 | " | 28 July, " | 100 0 0 | Phillip Davies | | | |
| 61 | " | 4 Aug., " | 40 0 0 | John Studd Brown | | | |
| 72 | " | 15 Sept., " | 40 0 0 | George Gordon | | | |
| 77 | " | 22 " " | 200 0 0 | Andrew S. M'Levie | 7 July, 1884 | Mining operations, £2 per acre | 400 0 0 |
| 84 | " | 13 Oct., " | 40 0 0 | George Gordon | | | |
| 89 | " | 3 Nov., " | 40 0 0 | Hubert Joseph Lane | | | |
| 95 | " | 1 Dec., " | 40 0 0 | John S. Brown, James Samuels, jun., R. Booth, A. Armstrong, Geo. B. Richardson. | | | |
| 100 | " | 8 " " | 40 0 0 | " | | | |
| 82- 21 | " | 20 April, 1882 | 40 0 0 | William Henry Brigstocke | | | |
| 23 | " | 27 " " | 40 0 0 | " | | | |
| 82- 10 | " | 3 May, 1883 | 40 0 0 | " | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|----------------|---|-----------|--|-------------------|---|
| | | £ s. d. | | | Deed prepared. |
| George Smith | { Shafts, borcholes, manager's house, men's houses, blacksmith's shop, engine-house, diamond-drill apparatus. | 7,610 0 0 | | | " " " " " " Being dealt with. Void, 25 June, 1877. Area applied for exceeds 640 acres. Void, 13 June, 1879. Application made at wrong Land Office. Void, 20 June, 1879. Land situate in Brisbane Water District. " " " Void, 13 February, 1878. Within population boundary of Newcastle. Lapsed, Gazette, 27 April, 1882. Void, 29 January, 1879. Land previously conditionally purchased. Void, 18 September, 1879. Land situate in Brisbane Water District. Void, 20 June, 1879. Void, 29 September, 1879. Land not open to selection Approved by Minister, 8 October, 1883. " 9 September, 1884. " 8 October, 1883. |
| Geo. Smith | Borehole, 523 feet deep, at 40s. | 1,046 0 0 | William Anthony Kingscote | 19 Jan., 1882 | |
| " | Borehole, dam, tunnel, trial shafts | 314 5 0 | Henry Gorman | 22 Mar., " | |
| " | Borehole, 483 feet, at 40s. per foot, shafts, tunnel. | 1,112 0 0 | William Anthony Kingscote | 2 " 1883 | |
| | | | Frederick Somers | 30 Oct., 1882 | Case referred to Commissioner for inquiry. Void, 23 December, 1881. Made by an agent. Void, 30 December, 1882. Within reserve 122. Void, 27 June, 1882. Application tendered by an agent. Void, 2 September, 1882. Previously selected. Void, 12 September, 1883, by decision of Supreme Court. |
| | | | Mary P. Lane and David Wilson | 4 May, 1883 | |
| Geo. Smith | Improvements, nil | | Mary P. Lane and David Wilson | 17 Nov., 1883 | Approved by Minister, 8 October, 1883. |
| | | | William Anthony Kingscote | 18 June, " | |
| | | | William Joyce Hobbs | 23 Aug., " | |
| | | | " | 23 " " | Approved. |
| | | | 1/4 share to John N. M'Intosh and G. Pinnock. | 27 May, 1872 | " |
| | | | 1/4 share to R. Holdsworth and F. T. Humphrey. | 18 Feb., 1878 | " |
| | | | | | Cancelled, 18 April, 1871. Previously conditionally purchased by Nicholls and others. Lapsed, Gazette, 24 March, 1876. |
| J. C. Page | Improvements, £80 | 80 0 0 | John N. M'Intosh & Geo. Pinnock | 24 June, 1872 | Approved, 28 June, 1877. |
| | | | Richd. Holdsworth and Fred. T. Humphrey. | 1 Feb., 1873 | " " |
| | | | | | Cancelled, 19 December, 1872. Previously selected. Lapsed, Gazette, 31 October, 1876. |
| | | | | | " " |
| | | | | | " " |
| | | | | | " " |
| | | | | | " " |
| | | | | | " 4 May, 1878. |
| P. W. Street | Large slab hut, road, fence, dam, and water-race. | 295 0 0 | | | Deed prepared, 28 November, 1881. |
| | | | Peter Speare and Thos. J. Denny | 21 Nov., 1883 | |
| | | | | | |
| | | | W. H. Buckley, Robt. H. White, Thos. Stephen, and Chas. J. Buckland. | 25 Oct., " | |
| | | | W. H. Buckley, Robt. H. White, Thos. Stephen, Wm. H. White, Chas. J. Buckland. | 19 June, " | |
| Joseph C. Page | Improvements, nil | | | | Lapsed, Gazette, 28 November, 1881. Awaiting declaration. Void, 27 September, 1880. Vagueness of description. Void, 11 March, 1882. Void, 15 September, 1881. Land described contains only 20 acres. Awaiting declaration. Void, 15 September, 1881. Vagueness of description. Awaiting declaration. Void, 20 April, 1882. Land contains improvements. |
| | | | George Hardie | 2 June, 1880 | |
| | | | Thos. Baxter & Michael Hy. Seale | 24 " " | |
| | | | | | |
| | | | Geo. B. Richardson, John S. Brown, J. Samuels, jun., R. Booth, and A. Armstrong. | 10 Aug., 1881 | |
| | | | Tottenham Leo Richardson | 23 Sept., 1881 | Awaiting declaration. Being dealt with. Awaiting declaration. Void, being made by an agent. |
| | | | | | |
| | | | John S. Brown, Jas. Samuels, jun., Robert Booth, Andrew Armstrong, & Geo. B. Richardson. | 21 April, 1882 | Void, 12 January, 1882, being made by an agent. |
| | | | John Studd Brown | 28 " " | |
| | | | Geo. B. Richardson, Andrew Armstrong, John S. Brown, Jas. Samuels, jun., & Robert Booth | 7 May, 1883 | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|----------|--|----------------------|--------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 83- 13 | Parkes | 31 May, 1883 | 40 0 0 | Benjamin Clements | | | |
| 14 | " | 31 " " | 40 0 0 | Michael J. Delahenty | | | |
| 15 | " | 31 " " | 40 0 0 | John Dowling | | | |
| 16 | " | 31 " " | 80 0 0 | Donald A. Cameron | | | |
| 17 | " | 31 " " | 40 0 0 | William A. Clements | | | |
| 18 | " | 31 " " | 40 0 0 | William Taylor | | | |
| 20 | " | 23 June, " | 40 0 0 | Benjamin Clements | | | |
| 21 | " | 28 " " | 40 0 0 | William A. Clements | | | |
| 22 | " | 28 " " | 40 0 0 | William Taylor | | | |
| 27 | " | 10 Aug., " | 40 0 0 | Edward Rolges | | | |
| 28 | " | 10 " " | 40 0 0 | A. J. S. Colquhoun | | | |
| 34 | " | 4 Oct., " | 200 0 0 | Alfred Stokes | | | |
| 35 | " | 1 Nov., " | 40 0 0 | Henry M'Cook | | | |
| 36 | " | 1 " " | 40 0 0 | Nathaniel M'Cook | | | |
| 51- 4 | Parramatta | 3 Mar., 1881 | 160 0 0 | Ed. Cole, Ed. R. Webster, E. Ochrick | | | |
| 5 | " | 8 " " | 120 0 0 | " " | | | |
| 6 | " | 3 " " | 160 0 0 | " " | | | |
| 7 | " | 8 " " | 160 0 0 | " " | | | |
| 8 | " | 24 " " | 280 0 0 | Edward Ritchie Cole | | | |
| 9 | " | 24 " " | 160 0 0 | Herbert Greenland | | | |
| 10 | " | 24 " " | 100 0 0 | Edward J. Welch | | | |
| 11 | " | 24 " " | 160 0 0 | Emeal Ochrick | | | |
| 13 | " | 7 April " | 120 0 0 | Adolph Shadler | | | |
| 14 | " | 7 " " | 640 0 0 | Thomas Garrett | | | |
| 15 | " | 7 " " | 640 0 0 | Harman J. Tarrant | | | |
| 16 | " | 7 " " | 640 0 0 | George Pile | | | |
| 17 | " | 7 " " | 640 0 0 | John Y. Mills | | | |
| 76- 10 | Penrith | 17 May, 1876 | 40 0 0 | Henry Deane | | | |
| 16 | " | 27 July, " | 40 0 0 | " | | | |
| 23 | " | 16 Nov., " | 40 0 0 | Wyndham J. Davies | 2 Oct., 1879 | Mining operations, £2 per acre | |
| 77- 7 | " | 3 May, 1877 | 42 0 0 | Henry Deane | 29 July, 1830 | " " | |
| 80- 9 | " | 30 Sept., 1880 | 640 0 0 | John Coghlan | | | |
| 10 | " | 30 " " | 640 0 0 | J. C. Cox, Ed. Wrench, J. H. Newnan, and Alex. M'Donald. | | | |
| 11 | " | 30 " " | 640 0 0 | " " | | | |
| 12 | " | 21 Oct., " | 640 0 0 | Edward Thos. J. Wrench | | | |
| 13 | " | 21 " " | 640 0 0 | John Coghlan | | | |
| 14 | " | 21 " " | 640 0 0 | James Chas. Cox | | | |
| 51- 22 | " | 18 Aug., 1881 | 50 0 0 | James G. Wilson | | | |
| 24 | " | 25 " " | 40 0 0 | " " | | | |
| 33 | " | 24 Nov., " | 40 0 0 | Thomas J. Cross | | | |
| 34 | " | 15 Dec., " | 50 0 0 | Frederick Somers | | | |
| 36 | " | 29 " " | 272 2 0 | John L. Hordern | | | |
| 82- 1 | " | 5 Jan., 1882 | 44 1 0 | " | | | |
| 2 | " | 2 Feb., " | 120 0 0 | Robert F. Stubbs and James G. Wilson | | | |
| 6 | " | 9 May, " | 40 0 0 | Campbell Mitchell | | | |
| 8 | " | 27 Apr., " | 80 0 0 | John L. Hordern | | | |
| 9 | " | 4 May, " | 145 1 0 | James G. Wilson and John Wells | | | |
| 11 | " | 1 June, " | 40 0 0 | John L. Hordern | | | |
| 13 | " | 29 " " | 160 0 0 | Edward Porter | | | |
| 14 | " | 29 " " | 90 3 0 | R. FitzStubbs and James G. Wilson | | | |
| 17 | " | 3 July, " | 40 0 0 | James Bates | | | |
| 21 | " | 3 Aug., " | 100 0 0 | Annie Reid and Andrew H. M'Culloch, jun. | | | |
| 22 | " | 10 " " | 490 0 0 | William H. Pinhey | | | |
| 23 | " | 10 " " | 60 0 0 | Robert FitzStubbs | | | |
| 24 | " | 10 " " | 640 0 0 | John Meeks | | | |
| 25 | " | 10 " " | 640 0 0 | John D. Young | | | |
| 26 | " | 10 " " | 640 0 0 | George L. Carter | | | |
| 27 | " | 10 " " | 600 0 0 | James Bates | | | |
| 30 | " | 17 " " | 195 0 0 | Robert FitzStubbs | | | |
| 31 | " | 24 " " | 59 3 0 | Robert FitzStubbs and John Wells | | | |
| 34 | " | 28 Sept., " | 80 0 0 | Edward Porter | | | |
| 35 | " | 19 Oct., " | 200 0 0 | Geo. L. Carter and John D. Young | | | |
| 36 | " | 26 " " | 500 0 0 | Thomas S. Parrott | | | |
| 83- 5 | " | 15 Mar., 1883 | 640 0 0 | William Edward Warren | | | |
| 6 | " | 15 " " | 640 0 0 | Gland S. Pender | | | |
| 7 | " | 29 " " | 143 0 0 | Peter Fitzpatrick | | | |
| 8 | " | 7 June, " | 80 2 0 | Robert FitzStubbs | | | |
| 9 | " | 7 " " | 167 0 0 | Fulvia FitzStubbs | | | |
| 12 | " | 25 Oct., " | 560 0 0 | Thomas Samuel Parrott | | | |
| 13 | " | 25 " " | 360 0 0 | Charles G. Cameron | | | |
| 81- 20 | Port Macquarie | 15 Dec., 1881 | 69 3 0 | George Kennedy King | | | |
| 72-3498 | Port Stephens | 20 June, 1872 | 40 0 0 | Andrew Lauris | | | |
| 81- 554 | Queanbeyan | 29 Dec., 1881 | 40 0 0 | Charles F. Walker | | | |
| 82- 5 | " | 5 Jan., 1882 | 40 0 0 | William Webb | | | |
| 193 | " | 13 July, " | 40 0 0 | Jason Irving | | | |
| 199 | " | 13 " " | 40 0 0 | Andrew Ballantine | | | |
| 219 | " | 27 " " | 80 0 0 | Jason Irving | | | |
| 221 | " | 3 Aug., " | 40 0 0 | Chas. W. Newman | | | |
| 235 | " | 17 " " | 300 0 0 | John Robt. Chaffey | | | |
| 238 | " | 24 " " | 80 0 0 | Charles W. Newman | | | |
| 259 | " | 14 Sept., " | 77 0 0 | Frederick M. Mills | | | |
| 280 | " | 14 " " | 84 0 0 | William Laing | | | |
| 281 | " | 14 " " | 88 0 0 | William Bede Christie | | | |
| 73-12166 | Rylstone | 20 Nov., 1873 | 60 0 0 | Chas. W. Croaker, Stuart Croaker, Wm. Johnstone, Wm. Morgan, and T. Norris. | | | |
| 75- 128 | " | 14 Oct., 1875 | 40 0 0 | Thos. Norris, Richd. Norris, junr., John Norris, Michael Norris, John Roberts, and David Moon. | | | |
| 78- 34 | " | 21 Feb., 1878 | 40 0 0 | Anthony Tindale | | | |
| 161 | " | 22 Aug., " | 90 0 0 | George Stewart | 14 Nov., 1831 | Mining operations, £2 per acre | |
| 162 | " | 22 " " | 40 0 0 | Wm. Taylor | 15 " " | " " | |
| 169 | " | 5 Sept., " | 40 0 0 | James Taylor | 15 " " | " " | |
| 70- 34 | " | 20 Mar., 1879 | 80 0 0 | George Stewart | 30 June, 1882 | " 24s. per acre | |
| 42 | " | 1 May, " | 40 0 0 | Thomas C. Ashe and Ed. J. Evans | 18 April, 1884 | " £2 2s. per acre | 84 0 0 |
| 47 | " | 3 July, " | 40 0 0 | George Stewart | 28 July, 1882 | " 24s. per acre | |
| 51 | " | 23 Aug., " | 50 0 0 | James Gallagher | 5 Oct., " | " £2 per acre | |
| | | | | | 19 Dec., " | " | |

| Inspector. | Improvements reported by Inspector. | Value. | Allence. | Date of Transfer. | Present state of Application. |
|------------|--|------------|--|-------------------|--|
| | | £ s. d. | | | |
| | | | | | Void, 26 June, 1884. Within land district of Coonamble. |
| | | | | | Void, 23 March, 1881. Only one applicant attended. |
| | | | | | " " " " Second application on one day. |
| | | | | | " " " " Third application on one day. |
| | | | | | " " " " Fourth application on one day. |
| | | | | | Void, 26 April, 1881. Land embraced by reserve No. 62. |
| | | | | | Void, 26 April, 1881. Within railway reserve G2. |
| | | | | | Void, 9 May, 1881. " " " |
| | | | | | Void, 26 April, 1881. " " " |
| | | | | | Void, 19 May, 1881. Within reserve 44. " |
| | | | | | " " " " " |
| | | | | | " " " " " |
| | | | | | " " " " " |
| | | | | | Void, 20 July, 1876. Selected on Wednesday. |
| | | | | | Void, 22 May, 1877. Within population boundary of town of Emu. |
| Geo. Smith | Two wells, 30 feet deep, at 30s. | 90 0 0 | | | Deed prepared, 30 June, 1880. |
| " | Weatherboard cottage; shafts | 213 0 0 | William Deane | 27 July, 1880 | Approved by Minister. |
| | | | | | Void, 19 October, 1880. Insufficient deposit. |
| | | | | | Declared void, 19 October, 1880. " |
| | | | | | Void, 19 October, 1880. " |
| | | | John Charles Cox and John Herbert Newman. | 23 Feb., 1881 | Awaiting declaration. |
| | | | " " " | 18 Jan., 1881 | " " |
| | | | " " " | 18 " " | " " |
| | | | | | " " |
| | | | | | Void, 10 April, 1883. Form of measurement objectionable. |
| | | | | | Awaiting declaration. |
| | | | | | Awaiting receipt of declaration. |
| Geo. Smith | Shafts, manager's house, selector's house, blacksmith's shop, miners' huts, draining and clearing. | 1,002 10 0 | | | |
| " | Shaft and draining | 102 10 0 | | | Void, 7 August, 1882. Vagueness of description. |
| Geo. Smith | Improvements, nil | | | | Awaiting receipt of declaration. |
| G. Smith | Improvements, nil | | | | " " |
| | | | | | Void, 11 November, 1882. Made by an agent. |
| | | | | | Void, 14 March, 1883. Vagueness of description. |
| | | | | | |
| | | | Thomas Hussey Kelly and William Edward Warren. | 31 Mar., 1883 | Withdrawn, 2 May, 1884. Non-survey within twelve months. |
| | | | Thomas H. Kelly and William Edward Warren. | 23 April, " | Withdrawn, 23 April, 1883. Non-survey within twelve months. |
| | | | John D. Young, Geo. L. Carter, and Peter Fitzpatrick. | 13 " " | Void, 20 August, 1884. Land partly within reserve 138. |
| | | | | | |
| | | | | | Lapsed, Gazette, 31 October, 1876. |
| | | | | | Awaiting declaration. |
| | | | | | |
| | | | | | Void, 20 November, 1882. Uncertainty of description. |
| | | | Thos. Brooks, Charles Sweetland, Wm. Laing, and Chas. F. Stokes. | 3 Aug., 1883 | |
| | | | | | Lapsed, 16 May, 1877. |
| | | | | | Lapsed, Gazette, 7 August, 1879. |
| | | | | | Lapsed, Gazette, 28 November, 1881. |
| Wm. Brown | Fossicking, 50 feet tunnel, roadway | 295 0 0 | | | |
| " | Galvanized-iron house, 23 x 12, boarded. | 40 0 0 | George Stewart | 7 Aug., 1879 | |
| " | Improvements, nil | | " | 7 " " | |
| " | Drive, approach, fossicking | 84 0 0 | Thomas C. Ashe, Ed. J. Evans, and James Dawson. | 4 Feb., 1882 | Approved by Minister, 9 September, 1884. |
| " | Improvements, nil | | | | |
| " | House, seven rooms, iron roof; kitchen, stable, wells. | 164 0 0 | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | | | Applicant's Name. | Date of Declaration. | Improvements declared to. | Valuc. | | |
|----------|----------------|--------------------|-------|----|----|---|----------------------|------------------------------------|--------|----|----|
| | | | a. | r. | p. | | | | £ | s. | d. |
| 80- 24 | Rylstone | 20 May, 1880 | 80 | 0 | 0 | Wm. Dawson, Ben. Lowndes, Benj. Bowden, Richard Allen, Wm. Humpherys, Wm. Moses, John Hughes, Joseph Hughes, and Wm. Smith. | | | | | |
| 30 | " | 1 July, " | 40 | 0 | 0 | Samuel George Benson | 2 Oct., 1883 | Mining operations, £1 4s. per acre | 48 | 0 | 0 |
| 31 | " | 1 " | 40 | 0 | 0 | George M. Hayward | | | | | |
| 36 | " | 15 " | 40 | 0 | 0 | Samuel Geo. Benson | 2 Oct., 1883 | Mining operations, £1 4s. per acre | 48 | 0 | 0 |
| 37 | " | 15 " | 40 | 0 | 0 | George M. Hayward | | | | | |
| 43 | " | 16 Sept., " | 60 | 0 | 0 | Thomas Norris | | | | | |
| 49 | " | 23 " | 50 | 0 | 0 | Thomas Wilkins | | | | | |
| 50 | " | 23 Oct., " | 40 | 0 | 0 | George M. Hayward | | | | | |
| 57 | " | 4 Nov., " | 60 | 0 | 0 | Geo. Stewart and Thos. Norris | 10 Jan., 1884 | Mining operations, £2 per acre | 120 | 0 | 0 |
| 58 | " | 11 " | 40 | 0 | 0 | Edward Clarke | 9 Feb., " | " | 30 | 0 | 0 |
| 59 | " | 11 " | 40 | 0 | 0 | Graham M. Clarke | 9 " | " £1 4s. per acre | 48 | 0 | 0 |
| 81- 2 | " | 20 Jan., 1881 | 40 | 0 | 0 | John Richard Snape | | | | | |
| 9 | " | 34 Mar., " | 200 | 0 | 0 | Samuel G. Benson | | | | | |
| 12 | " | 14 April, " | 40 | 0 | 0 | George Stewart | | | | | |
| 15 | " | 21 " | 40 | 0 | 0 | John Lloyd, senr. | 3 July, 1884 | Mining operations, £1 4s. per acre | | | |
| 16 | " | 23 " | 40 | 0 | 0 | Thomas Foster | 12 June, " | Mining operations | 50 | 0 | 0 |
| 17 | " | 5 May, " | 40 | 0 | 0 | Chas. Scott and Wm. J. Gallagher | | | | | |
| 25 | " | 23 June, " | 68 | 0 | 0 | John Callaghan and Thos. H. Kelly | | | | | |
| 27 | " | 30 " | 100 | 0 | 0 | | | | | | |
| 31 | " | 21 July, " | 80 | 0 | 0 | Alfred H. Hatfield, Wm. H. Green, Phillip Wolledge, Thos. Adams. | | | | | |
| 32 | " | 28 " | 80 | 0 | 0 | Alfred H. Hatfield, Julius Caro, Wm. B. Wilkinson, Thos. V. Ryan. | | | | | |
| 33 | " | 28 " | 100 | 0 | 0 | John Callaghan and Thos. H. Kelly | | | | | |
| 34 | " | 4 Aug., " | 120 | 0 | 0 | Geo. Stewart, Wm. N. Rokos | | | | | |
| 46 | " | 29 Sept., " | 160 | 0 | 0 | John Bennett, Alfred H. Hatfield, John Lloyd, senr., and John and Wm. Purvis. | | | | | |
| 47 | " | 6 Oct., " | 80 | 0 | 0 | George Stewart | | | | | |
| 51 | " | 3 Nov., " | 50 | 0 | 0 | James Samuels, junr., and Thomas Adams. | | | | | |
| 53 | " | 15 Dec., " | 50 | 0 | 0 | James Samuels, junr., John S. Brown, Wm. Moffatt, and Geo. Stewart. | | | | | |
| 82- 9 | " | 2 Mar., 1882 | 40 | 0 | 0 | James Shervey | | | | | |
| 24 | " | 25 May, " | 40 | 0 | 0 | John Nevell | | | | | |
| 33 | " | 27 July, " | 82 | 0 | 0 | William Wilkins | | | | | |
| 41 | " | 14 Sept., " | 60 | 0 | 0 | John Callaghan and Thos. H. Kelly | | | | | |
| 44 | " | 2 Nov., " | 160 | 0 | 0 | Henry Mortlock | | | | | |
| 45 | " | 2 " | 50 | 0 | 0 | Edward B. Cotton | | | | | |
| 46 | " | 16 " | 50 | 0 | 0 | George Stewart | | | | | |
| 50 | " | 30 " | 40 | 0 | 0 | Henry Mortlock, Herbert Massey, Nathan Borchardt, and Thos. Foster. | | | | | |
| 83- 3 | " | 15 Feb., 1883 | 60 | 0 | 0 | John Callaghan and Thos. H. Kelly | | | | | |
| 10 | " | 12 April, " | 40 | 0 | 0 | George Harris | | | | | |
| 14 | " | 21 June, " | 100 | 0 | 0 | Nathan Borchardt | | | | | |
| 17 | " | 16 Aug., " | 320 | 0 | 0 | Thos. Loneragan | | | | | |
| 18 | " | 16 " | 320 | 0 | 0 | Timothy Loneragan | | | | | |
| 22 | " | 6 Sept., " | 320 | 0 | 0 | Thomas Loneragan | | | | | |
| 23 | " | 6 " | 320 | 0 | 0 | Andrew M'Laughlin | | | | | |
| 28 | " | 27 " | 640 | 0 | 0 | Thomas Melliday and John Jas. Walters | | | | | |
| 31 | " | 8 Nov., " | 40 | 0 | 0 | Thomas Melliday | | | | | |
| 32 | " | 15 " | 40 | 0 | 0 | Thomas Brooke | | | | | |
| 75- 212 | Scone | 30 Sept., 1875 | 40 | 0 | 0 | John James Nash | 14 Feb., 1879 | Mining operations, £2 per acre | | | |
| 81- 84 | " | 18 Aug., 1881 | 40 | 0 | 0 | Frederick Wm. Beden | | | | | |
| 87 | " | 1 Sept., " | 40 | 0 | 0 | Jonathan R. Peebles | | | | | |
| 92 | " | 10 Nov., " | 40 | 0 | 0 | William Moore | | | | | |
| 74-12832 | Shoalhaven | 12 " 1874 | 200 | 0 | 0 | Jas. Wilson and Jas. Stewart | | | | | |
| 76- 11 | " | 18 April, 1870 | 64 | 2 | 30 | Mary Priscilla Lane | 7 July, 1878 | Sinking for tin, clearing, &c. | 150 | 0 | 0 |
| 79- 19 | " | 17 " 1879 | 40 | 0 | 0 | Hy. Moss, J. Hyam, and Robt. W. Whitehall. | | | | | |
| 82- 49 | " | 14 Dec., 1882 | 80 | 0 | 0 | Mahlon C. Cowlishaw | | | | | |
| 50 | " | 14 " | 40 | 0 | 0 | | | | | | |
| 76- 44 | Tamworth | 27 Jan., 1876 | 40 | 0 | 0 | William Macansh | | | | | |
| 45 | " | 27 " | 40 | 0 | 0 | Edward Murphy | | | | | |
| 54 | " | 3 Feb., " | 40 | 0 | 0 | William Macansh | | | | | |
| 83 | " | 2 Mar., " | 60 | 0 | 0 | Edward Murphy | | | | | |
| 181 | " | 23 " | 80 | 0 | 0 | Frederick J. Parks | | | | | |
| 134 | " | 30 " | 40 | 0 | 0 | John B. Christian | | | | | |
| 281 | " | 17 Aug., " | 38 | 2 | 35 | William M. Christian | | | | | |
| 282 | " | 17 " | 38 | 1 | 24 | John B. Christian | | | | | |
| 371 | " | 16 Nov., " | 64 | 0 | 0 | William M. Christian | | | | | |
| 4- 272 | " | 16 " | 150 | 0 | 0 | John B. Christian | | | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Allience. | Date of Transfer. | Present state of Application. |
|------------------|--|----------|---|-------------------|--|
| Robert C. Franks | Improvements, nil | £ s. d. | | | Lapsed, Gazette, 4 February, 1884. |
| Wm. Brown | Drive, 33 feet, 5 ft. 9 in. x 6 ft., at £3 | 99 0 0 | | | Awaiting declaration. Void, 10 March, 1881. Included in prior selection. |
| Wm. Brown | Improvements, nil | | | | Awaiting declaration. Void, 8 August, 1881. Encroaches on prior C.P's. |
| Robert C. Franks | Shaft, 60 feet deep | 90 0 0 | | | Void, 30 June, 1881. Land sufficiently improved to bar selection. |
| | | | James Loneragan and Samuel H. Wilton. | 22 Jan., 1884 | Awaiting declaration. |
| | | | Jas. Loneragan & Samuel H. Wilton | 12 Feb., 1884 | Awaiting Inspector's report. |
| Robert C. Franks | Improvements, nil | | " " | 12 " " | " " |
| W. Brown | Slab hut and stable | 15 0 0 | " " | " " | Forfeited, Gazette, 24 Oct., 1884. Awaiting declaration. |
| R. C. Franks | Improvements, nil | | | | Awaiting further report from Inspector. |
| Wm. Brown | Bark hut | 10 0 0 | Nathan Borchardt, Henry Mortlock, Thomas Foster, and Herbert Massey. | 30 Nov., 1882 | " " |
| | | | Thos. Foster and Hy. Mortlock | 8 " 1883 | |
| | | | Thos. Melliday and Herbert Massey | 31 Jan., 1884 | |
| | | | Herbert Massey, Thomas Foster, John Melliday, Thos. Melliday, Thos. H. Blow, Wm. F. Hayley | | Awaiting declaration. Withdrawn, 24 July, 1884. Non-survey within twelve months. |
| | | | | | Void, 28 Sept., 1881. Vagueness of description. |
| | | | | | Awaiting declaration. |
| | | | | | Void, 12 May, 1882, at applicants' request. Whole area not available. Awaiting declaration. |
| | | | | | " " |
| | | | Jas. Samuels, junr., Thomas Adams, Ried., and Hy. Wm. Nancarrow, William Moffatt. | 8 Nov., 1881 | Void, 14 Sept., 1882. Partly within reserve 62. |
| | | | | | Void, 17 April, 1883. Within reserve 62. |
| | | | | | Void, 9 June, 1882. Within Turon Gold-field Reserve. |
| | | | | | Void, 19 Dec., 1882. Application not signed by both applicants. |
| | | | Hy. Mortlock, Nathan Borchardt, Thos. Foster, Herbert Massey, Henry Mortlock, Thos. Melliday, Thos. Foster, Herbert Massey, Herbert Massey, Thos. Foster, John and Thomas Melliday, Thos. H. Blow, and Wm. H. Hayley. | 30 Nov., 1882 | |
| | | | James Samuels, junr., William Moffatt, Ried., John, and Hy. W. Nancarrow. | 8 Nov., 1883 | |
| | | | Jas. Samuels, junr., John S. Brown, Wm. Moffatt, Geo. Stewart. | 31 Jan., 1884 | |
| | | | | 2 Nov., 1882 | |
| | | | | 10 Jan., 1883 | |
| | | | | | Void, 4 May, 1883. Land partly embraced by prior conditional purchase. |
| | | | | | Void, 1 Oct., 1883. Land not available. |
| | | | Nathan Borchardt, Thos. Foster, Herbert Massey, Henry Mortlock. | 1 Sept., 1883 | |
| | | | Thos. Melliday, Thos. Foster, Herbert Massey, Hy. Mortlock. | 8 Nov., 1883 | |
| | | | Herbert Massey, Thos. Foster, John Melliday, Thos. H. Blow, Wm. F. Melliday, and Thos. Melliday. | 31 Jan., 1884 | |
| | | | | | |
| | | | Beauchamp Stacey | 13 Mar., 1884 | |
| | | | Herbert Massey, Thos. Foster, John and Thos. Melliday, Thos. H. Blow, and W. F. Halliday. | 7 June, 1884 | |
| Com. Bolding | Reports improvements to be worth £600. | | | | Approved by Minister, 10 June, 1881. |
| | | | Wm. Mears, M. Bayley, J.R. Peebles | 21 Sept., 1881 | Void, 29 Oct., 1881. Embraces mineral lease 861. Void, 18 Jan., 1883. Within population boundary of Wingen. |
| | | | | | Void, 25 Sept., 1882. Within population boundary of Wingen. |
| T. E. Mulligan | 121 holes 6 x 8, grubbing, fencing. | 168 14 0 | Henry Lane | 4 Feb., 1878 | Forfeited, Gazette, 23 June, 1880. Deed prepared, 1 Aug., 1881. |
| | | | James Kennedy | 15 Jan., 1879 | Void, 5 Feb., 1883. Non-survey. |
| | | | | | Withdrawn, 2 July, 1884. Non-survey. Void, 9 May, 1883. Second C.P. on one day. Lapsed, Gazette, 25 Nov., 1879. |
| John S. O'Hara | 40 acres ringbarked at 1s. per acre | 2 0 0 | | | Void, 30 Oct., 1877. Within reserve 542. Lapsed, Gazette, 25 Nov., 1879. |
| | | | | | " 4 Feb., 1884. |
| | | | | | " 25 " 1879. |
| | | | | | " 25 " " |
| | | | | | " 24 Sept., 1880. |
| | | | | | " 24 " " |
| Harry V. Geary | Improvements | | | | Void, 15 Oct., 1877. Part of measured portion which would leave an area insufficient for selection. Void, 21 Mar., 1878. As the area remaining of the measured portion is on 30 acres, and insufficient for selection. |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Valuc. |
|----------|----------------|--------------------|----------|--|----------------------|----------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 76-373 | Tamworth | 16 Nov., 1876 | 85 3 0 | John B. Christian | | | |
| 374 | " | 16 " | 50 0 0 | " | | | |
| 385 | " | 28 " | 40 0 0 | " | | | |
| 386 | " | 23 " | 40 0 0 | " | | | |
| 387 | " | 28 " | 40 0 0 | " | | | |
| 391 | " | 30 " | 40 0 0 | William M. Christian | | | |
| 392 | " | 30 " | 40 0 0 | " | | | |
| 393 | " | 30 " | 40 0 0 | John B. Christian | | | |
| 394 | " | 30 " | 40 0 0 | " | | | |
| 395 | " | 30 " | 40 0 0 | " | | | |
| 77-23 | " | 18 Jan., 1877 | 40 0 0 | " | | | |
| 24 | " | 18 " | 40 0 0 | " | | | |
| 25 | " | 18 " | 40 0 0 | William M. Christian | | | |
| 20 | " | 18 " | 40 0 0 | " | | | |
| 89 | " | 1 Mar., " | 40 0 0 | John B. Christian | | | |
| 142 | " | 12 April, " | 40 0 0 | " | | | |
| 189 | " | 31 May, " | 40 0 0 | Frederick J. Parks | | | |
| 190 | " | 31 " | 40 0 0 | " | | | |
| 191 | " | 31 " | 40 0 0 | " | | | |
| 192 | " | 31 " | 50 0 0 | " | | | |
| 195 | " | 31 " | 62 0 0 | " | | | |
| 245 | " | 28 June, " | 160 0 0 | William G. Borrow | | | |
| 313 | " | 9 Aug., " | 40 0 0 | William G. Walker | | | |
| 78-84 | " | 16 May, 1878 | 80 0 0 | William Geddes Borrow | | | |
| 146 | " | 8 Aug., " | 40 0 0 | " | | | |
| 147 | " | 8 " | 40 0 0 | " | | | |
| 79-69 | " | 12 June, 1879 | 40 0 0 | David Dupdale, Wm. Gray, and John Poole | | | |
| 81-71 | " | 28 July, 1881 | 40 0 0 | Nathan Cohen and J. G. Griffin | | | |
| 82-60 | " | 25 May, 1882 | 40 0 0 | Charles Baldwin | | | |
| 96 | " | 22 June, " | 40 0 0 | Thomas Frost | | | |
| 99 | " | 22 " | 40 0 0 | Charles Baldwin | | | |
| 120 | " | 13 July, " | 50 0 0 | Gustav Kurkulus | | | |
| 121 | " | 18 " | 50 0 0 | John Poelschka | | | |
| 88-154 | " | 12 " 1883 | 60 0 0 | John Reid | | | |
| 172 | " | 2 Aug., " | 42 0 0 | Robert Livingstone | | | |
| 280 | " | 25 Oct., " | 130 0 0 | William Coupland | | | |
| 282 | " | 1 Nov., " | 80 0 0 | Cornelius S. McGlen | | | |
| 72-0100 | Tonterfield | 19 Sept., 1872 | 280 0 0 | W. H. Palling and Wm. Henderson, Trustees of the Pioneer Tin-mining Coy. | | | |
| 73-13118 | " | 11 Dec., 1873 | 160 0 0 | Jns. Forster & Geo. Hardie | | | |
| 76-118 | " | 21 " 1876 | 20 0 0 | Alexander Stuart | | | |
| 119 | " | 28 " | 60 0 0 | Alex. and Robert Amos | 5 Mar., 1880 | Mining operations, £2 per acre | |
| 120 | " | 28 " | 60 0 0 | " | 5 " | " | |
| 121 | " | 28 " | 60 0 0 | " | 5 " | " | |
| 122 | " | 28 " | 60 0 0 | " | 5 " | " | |
| 123 | " | 21 " | 60 0 0 | " | 5 " | " | |
| 124 | " | 28 " | 60 0 0 | " | 5 " | " | |
| 125 | " | 28 " | 220 0 0 | Richard W. Robertson | 25 " | " | |
| 77-1 | " | 4 Jan., 1877 | 40 0 0 | Chas. H. E. Chauvel | | | |
| 2 | " | 4 " | 40 0 0 | " | | | |
| 3 | " | 4 " | 40 0 0 | " | | | |
| 4 | " | 4 " | 40 0 0 | " | | | |
| 5 | " | 4 " | 40 0 0 | " | | | |
| 24 | " | 8 Feb., " | 40 0 0 | " | | | |
| 71 | " | 31 May, " | 40 0 0 | W. H. Wesley, John W. Hall, & Alfred Cadell | | | |
| 72 | " | 31 " | 40 0 0 | " | | | |
| 73 | " | 31 " | 40 0 0 | " | | | |
| 77 | " | 14 June, " | 40 0 0 | " | | | |
| 82 | " | 14 " | 40 0 0 | " | | | |
| 90 | " | 28 " | 60 0 0 | Alfred Cadell and James W. Hall | | | |
| 91 | " | 28 " | 40 0 0 | " | | | |
| 92 | " | 28 " | 40 0 0 | " | | | |
| 99 | " | 28 " | 40 0 0 | Chas. H. E. Chauvel | | | |
| 125 | " | 26 July, " | 40 0 0 | Thomas Flannery | | | |
| 146 | " | 23 Aug., " | 40 0 0 | John Craig | 12 Nov., 1880 | Mining operations, 40/- per acre | 80 0 0 |
| 147 | " | 23 " | 60 0 0 | " | 12 " | " | 48 0 0 |
| 155 | " | 13 Sept., " | 50 0 0 | Charles Hy. Ed. Chauvel | | | |
| 170 | " | 4 Oct., " | 40 0 0 | Edward Irby and Jas. W. Hall | | | |
| 196 | " | 22 Nov., " | 50 0 0 | Chas. Hy. E. Chauvel | | | |
| 199 | " | 29 " | 60 0 0 | Ed. Irby, A. G. Andrews, D. M. O'Donnell | 21 Feb., 1881 | Mining operations, £2 per acre | 120 0 0 |
| 202 | " | 29 " | 40 0 0 | Charles Hy. E. Chauvel | | | |
| 203 | " | 29 " | 80 0 0 | Thomas Flannery | 18 Jan., 1881 | Mining operations, £2 per acre | 160 0 0 |
| 210 | " | 13 Dec., " | 80 0 0 | William E. Wilson | 9 Mar., " | " | 160 0 0 |
| 211 | " | 13 " | 60 0 0 | " | 9 " | " | 120 0 0 |
| 217 | " | 27 " | 60 0 0 | Alexander Stuart | | | |
| 78-1 | " | 3 Jan., 1878 | 40 0 0 | Alfred Cadell, J. W. Hall, John J. O'Daly | | | |
| 2 | " | 3 " | 80 0 0 | " | 26 Mar., 1881 | Mining operations, 26s. per acre | 104 0 0 |
| 3 | " | 3 " | 80 0 0 | " | | | |
| 7 | " | 3 " | 60 0 0 | Alexr. & Robt. Amos | | | |
| 8 | " | 3 " | 60 0 0 | " | | | |
| 11 | " | 17 " | 114 0 0 | Charles Hy. Ed. Chauvel | | | |
| 12 | " | 17 " | 98 0 0 | " | | | |
| 13 | " | 17 " | 75 0 0 | " | | | |
| 14 | " | 17 " | 47 2 85 | " | | | |
| 18 | " | 31 " | 59 1 0 | " | | | |
| 18 | " | 31 " | 123 0 0 | " | | | |
| 20 | " | 31 " | 81 1 0 | " | | | |
| 68 | " | 23 May, " | 40 0 0 | William Palmer | 10 July, 1881 | Mining operations, £4 per acre | 100 0 0 |
| 79 | " | 6 June, " | 140 0 0 | James W. Hall | 22 June, " | " £2 per acre | 280 0 0 |
| 125 | " | 15 Aug., " | 80 0 0 | Jas. Gordon and Jas. W. Dickson | | | |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|--------------------|---|----------------------|--------------------------------|-----------|
| 78- 126 | Tanterfield | 15 Aug., 1878 | n. r. p. 30 0 0 | Jas. Gordon and Jas. W. Dickson | | | £ s. d. |
| 127 | " | 15 " " | 30 0 0 | " " | | | |
| 151 | " | 24 Oct., " | 40 0 0 | " " | | | |
| 152 | " | 24 " " | 40 0 0 | " " | | | |
| 159 | " | 28 Nov., " | 40 0 0 | Benjamin Hart | 26 Nov., 1881 | Mining operations, £2 per acre | 80 0 0 |
| 79- 48 | " | 31 July, 1879 | 60 0 0 | Wm. Seaman and Thos. Flannery | 21 Dec., 1882 | " " | 128 0 0 |
| 47 | " | 31 " " | 60 0 0 | " " | | | |
| 48 | " | 31 " " | 40 0 0 | " " | | | |
| 59 | " | 25 Sept., " | 40 0 0 | Thos. Flannery and Wm. Seaman | 21 Dec., 1882 | Mining operations, £2 per acre | 80 0 0 |
| 63 | " | 2 Oct., " | 60 0 0 | " " | 21 " " | " " | 120 0 0 |
| 80- 17 | " | 18 May, 1880 | 40 0 0 | Alfred Cadell | | | |
| 20 | " | 10 June, " | 60 0 0 | Richard N. Williams | | | |
| 21 | " | 10 " " | 40 0 0 | " " | | | |
| 22 | " | 10 " " | 60 0 0 | " " | | | |
| 23 | " | 10 " " | 60 0 0 | " " | | | |
| 24 | " | 10 " " | 40 0 0 | " " | | | |
| 26 | " | 10 " " | 40 0 0 | Wm. Bruce Henderson | 5 Dec., 1883 | Mining operations | 3,000 0 0 |
| 29 | " | 24 " " | 100 0 0 | George Young | 18 Oct., " | " £2 per acre | 200 0 0 |
| 30 | " | 24 " " | 40 0 0 | " " | 18 " " | " " | 80 0 0 |
| 31 | " | 24 " " | 40 0 0 | Edward Irby | | | |
| 32 | " | 1 July, " | 40 0 0 | " " | | | |
| 33 | " | 8 " " | 40 0 0 | John Carmichael | | | |
| 34 | " | 8 " " | 40 0 0 | John Nagle, Robt. A. H. Mitchell, and Sarah A. Sutherland | | | |
| 81- 56 | " | 25 Nov., " | 40 0 0 | Mark Wm. Carr | 8 Jan., 1884 | Mining operations, £2 per acre | 80 0 0 |
| 29 | " | 17 May, 1881 | 40 0 0 | Mark Partridge | | | |
| 30 | " | 17 " " | 40 0 0 | " " | | | |
| 31 | " | 17 " " | 40 0 0 | " " | | | |
| 46 | " | 19 " " | 40 0 0 | " " | | | |
| 48 | " | 26 " " | 40 0 0 | " " | | | |
| 61 | " | 21 July, " | 40 0 0 | William T. Cadell | | | |
| 64 | " | 23 " " | 40 0 0 | " " | | | |
| 65 | " | 4 Aug., " | 40 0 0 | " " | | | |
| 70 | " | 11 " " | 40 0 0 | " " | | | |
| 73 | " | 18 " " | 40 0 0 | Peter Speare | | | |
| 76 | " | 25 " " | 43 2 0 | William Thos. Cadell | | | |
| 81 | " | 8 Sept., " | 40 0 0 | Jas. G. & James W. Dickson | | | |
| 82 | " | 8 " " | 40 0 0 | Francis Davis | | | |
| 84 | " | 8 " " | 50 0 0 | Wm. Thos. Cadell | | | |
| 86 | " | 8 " " | 40 0 0 | Eli Allen | | | |
| 90 | " | 15 " " | 50 0 0 | Wm. Thos. Cadell | | | |
| 95 | " | 22 " " | 40 0 0 | William Thos. Cadell | | | |
| 96 | " | 22 " " | 40 0 0 | Eli Allen | | | |
| 97 | " | 22 " " | 40 0 0 | " " | | | |
| 101 | " | 29 " " | 69 2 0 | William A. Cadell | | | |
| 106 | " | 6 Oct., " | 40 0 0 | Charles Hy. E. Chauvel | | | |
| 113 | " | 27 " " | 40 0 0 | William Thos. Cadell | | | |
| 127 | " | 24 Nov., " | 40 0 0 | A. Johnson, E. C. Lewington, Geo. Foot, and John H. Munro | | | |
| 128 | " | 1 Dec., " | 40 0 0 | Eli Allen | | | |
| 134 | " | 22 " " | 40 0 0 | William Thos. Cadell | | | |
| 136 | " | 22 " " | 200 0 0 | Peter Speare, James Smoker, Joseph Penny, and John Ellis | | | |
| 137 | " | 29 " " | 100 0 0 | " " | | | |
| 138 | " | 29 " " | 50 0 0 | Emanuel Barrett | | | |
| 139 | " | 29 " " | 40 0 0 | William Barratt | | | |
| 82- 1 | " | 12 Jan., 1882 | 40 0 0 | William Thos. Cadell | | | |
| 5 | " | 19 " " | 40 0 0 | " " | | | |
| 16 | " | 2 Feb., " | 50 0 0 | " " | | | |
| 21 | " | 2 " " | 40 0 0 | Ambrose Johnson | | | |
| 24 | " | 16 " " | 120 0 0 | William Thos. Cadell | | | |
| 28 | " | 2 Mar., " | 101 0 0 | Chas. Hy. Ed. Chauvel | | | |
| 39 | " | 16 " " | 40 0 0 | Thos. A. Lewis | | | |
| 42 | " | 16 " " | 40 0 0 | Henry Keiser | | | |
| 51 | " | 20 April, " | 60 0 0 | Peter Speare | | | |
| 71 | " | 25 May, " | 40 0 0 | Charles Hy. Ed. Chauvel | | | |
| 74 | " | 25 " " | 500 0 0 | Robert Arden Lewis | | | |
| 75 | " | 25 " " | 60 0 0 | Thomas A. Lewis | | | |
| 76 | " | 25 " " | 40 0 0 | Chas. Hy. Ed. Chauvel | | | |
| 77 | " | 25 " " | 40 0 0 | " " | | | |
| 88 | " | 15 June, " | 62 2 0 | William Hy. Walker | | | |
| 103 | " | 20 July, " | 600 0 0 | Walter Fredale Uther | | | |
| 123 | " | 3 Aug., " | 40 0 0 | James J. Burn | | | |
| 127 | " | 17 " " | 40 0 0 | William Henry Walker | | | |
| 134 | " | 7 Sept., " | 40 0 0 | Ambrose Johnson | | | |
| 138 | " | 14 " " | 40 0 0 | Edward Hodgkiss | | | |
| 143 | " | 23 " " | 40 0 0 | James J. Brown | | | |
| 148 | " | 5 Oct., " | 40 0 0 | Peter Speare | | | |
| 150 | " | 12 " " | 60 0 0 | Michael Jordan | | | |
| 151 | " | 19 " " | 40 0 0 | Chas. H. E. Chauvel | | | |
| 152 | " | 19 " " | 40 0 0 | Michael Jordan | | | |
| 153 | " | 25 " " | 40 0 0 | Charles H. E. Chauvel | | | |
| 154 | " | 26 " " | 60 0 0 | James J. Burn | | | |
| 155 | " | 2 Nov., " | 40 0 0 | Thomas A. Lewis | | | |
| 83- 21 | " | 29 Mar., 1883 | 101 0 0 | William J. Weston | | | |
| 22 | " | 29 " " | 40 0 0 | Robert A. Lewis | | | |
| 23 | " | 29 " " | 40 0 0 | Alexander M'Gillivray | | | |
| 28 | " | 19 April, " | 130 0 0 | Thomas Flannery | | | |
| 29 | " | 19 " " | 50 0 0 | John Reid | | | |
| 32 | " | 3 May, " | 40 0 0 | James Fraser | | | |
| 36 | " | 31 " " | 60 0 0 | Alexander M'Gillivray | | | |
| 40 | " | 31 " " | 60 0 0 | John Reid | | | |
| 41 | " | 31 " " | 40 0 0 | Thomas Flannery | | | |
| 42 | " | 31 " " | 50 0 0 | Edward Irby | | | |
| 43 | " | 31 " " | 40 0 0 | Daniel M. O'Donnell | | | |

| C.P. No. | Land District | Date of Selection | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|---------------|-------------------|----------|--|----------------------|---------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 88- 46 | Tenterfield | 14 June, 1883 | 60 0 0 | Frederick Jas. Phillips | | | |
| 47 | " | 21 " " | 40 0 0 | Thomas A. Lewis | | | |
| 57 | " | 19 July, " | 50 0 0 | George A. Ravenscroft | | | |
| 59 | " | 9 Aug., " | 60 0 0 | Robert Wm. Wabnsley | | | |
| 60 | " | 9 " " | 321 1 0 | Charles Wesley | | | |
| 61 | " | 9 " " | 320 0 0 | Andrew Wesley | | | |
| 5 | " | 16 " " | 60 0 0 | Alfred Cadell | | | |
| 66 | " | 23 " " | 230 0 0 | " | | | |
| 67 | " | 23 " " | 320 0 0 | Hugh E. H. Gordon | | | |
| 68 | " | 23 " " | 120 0 0 | James W. Hall | | | |
| 69 | " | 23 " " | 80 0 0 | Edward J. Swyny | | | |
| 70 | " | 23 " " | 80 0 0 | Robert Curnow | | | |
| 72 | " | 30 " " | 40 0 0 | James H. Graney, Ed. J. Swyny, Joseph B. Warner | | | |
| 76 | " | 6 Sept., " | 40 0 0 | Thomas Chandler | | | |
| 80 | " | 13 " " | 100 0 0 | Frederick A. Ficinus | | | |
| 81 | " | 13 " " | 40 0 0 | William M. Wilson | | | |
| 82 | " | 20 " " | 40 0 0 | Robert Curnow | | | |
| 88 | " | 18 Oct., " | 100 0 0 | Francis A. Ficinus | | | |
| 90 | " | 13 " " | 320 0 0 | Charles Wesley | | | |
| 91 | " | 18 " " | 320 0 0 | John A. Boyd | | | |
| 92 | " | 25 " " | 40 0 0 | James H. Granger | | | |
| 93 | " | 25 " " | 40 0 0 | Henry W. K. Hammond | | | |
| 98 | " | 1 Nov., " | 80 0 0 | William O. Pomroy | | | |
| 70-2274 | Tumut | 7 July, 1870 | 80 0 0 | John Keenan, James Bond, Thomas Green, Richd. Cook | | | |
| 72-4520 | " | 25 " 1872 | 80 0 0 | Montague De Lissa | | | |
| 4521 | " | 25 " " | 80 0 0 | " | | | |
| 4522 | " | 25 " " | 40 0 0 | " | | | |
| 77- 10 | " | 25 Jan., 1877 | 20 0 0 | Levy Mandelson, Walter Killo, Samuel Levy Bensusan | | | |
| 82- 224 | " | 5 Oct., 1882 | 80 0 0 | Arthur Ernest Hynam | | | |
| 83- 133 | " | 25 " 1883 | 40 0 0 | George Wilson | | | |
| 76- 125 | Urana | 19 Oct., 1876 | 245 0 0 | George Watt | | | |
| 136 | " | 19 " " | 300 0 0 | " | | | |
| 139 | " | 19 " " | 131 0 0 | Joseph Weir | | | |
| 140 | " | 19 " " | 213 0 0 | " | | | |
| 141 | " | 19 " " | 147 0 0 | " | | | |
| 142 | " | 19 " " | 173 0 0 | " | | | |
| 144 | " | 19 " " | 209 0 0 | " | | | |
| 145 | " | 19 " " | 40 0 0 | " | | | |
| 146 | " | 19 " " | 249 0 0 | " | | | |
| 147 | " | 19 " " | 40 0 0 | " | | | |
| 156 | " | 19 " " | 40 0 0 | George Watt | | | |
| 157 | " | 19 " " | 80 0 0 | " | | | |
| 172 | " | 19 " " | 123 0 0 | Joseph Weir | | | |
| 173 | " | 19 " " | 150 2 0 | " | | | |
| 174 | " | 19 " " | 196 0 0 | " | | | |
| 175 | " | 19 " " | 86 0 0 | " | | | |
| 190 | " | 19 " " | 40 0 0 | Samuel M'Caughy | | | |
| 204 | " | 19 " " | 40 0 0 | Francis Jenkins | | | |
| 205 | " | 19 " " | 40 0 0 | " | | | |
| 206 | " | 19 " " | 40 0 0 | Joseph Weir | | | |
| 207 | " | 19 " " | 172 0 0 | " | | | |
| 208 | " | 19 " " | 180 0 0 | " | | | |
| 209 | " | 19 " " | 274 0 0 | " | | | |
| 230 | " | 19 " " | 216 0 0 | " | | | |
| 240 | " | 19 " " | 80 0 0 | George Watt | | | |
| 241 | " | 19 " " | 40 0 0 | Joseph Weir | | | |
| 247 | " | 19 " " | 160 0 0 | William Hy. Mate | | | |
| 248 | " | 19 " " | 100 0 0 | " | | | |
| 249 | " | 19 " " | 280 0 0 | " | | | |
| 250 | " | 19 " " | 66 2 0 | Joseph Weir | | | |
| 266 | " | 26 " " | 40 0 0 | Samuel M'Caughy | | | |
| 272 | " | 26 " " | 40 0 0 | " | | | |
| 273 | " | 26 " " | 40 0 0 | Joseph Weir | | | |
| 275 | " | 26 " " | 40 0 0 | " | | | |
| 277 | " | 26 " " | 60 0 0 | Barnett B. Bennett | | | |
| 278 | " | 26 " " | 66 1 0 | " | | | |
| 279 | " | 26 " " | 40 0 0 | Joseph Weir | | | |
| 291 | " | 26 " " | 40 0 0 | " | | | |
| 292 | " | 26 " " | 40 0 0 | " | | | |
| 294 | " | 26 " " | 97 0 0 | " | | | |
| 297 | " | 26 " " | 198 1 0 | George Adams | 29 Oct., 1879 | Mining operations | 250 0 0 |
| 300 | " | 26 " " | 108 3 0 | John Low | | | |
| 302 | " | 26 " " | 84 0 0 | Joseph Weir | | | |
| 303 | " | 26 " " | 176 0 0 | " | | | |
| 311 | " | 26 " " | 90 0 0 | Charles M'Rinnon | | | |
| 318 | " | 26 " " | 270 0 0 | Joseph Weir | | | |
| 340 | " | 16 Nov., " | 229 1 0 | William Rawlings | | | |
| 341 | " | 16 " " | 40 0 0 | John E. Cullen | | | |
| 351 | " | 16 " " | 45 0 0 | John M'Douall Stuart | | | |
| 77- 4 | " | 4 Jan., 1877 | 40 0 0 | Barnett B. Bennett | | | |
| 43 | " | 1 Mar., " | 320 0 0 | William H. Mate | | | |
| 44 | " | 1 " " | 320 0 0 | " | | | |
| 45 | " | 1 " " | 320 0 0 | " | | | |
| 54 | " | 15 " " | 320 0 0 | Alfred Mate | | | |
| 70 | " | 7 June, " | 247 1 0 | Donald M'Larty | | | |
| 78- 79 | " | 19 Sept., 1878 | 40 0 0 | Alexander Gardiner | | | |
| 80- 36 | " | 20 May, 1880 | 64 1 0 | John Monks | | | |
| 40 | " | 27 " " | 64 2 0 | " | | | |
| 69 | " | 14 Oct., " | 55 0 0 | James Cooke | 15 Oct., 1883 | Well with double shaft | 110 0 0 |
| 74 | " | 21 " " | 128 0 0 | James A. Cochran | | | |
| 80 | " | 23 " " | 40 0 0 | John R. Bradford | | | |
| 89 | " | 23 " " | 68 1 0 | " | | | |
| 97 | " | 11 Nov., " | 220 0 0 | William H. Mate | | | |
| 81- 69 | " | 14 April, 1881 | 150 0 0 | James Cooke | | | |

| Inspector. | Improvements reported by Inspector. | Value. | Alienee. | Date of Transfer. | Present state of Application. |
|------------------|--|---------|---|---|--|
| | | £ s. d. | | | |
| | | | Geo. H. Holmes, Herbert C. Fraser, R. W. Walmsley, William Hy. Wesley | 9 Aug., 1883 1 Sept., " 1 " " 23 Oct., " | |
| | | | Andrew Wesley | | |
| | | | Edwin John Swyny | 18 Oct., 1883 | Void, 15 February, 1884. Land improved. |
| | | | | | Void, 20 December, 1883. Within mining reserve 1,957. |
| | | | | | Void, 30 June, 1884. Form of measurement objectionable. |
| | | | | | Void, 4 February, 1884. Within reserve for mining purposes. |
| | | | Alfred Harcourt and John Broomfield. | 14 Jan., 1884 | |
| | | | Richd. Jones, Saul Samuel | 3 Jan., 1878 | Lapsed, Gazette, 9 October, 1877. |
| | | | | | Lapsed, Gazette, 3 October, 1876. |
| | | | | | Void, 5 March, 1877. Area applied for is less than 40 acres. |
| | | | | | Void, 13 March, 1884. At applicant's request. |
| | | | | | Lapsed, Gazette, 24 September, 1880. |
| | | | | | Void, 12 Dec., 1879. Contains improvements. |
| | | | | | Void, 15 February, 1881. Land sufficiently improved to bar selection. |
| | | | | | Lapsed, Gazette, 24 September, 1880. |
| J. H. Handsaker | Fencing, dam, weatherboard house, iron roof. | 380 0 0 | | | |
| J. H. Handsaker | Dam, 1,400 yards, at 2s. 6d. | 175 0 0 | | | |
| J. H. Handsaker | 2½ miles 6-wire fence, sheep-yards | 330 0 0 | | | Void, 5 December, 1876. Forms part of measured portion 89. |
| | | | | | Lapsed, Gazette, 24 September, 1880. |
| | | | | | Void, 5 December, 1876. Forms part of measured portion 88. |
| | | | | | Lapsed, Gazette, 24 September, 1880. |
| J. H. Handsaker | ¼ mile 6-wire fence | 40 0 0 | | | " " |
| " | ¾ mile wire-fence. Small paddock lucerne. | 105 0 0 | | | " " |
| J. S. M'Phillamy | Improvements, nil | | | | " " |
| | | | | | Void, 13 August, 1880. " By decision of the Minister for Lands. |
| | | | | | Lapsed, Gazette, 24 Sept., 1880. |
| J. Handsaker | ¼ mile wire fence | 40 0 0 | | | " " |
| J. H. Handsaker | Fencing, £100; 13 acres cleared, £39 | 159 0 0 | | | " " |
| | | | | | Void, 5 Dec., 1876. Forms part of measured portion. |
| | | | | | Void, 28 Sept., 1878. Applicant not willing to accept subdivision as proposed. |
| | | | | | Lapsed, Gazette, 24 Sept., 1880. |
| J. S. M'Phillamy | Improvements, nil | | | | " " |
| " | " | | | | " " |
| | | | | | Void, 22 Nov., 1876. Forms part of measured portion 51. |
| | | | | | Void, 22 Nov., 1876. Forms part of measured portion 48. |
| | | | | | Lapsed, Gazette, 24 Sept., 1880. |
| | | | | | Void, 22 Nov., 1876. Part of measured portion 56. |
| | | | | | Void, 16 Oct., 1878. Applicant declines to accept measurement as proposed. |
| | | | | | " " |
| | | | | | " " |
| | | | | | " " |
| | | | | | " " |
| R. J. M'Kenzie | Improvements, nil | | John Walker | 10 June, 1878 | Lapsed, Gazette, 24 Sept., 1880. |
| | | | | | Approved by Minister. |
| | | | | | Lapsed, Gazette, 24 Sept., 1880. |
| | | | | | Void, 17 Feb., 1881. Land protected by improvements. |
| | | | | | Void, 15 Feb., 1881. Improvements bar selection. |
| J. H. Handsaker | 1½ mile wire fence; English grasses. | 145 0 0 | | | Void, 30 Nov., 1876. Part of measured portion 95. |
| R. J. M'Kenzie | Improvements, nil | | | | Lapsed, Gazette, 24 Sept., 1880. |
| J. Handsaker | 70 chains 6-wire fence. | 40 0 0 | | | Forfeited, Gazette, 2 Sept., 1878. |
| | | | | | Lapsed, Gazette, 24 Sept., 1880. |
| | | | | | " " |
| | | | | | " " |
| | | | | | " " |
| | | | | | " " |
| | | | | | Void, 7 Dec., 1878. Previously selected. |
| | | | | | Lapsed, Gazette, 21 Dec., 1880. |
| | | | | | Forfeited, Gazette, 5 Nov., 1880. |
| | | | | | Void, 21 Sept., 1880. Land previously selected. |
| | | | | | Lapsed, Gazette, 4 Jan., 1884. |
| | | | | | Being dealt with. |
| J. S. M'Phillamy | Improvements, nil | | | | Awaiting further report from Inspector. |
| | | | | | Void, 23 April, 1881. Land previously selected by V.L.O. |
| | | | | | Void, 11 Oct., 1882. Land previously sold under V.L.O. |
| J. S. M'Phillamy | No mining operations. | | | | Withdrawn, 5 May, 1884. Non-survey within twelve months. |
| | | | | | Awaiting declaration. |

| C.P. No. | Land District | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|------------------------|--------------------|----------|--------------------------------|----------------------|------------------------------------|---------|
| | | | a. r. p. | | | | £ s. d. |
| 81- 75 | Urana | 21 April, 1881 | 320 0 0 | Samuel M'Caughy | | | |
| 77 | " | 21 " " | 274 0 0 | James A. Cochrane | | | |
| 98 | " | 5 May, " | 218 0 0 | " | | | |
| 135 | " | 7 July, " | 304 2 0 | Irwin Stuart | | | |
| 151 | " | 21 " " | 40 0 0 | William Faed | | | |
| 158 | " | 4 Aug., " | 80 0 0 | Hy. Irwin Stuart | | | |
| 159 | " | 4 " " | 80 0 0 | Andrew S. Chisholm | | | |
| 160 | " | 4 " " | 320 0 0 | George N. Magill | | | |
| 162 | " | 4 " " | 154 0 0 | William R. Ryan | | | |
| 243 | " | 27 Oct., " | 75 2 0 | Charles A. Chesney | | | |
| 262 | " | 3 Nov., " | 197 1 0 | " | | | |
| 270 | " | 3 " " | 100 0 0 | Patrick M. Dick | | | |
| 274 | " | 10 " " | 287 0 0 | Jeremiah Healey | | | |
| 281 | " | 10 " " | 332 0 0 | Robert B. Anderson | | | |
| 282 | " | 10 " " | 182 3 0 | William Sparkes | | | |
| 283 | " | 10 " " | 80 0 0 | Frederick Thompson | | | |
| 284 | " | 10 " " | 80 0 0 | William Barwick | | | |
| 285 | " | 10 " " | 82 0 0 | Robert De Mainson | | | |
| 287 | " | 10 " " | 216 1 0 | Chas. A. Chesney | | | |
| 293 | " | 17 " " | 125 0 0 | Robert B. Anderson | | | |
| 294 | " | 17 " " | 134 3 0 | Benjamin Shute | | | |
| 296 | " | 17 " " | 124 0 0 | Chas. A. Chesney | | | |
| 296 | " | 17 " " | 164 1 0 | Guy Smith | | | |
| 309 | " | 24 " " | 178 1 0 | William R. Ryan | | | |
| 826 | " | 8 Dec., " | 160 0 0 | Frederick Thompson | | | |
| 82- 39 | " | 2 Mar., 1882 | 61 2 0 | Joseph Campbell | | | |
| 85 | " | 25 May, " | 320 0 0 | Guy Smith | | | |
| 86 | " | 25 " " | 160 0 0 | Fredk. Thompson | | | |
| 87 | " | 25 " " | 480 0 0 | Alexr. D. Smith | | | |
| 88 | " | 25 " " | 160 0 0 | Robert B. Anderson | | | |
| 92 | " | 8 June, " | 100 0 0 | Michael Ryan | | | |
| 126 | " | 17 Aug., " | 200 0 0 | Thomas Newton | | | |
| 127 | " | 17 " " | 80 2 0 | Thomas Newton, jun | | | |
| 145 | " | 12 Oct., " | 80 0 0 | Robert B. Anderson | | | |
| 166 | " | 21 Dec., " | 40 0 0 | George F. Simpson | | | |
| 167 | " | 21 " " | 40 0 0 | Mary Simpson | | | |
| 168 | " | 21 " " | 40 0 0 | Ada E. Langlands | | | |
| 83- 31 | " | 15 Mar., 1883 | 40 0 0 | Robert B. Anderson | | | |
| 53 | " | 7 June, " | 40 0 0 | Edward J. Kemsley | | | |
| 70 | " | 2 Aug., " | 80 0 0 | John W. Curdie | | | |
| 81- 237 | Wagga Wagga | 5 May, 1881 | 138 0 0 | George Bardwell | 12 July, 1884 | Shaft, driving, over 24s. per acre | |
| 82- 370 | " | 20 July, 1882 | 40 0 0 | Henry Foster | | | |
| 371 | " | 20 " " | 40 0 0 | Charles Alfred Smith | | | |
| 83- 35 | " | 20 Jan., 1883 | 40 0 0 | John Driscoll | | | |
| 405 | " | 19 July, " | 80 0 0 | Thomas A. Lord | | | |
| 546 | " | 6 Sept., " | 80 0 0 | Joseph Rebello | | | |
| 547 | " | 6 " " | 80 0 0 | Frederick Wm. Gowland | | | |
| 548 | " | 6 " " | 80 0 0 | Harvey Wellman | | | |
| 549 | " | 6 " " | 70 0 0 | Sydney Wellman | | | |
| 592 | " | 13 " " | 96 0 0 | William John Gore | | | |
| 593 | " | 20 " " | 80 0 0 | William Chas. Mitchell | | | |
| 599 | " | 20 " " | 120 0 0 | Joseph Hanson | | | |
| 659 | " | 18 Oct., " | 50 0 0 | Harvey Wellman | | | |
| 871 | " | 25 " " | 40 0 0 | Percival S. F. Stephen | | | |
| 74-5040 | Walcha | 7 May, 1874 | 40 0 0 | John Edward St. Clair Sinclair | | | |
| 13000 | Walgett | 12 Nov., " | 320 0 0 | Robert George Higgins | | | |
| 18001 | " | 12 " " | 320 0 0 | Thomas Wiseman Higgins | | | |
| 78- 11 | " | 25 May, 1878 | 40 0 0 | Charles Alexr. Ross | | | |
| 12 | " | 25 " " | 40 0 0 | " | | | |
| 13 | " | 25 " " | 40 0 0 | " | | | |
| 14 | " | 25 " " | 40 0 0 | " | | | |
| 19 | " | 4 July, " | 40 0 0 | " | | | |
| 22 | " | 18 " " | 40 0 0 | " | | | |
| 23 | " | 18 " " | 40 0 0 | Richard Hy. Featherstonhaugh | | | |
| 24 | " | 18 " " | 40 0 0 | William G. Mackey | | | |
| 82- 8 | " | 16 Mar., 1882 | 50 0 0 | Walter Jones Pearson | | | |
| 17 | " | 25 May, " | 160 0 0 | William Dodd | | | |
| 22 | " | 1 June, " | 80 0 0 | " | | | |
| 23 | " | 8 " " | 200 0 0 | " | | | |
| 26 | " | 15 " " | 40 0 0 | " | | | |
| 32 | " | 22 " " | 40 0 0 | John Kenneth Mackay, junr. | | | |
| 42 | " | 29 " " | 40 0 0 | " | | | |
| 58 | " | 13 July, " | 40 0 0 | Henry O. P. Kelly | | | |
| 59 | " | 13 " " | 40 0 0 | Frederick Y. Wolsley | | | |
| 60 | " | 13 " " | 40 0 0 | Andrew C. Doyle | | | |
| 63 | " | 13 " " | 50 0 0 | Walter Jones Pearson | | | |
| 75 | " | 3 Aug., " | 40 0 0 | Frederick Y. Wolsley | | | |
| 83- 21 | " | 7 June, 1883 | 40 0 0 | Walter Jones Pearson | | | |
| 20 | " | 8 Aug., " | 40 0 0 | William S. Fraser | | | |
| 29 | " | 6 Sept., " | 40 0 0 | Walter Jones Pearson | | | |
| 74-7487 | Warialda, now Bingera. | 2 July, 1874 | 78 1 0 | John D. Macansh | | | |
| 7488 | " | 2 " " | 20 0 0 | " | | | |
| 82- 44 | Warialda | 22 June, 1882 | 320 0 0 | John Brodie | | | |
| 43 | " | 22 " " | 160 0 0 | Alexr. W. Cruickshank | | | |
| 52 | " | 6 July, " | 320 0 0 | William C. Billings | | | |
| 75 | " | 21 Sept., " | 100 0 0 | John M'Master | | | |
| 83 | " | 12 Oct., " | 40 0 0 | James J. R. Gibson | | | |
| 84 | " | 12 " " | 40 0 0 | Arthur T. Saulez | | | |
| 83 2 | " | 11 Jan., 1883 | 150 0 0 | Thomas Scott | | | |
| 4 | " | 11 " " | 120 0 0 | John Brodie | | | |
| 5 | " | 11 " " | 96 0 0 | Charles Bartholemew | | | |
| 16 | " | 1 Mar., " | 332 0 0 | Charles H. Dight | | | |
| 17 | " | 1 " " | 260 2 0 | George B. Garland | | | |
| 18 | " | 1 " " | 111 0 0 | Edward H. Finch | | | |
| 55 | " | 14 June, " | 80 0 0 | " | | | |
| 70-1805 | Wellington | 14 April, 1870 | 40 0 0 | Samuel D. Gordon | 11 April, 1871 | Mining operations, £2 per acre | 80 0 0 |
| 1407 | " | 21 " " | 40 0 0 | " | 29 " 1873 | " | 80 0 0 |
| 1408 | " | 21 " " | 40 0 0 | " | 29 " " | " | 80 0 0 |

| C.P. No. | Land District. | Date of Selection. | Area. | Applicant's Name. | Date of Declaration. | Improvements declared to. | Value. |
|----------|----------------|--------------------|--------------------|--|----------------------|----------------------------------|-------------------|
| 72-1037 | Wellington | 18 April, 1872 | a. r. p. 40 0 0 | Samuel D. Gordon | 29 April, 1873 | Mining operations, £2 per acre | £ s. d. 30 0 0 |
| 3193 | " | 4 June, " | 80 0 0 | Joseph Aarons | " | " | " |
| 5317 | " | 22 Aug., " | 50 0 0 | Thomas Manning | " | " | " |
| 5318 | " | 22 " " | 50 0 0 | Henry W. Nancarrow | " | " | " |
| 5319 | " | 22 " " | 50 0 0 | Thomas Manning | " | " | " |
| 6030 | " | 19 Sept., " | 80 0 0 | Gustave Fitte | 25 Sept., 1876 | Mining operations, £2 per acre | 160 0 0 |
| 73-4183 | " | 24 April, 1873 | 40 0 0 | Jas. Powers | " | " | " |
| 7436 | " | 24 July, " | 40 0 0 | R. Y. Cousins | " | " | " |
| 75- 5 | " | 14 Jan., 1875 | 100 0 0 | George McDonald, Wm. Paul, Jas. Crookett, Chas. R. Darton. | 9 April, 1878 | Mining operations, £2 per acre | 200 0 0 |
| 60 | " | 6 May, " | 40 0 0 | Wm. Fredk. Bassett | " | " | " |
| 185 | " | 23 Dec., " | 40 0 0 | Robert Barnard & George McDonald | 20 Mar., 1879 | Mining operations, £2 per acre | 50 0 0 |
| 76- 22 | " | 24 Feb., 1876 | 80 0 0 | Samuel D. Gordon, Jeremiah B. Rundle | 10 April, " | " | 160 0 0 |
| 25 | " | 2 Mar., " | 40 0 0 | " | 10 " " | " | 50 0 0 |
| 101 | " | 29 June, " | 50 0 0 | " | " | " | " |
| 104 | " | 29 " " | 40 0 0 | Gustave Fitte | " | " | " |
| 77- 123 | " | 27 Dec., 1877 | 120 0 0 | George A. Lloyd and Joseph Wearne | " | " | " |
| 124 | " | 27 " " | 40 0 0 | Joseph Wearne | " | " | " |
| 78- 23 | " | 21 Feb., 1878 | 40 0 0 | Joseph Deitz | " | " | " |
| 79- 5 | " | 9 Jan., 1879 | 80 0 0 | Joseph Wearne | " | " | " |
| 11 | " | 23 " " | 40 0 0 | " | 7 June, 1882 | Mining operations, 30s. per acre | " |
| 80- 106 | " | 26 Aug., 1880 | 40 0 0 | James Samuels | " | " | " |
| 81- 44 | " | 28 April, 1881 | 40 0 0 | J. Rodda | " | " | " |
| 45 | " | 23 " " | 40 0 0 | R. T. B. Gaden | " | " | " |
| 115 | " | 6 Oct., " | 40 0 0 | J. Samuels | " | " | " |
| 134 | " | 24 Nov., " | 40 0 0 | S. Hosie, Wm. H. Nancarrow, Wm. Perkins, and Robt. Porter. | " | " | " |
| 135 | " | 24 " " | 40 0 0 | Geo. Robert Porter | " | " | " |
| 82- 27 | " | 9 Mar., 1882 | 80 0 0 | Wm. Perkins | " | " | " |
| 35 | " | 23 " " | 40 0 0 | Michael Veech | " | " | " |
| 36 | " | 23 " " | 40 0 0 | Bryan Veech | " | " | " |
| 46 | " | 11 May, " | 44 0 0 | William Perkins | " | " | " |
| 83- 14 | " | 15 Feb., 1883 | 40 0 0 | Thos. H. York, Henry J. Lambert, Hy. W. Nancarrow. | " | " | " |
| 15 | " | 15 " " | 40 0 0 | Walter P. Fridham, John N. Smith, Charles W. Ashe. | " | " | " |
| 16 | Windsor | 12 April, " | 40 0 0 | Thos. Hy. F. Griffin | " | " | " |
| 30 | " | 26 July, " | 40 0 0 | John G. Griffin | " | " | " |
| 31 | " | 26 " " | 40 0 0 | Robert Fitz-Stubbs | " | " | " |
| 32 | " | 26 " " | 40 0 0 | Thos. Hy. Griffin | " | " | " |
| 73-7405 | Wollongong | 24 " 1873 | 50 0 0 | Geo. W. Allen, Hon. John Hay, William R. Piddington. | " | " | " |
| 7496 | " | 24 " " | 157 0 0 | George W. Allen, Hon. John Hay, William R. Piddington. | " | " | " |
| 82- 1 | " | 16 Mar., 1882 | 250 0 0 | Walter Cumming Watt | " | " | " |

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1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

MINING UNDER RAILWAYS.

(ANVIL CREEK, GRETA, AND WICKHAM COLLIERIES.)

Ordered by the Legislative Assembly to be printed, 20 November, 1884.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 13th August, 1884, That there be laid upon the Table of this House,—

“(1.) Copies of all letters, minutes, and other documents between the Department of Mines and the Examiner and the Inspector of Collieries; also copies of all letters received from or sent to Mr. William Farthing, or Mr. Vickery, in reference to drive or drives under the Great Northern Railway from Anvil Creek or Greta Collieries.

“(2.) Copies of all letters, minutes, and other documents between the Secretary for Mines or Minister for Works and the Examiner of Coal-fields, in reference to a drive under Bullock Island Railway from the Wickham or Bullock Island Colliery.”

(*Mr. Melville.*)

The Examiner of Coal-fields to The Under Secretary for Mines.

Sir,

Coal-fields Office, Newcastle, 10 March, 1884.

I beg to enclose herein, for the information of the Honorable the Secretary for Mines, copies of correspondence which has taken place between Mr. Vickery and myself, respecting the workings of the Greta Colliery having been carried under the Great Northern Railway, and should be obliged if you would inform me whether permission has been given to undermine the railway.

2. I enclose tracing, copied from Mr. Simpson's (the present manager) colliery plan, showing the portion undermined, which, if no authority has been given, will require to be properly secured by Mr. Vickery, by filling in and building round the portion worked out as soon as possible; and upon receiving your reply, I shall take the necessary steps for seeing it is done for the security of the line.

I have, &c.,

JOHN MACKENZIE,
Examiner of Coal-fields.

[*Enclosure.*]

The Examiner of Coal-fields to Mr. E. Vickery.

Sir,

Coal-fields Office, Newcastle, 7 March, 1881.

Upon visiting the Greta Colliery on the 4th instant, and examining a new plan of the colliery workings, made by Mr. Simpson, upon which he has shown the Great Northern Railway Line, I find that coal has been taken out from under the railway.

2. As I am not aware of any permission having been given to undermine it, I should be obliged if you would inform me at your earliest convenience whether you hold any authority for what has been done.

I have, &c.,

JOHN MACKENZIE,
Examiner of Coal-fields.

Mr. E. Vickery to The Examiner of Coal-fields.

Sir,

116, Pitt-street, Sydney, 8 March, 1881.

I am to-day in receipt of yours of yesterday's date, and in reply beg to say that I am not aware whether any formal permission has been given to mine under the railway passing through the Greta coal-land.

Not being myself conversant with coal-mining, I was not aware that authority was needed.

My managers have been instructed to attend to all matters required by law, and I presume they have complied.

I am not aware to what extent (or if at all) the coal has been worked under the line, but will write to-day to Mr. Simpson to inform me.

Owing to the depth and strata I am in the belief that no workings at Greta can possibly jeopardize the line.

I have, &c.,

E. VICKERY.

P.S.—If anything is wrong I will, on being informed, see that it is put right.—E. V.

Mr. R. L. Simpson to The Examiner of Coal-fields.

Sir,

Greta, 17 March, 1881.

After you left this afternoon I took a section of the seam and measured the grey post rock which overlies the 9 inches of soft blue metal on the coal-head. I have sent you a piece of the blue metal, and the inch parting at 16 feet 4 inches higher up is about the same kind of stone; the parting is too small to get anything from it in the shaft.

I enclose rough section, and when writing to Mr. Vickery to-morrow will mention your visit, and inform him of your going to Sydney on Monday.

I remain, &c.,

R. L. SIMPSON.

The Examiner of Coal-fields to The Under Secretary for Mines.

Sir,

Coal-fields Office, Newcastle, 25 June, 1883.

I enclose, for the information of the Honorable the Secretary for Mines, copies of correspondence, which has taken place between Messrs. Walker and Wilde and myself, with respect to a heading 6 feet high and 5 feet wide (tracing enclosed), which has been driven by them without authority under the Great Northern Bullock Island Railway from their Wickham and Bullock Island Colliery Pit.

Not with papers.

2. The top of the heading is about 160 feet below the railway line.

I have, &c.,

JOHN MACKENZIE,

Examiner of Coal-fields.

This report may be forwarded to the Commissioner for Railways, with a view to ascertain whether the heading may be continued, and, if so, under what conditions; and for any action he may desire to take. Submitted.—H. W., 29/6/83. Approved.—J. P. ABBOTT, 3/7/83. The Under Secretary for Public Works.—G. E. H., *pro* U.S., B.C., 5/7/83. Railways.—J. R., B.C., 6/7/83.

An application was received by this Department from the Manager of the Company (Mr. Bayley), and he was informed on the 27th there was no objection to the Company putting in three headings under the railway line, 6 feet x 6 feet, to be lined with brick or stone, provided the work is carried out to the satisfaction of the Examiner of Coal-fields.—G. B., *pro* Commissioner. The Under Secretary for Public Works, B.C., 13/7/83.

Forward to Mines.—F. A. W., 14/7/83. The Under Secretary for Mines.—J. R., B.C., 16/7/83. The Examiner of Coal-fields may be instructed to see that the headings are constructed in such a manner as not to endanger the railway. Submitted.—H. W., 19/7/83. Approved.—J. P. ABBOTT, 21/7/83. The Examiner of Coal-fields.—H. W., B.C., 23/7/83.

[Enclosures.]

Messrs. Walker and Wilde to The Examiner of Coal-fields.

Sir,

Wickham Colliery, 1 June, 1883.

In turning away the heading on the south-east side of the shaft, we have unintentionally penetrated under the Bullock Island Railway before our bearing was taken. We stopped work in that direction immediately we found out the error committed, pending any permission that may in future be extended to us.

We beg to draw your attention to the fact that this line of railway passes directly through this Company's royalty, and it will therefore be necessary to obtain permission from the Department to drive a narrow heading under the railway before one portion of the royalty can be worked.

We therefore respectfully ask permission to drive, or to continue the present narrow heading, 6 feet wide, and 6 feet high, to the other side of the railway, in order that we may gain access to that portion of the coal-field. We herewith enclose tracing of work done, and extent of present trespass.

Not with papers.

We have, &c.,

WALKER & WILDE.

The Examiner of Coal-fields to Messrs. Walker and Wilde.

Gentlemen,

Coal-field's Office, Newcastle, 22 June, 1883.

Referring to my examination of the Linwood Colliery on the 30th ultimo, the heading driven in the coal under the Government railway, and your letter of the 1st instant, enclosing a tracing of the workings, I beg to inform you that the tracing does not appear to be an accurate one, as the headings which are only about 5 feet wide are shown thereon to be 9 feet in width.

2. I have therefore to request that you will as early as possible furnish me with an accurate plan, and discontinue driving under the railway, which I have no power to grant you permission to undermine.

I have, &c.,

JOHN MACKENZIE,

Examiner of Coal-fields.

The

The Examiner of Coal-fields to The Under Secretary for Mines.

Sir,

Coal-fields Office, Newcastle, 5 April, 1884.

I forward herewith the only correspondence, &c., of the late Mr. Keene's which I can find in this office referring to the trespass by Mr. Farthing, of the Anvil Creek Colliery, under the Great Northern Railway. In 1878 I forwarded copies to the Mines of all his reports, some of which I kept no copies of.

The whole of his correspondence with the Lands in 1865, 1866, and 1867 is now, I suppose, in the Mines Office, Sydney.

I have, &c.,

JOHN MACKENZIE,
Examiner of Coal-fields.

[Enclosures.]

Mr. Colliery-Inspector Lewis to The Examiner of Coal-fields.

Sir,

Newcastle, 6 April, 1865.

In compliance with your instructions to examine and report upon those parts of the Anvil Creek Colliery workings which are as per plan underneath, or in close proximity to the Great Northern Railway, I have the honor to report:—

1. That the mine-plan fairly represents all the accessible workings that are under the railway property, some of which are done, whilst others are in progress.

2. The seam of coal is about 5 feet in thickness, and there being but little rubbish, &c., to stow in the wide workings, there is nothing therefore to assist the props, &c., in supporting the roof.

3. The roof being very brittle, and abounding in breaks, slants, and partings, consequently, by the slightest stir from above, it is very apt to break over and discharge the props, &c., and "cave in."

4. Considering the circumstances it can be said that the workings in many instances are but indifferently timbered.

5. So much of the coal having been excavated, and some of the pillars which are left in being, in my opinion, rather weak, it is highly desirable that every available means should be adopted for preventing the roof giving way in the least degree.

Recommendations.

1. That all wide workings underneath the railway property be discontinued at once.

2. That all excavations be timbered so closely as to prevent the roof having the least chance of falling in between the props, &c.

3. If it be necessary that narrow headings should be driven across the same should go at right-angles to the railway, and should be well and carefully timbered with durable double timbers.

4. That all wheeling and travelling roads should be timbered in a similar manner to that recommended in the above case.

5. A strict look-out should be kept over all old and other workings, so that any props, &c., that may have been discharged be replaced immediately, and that no larger space than 3 feet square be allowed to remain without a prop, &c.

I have, &c.,

THOMAS LEWIS.

The Examiner of Coal-fields to Mr. J. Beaumont.

Sir,

Union Club, Sydney, 10 December, 1867.

I duly received your letter, dated West Maitland, Friday morning, 6 December, and your telegram, as to the state of the workings under the railway from Farthing's Colliery, and that there is no further trespass.

* * * * *

I have, &c.,

W. KEENE.

Mr. Colliery-Inspector Lewis to The Examiner of Coal-fields.

Sir,

Newcastle, 11 May, 1865.

I have the honor to present to you my second two-monthly report, in the present year, on the state and condition of the several collieries in the district.

* * * * *

Anvil Creek.—All the workings in the south-western part, under the railway property, have been stopped. The new pit is going down again about 104 feet deep.

* * * * *

I have, &c.,

THOMAS LEWIS.

[Two diagrams.]

Hard Conglomerate

Section of Greta B Pit

Soft Blue Parting $\frac{ft}{in}$ 1

Hard Gray Post 16 4

Soft Blue Metal " 9

Coal with Brassy bands 4

Hard 3

Good Coal 10

Band 3

Coal clean l tops 4

Soft white band 4

Coal clean 3 8½

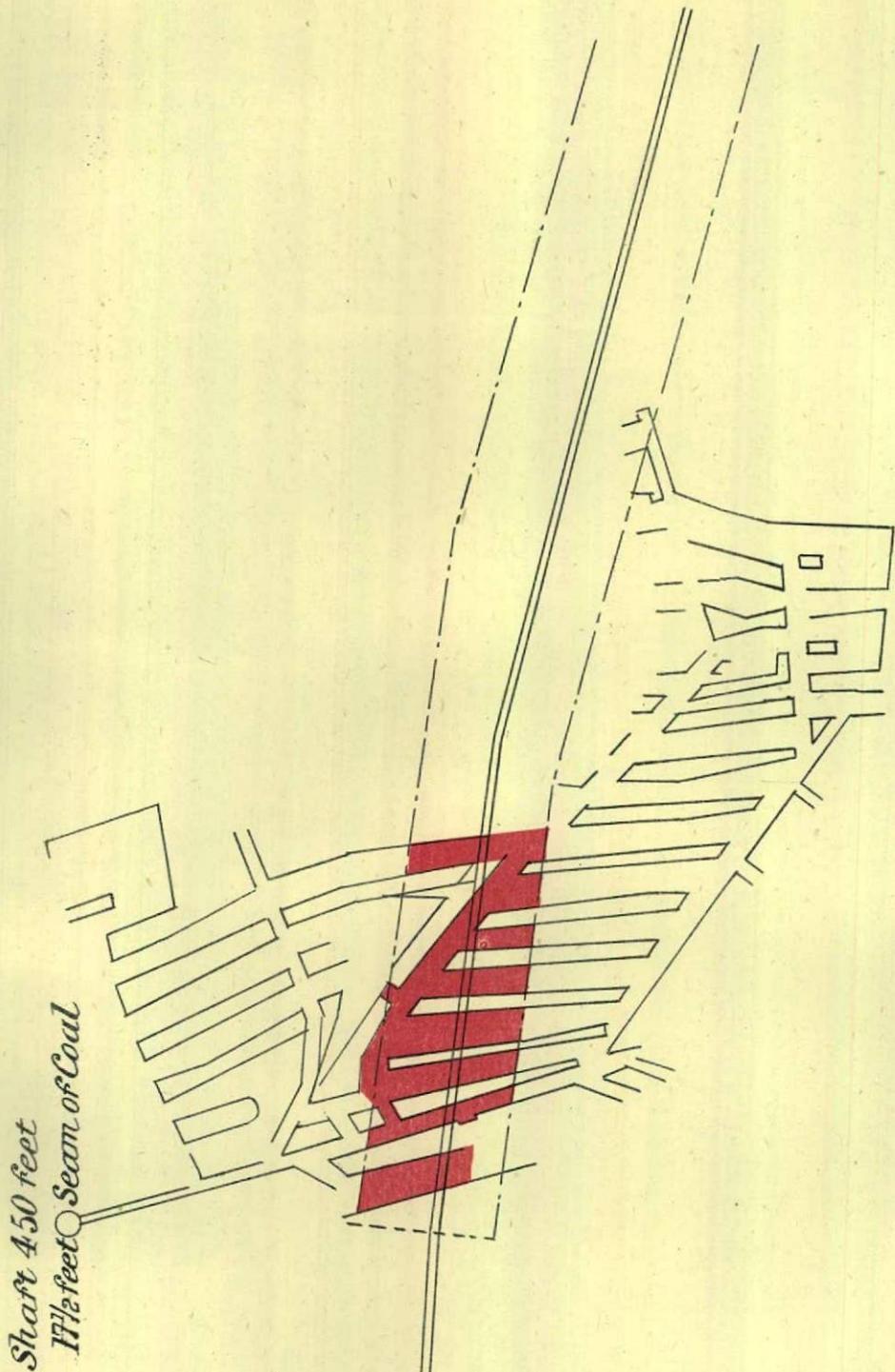
Kerosene Shale 6

Coal clean 3 9½

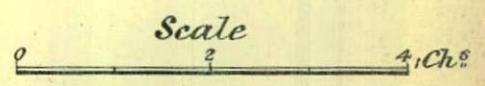
Fireclay

Portion Worked

(Sig. 19.-)



Reference.
 Pink tinting denotes the Coal
 wrought from under the Great
 Western Line.



(Sig 19.)

1884.

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORIZED TO BE DEDICATED TO RELIGIOUS AND PUBLIC PURPOSES.)

Presented to Parliament, pursuant to Act 25 Vic. No. 1, sec. 5.

ABSTRACT of Crown Lands authorized to be dedicated to Religious and Public purposes, in accordance with the 5th section of the Act 25 Victoria No. 1.

| Place. | County. | Allotment | Section | Portion. | Locality. | Area. | To what purpose dedi- cated. | No. of Papers. | Cat. No. of Plan. |
|-----------------------|------------------|-----------|---------|-----------|--------------------------|---------------------|---|-------------------|----------------------|
| Coldstream | Clarence ..... | ..... | ..... | ..... | Village of Coldstream .. | a. r. p. 24 1 27 | Public Recreation | Misc. 84-24647 | C. 164-1,834 |
| Cumnock | Gordon ..... | ..... | ..... | ..... | Parish of Burrawang .. | 10 0 0 | do | 23380 | W. 141-1,834a |
| Frome's Creek .. | Wellington ..... | ..... | ..... | 101 | do Erudgere | 2 0 0 | Public School site | 21147 | P.1,318-1,978 |
| Ingebirah | Wallace ..... | ..... | ..... | 23 | do Blakefield | 2 0 0 | do | 20383 | P.1,213-1,978 |
| Moruya | Dampier | 4 | 7 | ..... | Town of Moruya | 5 2 5 | Hospital site | 21622 | M. 42-1,469 |
| Murrumboola .. | Harden | 1 | 27 | ..... | do Murrumboola | 2 0 0 | Public School site | 20401 | P.1,246-1,978 |
| Murrurundi | Pottinger ..... | ..... | ..... | 218 & 238 | Parish of Yarraman | 1 2 0 | Sites for Presbyterian Church and Manse. | 19213 | C.1,027-1,984 |
| Muttama | Harden | 1 | 20 | ..... | Village of Muttama | 2 0 0 | Public School site | 21858 | P.1,323-1,978 |
| Peat's Ferry Road. | Cumberland ..... | ..... | ..... | 31 | Parish of South Colah .. | 2 0 0 | do | 22438 | P.1,279-1,978 |
| Smithtown | Dudley ..... | ..... | ..... | ..... | do Cooroobongatti | 0 1 0 | Site for School of Arts .. | 17139 | D. 846-1,505 |
| Thuddungr | Monteagle ..... | ..... | ..... | 116 | do Kikiamah | 2 0 0 | Public School site | 21360 | P.1,334-1,978 |
| Taralga | Argyle ..... | ..... | ..... | ..... | do Guinecor | 56 2 0 | Public Recreation | 19161 | ..... |

1884.

NEW SOUTH WALES.

CROWN LANDS.

(RESERVED FROM SALE UNTIL SURVEYED, FOR THE PRESERVATION OF WATER SUPPLY OR OTHER PUBLIC PURPOSES.)

Presented to Parliament, pursuant to Act 25 Vic. No. 1, sec. 4.

ABSTRACT of Crown Lands reserved from sale until surveyed, for the preservation of Water Supply or other Public purposes, in accordance with the 4th section of the Act 25 Victoria No. 1.

| No. of Papers. | No. of Reserve. | County. | Parish. | Area. | Government Gazette in which the description is published. | Folio. |
|----------------|-----------------|------------------------------|--------------|---------------|---|--------|
| Ms. 84-21513 | 140 | Wellington | Marne | 380 acres | 3 Nov., 1884 | 7344 |
| 21520 | 649 ex. | Rous | Tunstall | 100 " | " | " |
| " | 1240 | " | " | 85 " | " | " |
| 21512 | 141 | Wellington | Mumbil, &c. | 370 " | " | " |
| 21519 | 1242 | Rous | Nimbin, &c. | 1,000 " | " | " |
| " | 1241 | " | Terrania | 640 " | " | " |
| 22214 | 664B | Hardinge and Gough | Clive, &c. | 265 sq. miles | " | 7345 |
| " | 664n. ex. | Hardinge | Tingha | 14,000 acres | " | " |
| " | 833B | Gough, Clive, and Arrawatta. | Frazer, &c. | 630 sq. miles | " | " |
| 21661 | 204 | Murray | Bywong | 98 acres | " | " |
| 21639 | 679 | Irrara | Moorlort | 3,840 " | " | " |
| 22110 | 925 ex. | Wallace | Grose | 320 " | " | 7348 |
| 21820 | 1067 | Wellesley | Rodney | 450 " | " | " |
| 21261 | 3284 | Wynyard | Barlow | 100 " | " | " |
| 21068 | 1386 | Burnett | Cox | 320 " | 5 " | 7407 |
| " | 887 A. ex. | " | Gill and Cox | 160 " | " | " |
| " | 1389 | " | Cox | 2½ sq. miles | " | " |
| " | 1388 | " | " | 240 acres | " | " |
| " | 1385 | " | Gill and Cox | 1,440 " | " | " |
| " | 1387 | " | Cox | 200 " | " | 7408 |
| 22340 | 688 | Yancowinna | Bray | 200 " | 7 " | 7566 |
| " | 690 | " | " | 1r. 24p. | " | " |
| " | 689 | " | " | 5 acres | " | " |
| 20372 | 186 | Gloucester | Wangat | 2½ " | 17 " | 7722 |
| " | 187 | " | " | 2a. 2r. | " | " |
| " | 189 | " | " | 5 acres | " | " |
| " | 188 | " | " | 3 " | " | " |
| " | 192 | " | " | 24 " | " | " |
| 22286 | 2003 | Buckland | Werrie | 707 " | " | 7723 |
| 22112 | 2093A | Kennedy | Carolina | 3,600 " | " | " |
| 22492 | 909A | Wellesley | Cathcart | 32a. 2r. | " | " |
| 15552 | 3283 | Hume | Hindmarsh | 182a. 3r. | " | " |
| 21524 | 9 ex. | Westmoreland | Jenolan, &c. | 2,280 acres | " | " |
| 21459 | 3109 | Blaxland | Mount Hope | 40 " | " | " |
| " | 3108 | " | " | 40 " | " | " |
| 20129 | 3117 | Nicholson | Honuna | 2 " | " | 7724 |
| 18805 | 3282 | Urana | Wagh | 2a. 3r. | " | " |
| 22411 | 90 | Westmoreland | Vulcan, &c. | 7,000 acres | " | " |
| 20371 | 193 | Gloucester | Nerong | 5 " | " | " |
| 20635 | 591 ex. | Buckland | Werrie | 180 " | " | " |
| 22498 | 82 W. ex. | Georgiana | Thompson | 372 " | " | 7725 |
| 21225 | 37 ex. | Bathurst | Somers | 243 " | " | " |
| 20381 | 1510 ex. | Gregory | Mellerstain | 323 " | " | " |
| 20688 | 720 ex. | Killara | Walker | 1,280 " | " | " |
| 21458 | 3114 | Blaxland | Moora, &c. | 8,600 " | " | " |
| 20634 | 1832 N. ex. | Jamison | Graham, &c. | 5,700 " | " | " |
| 20637 | 443 ex. | Hardinge | Yarrowick | 200 " | " | " |
| 20372 | 191 | Gloucester | Wangat | 1a. 3r. | " | 7726 |
| " | 185 | " | " | 3 roods | " | " |
| " | 179 | " | " | 2 acres | " | " |

| No. of Papers. | No. of Reserve. | County. | Parish. | Area. | Government Gazette in which the description is published. | Folio. |
|----------------|-----------------|--|----------------|---------------|---|--------|
| Ms. S4-21459 | 3112 | Blaxland | Mount Hope | 6a. 1r. Sp. | 17 Nov., 1884 | 7726 |
| " | 3111 | " | " | 6a. 1r. Sp. | " | " |
| " | 3110 | " | " | 6a. 1r. Sp. | " | " |
| 20665 | 3101 | Bland | Morangarell | 1r. 36p. | " | " |
| " | 3100 | " | " | 2a. 1r. 20p. | " | " |
| " | 3099 | " | " | 2a. 1r. 4p. | " | " |
| " | 3098 | " | " | 3a. 3r. 5p. | " | " |
| 22289 | 2004 | Buckland | Evan | 160 acres | " | 7727 |
| 21481 | 3116 | Harden | Woolgarlo | 6 " | " | " |
| 22221 | 1555A | Gough | Wellingrove | 1,650 " | " | " |
| 21023 | 1237 | Culgoa | Barrington | 28 " | " | " |
| 20640 | 168 | Raleigh | Bowra | 20 " | " | " |
| 20633 | 1232 | Rous | Brunswick | 3 " | " | " |
| 21250 | 1993 | Denham | Barwon | 160 " | " | 7728 |
| " | 1992 | " | Murkadool | 299 " | " | " |
| 20642 | 1971A | Buckland | Weerie | 204 " | " | " |
| 21026 | 502A | Irrara and Gunderbooka | " | 3,200 " | " | " |
| 21459 | 3113 | Blaxland | Mount Hope | 370 " | " | " |
| 20839 | 3278 | Mitchell | Osborne | 1,435 " | " | " |
| 20838 | 3279 | " | Tootool, &c. | 2,560 " | " | " |
| 21138 | 1235 | Finch | Maggarie | 1,440 " | " | " |
| " | 1234 | " | Yourblah | 3,430 " | " | " |
| " | 460A | Narran and Finch | Maggarie, &c. | 3,784 " | " | 7729 |
| 20636 | 1222 ex. | Arrawatta | Hawthorne | 20 " | " | " |
| 21525 | 1380 | Courallie | Fletcher | 5,800 " | " | " |
| 21352 | 3115 | Forbes | Birangan, &c. | 2,980 " | " | " |
| 20665 | 3096 | Bland | Morangarell | 2 " | " | " |
| 22039 | 1675 | Arrawatta | Ashby, &c. | 9 sq. miles | " | 7730 |
| 21225 | 109 A. ex. | Bathurst | Chaucer | 110 acres | " | " |
| " | 227 | " | " | 1,320 " | " | " |
| 18702 | 3103 | Blaxland | Gounelgerie | 1,274 " | " | " |
| " | 3104 | " | " | 2,536 " | " | " |
| " | 3105 | " | Marooba | 568½ " | " | " |
| " | 3106 | " | Gonu | 640 " | " | " |
| 20665 | 3095 | Bland | Morangarell | 3a. 1r. 7p. | " | 7731 |
| 20372 | 184 | Gloucester | Wangat | 2 roods | " | " |
| " | 183 | " | " | 1 rood | " | " |
| " | 182 | " | " | 1 " | " | " |
| " | 181 | " | " | 2 roods | " | " |
| 21458 | 1509 fur. ex. | Blaxland | Cargelligo | 320 acres | " | " |
| 21025 | 2001 | Leichhardt | Warragan | 232 " | " | " |
| 20638 | 1661 | Sandon | Yarrowick | 400 " | " | " |
| 21455 | 1378 | Murchison | Boomi | 1,100 " | " | " |
| 22041 | 3118 | Forbes | Melyra | 405 " | " | 7732 |
| 22497 | 990 ex. | Mitchell | Cuddell | 320 " | " | " |
| 22410 | 100 | Georgiana | Bigga, &c. | 128 " | " | " |
| 20372 | 180 | Gloucester | Wangat | 2 roods | " | " |
| 20665 | 3097 | Bland | Morangarell | 9a. 1r. 34p. | " | 7733 |
| C.S. 84- 8670 | 1251 N. ex. | Sandon | Hillgrove | 68 acres | " | " |
| Ms. 84-20643 | 1662 | Clarke | Big Hill, &c. | 45,000 " | " | " |
| " | 1663 | " | Snowy, &c. | 17,000 " | " | " |
| 21697 | 1263 | Narran | Papperton | 5 sq. miles | 29 Oct., 1884 | 7281 |
| 21696 | 1262 | " | Banmockburn | 2½ " | " | " |
| 21971 | 1260 | Culgoa | Beri | 3¼ acres | " | " |
| 22212 | 686 | Farnell | Byjerkerno | 640 " | " | " |
| 21975 | 1008 ex. | Vernon | Bergen-Op-Zoom | 40 " | " | 7282 |
| 22213 | 685 | Farnell | Byjerkerno | 10 " | " | " |
| 20567 | 1233 | Rous | Cudgen | 11a. 0r. 38p. | 19 Nov., 1884 | 7794 |
| 23801 | 233 | Camden | Bugong | 50 acres | " | " |
| 24618 | 1691 | Gough | Inverell | 20 " | " | 7793 |
| 24619 | 1297 | Yanda | " | 806 " | " | " |
| 24532 | 1690 | Clarence, Fitzroy, Gresham, Drake, & Gough | " | 204 sq. miles | " | 7794 |
| 24426 | 1688 | Gough, Arrawatta, Burnett, & Stapylton | " | " | " | " |
| 23525 | 771 | Wakool | Corry | 345 " | " | 7793 |

1884.

NEW SOUTH WALES.

CROWN LANDS.

(SITES FOR CITIES, TOWNS, AND VILLAGES.)

Presented to Parliament, pursuant to Act 25 Vic. No. 1, sec. 4.

ABSTRACT of Sites for Cities, Towns, and Villages, declared under the 4th section of the Act 25 Victoria No. 1.

| City, Town, or Village. | Area for City, Town, or Village. | Area for Suburbs. | Locality. | Government Gazette in which published. |
|----------------------------|----------------------------------|-------------------|--|--|
| Town of Silverton | 380 acres ... | 880 acres... | County of Yancowinna, parishes of Bray and Bomangaldy. | 7 Nov., 1884. |
| Village of Nombinnie | 280 „ ... | 2,670 „ ... | County of Blaxland, parish of Mount Hope | 17 „ „ |
| Town of Morangarell..... | 163 „ ... | 429 „ ... | County of Bland, parish of Morangarell | 17 „ „ |
| Village of Wangat..... | 117 „ ... | 168 „ ... | County of Gloucester, parish of Wangat..... | 17 „ „ |
| Village of Manildra | 430 „ ... | 1,080 „ ... | County of Ashburnham, parishes of Gregra and Dulladerry. | 17 „ „ |

1884.

NEW SOUTH WALES.

CROWN LANDS.

(ALTERATIONS IN DESIGNS FOR TOWNS AND VILLAGES.)

Presented to Parliament, pursuant to Act 43 Vic. No. 29, sec. 22.

ABSTRACT of Alterations in Designs of Towns and Villages, under the 22nd section of the Act 43 Victoria No. 29.

| Town or Village. | Government Gazette in which alteration is notified. |
|--|---|
| Alteration of design of the Village of Wallendbeen, by closing that part of Richmond-street lying between Victoria and Bland Streets, that part of Albert-street lying between Richmond and Young Streets, and the lane dividing section No. 13. | 17 November, 1884. |
| Alteration of the design of the Village of Currathool West, by closing the lane between allotments 3 and 4, section No. 1. | do. |

1884.

NEW SOUTH WALES.

CROWN LANDS.

(AUTHORIZED TO BE DEDICATED TO THE USE OF PASTORAL AND AGRICULTURAL ASSOCIATIONS.)

Presented to Parliament, pursuant to Act 39 Vic. No. 13, sec. 32.

ABSTRACT of Crown Lands authorized to be dedicated for the use of Pastoral and Agricultural Associations, in accordance with the 32nd section of the Act 39 Victoria No. 13.

| Place. | County. | Allotment | Section. | Portion. | Locality. | Area. | Name of Association. | No. of Papers. | Cat. No. of Plan. |
|---------------|--------------|-----------|----------|----------|--------------------------|--------------------|--|--------------------|-------------------|
| Taralga | Argyle ..... | ..... | ..... | 160 | Parish of Guinecor | a. r. p. 16 2 0 | Taralga Pastoral, Agricultural, and Horticultural Association. | Misc. 84-10,160 | A. 1,713-2,121 |

1884.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

SUBORDINATE ROADS UNDER TRUSTEES.

(SHOWING PROPOSED DISTRIBUTION OF VOTE ON ESTIMATES.)

Ordered by the Legislative Assembly to be printed, 25 November, 1884.

CLASSIFICATION AND PROPOSED DISTRIBUTION FOR 1885.

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|------------------------|--------|-------|-------|------------------|--|-----------------------|
| | 1883. | 1884. | 1885. | | | |
| Northern Roads. | | | | | | |
| | | | | | | £ |
| 1 | 4 | 4 | 4 | 29 | Road from Wollombi to Warkworth | 290 |
| 2 | 3 | 2 | 2 | 7 | " Stockton and Raymond Terrace Road to Saltash... | 175 |
| 3 | 5 | 5 | 5 | 6 | " Raymond Terrace and Stroud Road to Raymond Terrace and Clarencetown Road (Caswell's Road) | 42 |
| 4 | 5 | 5 | 5 | 12 | " Raymond Terrace and Stroud Road, <i>via</i> the Duck-hole Swamp, to the Parading Ground | 84 |
| 5 | 3 | 3 | 3 | 11 | " Seaham, by east side of Williams River, to Clarencetown | 165 |
| 6 | ... | ... | 2 | 5 | " Clarencetown to Glen William | 125 |
| 7 | ... | 3 | 3 | 10 | " Clarencetown towards Thalaba | 150 |
| 8 | 2 | 2 | 2 | 8 | " Raymond Terrace to Hinton | 200 |
| 9 | 3 | 3 | 3 | 4 | " Raymond Terrace and Hinton Road to Seaham ... | 60 |
| 10 | 2 | 2 | 2 | 1 | " Tomago Crossing-place to Railway Station at Hexham | 25 |
| 11 | 4 | 4 | 2 | 5 | " Alnwick to Hexham | 125 |
| 12 | 3 | 3 | 2 | 5 | " Junction of Morpeth Road with Raymond Terrace and Maitland Road to East Maitland | 125 |
| 13 | 2 | 2 | 1 | 4 | " Pitnacree Bridge to Dunmore Bridge | 200 |
| 14 | 2 | 2 | 2 | 16 | " Paterson Punt to Gresford | 400 |
| 15 | 4 | 4 | 4 | 5 | " Vacy Bridge to Summer Hill | 50 |
| 16 | 2 | 2 | 2 | 17 | " Gresford to Eccleston | 425 |
| 17 | 2 | 2 | 2 | 12 | " Gresford to Lostock | 300 |
| 18 | 4 | 4 | 4 | 13 | " Lostock to Carraboler | 130 |
| 19 | 2 | 2 | 2 | 4 | " Penshurst to Alleyn River | 100 |
| 20 | 4 | 4 | 4 | 8 | " Eccleston to Upper Alleyn River | 80 |
| 21 | 2 | 2 | 2 | 8 | " Largs, <i>via</i> Tocal, to Paterson | 200 |
| 22 | 2 | 2 | 2 | 3 | " Union Inn at Rutherford to Ford at Melville ... | 75 |
| 23 | 4 | 4 | 3 | 10 | " Rutherford to Scotch Corner | 150 |
| 24 | 4 | 3 | 3 | 3 | " West Maitland, <i>via</i> Glenarvon, to Dunmore and Paterson Road | 45 |
| 25 | 2 | 2 | 2 | 20 | " Main Northern Road, near West Maitland, <i>via</i> Cessnock, to eastern foot of the Dividing Range | 500 |
| 26 | 1 | 1 | 1 | 5 | " West Maitland up the right bank of Hunter River | 250 |
| 27 | 2 | 2 | 2 | 5 | " Morpeth to Four-mile Creek | 125 |
| 28 | 3 | 3 | 3 | 3 | " Morpeth to Largs | 45 |
| 29 | 4 | 4 | 4 | 4 | " Morpeth and Largs Road, through Phoenix Park and Abbotsford, to M'Clymont's Swamp ... | 40 |
| | | | | 243 | Carried forward | £ 4,681 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|-----|--------|-------|-------|------------------|---|-----------------------|
| | 1883. | 1884. | 1885. | | | |
| | | | | 243 | Northern Roads—continued. | £ |
| | | | | | Brought forward | 4,681 |
| 30 | 2 | 2 | 2 | 4 | Road from Morpeth Punt, through Phoenix Park, to Largs ... | 100 |
| 31 | 2 | 2 | 2 | 4 | " Morpeth, <i>via</i> Hinton Punt, to Dunmore and Seaham Road | 100 |
| 32 | 4 | 4 | 4 | 4 | " Dunmore and Seaham Road, <i>via</i> Butterwick, to Dunn's Creek | 40 |
| 33 | 1 | 1 | 1 | 3 | " West Maitland, <i>via</i> Louth Park, to East Maitland and Brisbane Water Road | 150 |
| 34 | 5 | 5 | 5 | 15 | " West Maitland to Mulbring Creek | 105 |
| 35 | 3 | 3 | 3 | 17 | " Maitland and Paterson Road, within L. Harris's 1,114 acres, to Luskintyre | 255 |
| 36 | 5 | 3 | 3 | 10 | " Lochinvar, <i>via</i> Windermere, to Pritchett's 2,000 acres, and loop-line to same place, <i>via</i> Kaloudah | 150 |
| 37 | 3 | 3 | 3 | 5 | " Branxton, <i>via</i> Dalwood Ford, to Irishtown | 75 |
| 38 | 3 | 3 | 3 | 2 | " Branxton and Irishtown Road to Greta | 30 |
| 39 | 3 | 3 | 3 | 12 | " Branxton, <i>via</i> Elderslie Bridge and Glendon Brook, to junction with Paterson and Gresford Road... .. | 180 |
| 40 | 4 | 4 | 4 | 4 | " Anvil Creek and Glendon Brook Road to Stanhope | 40 |
| 41 | 4 | 3 | 3 | 14 | " Main Northern Road, near Black Creek, to Cessnock, on Wollombi Road | 210 |
| 42 | 3 | 3 | 3 | 13 | " Pokolbin Hills to Cessnock Road | 195 |
| 43 | 4 | 4 | 4 | 6 | " Cessnock to south-west corner of M'Donald's 1,050 acres at Pokolbin (Marrowbone Road) | 60 |
| 44 | 3 | 3 | 3 | 11 | " Main Northern Road, near Black Creek, <i>via</i> Glendon, to Main Northern Road, near Singleton... .. | 165 |
| 45 | 4 | 4 | 4 | 20 | " Singleton to Boyce's, at Glendon Brook | 200 |
| 46 | 4 | 4 | 4 | 17 | " Boyce's to Gresford | 170 |
| 47 | 4 | 4 | 4 | 9 | " Cooper's Flat Road to Karakoora Creek and up that creek... .. | 90 |
| 48 | 4 | 4 | 4 | 10 | " Camberwell to Goorangoola Road... .. | 100 |
| 49 | 4 | 4 | 4 | 15 | " Goorangoola Road to Carrow Brook | 150 |
| 50 | ... | 5 | 5 | 7 | " Goorangoola Road to Bowman's Creek | 49 |
| 51 | 4 | 4 | 4 | 17 | " Singleton to Dyring, <i>via</i> Redbournebury... .. | 170 |
| 52 | 4 | 3 | 3 | 12 | " Singleton, <i>via</i> Abbey Green, to Bulga | 180 |
| 53 | 3 | 3 | 3 | 15 | " Singleton, <i>via</i> Wittingham Reserve, to Broke | 225 |
| 54 | 4 | 4 | 4 | 10 | " Broke, <i>via</i> Nine-mile Creek, to the Munnimba and Warkworth Road | 100 |
| 55 | 3 | 3 | 3 | 20 | " Singleton to Jerry's Plains | 300 |
| 56 | 4 | 3 | 3 | 6 | " Singleton and Jerry's Plains Road to Warkworth... .. | 90 |
| 57 | 4 | 5 | 4 | 8 | " Broke Road, <i>via</i> Warkworth Road, to the Jerry's Plains Road | 80 |
| 58 | 6 | 6 | 4 | 16 | " Scone, <i>via</i> Dartbrook and Kayugah, to Muswellbrook | 160 |
| 59 | 5 | 5 | 5 | 25 | " Merriwa to top of Main Range | 175 |
| 60 | 4 | 4 | 4 | 15 | " Blandford, <i>via</i> Box-trec, to Timor | 150 |
| 61 | ... | 6 | 6 | 4 | " Kangaroo Flat to Quirindi | 20 |
| 62 | 4 | 4 | 4 | 7 | " Quirindi to Warrah Ridge | 70 |
| 63 | 3 | 3 | 3 | 10 | " Underbank to Upper Chichester | 150 |
| 64 | 4 | 4 | 4 | 9 | " Underbank to Upper Williams | 90 |
| 65 | ... | 6 | 4 | 21 | " Wingham and Nowendoc Road to Upper Manning | 210 |
| 66 | 3 | 3 | 3 | 2 | " Tinonee and Bohnock Road to south channel of the Manning River (Redbank Road) | 30 |
| 67 | 4 | 4 | 2 | 9 | " Innis, <i>via</i> Morton's Creek, to Papenborough Creek, and J. Gurney's | 225 |
| 68 | 4 | 3 | 3 | 24 | " Grafton, <i>via</i> Copmanhurst, to Apple-tree Flat | 360 |
| 69 | ... | 4 | 3 | 5 | " Copmanhurst to Stockyard Creek | 75 |
| 70 | 5 | 5 | 5 | 35 | " Smith's Flat Road to the Solferino Road | 245 |
| 71 | 4 | 4 | 4 | 10 | " Brush Grove to Rocky Mouth | 100 |
| 72 | ... | ... | 4 | 6 | " Newton-Boyd Road to Ramornie | 60 |
| | | | | 731 | Total miles. | £ 10,560 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|-----------------------|--------|-------|-------|------------------|--|-----------------------|
| | 1883. | 1884. | 1885. | | | |
| Western Roads. | | | | | | £ |
| 73 | 2 | 2 | 2 | 3 | Road from Main Western Road to Canterbury | 75 |
| 74 | 2 | 2 | 2 | 2 | " Main Western Road to Rookwood Railway Station | 50 |
| 75 | 3 | 3 | 3 | 6 | " Main Western Road, near Parramatta, to Main Southern Road (Woodville Road) | 90 |
| 76 | 2 | 2 | 2 | 2 | " Main Western Road, <i>via</i> Newington, to the Parramatta River | 50 |
| 77 | 2 | 2 | 2 | 4 | " Parramatta to Pennant Hills | 100 |
| 78 | 3 | 3 | 3 | 2 | " Pennant Hills Road to Shepherd's 60 acres | 30 |
| 79 | 2 | 2 | 2 | 4 | " Broken-back Bridge to Pennant Hills | 100 |
| 80 | 2 | 2 | 2 | 1 | " Pennant Hills, at Duggan's Corner, to Parramatta and Ryde Road | 25 |
| 81 | 3 | 3 | 3 | 6 | " Mobbs' Hill to Rogan's Hill | 90 |
| 82 | 1 | 1 | 1 | 1 | " Parramatta and Ryde Road to Pennant Hills Wharf | 50 |
| 83 | 2 | 2 | 2 | 3 | " Ryde to junction of Parramatta and Pennant Hills Road | 75 |
| 84 | 2 | 2 | 2 | 4 | " Parramatta and Pennant Hills Road to Dural ... | 100 |
| 85 | 4 | 4 | 4 | 2 | " Main North Road at Castle Hill to Government Reserve (Old Castle Hill Road) | 20 |
| 86 | 5 | 5 | 5 | 2 | " Old Castle Hill Road to Government Reserve ... | 14 |
| 87 | 2 | 2 | 2 | 1 | " Castle Hill to the Old Parramatta Road | 25 |
| 88 | 2 | 2 | 2 | 5 | " Parramatta and Windsor Road to Pearse's, at Seven Hills | 125 |
| 89 | ... | 3 | 3 | 2 | " Seven Hills Road to Vardy's Grant | 30 |
| 90 | 2 | 2 | 2 | 4 | " Seven Hills Railway Station to Windsor Road ... | 100 |
| 91 | 2 | 2 | 2 | 4 | " Rooty Hill Railway Station to Blacktown Road ... | 100 |
| 92 | 6 | 6 | 6 | 4 | " Main Western Road, near Fox-under-the-Hill, to the Seven Hills Road (Toongabbee Road) ... | 20 |
| 93 | 4 | 4 | 4 | 5 | " Toongabbee Creek to Windsor Road | 50 |
| 94 | 3 | 3 | 3 | 8 | " Main Western Road to Breakfast Creek (Blacktown Road) | 120 |
| 95 | 3 | 3 | 3 | 11 | " Breakfast Creek to Richmond (Blacktown Road) ... | 165 |
| 96 | 4 | 4 | 3 | 3 | " Main Western Road, <i>via</i> Bungarribee, to Blacktown Railway Station (Flushcombe Road) | 45 |
| 97 | 3 | 3 | 3 | 8 | " Penrith to Dr. Clarke's Bridge | 120 |
| 98 | 3 | 3 | 3 | 18 | " Main Western Road, near Penrith, to Bringelly Cross Roads | 270 |
| 99 | 4 | 4 | 4 | 11 | " Parramatta to Rouse Hill | 110 |
| 100 | 3 | 3 | 3 | 5 | " Penrith to Clemson's | 75 |
| 101 | 3 | 3 | 3 | 5 | " Clemson's to Richmond | 75 |
| 102 | ... | 4 | 4 | 10 | " Blaxland's Crossing to Werombi Post Office ... | 100 |
| 103 | 2 | 2 | 2 | 6 | " Emu Plains to Wascoc's | 150 |
| 104 | 2 | 2 | 2 | 11 | " Parramatta and Windsor Road, at Baulkham Hills, to south boundary of G. Acre's 1,500 acres at Dural (Great North Road) | 275 |
| 105 | 3 | 2 | 2 | 5 | " Dr. Clarke's Bridge to Richmond | 125 |
| 106 | 6 | 6 | 6 | 15 | " South boundary of G. Acre's 1,500 acres at Dural to its junction with Pitt Town and Wiseman's Ferry Road (Great North Road) | 75 |
| 107 | ... | ... | 4 | 3 | " Rouse Hill and Dural Road to Little Dural | 30 |
| 108 | 6 | 5 | 5 | 9 | " Round corner at Dural to Rouse Hill | 63 |
| 109 | 4 | 4 | 4 | 9 | " Rouse Hill to Clarendon | 90 |
| 110 | 4 | 4 | 4 | 6 | " Clarendon to Richmond Bridge | 60 |
| 111 | 4 | ... | 4 | 3 | " Wiseman's Ferry Road into parish of North Colah | 30 |
| 112 | 4 | 4 | 4 | 3 | " Colah to Dural (North Colah Road) | 30 |
| 113 | 3 | 3 | 3 | 2 | " Nelson to Rouse Hill | 30 |
| 114 | 2 | 4 | 4 | 2 | " Wilberforce to Pitt Town Punt | 20 |
| 115 | 2 | 2 | 2 | 5 | " Windsor Road to Pitt Town Punt | 125 |
| 116 | 2 | 2 | 2 | 1 | " Windsor Road to Mulgrave Railway Station ... | 25 |
| 117 | 2 | 2 | 2 | 5 | " Pitt Town Common, at E. M'Guire's, through Pitt Town Bottoms | 125 |
| 118 | 4 | 4 | 4 | 12 | " Pitt Town to Maroota | 120 |
| 119 | 4 | ... | 4 | 13 | " Maroota to Wiseman's Ferry | 130 |
| 120 | 3 | 3 | 3 | 3 | " Windsor to Blacktown Road | 45 |
| 121 | 1 | 2 | 2 | 7 | " Windsor, <i>via</i> Cornwallis, to Richmond | 175 |
| 122 | 2 | 2 | 2 | 2 | " Richmond to Cornwallis Road (Benson's Lane) ... | 50 |
| 123 | 5 | 3 | 3 | 4 | " Blacktown Road, <i>via</i> Dight's Hill, towards Richmond Bridge | 28 |
| | | | | 272 | Carried forward | £ 4,200 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|---------------------------------|--------|-------|-------|------------------|--|-----------------------|
| | 1883. | 1884. | 1885. |  |  |  | 272 | £ |
| Western Roads—continued. | | | | | | |
| | | | | | Brought forward | 4,200 |
| 124 | 5 | 5 | 5 | 9 | Road from Enfield and Wood's Falls Road, opposite Belmont, <i>via</i> Box Hill, to Bell's Line, North Kurrajong. | 90 |
| 125 | 2 | 1 | 1 | 4 | " Windsor Bridge to top of Gorrick's Hill | 200 |
| 126 | ... | 2 | 2 | 2 | " Nicholl's Corner, <i>via</i> Hibbert's Lane, to Enfield Road | 50 |
| 127 | 5 | 5 | 5 | 6 | " Sackville Road, near Ebenezer, <i>via</i> Page's Ferry, to Maroota | 42 |
| 128 | 5 | 5 | 5 | 4 | " Churchill's Wharf, <i>via</i> Sackville Post Office, to Page's Ferry Road | 28 |
| 129 | 6 | 6 | 6 | 14 | " Bulga Road to West Portland (Wheelbarrow Road) | 70 |
| 130 | 2 | 2 | 2 | 5 | " Queen's Road, Mt. Wilson | 125 |
| 131 | 4 | 4 | 4 | 25 | " Mudgee Road to Glen Alice | 250 |
| 132 | 3 | 3 | 3 | 3 | " Gulgong to Martin's Crossing | 45 |
| 133 | 6 | 6 | 6 | 12 | " Rylstone to Narengo | 60 |
| 134 | 6 | 6 | 6 | 30 | " Rylstone, <i>via</i> Bogie, to Capertee | 150 |
| 135 | ... | 3 | 3 | 10 | " Wall's Junction to Botobolar | 150 |
| 136 | 4 | 4 | 4 | 16 | " Cudgegong to Merrendee | 160 |
| 137 | 4 | 4 | 4 | 30 | " Gratta, <i>via</i> Windeyer and Pyramul, to Sally's Flat | 300 |
| 138 | ... | 5 | 6 | 12 | " Sally's Flat to Dougherty's | 60 |
| 139 | 4 | 4 | 4 | 4 | " Peel to Junction of Kelso and Sofala Road | 40 |
| 140 | 3 | 3 | 3 | 12 | " Sofala to Palmer's Oakey Creek | 180 |
| 141 | 3 | 3 | 3 | 9 | " Kelso and Sofala Road, at Cheshire Creek, to Upper Turon | 135 |
| 142 | 3 | 3 | 3 | 5 | " Bathurst Road, at Kirkconnell, to Mitchell's Creek Quartz Reefs | 75 |
| 143 | 5 | 5 | 5 | 12 | " Cargo Road, <i>via</i> Paling Yard Creek, to Cudal | 84 |
| 144 | 5 | 5 | 5 | 16 | " Cowra to Hovell's Creek | 112 |
| | | | | 512 | Total miles. Total | £ 6,606 |
| Southern Roads. | | | | | | |
| 145 | 2 | 2 | 2 | 4 | Road from Sydney to Banks Meadow (Botany Road) | 100 |
| 146 | 4 | 1 | 1 | 2 | " Half-way House, Botany Road, <i>via</i> Ricketty-street, towards Botany Bay | 100 |
| 147 | 4 | 4 | 4 | 2 | " Botany Road, at Williamson's, <i>via</i> Franksville, to Cook's River Road | 20 |
| 148 | 1 | 1 | 1 | 3 | " Banks Meadow, <i>via</i> Lord's and Handcock's, to the Botany Road, near the Tannery | 150 |
| 149 | 2 | 2 | 2 | 4 | " Banks Meadow to Botany Road (Whisker's Road) | 100 |
| 150 | 2 | 2 | 2 | 3 | " Undercliff Bridge to George's River Road | 75 |
| 151 | 3 | 3 | 3 | 2 | " Newtown Road, near the Church, to the Botany Road | 30 |
| 152 | 2 | 2 | 2 | 2 | " Norwood to the Old Canterbury Road (New Canterbury Road) | 50 |
| 153 | 4 | 4 | 4 | 5 | " Main Southern Road, near Burwood, over Cook's River, into Parish of St. George | 50 |
| 154 | 2 | 2 | 1 | 3 | " Irishtown to Rookwood Railway Station | 150 |
| 155 | 2 | 2 | 2 | 15 | " Rocky Point Road, at Koggerah, <i>via</i> George's River Punt, to Bottle Forest | 375 |
| 156 | 2 | 2 | 2 | 5 | " Canterbury, to Saltpan Creek Bridge | 125 |
| 157 | 2 | 2 | 2 | 5 | " Saltpan Creek Bridge to George's River | 125 |
| 158 | 3 | 3 | 3 | 3 | " Main Southern Road, near Irishtown, to George's River (Old Road) | 45 |
| 159 | 3 | 3 | 3 | 3 | " Main Southern Road, at Druitt Town, to Punchbowl Road (Rolland-street) | 45 |
| 160 | 2 | 2 | 2 | 2 | " Main Southern Road to Punchbowl Creek | 50 |
| 161 | 2 | 2 | 2 | 4 | " Punchbowl Creek to Saltpan Creek | 100 |
| 162 | 3 | 3 | 3 | 5 | " Auburn and Bankstown Road, <i>via</i> Auburn Park, to Main South Road | 75 |
| 163 | 1 | 1 | 1 | 1 | " Woodville Road to Guildford Railway Platform | 50 |
| | | | | 73 | Carried forward | £ 1,815 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|----------------------------------|--------|-------|-------|---------------------|--|--------------------------|
| | 1883. | 1884. | 1885. | | | |
| Southern Roads—continued. | | | | | | £ |
| | | | | 73 | Brought forward | 1,815 |
| 164 | 2 | 2 | 2 | 2 | Road from Woodville Road to Fairfield Railway Station ... | 50 |
| 165 | 2 | 2 | 2 | 4 | „ Fairfield Railway Station, <i>via</i> Smithfield, to Prospect Creek Municipality | 100 |
| 166 | 2 | 2 | 2 | 2 | „ Kenyon's Bridge, towards Cabramatta, to boundary of Liverpool Municipality | 50 |
| 167 | 3 | 3 | 3 | 10 | „ Liverpool to Penrith and Bringelly Road (part of Orphan School Road) | 150 |
| 168 | 3 | 3 | 3 | 8 | „ Liverpool, <i>via</i> Holdsworthy, to Illawarra Road ... | 120 |
| 169 | 4 | 4 | 4 | 5 | „ Liverpool to Old Cowpasture Road (Bernera Road) | 50 |
| 170 | 5 | 3 | 3 | 2 | „ Liverpool to Fairfield Railway Station | 30 |
| 171 | 3 | 3 | 3 | 6 | „ Carne's Hill to Junction of Bringelly Road | 90 |
| 172 | 4 | 4 | 4 | 18 | „ Main Southern Road, at Carne's Hill, <i>via</i> Green- dale towards, Penrith | 180 |
| 173 | 2 | 2 | 2 | 4 | „ Menangle to Main South Road, at foot of Razorback ... | 100 |
| 174 | 5 | 5 | 5 | 12 | „ Menangle to Picton | 84 |
| 175 | 4 | 4 | 4 | 4 | „ Main Southern Road, at Camden, to Road from Menangle to Main Southern Road | 40 |
| 176 | 3 | 3 | 3 | 3 | „ Main South Road, near Camden Bridge, to Glenlee ... | 45 |
| 177 | 5 | 5 | 5 | 3 | „ Main Southern Road to Campbelltown Road, near Denham Court | 21 |
| 178 | 3 | 3 | 3 | 2 | „ Great Southern Road, near Raby, to the Campbell- town Road at Minto | 30 |
| 179 | 3 | 3 | 3 | 10 | „ Main Southern Road to Cobbitty | 150 |
| 180 | 3 | 3 | 3 | 2 | „ Main Southern Road at Narellan, through Orielson, to Liverpool and Cobbitty Road | 30 |
| 181 | 4 | 4 | 4 | 3 | „ Narellan to Elderslie ("German's Road") | 30 |
| 182 | 5 | 5 | 5 | 8 | „ Cobbitty to Matavai, Westwood, and Vermont ... | 56 |
| 183 | 2 | 2 | 2 | 7 | „ Main South Road, near Camden, to Mulgoa Forest and Vanderville | 175 |
| 184 | 5 | 5 | 5 | 3 | „ Main South Road, at Cawdors, to Westbrook Bridge the Camden and Vanderville Road, at Lefevre's Corner, <i>via</i> the new Bridge across Mount Hunter Creek, to Mulgoa Forest | 250 |
| 185 | 2 | 2 | 2 | 10 | „ Oaks, <i>via</i> Mulgoa Forest, towards Penrith | 89 |
| 186 | 4 | 4 | 4 | 8 | „ Camden and Mulgoa Road to Glendarual and 'Brownlow Hill | 20 |
| 187 | 4 | 4 | 4 | 2 | „ Broughton's Pass, <i>via</i> Wilton and Stonequarry Creek, to the Railway | 90 |
| 188 | 4 | 4 | 4 | 9 | „ Appin and Mount Keira Road, <i>via</i> Douglas Park Railway Station, to Soapy Flat Creek | 225 |
| 189 | 2 | 2 | 2 | 9 | „ Appin to Broughton's Pass | 100 |
| 190 | 2 | 2 | 2 | 4 | „ Bottle Forest to Main South Coast Road, at West- macott's Pass | 270 |
| 191 | 4 | 4 | 3 | 18 | „ Wollongong and Kiama Road to Mount Keira, towards Appin | 170 |
| 192 | 4 | 4 | 4 | 17 | „ West Bargo, <i>via</i> the Pot-holes, to Main Southern Road ... | 50 |
| 193 | 6 | 6 | 6 | 10 | „ Old South Road, near P. H. Throsby's, <i>via</i> Pigott's, to Bowrall | 100 |
| 194 | 2 | 2 | 2 | 4 | „ Wells' Creek to Paddy's River | 49 |
| 195 | 5 | 5 | 5 | 7 | „ Berrima, <i>via</i> Soapy Flat, to Wanganderi | 70 |
| 196 | 5 | 5 | 5 | 10 | „ Throsby Park and Kiama Road, at M'Cullum's, to the Mittagong and Illawarra Road, at Simpson's 200 acres | 45 |
| 197 | 3 | 3 | 3 | 3 | „ Kiama Road, at Bunter's, to Cedar Mountain Road ... | 125 |
| 198 | 2 | 2 | 2 | 5 | „ Throsby Park and Robertson Road, at Cotton Company's Reserve, to Lake's and Wake- ford's farms | 50 |
| 199 | 4 | 4 | 4 | 5 | „ Kangaroo River Bridge, along north side of river, to Wallanderry | 120 |
| 200 | 3 | 3 | 3 | 8 | „ Nowra Bridge to Illaroo | 80 |
| 201 | 5 | 5 | 4 | 8 | „ Nowra to Burriar | 63 |
| 202 | 5 | 5 | 5 | 9 | „ Nowra, through Terrara, to Greenwell Point Road ... | 30 |
| 203 | 3 | 3 | 3 | 2 | „ Main South Coast Road to Jervis Bay | 70 |
| 204 | 4 | 4 | 4 | 7 | „ Kippielaw, <i>via</i> Gurrunda and Bialla, to Dalton on the Fish River | 300 |
| 205 | 4 | 4 | 4 | 30 | | |
| | | | | 376 | Carried forward | £ 5,774 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|-----|--------|-------|-------|------------------|--|-----------------------|
| | 1883. | 1884. | 1885. | | | |
| | | | | | Southern Roads—continued. | £ |
| | | | | 376 | Brought forward | 5,774 |
| 206 | 3 | 3 | 3 | 10 | Road from Kippielaw Ford, <i>via</i> Parkesburne, to Bredalbane Railway Station | 150 |
| 207 | 3 | 3 | 3 | 15 | „ Collector and Gundaroo, Road, <i>via</i> marked tree line, to Main Road Gunning to Queanbeyan | 225 |
| 208 | 4 | 4 | 4 | 36 | „ Milton and Bateman's Bay Road, near Woodburn, <i>via</i> Brooman's Ford, to Nelligan | 360 |
| 209 | 4 | 5 | 5 | 10 | „ Foxlow to Molonglo | 70 |
| 210 | 5 | 5 | 5 | 10 | „ Araluen and Moruya Road, <i>via</i> Kiora, to Moruya | 70 |
| 211 | 4 | 4 | 5 | 10 | „ Araluen, <i>via</i> Bettowynd, to Back Creek | 70 |
| 212 | 3 | ... | 3 | 12 | „ Trunkatabella Bridge to Reedy Creek Cutting | 180 |
| 213 | 3 | 3 | 3 | 6 | „ Moruya to the Heads | 90 |
| 214 | 5 | 5 | 5 | 8 | „ Wagonga to Eurobodalla | 56 |
| 215 | 5 | 5 | 5 | 8 | „ Eurobodalla to Nerrigundah | 56 |
| 216 | 2 | 2 | 2 | 4 | „ Panbula to Merimbula | 100 |
| 217 | ... | ... | 3 | 10 | „ Corrowong to Delegate | 150 |
| 218 | 5 | ... | 5 | 6 | „ Towomba to Perico | 42 |
| 219 | 4 | 4 | 4 | 13 | „ Bombala, <i>via</i> Maharatta, to Mila | 130 |
| 220 | 4 | 4 | 4 | 15 | „ Ginindera to Gundaroo | 150 |
| 221 | 5 | 5 | 5 | 23 | „ Queanbeyan, <i>via</i> Lanyon Ford, to Naas | 161 |
| | | | | 572 | Total miles. Total | £ 7,834 |

| SUMMARY OF PROPOSED DISTRIBUTION:— | | | | £ |
|------------------------------------|-----|-----|--------------|---------------|
| Northern Roads | ... | ... | 731 miles | 10,560 |
| Western Roads | ... | ... | 512 „ | 6,606 |
| Southern Roads | ... | ... | 572 „ | 7,834 |
| Total | ... | ... | <u>1,815</u> | <u>25,000</u> |

NOTE.—The amount per mile proposed to be expended on each class of Roads is as under:—

| | | | | | | | |
|-----------|-----|-----|--------------|-----------|-----|-----|--------------|
| 1st Class | ... | ... | £50 per mile | 4th Class | ... | ... | £10 per mile |
| 2nd Class | ... | ... | 25 „ | 5th Class | ... | ... | 7 „ |
| 3rd Class | ... | ... | 15 „ | 6th Class | ... | ... | 5 „ |

Note:—All votes for roads within Municipal limits, have been excluded from this Schedule. No sum herein contained is, therefore, to be expended within the boundaries of any Municipality.

1884.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

SUBORDINATE ROADS.

(UNDER OFFICERS OF ROADS DEPARTMENT—SHOWING PROPOSED DISTRIBUTION OF VOTE ON ESTIMATES.)

Ordered by the Legislative Assembly to be printed, 25 November, 1884.

CLASSIFICATION AND PROPOSED DISTRIBUTION FOR 1885.

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|------------------------|--------|-------|-------|------------------|--|-----------------------|
| | 1883. | 1884. | 1885. | | | |
| Northern Roads. | | | | | | |
| | | | | | | £ |
| 1 | 1 | 1 | 1 | 3 | Road from St. Leonards, <i>via</i> Balgowlah, to Manly ... | 150 |
| 2 | 1 | 1 | 1 | 7 | " Military Road, St. Leonards ... | 350 |
| 3 | 1 | 1 | 1 | 15 | " Manly Cove to Pittwater ... | 750 |
| 4 | 3 | 3 | 3 | 3 | " Manly and Pittwater Road to M'Garr's Creek ... | 45 |
| 5 | 1 | 1 | 1 | 4 | " Pittwater to Barrenjuey ... | 200 |
| 6 | 3 | 3 | 2 | 3 | " Balgowlah to Pittwater Road ... | 75 |
| 7 | 2 | 2 | 2 | 14 | " Lane Cove <i>via</i> Stony Creek to Pittwater ... | 350 |
| 8 | 3 | 3 | 3 | 2 | " Lane Cove to Cowan Creek, at Bobbin Head ... | 30 |
| 9 | 2 | 2 | 2 | 5 | " Pearce's Corner to Pennant Hills... .. | 125 |
| 10 | ... | ... | 2 | 17 | " Pearce's Corner to Peat's Ferry ... | 425 |
| 11 | ... | 4 | 4 | 6 | " Peat's Ferry Road to Berowra Creek ... | 60 |
| 12 | 3 | 3 | 3 | 12 | " Wiseman's Ferry to St. Albans ... | 180 |
| 13 | 4 | 4 | 4 | 7 | " Pemberton's to mouth of Popran Creek ... | 70 |
| 14 | 2 | 2 | 2 | 7 | " Kincumber to Lloyd's Wharf ... | 175 |
| 15 | 1 | 1 | 1 | 18 | " Wallsend to Gosford Road, at Cooranbong ... | 900 |
| 16 | 1 | 1 | 1 | 8 | " Wallsend to Lake Macquarie ... | 400 |
| 17 | 2 | 2 | 1 | 15 | " Mulbring to Millfield (Quarrybylong Road) ... | 750 |
| 18 | 2 | 2 | 2 | 8 | " Gosford to Kincumber ... | 200 |
| 19 | 3 | 3 | 3 | 5 | " Gosford and Maitland Road to Government Reserve at head of Ourimbah Creek ... | 75 |
| 20 | ... | 4 | 4 | 20 | " Gosford to the Blood Tree ... | 200 |
| 21 | 2 | 2 | 2 | 15 | " Erina Creek to Tuggerah Beach Lake ... | 375 |
| 22 | 3 | 3 | 3 | 9 | " Bumble Hill to Upper Wyong Creek ... | 135 |
| 23 | 2 | 2 | 2 | 11 | " Wollombi Road to Congewai ... | 275 |
| 24 | ... | 3 | 1 | 4 | " Wollombi Road to Ellalong ... | 200 |
| 25 | 2 | 2 | 2 | 29 | " Newport to Laguna ... | 725 |
| 26 | 2 | 2 | 2 | 8 | " Mandolong to Cooranbong Wharf ... | 200 |
| 27 | 2 | 2 | 2 | 27 | " The Broken-back Gap to Wyong Creek ... | 675 |
| 28 | 1 | 1 | 1 | 13 | " Wyong Creek to Gosford ... | 650 |
| 29 | 3 | 3 | 3 | 8 | " Murray's to North Road at 10-mile post ... | 120 |
| 30 | 4 | 4 | 4 | 6 | " Blue-Gum Flat to Chittaway ... | 60 |
| 31 | 3 | 3 | 3 | 26 | " Wyong to Mangrove Creek, at Pemberton's ... | 390 |
| 32 | 4 | 4 | 4 | 25 | " Bullock Wharf to upper part of Mangrove Creek... .. | 250 |
| 33 | 5 | 5 | 5 | 43 | " Warkworth Road to Putty ... | 301 |
| 34 | 4 | 4 | 4 | 10 | " Wollombi to Yango ... | 100 |
| | | | | 313 | Carried forward ... | £ 9,966 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|----------------------------------|--------|-------|-------|------------------|---|-----------------------|
| | 1883. | 1884. | 1885. |  |  |  | 313 | £ |
| Northern Roads—continued. | | | | | | |
| | | | | | Brought forward | 9,966 |
| 35 | 2 | 2 | 2 | 50 | Road from Wollombi to Wiseman's Ferry | 1,200 |
| 36 | 4 | 4 | 4 | 3 | " Wollombi up Narone Creek | 30 |
| 37 | 2 | 2 | 2 | 15 | " Millfield to Wollombi | 375 |
| 38 | 2 | 2 | 2 | 22 | " St. Albans to Mount Manning | 550 |
| 39 | 4 | 4 | 4 | 15 | " St. Albans, up the M'Donald River, and Melon Creek | 150 |
| 40 | 1 | 1 | 1 | 3 | " Plattsburg to Minmi | 150 |
| 41 | 3 | 3 | 3 | 13 | " Waratah to Maitland | 195 |
| 42 | 2 | 2 | 2 | 12 | " Adamstown to Lake Macquarie Heads | 300 |
| 43 | 3 | 3 | 2 | 5 | " Lambton to Charlestown | 125 |
| 44 | ... | 2 | 2 | 4 | " Wallsend to Sandgate (Cemetery) | 100 |
| 45 | 2 | 2 | 2 | 8 | " Minmi to Woodford | 200 |
| 46 | 3 | 3 | 2 | 2 | " Lochinvar to Railway Station | 50 |
| 47 | 2 | 2 | 1 | 6 | " Raymond Terrace to Hexham | 300 |
| 48 | 3 | 3 | 2 | 8 | " Hexham to Fullerton Cove | 200 |
| 49 | 1 | 1 | 1 | 18 | " East Maitland to Broken-back Gap | 900 |
| 50 | 2 | 2 | 2 | 17 | " Raymond Terrace to Stockton | 425 |
| 51 | 1 | 1 | 1 | 31 | " Raymond Terrace to Stroud | 1,550 |
| 52 | 3 | 2 | 2 | 10 | " Raymond Terrace, by east side of Williams River, to Seaham | 250 |
| 53 | 5 | 5 | 5 | 3 | " Raymond Terrace and Stroud Road to Raymond Terrace and Seaham Road (Misskell's Road) | 21 |
| 54 | 3 | 3 | 3 | 10 | " Raymond Terrace to Morpeth | 150 |
| 55 | 2 | 2 | 1 | 2 | " Alwick to Martin's Wharf | 100 |
| 56 | 2 | 2 | 2 | 6 | " West Maitland to Dunmore | 150 |
| 57 | 2 | 2 | 2 | 16 | " Dunmore to Clarencetown | 400 |
| 58 | 2 | 2 | 2 | 6 | " Dunmore to Paterson Punt | 150 |
| 59 | 1 | 1 | 1 | 16 | " Clarencetown to Dungog | 800 |
| 60 | 1 | 1 | 1 | 15 | " Gostwycke to Newpark (Wallarobba Road) | 750 |
| 61 | 3 | 3 | 2 | 10 | " Clarencetown to Limeburner's Creek | 250 |
| 62 | 3 | 3 | 2 | 2 | " Harper's Hill to Allandale Railway Station | 50 |
| 63 | 4 | 4 | 4 | 7 | " Deep Creek to Allandale Railway Station | 70 |
| 64 | 4 | 4 | 4 | 25 | " Singleton, <i>via</i> Goorangoola, to Dry Creek | 250 |
| 65 | 4 | 4 | 3 | 31 | " Singleton, <i>via</i> Newbridge, to Coopers Flat | 465 |
| 66 | 3 | 3 | 3 | 16 | " North Road near Munnimba, <i>via</i> Warkworth, to Jerry's Plains Road | 240 |
| 67 | 5 | 5 | 4 | 12 | " Doyle's Creek to Jerry's Plains | 120 |
| 68 | 3 | 3 | 3 | 12 | " Jerry's Plains to Denman | 180 |
| 69 | 2 | 2 | 2 | 10 | " Denman to junction of Muswellbrook and Mudgee Road | 250 |
| 70 | 1 | 1 | 2 | 25 | " Muswellbrook and Mudgee Road to Merriwa | 625 |
| 71 | 1 | 1 | 2 | 28 | " Merriwa to Cassilis | 700 |
| 72 | 1 | 1 | 2 | 22 | " Muswellbrook Iron Bridge to Denman and Cassilis Road | 550 |
| 73 | ... | ... | 4 | 12 | " Main North Road to Lincoln's Creek (Muscle Creek Road) | 120 |
| 74 | 3 | 3 | 3 | 94 | " Denman and Cassilis Road to Mudgee | 1,410 |
| 75 | 4 | 4 | 4 | 21 | " Aberdeen up Rouchel Brook to Scrumlow | 210 |
| 76 | 2 | 2 | 2 | 15 | " Muswellbrook to Denman | 375 |
| 77 | 4 | 4 | 4 | 34 | " Scone to Denison Diggings, at Moonan | 340 |
| 78 | 4 | 4 | 5 | 39 | " Scone to Merriwa | 273 |
| 79 | 5 | 5 | 5 | 10 | " Scone and Merriwa Road at Kingdon Ponds to Middle Creek | 70 |
| 80 | 4 | 4 | 4 | 17 | " Blandford to Isis River | 170 |
| 81 | 5 | 5 | 5 | 6 | " Quirindi up Jacob and Joseph Creek | 42 |
| 82 | 6 | 6 | 6 | 65 | " Willow-tree to Gunnedah | 325 |
| 83 | 2 | 2 | 2 | 10 | " Wallabadah to Quirindi | 250 |
| 84 | 5 | 5 | 5 | 33 | " Wallabadah to Nundle and Swamp Creek | 231 |
| 85 | 2 | 3 | 3 | 3 | " Mount Pleasant to Murphy's Gap | 45 |
| 86 | 6 | 6 | 6 | 22 | " Currabubula to Tamworth | 110 |
| 87 | 6 | 6 | 6 | 5 | " Werris Creek Gap to Railway Station | 25 |
| 88 | 2 | 2 | 2 | 38 | " Tamworth to Bowling Alley Point and Nundle Bowling Alley Point, <i>via</i> Cadell's Gap, to Dungowan | 950 |
| 89 | 2 | 2 | 2 | 4 | " Dungowan, <i>via</i> Cadell's, to head of Ogumbil Creek | 100 |
| 90 | 4 | 4 | 4 | 16 | " Dungowan, <i>via</i> Cadell's, to head of Ogumbil Creek | 160 |
| 91 | 5 | 5 | 5 | 5 | " Dungowan Creek, on North Bank, to Cadell's Station | 35 |
| 92 | 6 | 6 | 6 | 7 | " Tamworth to the Forest | 35 |
| 93 | 6 | 6 | 6 | 12 | " Tamworth, <i>via</i> Moore Creek, to Attunga | 60 |
| 94 | 2 | 2 | 2 | 48 | " Tamworth to Gunnedah | 1,200 |
| 1,345 | | | | | Carried forward | £ 29,823 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|-----|--------|-------|-------|------------------|---|-----------------------|
| | 1883. | 1884. | 1885. |  |  |  | 1,345 | £ |
| | | | | | Northern Roads—continued. | |
| | | | | | Brought forward | 29,823 |
| 95 | 1 | 1 | 1 | 26 | Road from Tamworth to Manilla | 1,300 |
| 96 | 1 | 1 | 1 | 70 | Manilla, <i>via</i> Barraba, to Bingera | 3,500 |
| 97 | ... | ... | 5 | 30 | Barraba to Bundarra | 210 |
| 98 | 6 | 6 | 6 | 47 | Nowendoc to Walcha | 235 |
| 99 | 3 | 4 | 5 | 25 | Coolah to Cassilis | 175 |
| 100 | 2 | 2 | 3 | 65 | Gunnedah to Coonabarabran | 975 |
| 101 | 3 | 3 | 3 | 55 | Malally to Black Stump | 825 |
| 102 | 4 | 4 | 3 | 75 | Spring Creek to Birriwa | 1,125 |
| 103 | 4 | 4 | 3 | 35 | Coonabarabran to Wingidgen | 525 |
| 104 | 4 | 4 | 3 | 8 | Coonabarabran to Ulinambri | 120 |
| 105 | 3 | 3 | 3 | 43 | Coonabarabran to Meregoen | 645 |
| 106 | 2 | 2 | 2 | 25 | Gunnedah towards Barraba | 625 |
| 107 | 2 | 2 | 3 | 61 | Gunnedah to Narrabri | 915 |
| 108 | 3 | 3 | 3 | 132 | Narrabri to Walgett... | 1,980 |
| 109 | 3 | 3 | 2 | 70 | Narrabri to Bingera... | 1,750 |
| 110 | 3 | 3 | 4 | 150 | Narrabri, <i>via</i> Moree, to Mungindi | 1,500 |
| 111 | 5 | 5 | 5 | 50 | Rocky Creek to Moree | 350 |
| 112 | 3 | 3 | 3 | 15 | Old Gunnedah and Narrabri Road to Eulali Creek | 225 |
| 113 | 3 | 3 | 4 | 30 | Cobbedah to Rocky Creek | 300 |
| 114 | 4 | 4 | 4 | 71 | Walgett to Coonamble, <i>via</i> Nugil | 710 |
| 115 | 4 | 4 | 4 | 45 | Bingera to Moree | 450 |
| 116 | 4 | 4 | 4 | 51 | Warialda to Moree | 510 |
| 117 | ... | ... | 4 | 18 | Paramallowa, <i>via</i> Bulleroo, to Moree | 180 |
| 118 | 4 | 4 | 4 | 57 | Warialda to Yetman | 570 |
| 119 | 5 | 5 | 5 | 50 | Bingera to Bundarra, <i>via</i> Keera | 350 |
| 120 | 2 | 2 | 2 | 28 | Bingera to Warialda | 700 |
| 121 | 3 | 3 | 3 | 32 | Bingera to Inverell | 480 |
| 122 | 5 | 5 | 4 | 30 | Warialda to Gunyerwarialda | 300 |
| 123 | 2 | 2 | 2 | 40 | Warialda to Inverell... | 1,000 |
| 124 | 2 | 2 | 3 | 85 | North Road, at Uralla, <i>via</i> Bundarra, to Inverell | 1,275 |
| 125 | 5 | 5 | 5 | 25 | Main North Road at Uralla to Walcha | 175 |
| 126 | 5 | 5 | 5 | 14 | Uralla to Ballala | 98 |
| 127 | 1 | 1 | 1 | 15 | Walcha to Great Northern Railway | 750 |
| 128 | 1 | 2 | 2 | 27 | Armidale to Chandler River | 675 |
| 129 | 2 | 3 | 4 | 20 | Armidale to Yarrowick | 200 |
| 130 | 5 | 5 | 5 | 25 | Armidale to Rockvale | 175 |
| 131 | 5 | 6 | 6 | 45 | Armidale <i>via</i> Mihi Creek to Walcha | 225 |
| 132 | 6 | 6 | 6 | 15 | Armidale to Gostwyck | 75 |
| 133 | 2 | 2 | 2 | 58 | Guyra Railway Station, <i>via</i> Eastern Plains and Wandsworth, to Tingha and Inverell | 1,450 |
| 134 | 4 | 4 | 4 | 17 | Walcha to Glen Morrison | 170 |
| 135 | 2 | 3 | 3 | 120 | Walcha to Port Macquarie | 1,800 |
| 136 | 2 | 2 | 2 | 14 | Glen Innes to Wellingrove | 350 |
| 137 | 2 | 2 | 2 | 16 | Glen Innes to Vegetable Creek | 500 |
| 138 | 2 | 2 | 2 | 11 | Glen Innes to Red Range and Kingsgate... | 300 |
| 139 | 2 | 2 | 2 | 11 | Yarrowford to Ranger's Valley | 275 |
| 140 | 6 | 6 | 6 | 20 | Inverell to Reedy Creek | 100 |
| 141 | ... | ... | 2 | 25 | Inverell to Vegetable Creek | 625 |
| 142 | ... | ... | 3 | 28 | Inverell, <i>via</i> Newstead and Paradise, to Kangaroo Camp | 420 |
| 143 | ... | ... | 4 | 20 | Inverell, <i>via</i> Dinton Vale to Bukkulla | 200 |
| 144 | ... | ... | 4 | 30 | Inverell to King's Plains | 300 |
| 145 | 4 | 4 | 4 | 120 | Inverell to Gramen, Yetman, and Goondiwindi | 1,200 |
| 146 | 4 | 4 | 4 | 60 | Inverell to Queensland Border, <i>via</i> Ashford | 600 |
| 147 | 6 | 6 | 6 | 24 | Barney Downs to Poverty Point | 120 |
| 148 | 1 | 1 | 1 | 120 | Lawrence to Tenterfield | 6,000 |
| 149 | 1 | 1 | 2 | 30 | Newton Boyd Road to Vegetable Creek | 750 |
| 150 | ... | ... | 2 | 14 | Tent Hill to Deepwater | 350 |
| 151 | 3 | 3 | 3 | 7 | Tenterfield and Grafton Road to Boorook | 105 |
| 152 | 5 | 5 | 2 | 15 | Tenterfield, <i>via</i> Glen Lyon, to Queensland Border | 325 |
| 153 | 6 | 6 | 4 | 78 | Tenterfield to Bonshaw | 780 |
| 154 | 2 | 2 | 2 | 15 | Vegetable Creek to Table-land | 375 |
| 155 | 1 | 1 | 1 | 73 | Stroud, <i>via</i> Gloucester, to Tinonee | 3,650 |
| 156 | 5 | 5 | 2 | 17 | Tinonee and Gloucester Road to Clarkin's Crossing, Wollumba River | 425 |
| 157 | 4 | 4 | 3 | 9 | Burril Creek to Wingham and Black Flat Road | 135 |
| 158 | 3 | 3 | 3 | 12 | Bullock Wharf, Wollumba River, to Larry's Flat | 180 |
| 159 | 2 | 2 | 2 | 12 | Gloucester to Copeland | 300 |
| | | | | | Carried forward | £ 77,786 |
| | | | | 4,026 | | |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|----------------------------------|--------|-------|-------|------------------|---|-----------------------|
| | 1883. | 1884. | 1885. | | | |
| Northern Roads—continued. | | | | | | |
| | 1883. | 1884. | 1885. | 4,026 | Brought forward ... | 77,786 |
| 160 | 6 | 6 | 6 | 20 | Road from Gloucester to Cobark ... | 100 |
| 161 | 4 | 6 | 6 | 50 | " Gloucester to Nowendoc ... | 250 |
| 162 | 1 | 1 | 1 | 18 | " Dungog to Stroud and Gloucester Road, at Weismantel's (Monkerai Road) ... | 900 |
| 163 | 2 | 2 | 1 | 17 | " Dungog to Underbank ... | 850 |
| 164 | 2 | 2 | 2 | 3 | " Dungog and Underbank Road to Chichester River ... | 75 |
| 165 | 3 | 3 | 3 | 7 | " Bandon Grove to Little River ... | 105 |
| 166 | 2 | 2 | 4 | 9 | " Borham's to the Little River ... | 90 |
| 167 | 2 | 2 | 2 | 6 | " Dungog and Gloucester Road to Fosterton ... | 150 |
| 168 | 3 | 3 | 3 | 16 | " Dungog and Monkerai Road to Stroud ... | 240 |
| 169 | 2 | 2 | 2 | 18 | " Bulladelah to the Stroud and Raymond Terrace Road ... | 450 |
| 170 | 3 | 3 | 3 | 45 | " Bulladelah, <i>via</i> Bungwall, to Forster ... | 675 |
| 171 | 2 | 2 | 2 | 15 | " Upper Myall to Bulladelah... ... | 375 |
| 172 | 4 | 4 | 4 | 25 | " Upper Myall to Larry's Flat ... | 250 |
| 173 | 3 | 3 | 3 | 10 | " Flyer's Creek to Dorney's, Upper Myall, ... | 150 |
| 174 | 4 | 4 | 4 | 7 | " Old Bulladelah Inn to Raymond Terrace Road ... | 70 |
| 175 | 4 | 4 | 4 | 20 | " Ennis Punt to Glen Esk Upper Plains ... | 200 |
| 176 | 5 | 5 | 5 | 4 | " Rolland's Plains to Ballingara Wharf ... | 28 |
| 177 | 4 | 4 | 4 | 16 | " Wilson River, <i>via</i> Bar Scrub, to Walcha Road ... | 160 |
| 178 | 5 | 5 | 4 | 18 | " Upper Camden Haven to Laurieton ... | 180 |
| 179 | 3 | 3 | 3 | 16 | " Cundle, <i>via</i> Lansdowne, to Jones's Island Road ... | 240 |
| 180 | 1 | 1 | 1 | 58 | " Tinonee to Port Macquarie ... | 2,900 |
| 181 | 5 | 5 | 5 | 14 | " Tinonee to Farquhar's Inlet ... | 98 |
| 182 | 3 | 3 | 3 | 6 | " Tinonee to Wingham Ferry ... | 90 |
| 183 | 2 | 2 | 2 | 8 | " Tinonee and Cundle Road to Wingham ... | 200 |
| 184 | 5 | 5 | 5 | 10 | " Wingham up Cedar Party Creek (Cedar Party Creek Road) ... | 70 |
| 185 | 4 | 4 | 4 | 14 | " Wingham, <i>via</i> Dingo Creek, to Kelven Grove ... | 140 |
| 186 | ... | ... | 4 | 11 | " Wingham and Wherrol Flat Road, up Dingo Creek, to Bobbin Flat ... | 110 |
| 187 | 3 | 3 | 2 | 57 | " Wingham on left bank of Manning River <i>via</i> Black Flat to Nowendoc ... | 1,425 |
| 188 | 3 | 3 | 3 | 3 | " Wingham and Nowendoc Road to Karaak Flat ... | 45 |
| 189 | 4 | 4 | 2 | 9 | Road through Oxley Island ... | 225 |
| 190 | 5 | 5 | 3 | 5 | " Dumaresq Island ... | 75 |
| 191 | 2 | 2 | 2 | 35 | Road from Port Macquarie to Kempsey ... | 875 |
| 192 | 1 | 1 | 1 | 85 | " Kempsey to Armidale and Grafton Road ... | 4,250 |
| 193 | 2 | 2 | 2 | 76 | " Kempsey to Fernmount ... | 1,900 |
| 194 | 2 | 2 | 2 | 30 | " Kempsey to Trial Bay ... | 750 |
| 195 | 4 | 4 | 4 | 20 | " East Kempsey Ferry to Boggy Creek ... | 200 |
| 196 | 4 | 4 | 4 | 20 | " East Kempsey, <i>via</i> Dungay Bridge, to Sherwood ... | 200 |
| 197 | 4 | 4 | 4 | 20 | " Green Hills to Nelson's, Warneton ... | 200 |
| 198 | 4 | 4 | 4 | 20 | " Rolland's Plains to Yarrowell Falls, Macleay River ... | 200 |
| 199 | 2 | 2 | 2 | 20 | " Oakes Plains, <i>via</i> Klybucca, to Macleay River Heads ... | 500 |
| 200 | 2 | 2 | 2 | 10 | " Ferry to McGuire's, along east bank, Belmore River ... | 250 |
| 201 | 4 | 4 | 3 | 7 | " Kinchela Creek to Spencer's Creek ... | 105 |
| 202 | 2 | 2 | 2 | 45 | " Fernmount to Armidale Road ... | 1,125 |
| 203 | 2 | 2 | 2 | 23 | " Boat Harbour, <i>via</i> Spickett's Creek, to Nambucca River ... | 575 |
| 204 | 4 | 4 | 5 | 20 | " Bowra to Broker's ... | 140 |
| 205 | 1 | 1 | 2 | 10 | " Bowra to Congarini ... | 250 |
| 206 | 3 | 3 | 3 | 18 | " Bowra to Lumly ... | 270 |
| 207 | 2 | 2 | 2 | 22 | " Missibotti to Nambuccra Heads ... | 550 |
| 208 | 2 | 2 | 2 | 107 | " Chandler River to Grafton... ... | 2,675 |
| 209 | 3 | 3 | 3 | 9 | " Newton Boyd Road to Nymboida ... | 135 |
| 210 | 4 | 4 | 4 | 30 | " Coutt's Crossing, <i>via</i> Kangaroo Creek, to Nymboida ... | 300 |
| 211 | 2 | 2 | 2 | 80 | " Fernmount to Grafton ... | 2,000 |
| 212 | ... | ... | 4 | 30 | " South Grafton to Corindi ... | 300 |
| 213 | 3 | 3 | 3 | 55 | " Grafton to Solferino... ... | 825 |
| 214 | 4 | 4 | 4 | 24 | " Grafton to Cross Roads towards Casino ... | 240 |
| 215 | 2 | 2 | 2 | 22 | " North Grafton to Broadwater ... | 550 |
| 216 | 3 | 3 | 3 | 8 | " Bluff Point to South Arm Ferry, Clarence River ... | 120 |
| 217 | 1 | 1 | 1 | 25 | " Ballina to Cape Byron ... | 1,250 |
| 218 | 2 | 2 | 2 | 20 | " Bexhill to Tintenbar ... | 500 |
| 219 | 1 | 1 | 1 | 12 | " Bexhill to Williams's ... | 600 |
| 220 | 1 | 1 | 1 | 78 | " Cross Roads to Ballina, <i>via</i> Casino and Lismore ... | 3,900 |
| 221 | 5 | 5 | 4 | 50 | " Casino to Mount Lindsay ... | 500 |
| 222 | 2 | 2 | 2 | 12 | " Cowalong to Staine's Mill ... | 300 |
| | | | | 5,604 | Carried forward ... | £ 115,237 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|----------------------------------|--------|-------|-------|------------------|---|-----------------------|
| | 1883. | 1884. | 1885. | | | |
| Northern Roads—continued. | | | | | | |
| | | | | 5,604 | Brought forward ... | £115,237 |
| 223 | 3 | 3 | 3 | 38 | Road from Casino, <i>via</i> Wyrallah, to Lismore and Ballina Road, at Chillcot's Wharf ... | 570 |
| 224 | 3 | 4 | 3 | 40 | " Casino to Tabulam ... | 600 |
| 225 | 3 | 3 | 2 | 27 | " Casino to Woodburn, on right bank ... | 675 |
| 226 | 2 | 2 | 2 | 3 | " East Wardell to the Beach ... | 75 |
| 227 | 1 | 1 | 1 | 60 | " Lismore to Queensland Border ... | 3,000 |
| 228 | 1 | 1 | 1 | 24 | " Lismore to Nimbin ... | 1,200 |
| 229 | 2 | 2 | 2 | 12 | " Lismore to Numulgi ... | 300 |
| 230 | 1 | 1 | 1 | 33 | " Lismore to Brunswick ... | 1,650 |
| 231 | 1 | 1 | 1 | 20 | " Lismore to Woodburn ... | 1,000 |
| 232 | 3 | 3 | 3 | 12 | " Lismore and Ballina Road to Ballina and Cape Byron Road ... | 180 |
| 233 | 2 | 2 | 2 | 15 | " Tintenbar, <i>via</i> Teven, to Alston Ville ... | 225 |
| 234 | 2 | 2 | 1 | 23 | " Woodburn to Selman's ... | 1,150 |
| 235 | 1 | 1 | 1 | 14 | " Wardell, <i>via</i> Tuckombil, to the Lismore and Ballina Road ... | 700 |
| 236 | 2 | 2 | 1 | 14 | " Woodburn to Wardell ... | 700 |
| 237 | 1 | 1 | 1 | 22 | " Byangum, <i>via</i> Tweed Junction, to Border ... | 1,100 |
| 238 | 3 | 3 | 3 | 28 | " Tweed River to Brunswick River ... | 420 |
| 239 | 2 | 2 | 2 | 10 | " Cudgen, <i>via</i> Guilfoyle's C.P. and M'Leod's Ck., to Tweed Junction ... | 250 |
| 240 | 2 | 2 | 2 | 6 | " Murwillumbah to Tumbulgum ... | 150 |
| 241 | 2 | 2 | 2 | 9 | " Byangum and Boarder Road, <i>via</i> Sebastopol, to Tweed River Heads ... | 225 |
| | | | | 6,014 | Total ... | £129,407 |
| Western Roads. | | | | | | |
| 242 | 2 | 2 | 2 | 3 | " Blacktown Road to Seven Hills Railway Station ... | 75 |
| 243 | 2 | 2 | 2 | 8 | " Western Road, St. Mary's, to Orphan School Road ... | 200 |
| 244 | 2 | 2 | 2 | 8 | " Western Road, St. Mary's, to Blacktown Road ... | 200 |
| 245 | ... | ... | 1 | 3 | " Rouse Hill to Schofield's Platform ... | 150 |
| 246 | 2 | 2 | 2 | 26 | " Richmond Bridge, to Mount Tomah ... | 650 |
| 247 | 1 | 1 | 1 | 6 | " Blacktown Road, <i>via</i> Riverstone, to Box Hill ... | 300 |
| 248 | ... | 4 | 4 | 16 | " Windsor to Penrith ... | 160 |
| 249 | 4 | 4 | 4 | 14 | " Yarramundi, <i>via</i> Aston's Falls and Enfield, to Wilberforce ... | 140 |
| 250 | 1 | 1 | 1 | 10 | " Windsor, <i>via</i> Wilberforce, to Sackville ... | 500 |
| 251 | 4 | 4 | 4 | 10 | " Sackville to East Portland ... | 100 |
| 252 | 4 | 4 | 4 | 10 | " Churchill's Wharf to West Portland ... | 100 |
| 253 | 5 | 5 | 5 | 14 | " West Portland Road, <i>via</i> Moran's Rock, to Bulga Road, Upper Colo ... | 93 |
| 254 | 5 | 5 | 5 | 42 | " Upper Colo to Putty ... | 294 |
| 255 | 1 | 1 | 1 | 13 | " Bell's Line to Colo River (Comleroy Road) ... | 650 |
| 256 | 4 | 4 | 4 | 26 | " Mount Manning to Wiseman's Ferry ... | 260 |
| 257 | 2 | 3 | 3 | 9 | " Springwood to The Hawkesbury ... | 135 |
| 258 | 2 | 3 | 3 | 24 | " Bowenfels to Mount Tomah ... | 360 |
| 259 | 3 | 3 | 3 | 10 | " Little Hartley to Gambenang ... | 150 |
| 260 | 1 | 1 | 1 | 6 | " Hartley to Lithgow ... | 300 |
| 261 | 3 | 4 | 5 | 30 | " Hartley to Oberon ... | 210 |
| 262 | 4 | 4 | 5 | 13 | " Little River to 50-mile Tree on Oberon and Swatchfield Road ... | 91 |
| 263 | 4 | 4 | 3 | 18 | " Oberon to Jenolan ... | 270 |
| 264 | 2 | 2 | 1 | 6 | " Mount Victoria to Mount Wilson Platform ... | 300 |
| 265 | 5 | 5 | 4 | 2 | " Blackheath to Govett's Leap ... | 20 |
| 266 | 2 | 2 | 2 | 10 | " Bowenfels to Marsden's Swamp ... | 250 |
| 267 | 2 | 2 | 1 | 6 | " Little Hartley to Hartley Vale Platform ... | 300 |
| 268 | 3 | 3 | 3 | 10 | " Sidmouth Valley to Tarana Road ... | 150 |
| 269 | 5 | 5 | 5 | 6 | " Ginkin to Oberon and Jenolan Road ... | 42 |
| 270 | 4 | 4 | 3 | 16 | " Four-mile Tree to Rockley ... | 240 |
| 271 | 1 | 1 | 2 | 13 | " Mutton's Falls Public School to Oberon ... | 325 |
| 272 | 1 | 1 | 2 | 17 | " O'Connell to Oberon ... | 425 |
| 273 | 4 | 4 | 3 | 24 | " O'Connell to Swatchfield Road ... | 360 |
| 274 | 3 | 3 | 3 | 20 | " Oberon to Swatchfield ... | 300 |
| 275 | 2 | 3 | 4 | 12 | " Bowenfels to Wallerawang ... | 120 |
| 276 | 2 | 3 | 3 | 14 | " Middle River, to Meadow Flat ... | 210 |
| 277 | 3 | 3 | 3 | 9 | " Lidsdale to Wolgan ... | 135 |
| | | | | 484 | Carried forward ... | £ 8,570 |

| No. | Class. | | | | Length in Miles. | | Proposed Expenditure. |
|-----|--------|-------|-------|-------|---|---------------------------------|-----------------------|
| | 1883. | 1884. | 1885. | 484 | | | |
| | | | | | | Western Roads—continued. | |
| | | | | | | Brought forward | 8,570 |
| 278 | 2 | 2 | 3 | 36 | Road from Sofala to Rylstone | 540 | |
| 279 | 1 | 1 | 1 | 38 | " Cudgegong to Hill End | 1,900 | |
| 280 | 2 | 2 | 2 | 52 | " Cudgegong to Cassilis | 1,300 | |
| 281 | 2 | 2 | 3 | 2 | " Cudgegong, <i>via</i> Menah, to Gulgong | 30 | |
| 282 | 4 | 4 | 5 | 26 | " Cudgegong to Rylstone | 182 | |
| 283 | 4 | 4 | 4 | 8 | " Cudgegong to Home Rule | 80 | |
| 284 | 1 | 1 | 1 | 8 | " Mudgee, <i>via</i> Cullenbone, to Gulgong | 400 | |
| 285 | 4 | 4 | 4 | 14 | " Windeyer, <i>via</i> Campbell's Creek, to Raynor's | 140 | |
| 286 | 3 | 2 | 2 | 23 | " Gulgong to Birriwa | 575 | |
| 287 | 1 | 1 | 2 | 19 | " Monkey Hill to Hill End | 475 | |
| 288 | 3 | 3 | 4 | 44 | " Guntawang to Wellington | 440 | |
| 289 | 4 | 4 | 4 | 29 | " Tabrabucca, <i>via</i> Crudine, to Monkey Hill... .. | 290 | |
| 290 | 1 | 1 | 1 | 11 | " Bathurst to O'Connell's Plains | 550 | |
| 291 | 1 | 1 | 1 | 2 | " Bathurst and O'Connell's Plains Road, at Cox's Hill, to Cooper's Bridge... .. | 100 | |
| 292 | 5 | 5 | 5 | 4 | " Kelso to Kelloshiel | 28 | |
| 293 | 2 | 2 | 2 | 5 | " Kelso to White Rock | 125 | |
| 294 | 3 | 3 | 3 | 22 | " Kelloshiel, <i>via</i> White's Crossing, to Little Forest... .. | 330 | |
| 295 | 2 | 2 | 2 | 15 | " Limekilns Road to Palmer's Oakley Road and Upper Turon | 375 | |
| 296 | 2 | 2 | 2 | 28 | " Kelso, <i>via</i> the Limekilns, to Sofala Road | 700 | |
| 297 | 3 | 3 | 3 | 15 | " Mitchell's Creek Reefs towards Palmer's Oakley... .. | 225 | |
| 298 | 3 | 3 | 1 | 5 | " Mitchell's Creek to Western Road at Meadow Flat | 250 | |
| 299 | 6 | 6 | 6 | 5 | " Macquarie Plains to Bloom Hill | 25 | |
| 300 | 3 | 3 | 3 | 11 | " O'Connell's Plains Road, <i>via</i> Dirty Swamp, to Road from Mutton's Falls to O'Connell's Plains | 165 | |
| 301 | 1 | 1 | 1 | 30 | " Bathurst, <i>via</i> Kelloshiel, to near Monkey Hill | 1,500 | |
| 302 | 3 | 3 | 3 | 34 | " Bathurst to Ophir | 510 | |
| 303 | 1 | 1 | 1 | 29 | " Bathurst to Sofala, <i>via</i> Peel and Wyagdon | 1,450 | |
| 304 | 2 | 2 | 2 | 6 | " Peel to Duramana | 150 | |
| 305 | 1 | 1 | 1 | 12 | " Sofala, Cockatoo Hill, at Monkey Hill | 600 | |
| 306 | 3 | 3 | 3 | 16 | " Rockley to Caloola and Tuena Road | 240 | |
| 307 | 2 | 2 | 1 | 18 | " Mount Lawson, <i>via</i> Judge's Creek, to Burranga Copper Mines | 900 | |
| 308 | 2 | 2 | 2 | 5 | " Evans Plains, <i>via</i> the Bald Hill, to Trunkey Road | 125 | |
| 309 | 2 | 2 | 2 | 9 | " Rockley, <i>via</i> Campbell's River, to the Dog Rocks | 225 | |
| 310 | 4 | 4 | 4 | 20 | " Rockley to the Isabella River | 200 | |
| 311 | 1 | 1 | 1 | 16 | " Bathurst and Caloola Road to Rockley | 800 | |
| 312 | 4 | 4 | 4 | 3 | " Rockley Road to Camping Reserve, Vale Creek | 30 | |
| 313 | 4 | 4 | 4 | 13 | " Bathurst and Caloola Road to Tea-pot Swamp | 130 | |
| 314 | 4 | 4 | 4 | 30 | " Bathurst, <i>via</i> Gorman's Hill, to Campbell's River | 300 | |
| 315 | 2 | 2 | 2 | 5 | " Bathurst, Campbell's River Road, Perth | 125 | |
| 316 | 2 | 2 | 1 | 6 | " Caloola Road, <i>via</i> Limekilns, to Rockley Road | 300 | |
| 317 | 1 | 1 | 2 | 38 | " Bathurst to Caloola and Trunkey Gold-field | 950 | |
| 318 | 1 | 1 | 1 | 5 | " Newbridge Station to Caloola | 250 | |
| 319 | 2 | 2 | 2 | 15 | " Arthur Town to Tuena | 375 | |
| 320 | 1 | 1 | 1 | 17 | " Newbridge, <i>via</i> Hobbey's, to Arthur Town | 850 | |
| 321 | 2 | 2 | 2 | 36 | " Hill End, <i>via</i> Bragg's, to Main Western Road | 900 | |
| 322 | 4 | 4 | 4 | 10 | " Mallow Grove towards Trunkey | 100 | |
| 323 | 1 | 1 | 1 | 12 | " Tea-pot Swamp, <i>via</i> Five Islands, to No. 1 Swamp | 600 | |
| 324 | 1 | 1 | 1 | 14 | " Blayney to Shaw and No. 1 Swamp | 700 | |
| 325 | 2 | 2 | 2 | 10 | " Blayney to Graham's Town... .. | 250 | |
| 326 | 1 | 1 | 2 | 8 | " Blayney, <i>via</i> Hood's, to Tea-pot Swamp | 200 | |
| 327 | 4 | 4 | 4 | 13 | " Tea-pot Swamp, <i>via</i> Mallow Grove, to Carcoar | 130 | |
| 328 | 2 | 2 | 1 | 25 | " Orange to Carcoar | 1,250 | |
| 329 | 3 | 3 | 3 | 14 | " Cargo to Canowindra | 210 | |
| 330 | 1 | 1 | 1 | 50 | " Orange, <i>via</i> Cargo, to Nanima | 2,500 | |
| 331 | 6 | 6 | 4 | 12 | " Lewis Ponds to Orange | 120 | |
| 332 | 4 | 4 | 4 | 10 | " Orange to Mullion | 100 | |
| 333 | 2 | 2 | 2 | 12 | " Orange to Conoblas | 300 | |
| 334 | 3 | 3 | 3 | 8 | " Orange to the Pinnacle at Renshaw's | 120 | |
| 335 | 2 | 2 | 2 | 5 | " Spring Terrace to Long Swamp | 125 | |
| 336 | 2 | 2 | 2 | 5 | " Blayney, <i>via</i> Parker's, to Five Islands | 125 | |
| 337 | 3 | 3 | 3 | 5 | " Marten's to Spring Hill Railway Station | 75 | |
| 338 | 3 | 3 | 2 | 12 | " Cargo to Cudal | 300 | |
| 339 | 2 | 2 | 2 | 16 | " Orange to Cadia | 400 | |
| 340 | 3 | 3 | 4 | 16 | " Orange to Ophir | 160 | |
| | | | | 1,526 | Carried forward | £ 86,470 | |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. | |
|-----|--------|-------|-------|---------------------|---|--------------------------|-----------|
| | 1883. | 1884. | 1885. | | | | 1,526 |
| | | | | | Western Roads—continued. | | |
| | | | | | Brought forward ... | 36,470 | |
| 341 | 2 | 2 | 2 | 5 | Road from Spring Terrace to Forest Reefs ... | 125 | |
| 342 | 4 | 4 | 4 | 15 | " Orange and Cadia Road to Four-mile Creek ... | 150 | |
| 343 | 1 | 1 | 2 | 11 | " Forest Reefs to Blayney ... | 275 | |
| 344 | 1 | 1 | 1 | 4 | " Matthews' to Brown's Creek Mine... .. | 200 | |
| 345 | 2 | 2 | 2 | 10 | " Blayney to Guyong | 250 | |
| 346 | 2 | 2 | 2 | 10 | " Spring Grove, <i>via</i> Guyong, to Byng | 250 | |
| 347 | 3 | 3 | 2 | 6 | " Western Road, at Faviell's, to Byng | 150 | |
| 348 | 3 | 3 | 3 | 14 | " Icely to Spring Grove Railway Station | 210 | |
| 349 | 4 | 4 | 2 | 12 | " Orange to Icely | 300 | |
| 350 | 1 | 1 | 1 | 12 | " Spring Grove Railway Station to Cadia | 600 | |
| 351 | 2 | 2 | 2 | 6 | " Spring Hill Station to Hennessy's, on Cadia Road | 150 | |
| 352 | 2 | 2 | 2 | 10 | " Lucknow, <i>via</i> Spring Hill, to the Carcoar Road | 250 | |
| 353 | 2 | 2 | 3 | 28 | " Molong, <i>via</i> Toohy's Inn, to Toogong | 420 | |
| 354 | 2 | 2 | 2 | 40 | " Molong to Obley | 1,000 | |
| 355 | 3 | 3 | 3 | 22 | " Molong to Warne Railway Station | 330 | |
| 356 | 6 | 6 | 6 | 20 | " Burrawong Cross Roads to Bolderogery | 100 | |
| 357 | 3 | 3 | 4 | 16 | " Stony Creek to Burrendong | 160 | |
| 358 | 2 | 2 | 1 | 4 | " Springs Railway Station to Newrea Bridge | 200 | |
| 359 | 2 | 2 | 2 | 25 | " Wellington, <i>via</i> Curra Creek, to Buckinbah | 625 | |
| 360 | 3 | 3 | 3 | 22 | " Wellington to Burrendong | 330 | |
| 361 | 4 | 4 | 4 | 18 | " Wellington to Arthurville | 180 | |
| 362 | 3 | 3 | 3 | 5 | " Dirt Hole Creek to Burnt Yards | 75 | |
| 363 | 1 | 1 | 1 | 5 | " Carcoar to Village of Shaw | 250 | |
| 364 | 3 | 3 | 3 | 30 | " Boga Bogalong to Marsden... .. | 450 | |
| 365 | 4 | 4 | 4 | 30 | " Grenfell to Goolagong | 300 | |
| 366 | 4 | 4 | 4 | 50 | " Grenfell to Morangarell | 500 | |
| 367 | 6 | 6 | 6 | 47 | " Cowra to Young | 235 | |
| 368 | 3 | 3 | 3 | 20 | " Cowra to Canowindra | 300 | |
| 369 | 5 | 5 | 5 | 56 | " Cowra to Forbes, south bank of Lachlan | 392 | |
| 370 | 5 | 5 | 5 | 20 | " Cowra to Milburn Creek | 140 | |
| 371 | 4 | 4 | 4 | 30 | " Cowra, <i>via</i> Morongola and Neilar, towards Frogmore | 300 | |
| 372 | 2 | 2 | 2 | 8 | " Carcoar to Flyer's Creek | 200 | |
| 373 | 2 | 2 | 2 | 30 | " Mandurama to Canowindra... .. | 750 | |
| 374 | 2 | 2 | 2 | 10 | " Mandurama to Galley Swamp | 250 | |
| 375 | 2 | 2 | 2 | 12 | " Sheet of Bark, <i>via</i> Wood's Flat, to Mount McDonald | 300 | |
| 376 | 4 | 4 | 4 | 30 | " Biggar to Mount McDonald | 300 | |
| 377 | 3 | 3 | 3 | 30 | " Lyndhurst, <i>via</i> Cobb's, to the Abercrombie | 450 | |
| 378 | 3 | 3 | 3 | 22 | " Canowindra to Eugowra | 330 | |
| 379 | 1 | 1 | 1 | 48 | " Boree to Parkes | 2,400 | |
| 380 | 3 | 3 | 2 | 19 | " Forbes to Parkes | 475 | |
| 381 | 3 | 3 | 3 | 57 | " Forbes to Condobolin | 855 | |
| 382 | 4 | 4 | 3 | 28 | " Forbes to Bogan | 420 | |
| 383 | 3 | 3 | 3 | 68 | " Parkes to Condobolin | 1,020 | |
| 384 | 4 | 4 | 3 | 42 | " Grenfell to Forbes | 630 | |
| 385 | 6 | 6 | 4 | 62 | " Forbes to South Condobolin | 620 | |
| 386 | ... | ... | 4 | 52 | " The Lachlan at Murrumbidgee to Mount Hope | 520 | |
| 387 | 4 | 4 | 5 | 50 | " Wellington to Cobborah | 350 | |
| 388 | 3 | 3 | 3 | 70 | " Faulkner's, <i>via</i> Cobborah, to Gilgandra | 1,050 | |
| 389 | 4 | 4 | 3 | 70 | " Cullenbone to Dubbo | 1,050 | |
| 390 | 2 | 2 | 2 | 104 | " Dubbo to Coonamble | 2,600 | |
| 391 | 4 | 4 | 4 | 40 | " Obley to Dubbo | 400 | |
| 392 | ... | ... | 4 | 60 | " Cobar to Nyngan | 600 | |
| 393 | ... | ... | 6 | 80 | " Nymagee to Nyngan | 400 | |
| 394 | ... | ... | 6 | 155 | " Bourke to Ford's Bridge and Hungerford | 775 | |
| 395 | ... | ... | 6 | 113 | " Bourke to Wanaaring | 565 | |
| 396 | ... | ... | 6 | 180 | " Wilcannia to Thackaringa | 900 | |
| 397 | ... | ... | 6 | 100 | " Wilcannia towards Tibboburra | 500 | |
| 398 | 4 | 6 | 6 | 100 | " Wilcannia towards Wentworth | 500 | |
| | | | | 3,769 | Total miles. | Total ... | £ 64,877. |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|------------------------|--------|-------|-------|---------------------|---|--------------------------|
| | 1883. | 1884. | 1885. | | | |
| Southern Roads. | | | | | | |
| | | | | | | £ |
| 399 | 1 | 1 | 1 | 8 | Road from Randwick Toll-gate to La Perouse... .. | 400 |
| 400 | 1 | 1 | 1 | 1 | " La Perouse Road to Little Bay (Sanatorium Road) | 50 |
| 401 | 1 | 1 | 1 | 3 | " Half-way House to Rocky Point (Rocky Point Road) | 150 |
| 402 | ... | 1 | 1 | 1 | " Banks Meadow to Whisker's Road | 50 |
| 403 | 1 | 1 | 1 | 7 | " Tom Ugly's Point, <i>via</i> West's Forest Road and Kingsgrove and Croydon Park, to Main Southern Road, near Croydon | 350 |
| 404 | 1 | 1 | 1 | 10 | " Rocky Point Road to George's River (Forest Road) | 500 |
| 405 | 3 | 3 | 3 | 5 | " Illawarra Road to Bond's Road (Broad-arrow and Stony Creek Road) | 75 |
| 406 | 4 | 4 | 4 | 6 | " Bringelly Cross Roads to the Cobbitty Road | 60 |
| 407 | 1 | 1 | 2 | 4 | " Campbelltown to Narellan | 100 |
| 408 | 1 | 1 | 1 | 23 | " Picton, <i>via</i> Vanderville, to foot of Burragorang Mountain | 1,150 |
| 409 | 3 | 3 | 3 | 4 | " Appin to Brooke's Point | 60 |
| 410 | 3 | 3 | 3 | 8 | " Foot of Burragorang Mountain to Cox's River | 120 |
| 411 | 3 | 3 | 3 | 8 | " Foot of Burragorang Mountain, up the Wollondilly | 120 |
| 412 | 1 | 1 | 1 | 12 | " Bulli, <i>via</i> Coal Cliff, to Blue-gum Forest | 600 |
| 413 | 6 | 6 | 6 | 7 | " Bulli Pass to Cataract River | 35 |
| 414 | 1 | 1 | 1 | 38 | " Moss Vale, <i>via</i> Kangaroo Valley, to Nowra | 1,900 |
| 415 | 1 | 1 | 1 | 30 | " Moss Vale and Nowra Road, <i>via</i> Robertson, to foot of Jamberoo Mountain... .. | 1,500 |
| 416 | 1 | 1 | 1 | 22 | " Old South Road, from Cross Roads, <i>via</i> Moss Vale, to Little Forest | 1,100 |
| 417 | 1 | 1 | 1 | 18 | " Bowral, <i>via</i> Alcorn's Hill, to Village of Robertson | 900 |
| 418 | 1 | 1 | 1 | 3 | " Fitz Roy Iron Mines to Bowral | 150 |
| 419 | 3 | 3 | 3 | 2 | " Old South Road, Mittagong, to Southern Road, near Fitz Roy Inn | 30 |
| 420 | 1 | 1 | 1 | 5 | " Main Southern Road near Berrima to Bowral | 250 |
| 421 | 1 | 1 | 1 | 2 | " Bowral to Lower Mittagong (Merrigang Road) | 100 |
| 422 | ... | 1 | 1 | 1 | " Bowral Road to Burradoo Platform | 50 |
| 423 | 1 | 1 | 1 | 5 | " Berrima to Railway Station at Moss Vale... .. | 250 |
| 424 | 1 | 1 | 1 | 3 | " Kangaroo Ground Road at Byrnes', <i>via</i> C. Throsby's, to Old South Road at Moss Vale... .. | 150 |
| 425 | 3 | 3 | 2 | 18 | " Moss Vale and Shoalhaven Road, <i>via</i> Meryla Creek, to Wallanderry Road | 450 |
| 426 | 2 | 2 | 2 | 3 | " Sutton Forest to Main South Road, near Cowley's | 75 |
| 427 | 4 | 4 | 2 | 7 | " Sutton Forest to Bundanoon | 175 |
| 428 | 5 | 5 | 4 | 10 | " Cross Roads towards Taralga | 100 |
| 429 | 3 | 3 | 3 | 12 | " The Kangaloon Road, at Robertson Park, to near Mount Murray | 180 |
| 430 | 3 | 3 | 3 | 6 | " Near Wallaby Creek, <i>via</i> Macquarie Pass, to Central Illawarra | 90 |
| 431 | 1 | 1 | 1 | 1 | " Alcorn's Store to the Macquarie Pass Road | 50 |
| 432 | 2 | 2 | 2 | 9 | " Kiama Road, at Blenkinsop's, <i>via</i> Wild's Meadows, to Barrangarry Road | 225 |
| 433 | 2 | 2 | 1 | 2 | " Burrawang to Robertson Road | 100 |
| 434 | 2 | 2 | 2 | 4 | " Wild's Meadows to Robertson Road | 100 |
| 435 | 5 | 5 | 5 | 75 | " Nowra, <i>via</i> Narriga, to Braidwood... .. | 525 |
| 436 | 3 | 3 | 3 | 20 | " Nowra to Yalwal | 300 |
| 437 | 2 | 1 | 1 | 43 | " Nowra, <i>via</i> Tomerong, to Milton | 2,150 |
| 438 | 2 | 2 | 2 | 12 | " Kangaroo Valley to Broughton's Creek | 300 |
| 439 | 3 | 3 | 3 | 5 | " Woodhill, Brogher's Creek, to the Kangaroo Valley and Broughton Creek Road | 75 |
| 440 | 2 | 2 | 2 | 12 | " Marulan to Greenwich Park | 300 |
| 441 | 3 | 3 | 3 | 14 | " Greenwich Park to Towrang | 210 |
| 442 | 4 | 4 | 4 | 18 | " South Road, at Towrang, <i>via</i> Lockyersleigh, to Paddy River | 180 |
| 443 | 1 | 1 | 1 | 6 | " Marulan to the Limekilns | 300 |
| 444 | 1 | 1 | 1 | 25 | " Marulan, <i>via</i> Bungonia and Jacqua, to Windel- lama | 1,250 |
| 445 | 2 | 2 | 2 | 3 | " Bungonia to Inverary Park | 75 |
| 446 | 2 | 2 | 2 | 17 | " Goulburn to Bungonia | 425 |
| 447 | 1 | 1 | 4 | 22 | " Goulburn to Windellama | 220 |
| 448 | 1 | 1 | 1 | 38 | " Goulburn, <i>via</i> Taralga, to Curraweela | 1,900 |
| 449 | 2 | 2 | 2 | 23 | " Goulburn to Upper Tarlo and Roslyn | 575 |
| | | | 641 | | Carried forward | £ 20,530 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. | |
|----------------------------------|--------|-------|-------|------------------|---|------------------------|---------|
| | 1883. | 1884. | 1885. | | | | 641 |
| Southern Roads—continued. | | | | | | | |
| | | | | | Brought forward | 20,530 | |
| 450 | 4 | 4 | 4 | 9 | Road from Campbell's Lane, Middle Arm Road, to Rhyanna | 90 | |
| 451 | 4 | 4 | 3 | 5 | " Goulburn and Tuena Road, <i>via</i> Limekilns, to Goulburn and Tarlo Road | 75 | |
| 452 | 1 | 1 | 1 | 42 | " Goulburn, <i>via</i> Crookwell, to Binda | 2,100 | |
| 453 | 1 | 1 | 1 | 39 | " Goulburn, <i>via</i> Gullen, to Wheeo | 1,950 | |
| 454 | 2 | 2 | 2 | 15 | " Goulburn, <i>via</i> Mummell, to Pomeroy | 375 | |
| 455 | 2 | 2 | 2 | 10 | " Collector to Main Southern Road, at Bredalbane | 250 | |
| 456 | 3 | 3 | 3 | 17 | " Collector to Gunning | 255 | |
| 457 | 3 | 3 | 3 | 15 | " Collector towards Goulburn | 225 | |
| 458 | 2 | 2 | 2 | 24 | " Collector, <i>via</i> Currawang, to Tiranna | 600 | |
| 459 | 3 | 3 | 3 | 12 | " Wheeo to Binda | 180 | |
| 460 | 2 | 2 | 2 | 10 | " Wheeo towards Crookwell | 250 | |
| 461 | 5 | 5 | 5 | 26 | " Crookwell, <i>via</i> Grabben Gullen, to Gunning | 182 | |
| 462 | 4 | 4 | 4 | 24 | " Binda to Bigga | 240 | |
| 463 | 2 | 2 | 2 | 57 | " Goulburn and Binda Road, at Mount Wayo, <i>via</i> Tuena, to the Abercrombie River | 1,425 | |
| 464 | 5 | 5 | 5 | 5 | " Goulburn and Wheeo Road, at Hawthorn's Tree, to the Wheeo and Crookwell Road | 35 | |
| 465 | 5 | 5 | 5 | 15 | " Bigga to the Abercrombie | 105 | |
| 466 | 3 | 3 | 3 | 12 | " Goulburn and Tuena Road, <i>via</i> Fullerton, to Sherwood | 180 | |
| 467 | 3 | 3 | 3 | 18 | " Taralga to Laggan | 270 | |
| 468 | 5 | 5 | 5 | 6 | " Taralga to Stonequarry | 90 | |
| 469 | 5 | 5 | 5 | 10 | " Stonequarry to Leighwood | 70 | |
| 470 | 5 | 5 | 4 | 12 | " Taralga, <i>via</i> Bannaby, towards Swallowtail | 120 | |
| 471 | 5 | 5 | 5 | 12 | " Laggan, <i>via</i> Golspic, to Leighwood | 84 | |
| 472 | 3 | 3 | 3 | 8 | " Golspic to Taralga and Rockwell Road | 120 | |
| 473 | 3 | 3 | 3 | 36 | " Wheeo to Burrowa | 540 | |
| 474 | 2 | 2 | 2 | 15 | " Gullen, <i>via</i> Crookwell, to Laggan | 375 | |
| 475 | 5 | 5 | 4 | 6 | " Crookwell, <i>via</i> Red Ground, to Laggan and Binda Road | 60 | |
| 476 | 3 | 3 | 3 | 13 | " Laggan to Binda | 195 | |
| 477 | 5 | 5 | 5 | 16 | " Binda to Peelwood | 112 | |
| 478 | 3 | 3 | 3 | 7 | " Cotta Walla to road Mount Wayo to Peelwood | 105 | |
| 479 | 2 | 2 | 2 | 15 | " Bungendore to Doughboy Hill | 375 | |
| 480 | 3 | 3 | 3 | 20 | " Bungendore, <i>via</i> Molonglo, to Queanbeyan and Bungendore Road | 300 | |
| 481 | 6 | 6 | 6 | 10 | " Bungendore and Molonglo Road to Black Range | 50 | |
| 482 | 1 | 1 | 1 | 32 | " Braidwood to Nelligen—Clyde Road | 1,600 | |
| 483 | ... | 5 | 3 | 6 | " Nelligen to Bateman's Bay... .. | 90 | |
| 484 | 5 | 5 | 3 | 9 | " Nelligen to Bateman's Bay and Milton Road at M'Millan's | 135 | |
| 485 | 2 | 2 | 2 | 75 | " Milton, <i>via</i> Bateman's Bay and Moruya, to Bodalla | 1,875 | |
| 486 | 1 | 1 | 1 | 16 | " Braidwood, <i>via</i> Dirty Butter Creek, to Araluen | 800 | |
| 487 | 4 | 4 | 4 | 27 | " Braidwood to Molonglo (Cole's Line) | 270 | |
| 488 | 2 | 2 | 2 | 36 | " Araluen to Moruya | 900 | |
| 489 | 2 | 2 | 2 | 10 | " Braidwood to Elrington | 250 | |
| 490 | 2 | 2 | 2 | 9 | " Braidwood to Sergeant's Point (Little River) | 225 | |
| 491 | 6 | 6 | 6 | 8 | " Sergeant's Point (Little River) to Clyde River | 40 | |
| 492 | 6 | 6 | 6 | 15 | " Braidwood and Tarago Road, <i>via</i> Larbert, to Lower Boro | 75 | |
| 493 | 3 | 3 | 3 | 7 | " Elrington to Ballalaba | 105 | |
| 494 | 3 | 3 | 3 | 12 | " Braidwood, <i>via</i> Reidsdale, to Bell's Creek... .. | 180 | |
| 495 | 3 | 4 | 5 | 5 | " Reidsdale to Warnumbucca (Tudor Valley Road)... .. | 35 | |
| 496 | 3 | 3 | 3 | 8 | " Elrington to Araluen | 120 | |
| 497 | 2 | 2 | 2 | 12 | " Monga to Major's Creek, "Elrington" | 300 | |
| 498 | 3 | 3 | 3 | 22 | " Major's Creek to Fairfield | 330 | |
| 499 | 1 | 1 | 1 | 7 | " Cathcart to Bibenluke Junction | 350 | |
| 500 | 2 | 2 | 2 | 18 | " Candelo to Brown Mountain, <i>via</i> Mogila | 450 | |
| 501 | 3 | 3 | 3 | 18 | " Candelo, <i>via</i> Wyndham, to Burrowgate | 270 | |
| 502 | 3 | 3 | 3 | 24 | " Brown Mountain, <i>via</i> Kameruka, to Finger-post... .. | 360 | |
| 503 | 2 | 2 | 2 | 2 | " Candelo to Kameruka | 50 | |
| 504 | 3 | 3 | 3 | 8 | " Burrogate to Honeysuckle | 120 | |
| 505 | 3 | 3 | 3 | 12 | " Towamba to New Buildings | 180 | |
| 506 | 2 | 2 | 2 | 38 | " Cathcart Junction, <i>via</i> Wyndham, to Panbula | 950 | |
| 507 | 2 | 2 | 2 | 6 | " Panbula to Wolumla... .. | 150 | |
| 508 | 3 | 3 | 3 | 13 | " Wolumla Junction to Cross Roads... .. | 195 | |
| | | | | | 1,637 | Carried forward | £42,318 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. | |
|----------------------------------|--------|-------|-------|---------------------|---|--------------------------|----------|
| | 1883. | 1884. | 1885. | | | | 1,687 |
| Southern Roads—continued. | | | | | | £ | |
| | | | | | Brought forward | 42,318 | |
| 509 | 4 | 4 | 4 | 10 | Road from Wolumba, <i>via</i> Lithgow Flat, to Candelo and Wyndham Road... | 100 | |
| 510 | 4 | 4 | 4 | 12 | " Merimbula to Jellatt Jellatt | 120 | |
| 511 | 4 | 4 | 4 | 6 | " Briandairy to Bega | 60 | |
| 512 | 1 | 1 | 1 | 12 | " Bega, <i>via</i> Jellatt Jellatt, to Tathra... | 600 | |
| 513 | 1 | 1 | 1 | 12 | " Bega to Wolumba | 600 | |
| 514 | 2 | 2 | 2 | 56 | " Bega to Bodalla | 1,400 | |
| 515 | 3 | 3 | 3 | 16 | " Cobargo to Bermagui | 240 | |
| 516 | 4 | 4 | 4 | 23 | " Cobargo, <i>via</i> Wandellow and Yaurie, to Wadbilliga | 345 | |
| 517 | 2 | 2 | 2 | 16 | " Bega to Numbugga and Bembooka | 400 | |
| 518 | 2 | 2 | 2 | 24 | " Bega to Wapangue | 600 | |
| 519 | 3 | 3 | 3 | 27 | " Bodalla to Dignam's Creek, <i>via</i> Cowderoy's and Hawdon's... | 405 | |
| 520 | 3 | 3 | 3 | 18 | " Pitman's Bridge, <i>via</i> Wagonga Heads, to Bodalla... | 270 | |
| 521 | 3 | 3 | 2 | 16 | " Eden to Sturt | 400 | |
| 522 | 1 | 1 | 1 | 12 | " Eden to Panbula | 600 | |
| 523 | 3 | 3 | 3 | 38 | " Cooma to Jindabyne... | 570 | |
| 524 | 4 | 4 | 4 | 12 | " Cooma and Jindabyne Road near Coolringdon to Middlingbank | 120 | |
| 525 | 3 | 3 | 3 | 20 | " Cooma and Jindabyne Road to Buckley's Crossing | 300 | |
| 526 | 2 | 2 | 2 | 52 | " Cooma and Jindabyne Road to Kiandra | 1,300 | |
| 527 | 1 | 1 | 1 | 52 | " Cooma to Bombala | 2,600 | |
| 528 | 4 | 4 | 4 | 26 | " Cooma to Count-a-guinea, <i>via</i> the Big Badger | 260 | |
| 529 | 3 | 3 | 3 | 80 | " Cooma to Braidwood | 1,200 | |
| 530 | 3 | 3 | 3 | 20 | " Cooma to Bobundarah | 300 | |
| 531 | 3 | 3 | 3 | 9 | " Buckley's Crossing to Boloco | 135 | |
| 532 | 4 | 4 | 4 | 38 | " Bibenluke to Bobundarah | 380 | |
| 533 | 5 | 5 | 5 | 45 | " Bobundarah to Seymour | 315 | |
| 534 | 2 | 2 | 2 | 18 | " Holt's Flat to Railway Bridge | 450 | |
| 535 | 2 | 2 | 2 | 22 | " Bombala to Delegate | 550 | |
| 536 | 3 | 3 | 3 | 14 | " Bombala to Gunningrah N., <i>via</i> Bukalong | 210 | |
| 537 | 4 | 4 | 4 | 8 | " Old Burra Road | 80 | |
| 538 | 1 | 1 | 2 | 42 | " Queanbeyan, <i>via</i> Gundaroo, to Gunning | 1,050 | |
| 539 | 2 | 2 | 2 | 44 | " Yass to Bungendore | 1,100 | |
| 540 | 2 | 2 | 2 | 34 | " Queanbeyan to Murrumbateman | 850 | |
| 541 | 3 | 3 | 3 | 24 | " Yass, <i>via</i> Mundoonen, to Fairfield Bridge... | 360 | |
| 542 | 1 | 1 | 1 | 7 | " Gunning to Dalton | 350 | |
| 543 | 3 | 3 | 3 | 43 | " Dalton to Burrowa | 645 | |
| 544 | 3 | 3 | 3 | 17 | " Bowning to Binalong | 255 | |
| 545 | 3 | 3 | 3 | 28 | " Sharpening Stone Creek to Burrowa and Binalong Road near Burrowa | 420 | |
| 546 | 3 | 3 | 2 | 13 | " Yass to Woolgarlo | 325 | |
| 547 | 3 | 3 | 3 | 25 | " Dalton to Nawawa | 375 | |
| 548 | 3 | 3 | 3 | 8 | " Dalton to Jerrawa Platform | 120 | |
| 549 | 3 | 3 | 3 | 9 | " Gunning and Burrowa Road to Yass | 135 | |
| 550 | 5 | 5 | 5 | 18 | " Dalton and Narrawa Road, near Roche's, to junction of Pudman Road | 126 | |
| 551 | 2 | 2 | 2 | 2 | " Yass to Manton's Creek | 50 | |
| 552 | 2 | 2 | 2 | 2 | " Sharpening Stone Creek and Burrowa Road, near Walls, to Bowning | 50 | |
| 553 | 4 | 4 | 4 | 5 | " Ginindera to Weetangra | 50 | |
| 554 | 4 | 4 | 4 | 24 | " Queanbeyan to Uryarra Post Office, <i>via</i> Yarrolumna | 240 | |
| 555 | 4 | 4 | 4 | 15 | " Bloomfield Road at Warro Creek, <i>via</i> Boambalo Ford, to Mullion | 150 | |
| 556 | 4 | 4 | 4 | 15 | " Bloomfield Crossing; Murrumbidgee to Cooradig- bee Valley, near Ryrie's | 150 | |
| 557 | 4 | 4 | 4 | 15 | " South Road, near Bookham, to the Cooradigbee Junction | 150 | |
| 558 | 4 | 4 | 4 | 14 | " Ginindera and Gundaroo Road, <i>via</i> Mac's Reef, to Bungendore Road | 140 | |
| 559 | 4 | 4 | 4 | 8 | " Bookham to Bowning and Binalong Road at Ilalong | 80 | |
| 560 | 3 | 3 | 2 | 11 | " Yass to Bloomfield | 275 | |
| 561 | 4 | 4 | 4 | 8 | " Canberra to Molonglo and Murrumbidgee Rivers | 80 | |
| 562 | 4 | 4 | 4 | 3 | " Yass to Black Range | 30 | |
| 563 | 3 | 3 | 3 | 7 | " Frogmore to Wheeo and Burrowa Road... | 105 | |
| 564 | 3 | 5 | 5 | 12 | " Wallanbeen to Murrumburrah | 84 | |
| 565 | 2 | 2 | 2 | 30 | " Burrowa to Young | 750 | |
| | | | | | 2,834 | Carried forward | £ 65,723 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|----------------------------------|--------|-------|-------|------------------|---|-----------------------|
| | 1883. | 1884. | 1885. |  |  |  | 2,834 |
| Southern Roads—continued. | | | | | | £ |
| | | | | | Brought forward ... | 65,723 |
| 566 | 3 | 3 | 3 | 60 | Road from Young to Temora ... | 900 |
| 567 | 3 | 3 | 3 | 30 | " Morangarell to junction with road Young to Temora | 450 |
| 568 | 6 | 6 | 4 | 20 | " Young and Cowra Road, near Young, to Jerry Bang | 200 |
| 569 | 5 | 5 | 5 | 14 | " Young, <i>via</i> Irish Jack's Creek and Black Ranges, to Moppity | 98 |
| 570 | 1 | 1 | 1 | 20 | " Binalong to Burrowa | 1,000 |
| 571 | 1 | 1 | 1 | 54 | " Murrumburrah, <i>via</i> Wombat and Young, to Grenfell | 2,700 |
| 572 | 4 | 4 | 3 | 7 | " Cullinga to Wallendbeen | 105 |
| 573 | 5 | 5 | 5 | 10 | " Murrumburrah to Harden | 70 |
| 574 | 1 | 1 | 1 | 20 | " Gundagai to Tumut | 1,000 |
| 575 | 2 | 2 | 2 | 14 | " Gundagai to Brungle | 350 |
| 576 | 2 | 2 | 2 | 48 | " Gundagai to Wagga Wagga, "north side of River" | 1,200 |
| 577 | 3 | 3 | 3 | 16 | " Gundagai to Bongongolong | 240 |
| 578 | 3 | 3 | 2 | 11 | " Tumut to Brungle | 275 |
| 579 | 3 | 3 | 3 | 10 | " Tumut to Lacmalac | 150 |
| 580 | 5 | 5 | 5 | 60 | " Tumut to Kiandria | 420 |
| 581 | 1 | 1 | 1 | 14 | " Tumut to Adelong | 700 |
| 582 | 2 | 2 | 2 | 7 | " Gilmore Creek to Reily's Crossing, Adelong Creek | 175 |
| 583 | 3 | 3 | 3 | 8 | " Reily's Crossing to Reddy Flat | 120 |
| 584 | 4 | 4 | 3 | 30 | " Middle Adelong to Tumberumba | 450 |
| 585 | 3 | 3 | 3 | 20 | " Adelong to Main South Road, at Hillas Creek | 300 |
| 586 | 1 | 1 | 1 | 24 | " Main Southern Road to Middle Adelong | 1,200 |
| 587 | 3 | 3 | 3 | 23 | " Coolac to Cootamundra, <i>via</i> M'Leod's | 345 |
| 588 | 2 | 2 | 2 | 33 | " Cootamundra to Temora | 825 |
| 589 | ... | ... | 3 | 12 | " Cootamundra to Stockinbingal Bridge | 180 |
| 590 | 2 | 2 | 2 | 7 | " Upper Tumberumba to Tumberumba | 175 |
| 591 | 1 | 1 | 1 | 30 | " Tumberumba, <i>via</i> Munderoo, to Jingellic | 1,500 |
| 592 | 2 | 2 | 2 | 30 | " Welaregang to Tumberumba Road | 750 |
| 593 | 2 | 2 | 2 | 100 | " Bowna Station to Welaregang | 2,500 |
| 594 | 2 | 2 | 2 | 40 | " South Road, at Little Billabong, to Tumberumba | 1,000 |
| 595 | 1 | 1 | 1 | 10 | " Carabost to Kiamba | 500 |
| 596 | 5 | 5 | 5 | 77 | " Wagga Wagga to Murrumburrah and Grenfell Road | 539 |
| 597 | 2 | 2 | 2 | 33 | " Main Southern Road, at Kiamba, to Wagga Wagga | 825 |
| 598 | 5 | 5 | 5 | 60 | " Wagga Wagga to Narrandera | 420 |
| 599 | 4 | 4 | 3 | 5 | " Wagga Wagga to Lake Albert | 75 |
| 600 | 3 | 3 | 3 | 28 | " Wagga Wagga to Bullenbong | 420 |
| 601 | 2 | 2 | 2 | 15 | " Main Southern Road, at Tarcutta, to Alfred Town | 375 |
| 602 | 6 | 6 | 6 | 100 | " Conargo to Narrandera, <i>via</i> Cuddel | 500 |
| 603 | 6 | 6 | 6 | 40 | " Wagga Wagga to Cowabce | 200 |
| 604 | 2 | 2 | 2 | 60 | " Rock Railway Station to Urana | 1,500 |
| 605 | 1 | 1 | 1 | 20 | " Culcairn Railway Station, <i>via</i> Morven, to Germanton | 1,000 |
| 606 | 5 | 4 | 4 | 18 | " Germanton to Cookindina | 180 |
| 607 | 3 | 3 | 3 | 81 | " Albury to Wagga Wagga | 1,215 |
| 608 | 2 | 2 | 2 | 100 | " Albury to Turner's Inn, south of Tocumwall | 2,500 |
| 609 | 3 | 3 | 3 | 80 | " Albury to Urana | 1,200 |
| 610 | 2 | 2 | 2 | 50 | " Albury and Corowa Road to Urana | 1,250 |
| 611 | 6 | 6 | 6 | 80 | " Corowa, <i>via</i> Sandy Ridges and Bull's Plains, to Jerilderie | 400 |
| 612 | ... | ... | 3 | 34 | " Corowa to Piney Range | 510 |
| 613 | 3 | 3 | 3 | 22 | " Howlong to Walbundrie | 330 |
| 614 | 3 | 3 | 3 | 20 | " Walbundrie to Culcairn Railway Station | 300 |
| 615 | 2 | 3 | 3 | 20 | " Gerogery Railway Station, <i>via</i> Jindera, to Bungo-wannah | 300 |
| 616 | 1 | 1 | 1 | 27 | " Gerogery Railway Station, <i>via</i> Bethel, Burrum-buttock, to Howlong | 1,350 |
| 617 | 5 | 5 | 5 | 20 | " Walla Walla to Gerogery Railway Station | 140 |
| 618 | ... | ... | 4 | 40 | " Jerilderie to Tocumwall | 400 |
| 619 | ... | ... | 1 | 10 | " Coonong Railway Station towards Urana | 500 |
| 620 | ... | ... | 4 | 20 | " Coonong Railway Station towards Goolgumbla | 200 |
| 621 | 4 | 4 | 4 | 112 | " Deniliquin to Balranald | 1,120 |
| 622 | 3 | 3 | 3 | 86 | " Deniliquin to Urana | 1,290 |
| 623 | 4 | 4 | 4 | 30 | " Tocumwall to Deniliquin | 300 |
| 624 | 3 | 3 | 4 | 36 | " Deniliquin to Black Swamp | 360 |
| 625 | 6 | 6 | 6 | 21 | " Deniliquin to Mathoura Old Road | 105 |
| 626 | 6 | 5 | 4 | 24 | " Mathoura to Moama, west side of Railway | 240 |
| 627 | 5 | 5 | 5 | 70 | " Moama to Moulamein | 490 |
| 628 | 2 | 2 | 2 | 22 | " Moama to Caloola, Mars, and Womboota | 550 |
| 5,077 | | | | | Carried forward ... | £106,685 |

| No. | Class. | | | Length in Miles. | | Proposed Expenditure. |
|-----|--------|-------|-------|---------------------|--|--------------------------|
| | 1883. | 1884. | 1885. | | | |
| | | | | 5,077 | Southern Roads—continued. | £ |
| | | | | | Brought forward ... | 106,685 |
| 629 | 6 | 6 | 6 | 15 | Road from Moama to Bama ... | 75 |
| 630 | 5 | 5 | 5 | 60 | „ Till Till to Oxley Bridge ... | 420 |
| 631 | 5 | 5 | 6 | 116 | „ Balranald towards Hay ... | 812 |
| 632 | 4 | 4 | 4 | 100 | „ Carathoul, <i>via</i> Gunbar, to Hillston ... | 1,000 |
| 633 | 5 | 5 | 5 | 130 | „ Hulong Station, to the Lachlan, at Lake Cudgellico Crossing ... | 910 |
| 634 | 3 | 3 | 3 | 50 | „ Hay to Gunbar ... | 750 |
| 635 | 3 | 3 | 3 | 40 | „ Lachlan at Whealbah to Gunbar .. | 600 |
| 636 | 3 | 3 | 3 | 40 | „ Hay to Black Swamp ... | 600 |
| 637 | 2 | 2 | 2 | 50 | „ Hay to Booligal ... | 1,250 |
| 638 | 5 | 6 | 6 | 120 | „ Hay to Narrandera ... | 600 |
| 639 | 2 | 2 | 2 | 6 | „ Hay and Narrandera Road to Darlington Railway Station ... | 150 |
| 640 | ... | 5 | 5 | 80 | „ Hay to Darlington ... | 560 |
| 641 | 5 | 6 | 6 | 50 | „ Booligal to Hillston ... | 250 |
| 642 | 5 | 6 | 6 | 210 | „ Booligal to Wilcannia ... | 1,050 |
| | | | | 6,144 | Total miles. | Total ... £115,712 |

NOTE.—The amount per mile proposed to be expended on each class of Roads is as follows:—1st class, £50; 2nd class, £25; 3rd class, £15; 4th class, £10; 5th class, £7; 6th class, £5.

| | | £ |
|--------------------|--------|---------|
| Northern Roads ... | 6,014 | 129,407 |
| Western Roads ... | 3,769 | 64,877 |
| Southern Roads ... | 6,144 | 115,712 |
| Total | 15,927 | 309,996 |

NOTE:—All votes for roads within Municipal limits have been excluded from this Schedule. No sum herein contained is, therefore, to be expended within the boundaries of any Municipality.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

POINT PIPER ROAD, PADDINGTON.

(PLANS, SURVEYS, PAPERS, &c.)

Ordered by the Legislative Assembly to be printed, 19 November, 1884.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated the 24th September, 1884, That there be laid upon the Table of this House,—

“Copies of all plans, surveys, notifications, papers, letters, or documents
“in any way connected with the Point Piper Road, Paddington.”

(Mr. Butcher.)

SCHEDULE.

| NO. | PAGE. |
|---|-------|
| 1. Mr. Licensed-Surveyor Morkill to the Acting Surveyor-General, transmitting plan of the Point Piper Road showing proposed building and kerb lines; minutes thereon. 11 August, 1863 | 3 |
| 2. Minute Paper for the Executive Council, forwarding plan and book of reference of the road for approval, with a view to opening it under the Act 4 William IV No. 11; minutes thereon. 17 October, 1863..... | 3 |
| 3. The Acting Surveyor-General to the Bench of Magistrates, Central Police Office, Sydney, forwarding copies of plan and book of reference of the road for deposit in that office. 11 November, 1863 | 3 |
| 4. Gazette notice: preliminary notification of the road. 27 November, 1863 | 3 |
| 5. The Under Secretary for Lands to the Clerk of the Executive Council, drawing attention to above notice and requesting him to have the goodness, at the end of one month from the date thereof, to state whether any objections have been received. 2 December, 1863..... | 4 |
| 6. The Clerk of the Executive Council to the Secretary for Lands, in reply to above—no objections; minutes thereon. 11 January, 1864..... | 4 |
| 7. Minute Paper for the Executive Council, recommending confirmation of the road; minutes thereon. 16 February, 1864 | 4 |
| 8. Gazette notice: confirmation of the road. 15 March, 1864 | 4 |
| 9. The Under Secretary for Lands to the Principal Under Secretary, drawing attention to the above notice, and requesting him to have the goodness, at the end of forty days from the date thereof, to state whether any claims for compensation have been received. 22 March, 1864..... | 4 |
| 10. The Principal Under Secretary to the Under Secretary for Lands, in reply to above—no claims; minutes thereon. 3 May, 1864 | 5 |
| 11. Minute Paper for the Executive Council, recommending alignment of the road; minutes thereon. 5 November, 1864 | 5 |
| 12. Gazette notice: alignment of the road. 17 November, 1864 | 5 |
| 13. The Council Clerk, Paddington, to Mr. Wm. Hezlet, M.P. (and presented by him), asking him to use his influence to have the alignment of the road re-marked; minutes thereon. 28 April, 1881 | 5 |
| 14. The Under Secretary for Mines to the Council Clerk, Paddington, in reply to above. 4 July, 1881 | 6 |
| 15. The Council Clerk, Paddington, to the Secretary for Mines, applying for the re-marking of the road; minutes thereon. 11 August, 1881 | 6 |
| 16. Mr. Surveyor Hedgeland to the Surveyor-General, transmitting a plan, &c., showing his survey of the road, &c. 24 October, 1881..... | 6 |
| 17. The Council Clerk, Paddington, to the Under Secretary for Mines, further respecting the re-marking of the road; minutes thereon. 24 November, 1881 | 7 |
| 18. The Under Secretary for Mines to the Council Clerk, Paddington, in reply to above, and forwarding tracing. 20 December, 1881 | 7 |
| 19. The Council Clerk, Paddington, to the Under Secretary for Mines, asking for the re-marking of the road in accordance with the alignment plan recently furnished to that Council; minutes thereon. 30 January, 1882... | 7 |
| 20. The Under Secretary for Mines to the Council Clerk, Paddington, in reply to above. 22 March, 1882..... | 8 |

[765 copies—Approximate Cost of Printing (labour and material), £30 1s. 7d.]

| No. | PAGE. |
|---|-------|
| 21. The Council Clerk, Paddington, to the Under Secretary for Mines—Council only requires the Paddington side of the road re-marked; minutes thereon. 25 March, 1882 | 8 |
| 22. The same to the same, further respecting the above. 22 April, 1882 | 8 |
| 23. Mr. Surveyor Hedgeland to the Surveyor-General, reporting on No. 21; minutes thereon. 5 June, 1882 | 8 |
| 24. The Council Clerk, Paddington, to the Under Secretary for Mines, asking for tracing of the alignment plan; minutes thereon. 28 June, 1882 | 9 |
| 25. The Under Secretary for Mines to the Council Clerk, Paddington, with respect to encroachments on the proper alignment of the road. 29 June, 1882 | 9 |
| 26. The same to the Council Clerk, Woollahra, to the same effect. 29 June, 1882 | 9 |
| 27. The Council Clerk, Paddington, to the Under Secretary for Mines, stating that owners of the land on the Paddington side of the road object to a re-alignment, &c.; minutes thereon. 13 July, 1882 | 9 |
| 28. The Under Secretary for Mines to the Council Clerk, Paddington, in reply to the above. 10 August, 1882 | 10 |
| 29. The same to the Council Clerk, Woollahra, with respect to above, and forwarding tracing showing how properties on both sides of the road would be affected by the original alignment. 10 August, 1882 | 10 |
| 30. The Council Clerk, Woollahra, to the Under Secretary for Mines, as to the confusion that would occur by reason of the great divergence of the alignment, &c.; minutes thereon. 13 September, 1882 | 10 |
| 31. The Under Secretary for Mines to the Council Clerk, Woollahra, stating that the road will probably not be re-marked, &c. 22 September, 1882 | 11 |
| 32. Minute of the Commissioner and Engineer for Roads and Bridges—Paddington Council are encroaching on Ocean-street, opposite Albert-street, &c.; minutes thereon. 12 February, 1883 | 11 |
| 33. The Secretary, South Head Roads Trust, to the Commissioner and Engineer for Roads and Bridges, stating that the Paddington Council are constructing kerb and guttering on the western side of the road between Thorne and Little Thorne Streets, &c. 17 February, 1883 | 11 |
| 34. Mr. Engineer M'Mordie to the Commissioner and Engineer for Roads and Bridges, reporting on alleged encroachment on west side of Ocean-street, &c.; minutes thereon. 20 February, 1883 | 11 |
| 35. Minute of the Surveyor-General, reporting fully upon the road; minutes thereon. 15 March, 1883 | 12 |
| 36. The Under Secretary for Mines to the Council Clerk, Paddington—no further steps will be taken towards survey of the road for re-alignment. 28 March, 1883 | 12 |
| 37. The same to the Council Clerk, Woollahra, to the same effect. 28 March, 1883 | 12 |
| 38. The Secretary, South Head Roads Trust, to the Under Secretary for Mines, asking when it would be convenient for the Secretary for Mines to receive a deputation with respect to the road. 4 September, 1883 | 13 |
| 39. The Under Secretary for Mines to the Secretary, South Head Roads Trust, in reply to above. 6 September, 1883 | 13 |
| 40. Deputation waited upon the Secretary for Mines—minutes of preliminary meeting held at Woollahra, &c.; minutes thereon. 14 September, 1883 | 13 |
| 41. Report of the Surveyor-General and the Commissioner and Engineer for Roads and Bridges, enclosing Mr. Stopp's report, &c.; minutes thereon | 15 |
| 42. The Under Secretary for Mines to the Council Clerk, Woollahra, stating that alignment under Mr. Morkill's survey will be adopted, &c. (The Council Clerk, Paddington; the Secretary, South Head Roads Trust; and Mr. W. J. Trickett, M.P., also informed.) 9 January, 1884 | 16 |
| 43. The Council Clerk, Woollahra, to the Under Secretary for Mines, protesting against the adoption of such survey without further inquiry; minutes thereon. 13 February, 1884 | 16 |
| 44. Minute of the Secretary for Mines—send the Honorable Alex. Campbell copy of Messrs. Bennett & Adams' report; minutes thereon. 14 March, 1884 | 16 |
| 45. Memorandum from the Surveyor-General to Mr. District-Surveyor Woolrych to return papers in the case. 15 March, 1884 | 16 |
| 46. The Under Secretary for Mines to the Honorable Alex. Campbell, Esq., M.L.C., papers asked to be returned in order to furnish copy of report. 19 March, 1884 | 17 |
| 47. The same to the same, forwarding a copy of the report. 3 April, 1884 | 17 |
| 48. The Honorable Alex. Campbell, Esq., M.L.C., to the Under Secretary for Mines, calling attention to the delay which has taken place in removing the encroachments on the road between Glebe and Albert Streets, &c.; minutes thereon. 18 July, 1884 | 17 |
| 49. The Council Clerk, Woollahra, to the Under Secretary for Mines—no reply to his letter of 13 February last; minute thereon. 9 August, 1884 | 17 |
| 50. Mr. Surveyor Hedgeland to the Surveyor-General—portion of the road alignment of which he has now re-established, commences at the northern boundary of Rosemount, and extends to the junction with Edgecliff Road, &c. 12 August, 1884 | 17 |
| 51. The Under Secretary for Mines to the Honorable Alex. Campbell, Esq., M.L.C., in reply to No. 48. 13 August, 1884 | 18 |
| 52. The same to the Council Clerk, Woollahra—the surveyor is at present engaged in endeavouring to re-establish the position of the road. 13 August, 1884 | 18 |
| 53. The Secretary, South Head Roads Trust, to the Under Secretary for Mines, requesting that a proclamation may be issued without delay aligning the road, &c. 19 August, 1884 | 19 |
| 54. Minute of the Surveyor-General upon the alignment, and stating that the Works Department should probably cause the removal of fences, &c.; minutes thereon. 24 September, 1884 | 19 |
| 55. The Under Secretary for Mines to the Council Clerk, Woollahra—the proper alignment of that part of the Point Piper Road between Rosemount and the Edgecliff Road has now been re-established and marked upon the ground. (The Council Clerk, Paddington, and the Secretary to the South Head Roads Trust also informed.) 29 September, 1884 | 19 |

POINT PIPER ROAD, PADDINGTON.

No. 1.

Mr. Licensed-Surveyor Morkill to The Acting Surveyor-General.

Sir,

Newtown, 11 August, 1863.

I beg to transmit plan of the Point Piper Road showing proposed building and kerb lines, which I have surveyed in accordance with verbal instructions received from the Deputy Acting Surveyor-General on the 3rd August. See Appendix No. 1.

I have, &c.,

ARTHUR MORKILL,
Licensed Surveyor.

This road in question was reserved by the Crown many years ago, and forms the boundary of alienated lands, but in consequence of the encroachments since made it will be necessary to proclaim it as a parish road under the Act 4 William IV No. 11, so that any objections made afterwards by the occupiers of such encroachments may be carefully looked into before the final confirmation.—J.H.L., 21/9/63.

Plan ready for the Honorable the Executive Council's approval, and tracing ready for the Central Police Office, Sydney.—P. F. ADAMS, 21/9/63.

Plan and book of reference of the Point Piper Road are forwarded with the view to its proclamation under the Act 4 William IV No. 11.—B.C., 23/9/63. W.R.D. The Under Secretary for Lands. For plan see

Book of reference of Point Piper Road.—To be opened as a Parish Road under the Act of Council 4 William IV No. 11.

| Portion. | Reputed Owner. | Occupier. | Breadth of Carriage-way. | Breadth of each Footway. | Total width. | Remarks. |
|--|------------------------------------|---|--------------------------|--------------------------|--------------|---|
| From the Upper or Old South Head Road to the Lower or New South Head Road. | The public. See column of remarks. | Various occupiers and fenced encroachments. | 36 feet ... | 7 feet..... | 50 feet ... | This road was reserved by the Crown and forms a boundary between alienated lands. |

Laid before the Executive Council on 7th November, 1864.

ALEX. C. BUDGE,
Clerk of the Council.

No. 2.

Minute Paper.

Minute Paper for the Executive Council.

Department of Lands, Sydney, 17 October, 1863.

THE accompanying plan and book of reference of the Point Piper Road are recommended for the approval of His Excellency the Governor and the Executive Council, with a view to the opening of the line under the Act 4 William IV No. 11. For plan see Appendix No. 1.
For book of Reference see No. 1.

J. BOWIE WILSON.

The Clerk of the Council, B.C., 17/10/63.—M.F.

The Executive Council advise that the intended formation as a parish road of the road herein referred to, be notified in the manner prescribed by the Act 4 William IV No. 11.

ALEX. C. BUDGE,
Clerk of the Council.

Minute, 19 October, 1863. Confirmed.—J.Y., 28 October, 1863.

No. 3.

The Acting Surveyor-General to The Bench of Magistrates.

Sir,

Department of Lands, 11 November, 1863.

I have the honor to forward for deposit in the Central Police Office, copies of plan and book of reference of the Point Piper Road, which it is the intention to open under the Act 4 William IV No. 11, the receipt of which documents you will be good enough to acknowledge.

I have, &c.,

W. R. DAVIDSON,
Acting Surveyor-General.

No. 4.

Gazette Notice.

Preliminary Notification of Point Piper Road.

Department of Lands, Sydney, 27 November, 1863.

His Excellency the Governor, with the advice of the Executive Council, having deemed it expedient to open and make a parish road (to be maintained at the expense of the parishes through which it passes) from the Upper or Old South Head Road to the Lower or New South Head Road, known as the Point Piper

Piper Road, notice is hereby given, that in conformity with the provisions of the Act of the Governor and Council 4 William IV No. 11, a plan and book of reference showing the intended line of the road abovenamed are now deposited at the office of the Surveyor-General in Sydney, and at the Central Police Office; and all persons interested therein are requested to transmit in writing to the Clerk of the Executive Council within one month from this date, any well grounded objections which may exist to the formation of the road in question.

By His Excellency's Command,
J. BOWIE WILSON.

No. 5.

The Under Secretary for Lands to The Clerk of the Executive Council.

Sir,

Department of Lands, Sydney, 2 December, 1863.

See No. 4.

In drawing your attention to the notice in the Government Gazette of the 27th ultimo, respecting the intended formation of a parish road, viz., from the Upper or Old South Head Road to the Lower or New South Head Road, I am directed to request that you will have the goodness, at the end of one month from the date thereof, to inform me whether any objections have been received by you in respect of the said road in pursuance of the notice alluded to.

I have, &c.,
M. FITZPATRICK,
Under Secretary.

No. 6.

The Clerk of the Executive Council to The Secretary for Lands.

Sir,

Executive Council Office, 11 January, 1864.

See No. 5.

In compliance with the request contained in Mr. Under Secretary Fitzpatrick's letter of the 2nd ultimo, I do myself the honor to inform you that no objection has been lodged with me to the formation of the proposed parish road, viz.: "From the Upper or Old South Head Road to the Lower or New South Head Road."

I have, &c.,
ALEX. C. BUDGE,

Clerk of the Council.

The Acting Surveyor-General, 14 Jan., 1864.—M.F. The confirmation of the road is now recommended.—(For the Acting Surveyor-General) P. F. ADAMS, 4 February, 1864.

No. 7.

Minute Paper for the Executive Council.

Department of Lands, Sydney, 16 February, 1864.

See No. 4.

No objection having been received to the proposed formation of the line of road from the Upper or Old South Head Road to the Lower or New South Head Road, as notified in the Gazette of the 27th November last, it is recommended to His Excellency the Governor and the Executive Council, that the line be confirmed under the Act 4 William IV No 11.

J. BOWIE WILSON.

The Clerk of the Council.—B.C., 18 February, 1864.—M.F. Upon the recommendation of the honorable the Secretary for Lands, the Executive Council advise that the line of road herein referred to be now confirmed in terms of the Act 4 William IV No. 11.—ALEX. C. BUDGE, Clerk of the Council.

Minute, 22 February, 1864. Confirmed, 29 February, 1864. Approved, 2 March, 1864.—J.Y.

No. 8.

Gazette Notice.

Confirmation of Road.

Department of Lands, Sydney, 15 March, 1864.

See No. 4.

WITH reference to the Government Notice, dated 27th November last, relative to the opening and making of a parish road from the Upper or Old South Head Road to the Lower or New South Head Road, notice is hereby given, in accordance with the Act of Council 4 William IV No. 11, that no objection having been made to the proposed road in conformity with the said Act, His Excellency the Governor, with the advice of the Executive Council, has been pleased to confirm the said road, and it is therefore hereby declared expedient to open and make the road referred to according to the plan and book of reference, to be seen at the office of the Surveyor-General at Sydney, and at the Central Police Office; and all persons intending to claim compensation in respect of the said line are hereby reminded that notice must be served upon the Colonial Secretary within forty days from the date hereof, in such manner and form as are provided by the 6th section of the Act above referred to, or they will be for ever foreclosed from such claim.

By His Excellency's Command,
J. BOWIE WILSON.

No. 9.

The Under Secretary for Lands to The Principal Under Secretary.

Sir,

Department of Lands, Sydney, 22 March, 1864.

See No. 8.

In drawing your attention to the notice in the Government Gazette of the 15th instant, respecting the confirmation of the line of Road, viz., from the Upper or Old South Head Road to the Lower or New South Head Road, I am directed to request that you will have the goodness, at the end of forty days from the date thereof, to state whether any claims to compensation have been made in respect of the said road, in pursuance of the notice referred to.

I have, &c.,
M. FITZPATRICK,
Under Secretary.

No. 10.

No. 10.

The Principal Under Secretary to The Under Secretary for Lands.

Sir, Colonial Secretary's Office, Sydney, 3 May, 1864. In reply to your letter of the 22nd March last, I am directed to state for the information of the Secretary for Lands that no applications have been received in this office for compensation in respect to the line of road from the Upper or Old South Head Road to the Lower or New South Head Road. I have, &c., W. ELYARD.

The Acting Surveyor-General, 6 May, 1864.—M.F. The accompanying plan and schedule of Point Piper Road are now forwarded with a view to its being aligned under the Act 2 Victoria No. 2. The Under Secretary for Lands.—B.C., 27 October, 1864, for the Surveyor-General, P. F. ADAMS. For plan see Appendix No. 1.

SCHEDULE OF POINT PIPER ROAD. To be aligned under Act of Council 2nd Victoria No. 2.

Table with 5 columns: From, To, Breadth of Carriage-way, Breadth of each Footway, Total width. Row 1: The Upper or Old South Head Road, The Lower or New South Head Road, 36 feet, 7 feet, 50 feet.

No. 11.

Minute Paper for The Executive Council.

Department of Lands, Sydney, 5 November, 1864. The accompanying plan and schedule of Point Piper Road are recommended for the approval of His Excellency the Governor and the Executive Council with a view to the alignment of the road under the Act 2 Victoria No. 2. J. BOWIE WILSON. For plan see Appendix No. 1. For schedule see No. 10.

The Clerk of the Council, B.C., 5 November, 1864.—M.F. The Executive Council approve of the plan and schedule of Point Piper Road herewith submitted, and advise that it be aligned in terms of the Act 2 Victoria No. 2.—ALEX. C. BUDGE, Clerk of the Council. Minute, 7 November, 1864. Confirmed, 9 November, 1864. Approved, 11 November, 1864.—J.Y. The Surveyor-General, B.C., 1/12/64.—M.F.

No. 12.

Gazette Notice.

Alignment of Point Piper Road.

Executive Council Office, Sydney, 17 November, 1864. His Excellency the Governor, with the advice of the Executive Council, directs it to be notified, in conformity with the provisions of the Act of Council 2 Victoria No. 2, that the breadth of the carriage and foot ways of Point Piper Road shall be those set forth in the annexed schedule, and that consequently it will not be lawful for any person to erect any building within the said distances so set forth from the kerbstone or the exterior edge of the said footways, as delineated on the plan submitted to His Excellency and the Executive Council, in conformity with the said Act, which said plan lies at the office of the Surveyor-General for the inspection of the public.

By His Excellency's Command, ALEX. C. BUDGE, Clerk of the Council.

Schedule referred to.

Table with 6 columns: Name of Road, From, To, Width of Carriage-way, Width of each footway, Total width. Row 1: Point Piper Road, The Upper or Old South Head Road, The Lower or New South Head Road, 36 feet, 7 feet, 50 feet.

No. 13.

The Council Clerk, Paddington, to Mr. Wm. Hezlet, M.P.

Sir, Borough of Paddington, Council Chambers, 28 April, 1881. I have the honor, by direction of the Mayor of this Borough, to request that you will be pleased to use your influence as M.P. for Paddington in inducing the Government to have the alignment of the Point Piper Road re-marked with as little delay as possible, as a number of property-holders, whose holdings encroach on the said road have offered to remove such encroachments to the proper alignment, and kerb and gutter the foot-path in front of same, on condition that this Council pay a moiety of said kerbing and guttering.

I might state that the encroachments proposed to be removed have a frontage to the road of over 200 feet and encroach thereon in some places 10 feet. If, therefore, you could further the matter by inducing the Government to take advantage of this liberal offer you will not only confer a boon on the residents in the district but will save the Government a considerable sum, which, sooner or later, will very likely be required as compensation.

I have, &c.,

CHARLES HELLMRICH,
Council Clerk.

The Under Secretary for Mines, B.C., 5/5/81.—J.R. The Surveyor-General, B.C., 9/5/81.—G.E.H., *pro* U.S.

The Point Piper Road was aligned in 1864, the Government cannot consequently be in any way responsible for any encroachment which may have been made upon it; it is therefore recommended that the re-marking of the road as applied for be only carried out upon the understanding that the Borough Council will bear the expense of such re-marking and any survey which may be found necessary.—A. J. STOPPS, for Surveyor-General, 15 June, 1881.

Submitted.—H.W., 21/6/81. Approved.—E.A.B., 21/6/81.

As it has been pointed out (personally) by the Council Clerk of the Municipality of Paddington, that the Point Piper Road, although aligned, is not yet under the control and in the charge of that municipality, being still one of the Trust roads under the Act 11 Victoria No. 49, it is recommended that the marking here referred to be at the expense of the Crown.—A. J. STOPPS, for Surveyor-General, 25 June, 1881.

Submitted.—H.W., 28/6/81. Approved.—E.A.B., 30/6/81.

No. 14.

The Under Secretary for Mines to The Council Clerk, Paddington.

Sir,

Department of Mines, Sydney, 4 July, 1881.

With reference to your letter of the 28th April last, requesting that Point Piper Road, in the Municipality of Paddington, be re-marked, I am directed by the Secretary for Mines to inform you that as it appears the Point Piper Road, although aligned, is not yet under the control and in charge of the Paddington Municipality, it being still a Trust road, the re-marking will be carried out at the expense of the Crown.

I have, &c.,

HARRIE WOOD,
Under Secretary.

No. 15.

The Council Clerk, Paddington, to The Secretary for Mines.

Sir,

Borough of Paddington, Council Chambers, 11 August, 1881.

I have the honor, by direction of the Mayor, to request that you will cause the Point Piper Road to be re-marked at your very earliest convenience, as some of the persons who promised to remove encroachments from said road, and pay a moiety of the cost of kerbing, guttering, and asphaltting same, have informed this Council that unless the work is at once carried out they will withdraw their offer.

I would respectfully suggest that you might allow Mr. Surveyor Maitland (who is at present working in the district) to carry out the said work.

I have, &c.,

CHARLES HELLMRICH,
Council Clerk.

The Surveyor-General, B.C., 12/8/81.—G.E.H., *pro* U.S. Forwarded to Mr. District-Surveyor Woolrych, who is requested to have the survey carried out as here applied for with as little delay as possible, under the circumstances here stated.—A. J. STOPPS (for Surveyor-General), 19 August, 1881. Transferred to Mr. Surveyor Hedgeland.—F. B. WOOLRYCH, D.S., 29 August, 1881.

No. 16.

Mr. Surveyor Hedgeland to The Surveyor-General.

Sir,

St. Olaves, Bondi, 24 October, 1881.

In reference to your instructions dated 19 August, 1881, transferred to me by Mr. District-Surveyor Woolrych, I have the honor to transmit herewith a plan and field-book showing my survey of the Point Piper Road from Moncur-street to the South Head New Road, which is the portion of the Point Piper Road I was informed by the Council Clerk of Paddington the Borough Council desire should be re-marked.

2. This plan has been drawn to the same scale as the original alignment plan in your office, a tracing of which I have furnished herewith, for the purpose of comparing the two surveys.

3. I find that the Point Piper Road in its present form differs considerably from the alignment as shown by this plan. I also note there is no record or evidence that the alignment there shown was marked out upon the ground.

4. To re-mark approximately the alignment made in 1864 must now involve the disturbance of the existing frontages of several valuable properties. Before doing this, I would beg to submit to you whether the building lines laid down on the alignment plan are to be adhered to, or whether a deviation can be conceded to meet the existing building lines generally, or only where the full width of the road has been retained. I would beg further to submit to your consideration the following notes with reference to this matter.

5. Mr. James, who has for twenty years filled the position of road overseer for the Borough of Woollahra, informed me that the owner of "Edgecliff" (Mr. W. Busby, I believe) received, some years since, a consideration from the Borough Council of Woollahra to remove back his fence to the correct building line, and the fence was at that time put back; but Mr. James could not inform me who was responsible for the line then given.

6. I was informed by Mr. May, the owner of "Maidstone Cottage," that the now existing fences from "Lewisham" to Glebe-street are the original fences which existed in 1864. I think he is correct, and their present dilapidated state tends to confirm his assertion.

7.

See No. 13.

See Appendix
No. 2.

See Appendix
No. 2 A.

7. Upon placing a tracing of these fences as shown on the alignment plan over that of mine, it appears to me that the line given to Mr. Busby was not correct, and that his building line should have gone further back. By the same process, I think the stone wall and fence of "Orierton" encroaches still more upon the alignment of Point Piper Road. "Orierton" appears to have been unenclosed land when the alignment survey was made. Also the stone wall and railings of "Lancaster Villas," at the junction with the south-side building line of Albert-street, encroach nearly the width of the footway upon the building line; and a full width has been given to Point Piper Road by putting back the frontage of "Crathie," "Oban," and other properties on the opposite side of the road.

8. Between Ocean-street and Trelawney-street the original alignment of Point Piper Road has been materially altered, but the proper width of 50 feet has been fairly retained, and I believe the owners on either side are satisfied.

9. From Trelawney-street to Moncur-street, the fences on the eastern side of Point Piper Road I believe to be the same fences shown on the alignment plan; but Mr. James (whom I have previously referred to) thinks that the fencing between Moncur-street and a lane was put back to the alignment line some time ago, but he was unable to inform me when or by whom this was done. The rest of the fencing from the lane to Trelawney-street he agrees has been undisturbed from the time when the alignment survey was made.

I have, &c.,

GEORGE C. HEDGELAND,
Surveyor.

No. 17.

The Council Clerk, Paddington, to The Under Secretary for Mines.

Sir,

Borough of Paddington, Council Chambers, 24 November, 1881.

I have the honor, by direction of the Mayor, to request that you will be pleased to cause the re-marking of the alignment of the Point Piper Road to be carried out as soon as possible, as, unless the same is completed during the present year, either the Government or this Council will be put to considerable expense in purchasing the existing encroachments and making provision for drainage.

I have, &c.,

CHARLES HELLMRICH,
Council Clerk.

The Surveyor-General, B.C., 27/11/81.—G.E.H., *pro* U.S.

A survey recently made with a view of carrying out the request of the Borough Council for re-marking of the alignment of part of the Point Piper Road proves that considerable encroachments have been made upon that road as aligned in 1864, as shown upon the accompanying tracing marked B, and there is no course for this Department to take (unless the Borough Council of Paddington can suggest one) but to re-establish the old alignment. It is recommended that the Borough Council be so informed, and the tracing above alluded to forwarded to them to enable them to make any suggestion they may think fit, which (if practicable) can only be carried out upon their undertaking the responsibility of the adoption of any such suggested course.—A. J. STORPS (for Surveyor-General), 13 December, 1881.

See Appendix
No. 2.

Submitted.—H.W., 16/12/81. Inform as herein recommended.—A.R., 17/12/81.

No. 18.

The Under Secretary for Mines to The Council Clerk, Paddington.

Sir,

Department of Mines, Sydney, 20 December, 1881.

With reference to your letter of the 24th ultimo, applying for the re-marking of the alignment of the Point Piper Road, I am directed by the Secretary for Mines to inform you that a survey recently made with a view of carrying out the request of the Borough Council for re-marking of the alignment of part of the Point Piper Road shows that considerable encroachments have been made upon that road as aligned in 1864, as shown upon the accompanying tracing marked B, and there is no course for this Department to take (unless the Borough Council of Paddington can suggest one) but to re-establish the old alignment; and should the Borough Council make a suggestion (if practicable), it can only be carried out upon their undertaking the responsibility of the adoption of any such suggested course.

See No. 17.

See Appendix
No. 2.

I have, &c.,

HARRIE WOOD,
Under Secretary.

No. 19.

The Council Clerk, Paddington, to The Under Secretary for Mines.

Sir,

Borough of Paddington, Council Chambers, 30 January, 1882.

I have the honor, by direction of the Mayor, to request that you will be pleased to cause the Point Piper Road to be re-marked in accordance with the alignment plan recently furnished to this Council at your very earliest convenience.

I have, &c.,

CHARLES HELLMRICH,
Council Clerk.

The Surveyor-General, B.C., 30/2/82.—G.E.H., *pro* U.S.

The tracing furnished to the Borough Council showed that there were considerable encroachments made on this road since the date of its alignment; as it is therefore desirable that the Borough Council should clearly understand that if the old alignment be re-marked (which is understood by this letter from them to be their desire), such re-marking would interfere with valuable properties which encroach. It is therefore recommended that the Council be so informed, and requested to return to this office the tracing sent them if they desire to have the old alignment re-established as shown thereon.—A. J. STORPS, for Surveyor-General, 14 March, 1882.

Submitted.—H.W., 17/3/82. Inform.—A.R., 17/3/82.

No. 20.

The Under Secretary for Mines to The Council Clerk, Paddington.

Sir,

Department of Mines, Sydney, 22 March, 1882.

See No. 19.

With reference to your letter of the 30th January last, requesting that Point Piper Road be re-marked in accordance with the alignment plan, I am directed by the Secretary for Mines to inform you that the tracing furnished to the Borough Council showed that there were considerable encroachments made on the road in question since the date of its alignment; and should the old alignment be re-marked, such re-marking would interfere with valuable properties which encroach. Should the Borough Council desire to have the old alignment re-established, I have to request you to return to this office the tracing sent you on the 20th December last.

I have, &c.,

HARRIE WOOD,

Under Secretary.

No. 21.

The Council Clerk, Paddington, to The Under Secretary for Mines.

Sir,

Borough of Paddington, Council Chambers, 25 March, 1882.

I am directed by the Mayor to inform you that the Council only require the Paddington side of the Point Piper Road re-marked, and to request that you will cause the same to be done, to enable them to cause the kerbing and guttering to be laid to carry the drainage and storm waters.

I have, &c.,

CHARLES HELLMRICH,

Council Clerk.

The Surveyor-General, B.C., 27/3/82.—G.E.H., *pro* U.S.

Forwarded to Mr. District-Surveyor Woolrych, who is requested to have one side only of the Point Piper Road re-marked, as here applied for, in accordance with the alignment of the 17th November, 1864, and as shown upon the tracing forwarded to the Municipal Council, which should be obtained from the Council.—A. J. Storrs, for Surveyor-General, 29 March, 1882.

Transferred to Mr. Surveyor Hedgeland, who is requested, if possible, to adhere to the same origin of co-ordinates in all his surveys of Paddington and Waverley.—F.B.W.W., D.S., 4/4/82.

No. 22.

The Council Clerk, Paddington, to The Under Secretary for Mines.

Sir,

Borough of Paddington, Council Chambers, 22 April, 1882.

I have the honor, by direction of the Mayor, to again request that you will be pleased to cause the alignment of that portion of the Point Piper Road, situated within this Borough, to be re-marked at your very earliest convenience as per alignment plan.

I have, &c.,

CHARLES HELLMRICH,

Council Clerk.

The Surveyor-General, B.C., 24/4/82.—G.E.H., *pro* U.S.

No. 23.

Mr. Surveyor Hedgeland to The Surveyor-General.

Sir,

St. Olaves, Bondi, 5 June, 1882.

See No. 21.

With reference to your instructions, dated B.C., 29th March, 1882, transmitted to me by Mr. District-Surveyor Woolrych, I have the honor to submit to your consideration that the centre of the Point Piper Road, being the boundary of the Municipalities of Paddington and Woollahra, the re-marking of the alignment of this road within the Municipality of Paddington necessarily determines the building-lines of the opposite side in the Municipality of Woollahra.

See Appendix
No. 1.

2. A portion of the Point Piper Road from Denison-street to the fence dividing "Stonyhurst" from G. Thorne's property is now a deviation from the original alignment, as shown by plan, p. 4, 1844, in your office.

3. To re-mark the Paddington side of this portion of Point Piper Road, the alignment-posts must now stand from 6 to 8 feet on the existing roadway, and the properties on the Woollahra side consequently made to encroach a similar distance upon the proper width of the street.

4. As I think the Woollahra Council would oppose such interference with this existing part of Point Piper Road where the full width has been kept, I desire to submit to you whether the Borough Council of Woollahra should be informed of this application on the part of the Borough of Paddington, and their concurrence obtained previously to carrying out your instructions.

I have, &c.,

GEORGE C. HEDGELAND,

Surveyor.

See No. 12.

The Borough Council of Paddington have applied to have the Point Piper Road re-marked on the ground; the alignment of this road was established by proclamation of 17th November, 1864, under Act 2 Victoria No. 2. The surveyor reports that a portion of this road, viz., from Denison-street to the fence dividing "Stonyhurst" from G. Thorne's property, is a departure from the proper alignment, and that alignment-posts, if erected in accordance with that alignment, would stand from 6 to 8 feet on the existing roadway, and on the opposite side of the road, viz., the Woollahra side, they would be the same distance within the properties in that Borough. In other places the alignment cuts off properties on one side of the road, while

while on the other side the fences do not come up to the alignment. Under these circumstances, it is thought that the Borough Councils of Paddington and of Woollahra should be made acquainted with these facts, with a view to their conferring together, in order to determine upon some course that may be adopted in re-aligning the road, so as to do as little injury as possible to private property.—A. J. STORRS, for Surveyor-General, 22 June, 1882.

Submitted.—H. W., 23/6/82. Inform as advised.—A. R., 26/6/82.

No. 24.

The Council Clerk, Paddington, to The Under Secretary for Mines.

Sir,

Borough of Paddington, Council Chambers, 28 June, 1882.

I have the honor, by direction of the Mayor, to request that you will be pleased to furnish this Council with a tracing of the alignment plan of Point Piper Road.

I have, &c.,

CHARLES HELLMRICH,
Council Clerk.

The Surveyor-General, B.C., 29/6/82.—G. E. H., *pro* U.S.

No. 25.

The Under Secretary for Mines to The Council Clerk, Paddington.

Sir,

Department of Mines, Sydney, 29 June, 1882.

With reference to your application on behalf of the Borough Council of Paddington for the re-marking of the Point Piper Road, I am directed by the Secretary for Mines to inform you that the alignment of the road in question was established by proclamation of 17th November, 1864, under Act 2 Victoria No. 2. The surveyor reports that a portion of the road, viz., from Denison-street to the fence dividing "Stonyhurst" from G. Thorne's property, is a departure from the proper alignment, and that alignment-posts, if erected in accordance with that alignment, would stand from 6 to 8 feet on the existing roadway, and on the opposite side of the road, viz., the Woollahra side, they would be the same distance within the properties in that Borough. In other places the alignment cuts off properties on one side of the road, while on the other side the fences do not come up to the alignment. Under these circumstances it is considered advisable that the Borough Councils of Paddington and Woollahra should confer together and determine upon some course that may be adopted in re-aligning the road so as to do as little injury as possible to private property.

I have, &c.,

HARRIE WOOD,
Under Secretary.

No. 26.

The Under Secretary for Mines to The Council Clerk, Woollahra.

Sir,

Department of Mines, Sydney, 29 June, 1882.

With reference to an application of the Borough Council of Paddington for the re-marking of the Point Piper Road, I am directed by the Secretary for Mines to inform you that the alignment of the road in question was established by proclamation of 17th November, 1864, under Act 2 Victoria No. 2. The surveyor reports that a portion of the road, viz., from Denison-street to the fence dividing "Stonyhurst" from G. Thorne's property is a departure from the proper alignment, and that alignment-posts, if erected in accordance with that alignment, would stand from 6 to 8 feet on the existing roadway, and on the opposite side of the road, viz., the Woollahra side, they would be the same distance within the properties in that Borough. In other places the alignment cuts off properties on one side of the road, while on the other side the fences do not come up to the alignment. Under these circumstances it is considered advisable that the Borough Councils of Paddington and Woollahra should confer together and determine upon some course that may be adopted in re-aligning the road so as to do as little injury as possible to private property.

I have, &c.,

HARRIE WOOD,
Under Secretary.

No. 27.

The Council Clerk, Paddington, to The Under Secretary for Mines.

Sir,

Borough of Paddington, Council Chambers, 13 July, 1882.

Referring to your letter of the 29th ultimo, respecting the re-marking of the alignment of the Point Piper Road, I have the honor, by direction of the Mayor, to inform you that the owners of the land on the Paddington side of the road object to a re-alignment, and to request that you will cause the re-marking to be performed as per alignment plan at your very earliest convenience.

I have, &c.,

CHARLES HELLMRICH,
Council Clerk.

The Surveyor-General, B.C., 14/7/82.—G. E. H., *pro* U.S.

In view of this letter from the Paddington Borough Council, requiring the re-marking of the Point Piper Road in accordance with the original alignment, on the grounds that the owners of properties object to any alteration, and also in view of the fact that the Woollahra Borough Council is equally interested in the road in question, it is recommended that the accompanying tracing, which shows how properties on both sides of the road would be affected by the original alignment, be forwarded to the Borough Council

of Woollahra, in order that that Council might express its concurrence with the request of the Paddington Council, or that it might take such steps as may be thought fit to effect a compromise that will be equally advantageous for both Councils. The Borough Council of Paddington should probably also be informed of the action taken.—A. J. STORRS (for Surveyor-General), 26 July, 1882.

Submitted.—H. W., 4/8/82. Approved.—A. R., 7/8/82.

No. 28.

The Under Secretary for Mines to The Council Clerk, Paddington.

Sir,

Department of Mines, Sydney, 10 August, 1882.

With reference to your letter of the 13th ultimo, stating that the owners of land on the Paddington side of the Point Piper Road object to a re-alignment of that road, and requesting that its re-marking be carried out according to the alignment plan, I am directed by the Secretary for Mines to inform you that a tracing, which shows how properties on both sides of the road would be affected by the original alignment, has been forwarded to the Borough Council of Woollahra, in order that that Council may express its concurrence with the request of the Borough Council of Paddington, or that they may take such steps as may be thought fit to effect a compromise that will be equally advantageous to both Councils.

I have, &c.,
HARRIE WOOD,
Under Secretary.

See No. 27.

No. 29.

The Under Secretary for Mines to The Council Clerk, Woollahra.

Sir,

Department of Mines, Sydney, 10 August, 1882.

With reference to a letter received from the Borough Council of Paddington, stating that the owners of land on the Paddington side of the Point Piper Road object to a re-alignment of that road, and requesting that its re-marking be carried out according to the alignment plan, I am directed by the Secretary for Mines to forward you the accompanying tracing, showing how properties on both sides of the road would be affected by the original alignment, in order that the Borough Council of Woollahra may express its concurrence with the request of the Borough Council of Paddington, or that they may take such steps as may be thought fit to effect a compromise that will be equally advantageous to both Councils.

I have, &c.,
HARRIE WOOD,
Under Secretary.

See Appendix
No. 2.

No. 30.

The Council Clerk, Woollahra, to The Under Secretary for Mines.

Sir,

Borough of Woollahra, Council Chambers, 13 September, 1882.

I have the honor to acknowledge the receipt of a communication from the Under Secretary of the Department over which you preside, dated the 10th ultimo, which covered a tracing of the re-alignment of the Point Piper Road carried out by Mr. Surveyor Hedgeland, and marked B.

The instructions received by me from the Council of this Borough last evening were to lay before you the confusion that would occur by reason of the great divergence of the alignment already referred to, and that furnished by Government as noted below,* and under which this Council has acted ever since the Municipality was formed.

Information has reached this Council that the neighbouring Council of Paddington has determined to lay kerbing and guttering on the lines of Mr. Hedgeland's survey, and for that reason I am instructed to press upon your earliest attention the position of affairs, and the necessity of Government interference, in order that some compromise may be effected without touching the important interests of the owners of properties standing on the original alignment.

I may add that the Paddington Council has declined to meet a Committee appointed by this Council with a view to a conference on the subject.

I have, &c.,
SAMUEL SYMONDS,
Council Clerk.

See No. 29.

See Appendix
No. 2.

The Surveyor-General, B.C., 14/9/82.—G. E. H., *pro* U.S.

It appears to be a matter of regret that the Borough Councils of Woollahra and Paddington cannot come to an agreement respecting the re-alignment of the Point Piper Road; but in the absence of such agreement, and in view of the facts as previously stated, the better course would probably be *not* to re-mark the Point Piper Road; but if it be determined that action should be taken by the Crown, the only course would seem to be to re-establish the original alignment without consideration of the interests of the property-holders in either borough, and if this latter course be adopted it should perhaps be with the full understanding, should any alteration subsequently be required, the cost thereof must be borne by the Borough Councils.—A. J. STORRS (for Surveyor-General), 20 September, 1882.

Inform.—A. R., 20/9/82.

No. 31.

* Plan showing streets in the Municipality of Woollahra to be opened under the Act of Council 4 William IV No. 11.

No. 31.

The Under Secretary for Mines to The Council Clerk, Woollahra.

Sir,

Department of Mines, 22 September, 1882.

With reference to the matter of the re-alignment of the Point Piper Road, I am directed by the Secretary for Mines to inform you that as it appears the Borough Councils of Woollahra and Paddington cannot come to an arrangement respecting the re-alignment of the Point Piper Road, and in the absence of such arrangement, and in view of the facts as previously stated, it is probable that the road will not be re-marked, but should it be determined that action in the matter be taken by the Crown, the only course would seem to be to re-establish the original alignment without consideration of the interests of the property-holders in either Borough; and if this latter action be adopted, it will be done with the full understanding, should any alteration subsequently be required, that the cost thereof must be borne by the Borough Councils.

I have, &c.,

HARRIE WOOD,
Under Secretary.

No. 32.

Minute of Commissioner to Mr. Daniels.

Department of Roads and Bridges, Sydney, 12 February, 1883.

It is pointed out that the Paddington Council are encroaching with kerb on Ocean-street, opposite Albert-street. The kerbing if carried on as they intend will narrow the street very materially. Look up any alignment in the Surveyor-General's Office. I think there is a survey. W.C.B.

Tracing herewith.—J.H.D., 15/2/83. Will Mr. M'Mordie do me the favour to look at this, and report; it is near him.—W.C.B., 15/2/83. Mr. M'Mordie, B.C. See Appendix No. 3.

No. 33.

The Secretary, South Head Roads Trust, to The Commissioner and Engineer for Roads and Bridges.

Point Piper Road.

Sir,

Pitt and Bond Streets, Sydney, 17 February, 1883.

The Paddington Council are constructing kerb and guttering upon the western side of the Point Piper Road, between Thorne and Little Thorne Streets. It is the opinion of the Commissioners of the South Head Roads Trust that this kerbing is incorrectly placed, and is not in accordance with the Road's alignment, and the Council has been so informed by me, and on a previous occasion when the work was being commenced a similar verbal intimation was made to the Council Clerk.

The road is very narrow now, and the kerb reduces it considerably; Mr. Armstrong's alignment pegs can be pointed out by the Trusts, and were shown to the Council Clerk, but he says the Council is working to another proclamation. I think it right to inform you this.

Yours truly,

GERARD PHILLIPS,
Secretary, South Head Roads Trust.

No. 34.

Mr. Engineer M'Mordie to The Commissioner and Engineer for Roads and Bridges.

Alleged encroachment on west side of Ocean-street, between Albert-street and Glebe-street.

Sydney, 20 February, 1883.

At the place referred to there is an encroachment on the roadway of about 13 feet, and the question in dispute is on which side of the street the encroachment has been made. The tracing herewith returned shows that encroachments had been made on both sides of the street, and a cursory examination of the plan indicates that a re-alignment had been effected, giving the full width of the street from the south end to a point marked A on marginal sketch, about 39 feet south of Albert-street; and that from this point to Glebe-street there is still an encroachment of 12 or 13 feet. Assuming the plan to be correct, I am of opinion that a part of the encroachment occurs on the Paddington side, where the kerbing is now being laid; while the re-alignment effected south of Albert-street would lead to the conclusion that the whole encroachment is on the Paddington side. Not being able to satisfy myself on the ground as to the actual state of the matter, I went to the Paddington Council Chambers, and was informed by the Council Clerk that the question involved here is an old standing dispute between Paddington and Woollahra, that in the re-alignment already carried out the Paddington Council had moved back the building too far, and that the owners of the property opposite and north of Albert-street would not allow them to carry on that line, alleging that it encroached on their property. He showed me a plan which he states is a tracing of one supplied by the Government, and to which he states they are endeavouring to work correctly, and he produced some correspondence from the Department of Mines on the subject. (See Nos. 20, 25, and 28.)

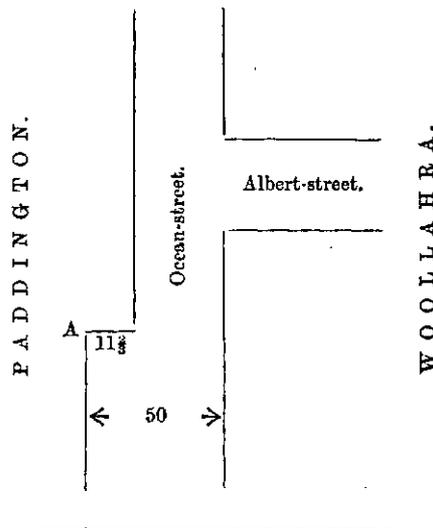
I then called at the Woollahra Council Chambers, and was informed by the clerk that the building line on the Woollahra side is laid out in accordance with a plan supplied to them by Government at the time the Corporation was formed, and that they will not recognize any other plan. I again visited the ground to-day, and still I can do no more than report that there is a serious encroachment on the road, but whether on one or both sides I am unable to say.

D. McMORDIE.

This

This dispute can only be settled by the Survey Department; it is of importance it should be settled before the kerbing is put down. I advise that papers be sent on to the Surveyor-General.—W.C.B., 21/2/83.

The Under Secretary, B.C. The Under Secretary for Mines, B.C., 21/2/83.—J.R. The Surveyor-General, B.C., 24/2/83.—G.E.H., *pro* U.S.



No. 35.

Minute of Surveyor-General.

Point Piper Road.

This is one of the Trust Roads under the Act 11 Victoria No. 49, and was laid out for alignment under 2 Victoria No. 2, in the year 1863, probably upon personal application of the Commissioners of the Road Trust. After alignment had been carried out further action by this Department was not required, nor was any requested until 1880, when the Borough of Paddington urged upon Mr. Hezlett, M.P. for Paddington, the necessity of getting the encroachments abated, some of which existed at the time the survey and alignment of the road took place; and upon renewal of fences, &c., they appear to have been allowed to be erected of a more substantial and permanent character and to still further encroach upon the road, instead of being put back to the proper building line.

To carry out the desired object re-marking of the road was necessary, and the Department was asked to have the survey made, but the Crown demurred, until it was found that the road had not been placed in charge of any municipal authorities, but was under a Trust, which had apparently permitted the encroachments to continue and to increase; then re-survey was undertaken, when it was found that so serious had been the departure from the building lines of the road as established by alignment that it was determined not to go on with the survey unless the two Boroughs, viz., Paddington and Woollahra (the Point Piper Road forms a boundary between the two Municipalities), could come to a mutual understanding as to a course which might be adopted in making a re-alignment. (See Surveyor-General's minutes upon Nos. 23, 27, and 30.) As no agreement between the Borough Councils could be obtained, it was determined that the Crown should take no further steps towards survey for re-alignment.

It is recommended that the Commissioner and Engineer for Roads be informed of the state of the case.

A. J. STOPPS

(For Surveyor-General),

15 March, 1883.

Submitted.—G.E.H., *pro* U.S., 19/3/83. Approved.—J. P. ABBOTT, 19/3/83. When they have been informed, and when they make suggestions, I wish the papers to be re-submitted that I may state what shall be done.—J. P. ABBOTT, 19/3/83.

No. 36.

The Under Secretary for Mines to The Council Clerk, Paddington.

Sir,

Department of Mines, Sydney, 28 March, 1883.

With reference to the matter of the re-alignment of the Point Piper Road, I am directed by the Secretary for Mines to inform you that as it appears that no agreement between the Borough Councils of Paddington and Woollahra can be obtained, or suggestions made, no further steps will be taken towards survey of the road for re-alignment.

I have, &c.,

HARRIE WOOD,

Under Secretary.

No. 37.

The Under Secretary for Mines to The Council Clerk, Woollahra.

Sir,

Department of Mines, Sydney, 28 March, 1883.

With reference to the matter of the re-alignment of the Point Piper Road, I am directed by the Secretary for Mines to inform you that as it appears that no agreement between the Borough Councils of Woollahra and Paddington can be obtained, or suggestions made, no further steps will be taken towards survey of the road for re-alignment.

I have, &c.,

HARRIE WOOD,

Under Secretary.

No. 38.

No. 38.

The Secretary, South Head Roads Trust, to The Under Secretary for Mines.

Sir,

Bond-street, Sydney, 4 September, 1883.

The unsatisfactory state of the alignment of the Point Piper Road is a matter which is causing considerable trouble to this Trust and the Borough Councils of Woollahra and Paddington.

A conference on the subject was held yesterday evening at the Woollahra Council Chambers, at which met delegates from the Trust and the Councils.

At that conference it was moved by the Honorable Alex. Campbell (one of the Trustees), seconded by Alderman Davis, of Paddington, and carried unanimously:—

“That a deputation consisting of those present at this conference, viz. :—*Woollahra*—The Mayor (R. Butcher, Esq., M.L.A.), and Aldermen the Honorable James Norton and J. S. Mitchell, Esqs.; *Paddington*—The Mayor (— Watson, Esq.), and Aldermen Graham and Davis; *South Head Roads Trust*—The Honorable A. Campbell and John Macpherson, Esqs.;—wait upon the Honorable the Minister for Mines to represent the unsatisfactory state of the alignment of the Point Piper Road, and the discrepancy existing between the plans of that alignment as furnished by the Government to the Boroughs, and to ask that a re-alignment may be made, so as to restore the road to its original width of 50 feet.”

I have the honor to request that you will inform me, on behalf of the proposed deputation, when it will be convenient to the Minister to grant an interview.

I have, &c.,

GERARD PHILLIPS,

Secretary to South Head Roads Trust,
and also to said conference.

Urgent. Minister will receive deputation at 11 a.m. on Friday next.—H.W., 5/9/83.

No. 39.

The Under Secretary for Mines to The Secretary, South Head Roads Trust.

Sir,

Department of Mines, Sydney, 6 September, 1883.

In reply to your letter of the 4th instant, inquiring when it would be convenient for the Minister for Mines to receive a deputation respecting the alignment of Point Piper Road, I have the honor to inform you that Mr. Secretary Abbott will be pleased to receive the deputation on Friday, 14th instant, at 11 o'clock a.m.

I have, &c.,

GERARD E. HERRING

(For the Under Secretary).

No. 40.

Deputation to The Secretary for Mines.

A DEPUTATION, consisting of the Honorable W. J. Trickett; the Honorable A. Campbell; Mr. R. Butcher, M.P., Mayor of Woollahra; Mr. Watson, Mayor of Paddington; and Aldermen Davis, Graham, and Macpherson, waited upon the Secretary for Mines on Friday, 14th September, 1883, respecting the alignment of Point Piper Road.

The deputation suggest that the Surveyor-General and the Commissioner for Roads should meet and take evidence upon the matters in dispute, and make their report upon the same as soon as possible.

J. P. ABBOTT.

14 September, 1883.

Re Point Piper Road.

MINUTES of a preliminary meeting of gentlemen, members of the Borough Councils of Paddington and Woollahra and the South Head Roads Trust, chosen to form a deputation to the Government in reference to the state of the alignment of the Point Piper Road. Held at the Woollahra Council Chambers on Monday, the 3rd September, 1883, at 7:30 p.m.

Present:—

Borough of Woollahra:—The Mayor, Mr. Butcher, M.L.A., in the Chair; Aldermen the Honorable James Norton, Mr. J. S. Mitchell, and Mr. Symonds, Council Clerk.

Borough of Paddington:—The Mayor, Mr. Watson; Aldermen Graham, Davis, and Mr. Hellmrich, Council Clerk.

South Head Roads Trust:—Honorable Alex. Campbell, Mr. John Macpherson, and Mr. Phillips, Secretary.

On the motion of Honorable Alex. Campbell, the Chair was taken by Mr. Butcher, Mayor of Woollahra.

Mr. Campbell addressed the meeting. He described the inconvenience the public was suffering from the present defective state of the alignment of the Point Piper Road, which was shown in an entirely different manner upon the plans relied upon by the two Councils, and which plans, although disagreeing most essentially, were, it was alleged, both supplied to the Councils by the Government. (The plans in question were placed on the table and examined by the gentlemen present.) Alderman Davis, of Paddington, pointed out that there was no date or signature to the plan showing Woollahra.

Mr. Campbell continued: He himself had measured the roadway at its narrowest point, and found only 13 feet between the kerbs. That was a very dangerous state for the road to be in, and an effort should be made to get a re-alignment and have the road restored to its original width of 50 feet. This he thought could be done if the Trust and the Councils came to an agreement, for that purpose he had taken the steps necessary to obtain the present meeting.

To

To him it appeared there were three courses, either of which might be adopted; they were the following, and he offered them to the meeting for consideration.

First,—That the representatives of the Councils and the Trust should see the Minister for Mines and place the matter in his hands requesting that the Surveyor-General and the Commissioner for Roads might be delegated to call evidence, examine surveyors and plans, and be authorized to decide what lines were to be taken as the correct boundaries of the road; that decision should be final and be accepted by the Councils and the Trust.

Second,—That the boundary between Woollahra and Paddington should be altered, and instead of the centre of the Point Piper Road being the boundary as at present, the Glenmore Creek and the western kerb line of Moncur-street should divide the Boroughs.

Third,—That the Boroughs of Woollahra and Paddington should be amalgamated and form one.

If either of the two latter were carried out the portion of the road where the difficulty existed would be in Woollahra, and that Borough would alone have to deal with it.

Mr. Mitchell, of Woollahra, then addressed the meeting. He said that he questioned if it would be advisable to indicate directly to the Minister how he should deal with the matter, and that, although he generally concurred in Mr. Campbell's view as to the advisability of a different boundary between the Boroughs and perhaps even as to an amalgamation, they were matters outside the one before the meeting; even if either was accomplished to-morrow it would not bring us any nearer a settlement, because there would still remain all the conflicting interests of the land-owners on both sides of the road to be dealt with. It was not possible for the Councils or the Trust to compensate these persons, and the matter must be taken in hand by the Government.

The Honorable James Norton addressed the meeting, generally concurring with Mr. Mitchell's remarks.

Mr. Watson, Mayor of Paddington, said he would not be a party to any proceeding which would jeopardise the rights of innocent persons who had enclosed their lands in good faith up to and upon the lines shown by the plan of this road furnished to the Paddington Council by the Government, and that if such persons were deprived of anything they must be compensated.

The Chairman pointed out that any alteration now made must be by Act of Parliament, and such Act would provide for compensation where persons were deprived of any rights they had legally acquired.

Mr. Davis pointed out that of the two plans before the meeting only the one produced by Paddington appeared to be authorised by the Government; that plan had only been obtained after repeated applications for it by the Paddington Council.

It was then moved by the Honorable A. Campbell, seconded by Mr. Alderman Davis, and carried unanimously, "That a deputation, consisting of those present at this conference, representing the Councils and the Trust, wait upon the Honorable the Minister for Mines to represent the unsatisfactory state of the alignment of the Point Piper Road, and the discrepancy existing between the plans of that alignment as furnished by the Government to the Boroughs, and to ask that a re-alignment may be made so as to restore the road to its original width of 50 feet."

Mr. Alderman Davis moved, and Mr. Alderman Graham seconded, and it was carried, "That Mr. Phillips be requested to act as Secretary to the conference, and be authorized to write to the Minister for Mines soliciting that he appoint a day and time to receive the deputation, and upon an appointment being made to communicate the same to the Borough Council Clerks."

The meeting then terminated.

Our object in waiting upon you to-day is to ask the Government to get rid of a difficulty which has been created, as we are informed, by some departmental mistake some years ago. As you are aware, the Commissioners of the South Head Roads Trust have charge of the Point Piper Road leading from the Old South Head Road, a little below St. Matthias' school-house, to its junction with the New or Lower South Head Road, opposite the "Bayswater Hotel," Double Bay. This road as proclaimed was 50 feet wide, and it forms the boundary between the Woollahra and the Paddington Municipalities. It is stated that in kerbing and forming the footpath on the Woollahra side, the alignment shown on a map supplied by the Government to that Municipality was strictly adhered to, and it is believed that the Commissioners of the Trust at that time concurred in the alignment adopted by the Municipality of Woollahra. It was not so, however, in the case of the Municipality of Paddington, when a few months since they commenced to lay a kerb along the west side of the road from a point just above Little Thorne-street, down the hill to Glebe-street. The Commissioners objected to the work as an encroachment on their road to the extent of at least 10 to 11 feet, as compared with the line of kerb adopted by the same Municipality on a previous occasion when forming the footpath between Mr. Thorne's cottages, and opposite Albert-street, where as already stated the line of kerb appears to encroach on the Commissioner's road from 10 to 11 feet. The Paddington Municipality, however, insisted on going on with the kerbing, alleging that they were adopting the alignment shown in a survey-map supplied to them by the Government. Both maps are submitted herewith. The result of the proceedings of the two Municipalities in kerbing the road at the place mentioned is a very serious encroachment on the road on one side or the other; or perhaps, on both sides. So far, however, all parties have agreed to refer the matter to the Government for settlement of the dispute between the two Municipalities as to which of the two maps relied upon by each is the correct one.

Fortunately the widening of the road will involve no damage to property, and very little expense in effecting it beyond the removal of fences on both sides, or perhaps only on one side of the road.

Minute of Secretary for Mines.

These papers should, I think, be sent to the Surveyor-General for that gentleman to deal with, and as the Boroughs of Woollahra and Paddington, through their representatives and the members of the Road Trust, agree that they will be satisfied to abide by the report and recommendation of the Surveyor-General, Mr. Adams and Mr. Bennett, the Commissioner for Roads, I would suggest that these gentlemen should adopt the course suggested by the deputation. I will be glad of an early report, as I find delays increase the difficulties of dealing with these matters.—J.P. ABBOTT, 15/9/83.

The Surveyor-General, B.C., 17/9/83.—H.W.

No. 41.

Report of the Surveyor-General and the Commissioner and Engineer for Roads and Bridges.

The enclosed report is submitted as it fully sets forth the facts of the case.

It will be seen that the marking of the Woollahra streets by Armstrong where they abutted upon the Point Piper Road did not coincide with the legally established alignment of that road Gazetted in 1864 under Morkill's survey, a fact which was not detected till brought to light under investigation consequent upon the representations made by the deputation.

Adoption of the alignment under Morkill's survey appears to be the proper course now to take, and with this view a survey can be effected if desired, which will show how the several properties will be effected.

Probably the Borough Councils of Woollahra and Paddington and the Road Commissioners ought to be, and, perhaps are, legally responsible for not enforcing the observance of the only legal alignment, but as it might be urged that a subsequent erroneous marking of the road by a surveyor in the employ of the Crown led to the adoption by the Woollahra Council of an incorrect position of the road, it might become a question as to what extent (if any) the Crown should assist in removing fences on both sides back to the proper alignment of that part of the road in question, where the full width of 50 feet does not at present exist.

P. F. ADAMS.

WILLIAM C. BENNETT.

Submitted.—H.W., 4/1/84.

The alignment under Mr. Morkill's survey may be adopted, and survey can be effected to ascertain how the several properties will be effected; the question of compensation for the removal of fences may be dealt with after the survey is made. The Borough Councils and the Commissioners may be informed of my decision, based upon this report. Also inform Mr. Trickett, M.P.—J. P. ABBOTT, 5/1/84.

The Surveyor-General, B.C., 11/1/84.—G.E.H., *pro* U.S.

Mr. District-Surveyor Woolrych is requested to cause a survey to be made of that part of the Point Piper Road referred to in these papers, with a view of re-establishing the alignment under Morkill's survey. The names of the owners of the several properties affected by such alignment will be required, and an estimate is desired of the cost of removal of fences to the proper building lines.—A. J. STOPPS, for Surveyor-General, 14 January, 1884.

Transferred to Mr. Surveyor Hedgeland.—F. B. W. WOOLRYCH, D.S., 21 January, 1884.

Point Piper Road.

When the deputation made the statement that a discrepancy existed with respect to the Point Piper Road, as indicated by the plan or tracing in the possession of the Borough Council of Paddington on the one hand, and as shown by the plan or tracing in the keeping of the Borough Council of Woollahra on the other, the matter was investigated to discover whether or not there were valid reasons for that statement. The facts are as follows:—

The Point Piper Road was one dedicated in subdivision of the private estate after which it was named, it was proclaimed in 1863 under 4 William IV No. 11, after a survey by Morkill, and it was aligned under 2 Victoria No. 2, in the following year.

The road separates the Boroughs of Paddington and Woollahra.

In 1866 certain streets in the Borough of Woollahra were surveyed by Armstrong, and they were also aligned under 2 Victoria No. 2; some of these streets run into and terminate at the Point Piper Road.

As the survey of the Point Piper Road by Morkill was less than two years antecedent to the survey of the streets of Woollahra by Armstrong, it was possibly accepted by the Survey Office that the position of the Point Piper Road as surveyed by Morkill had been recognized and followed by Armstrong in his survey of the Woollahra streets, but by recent investigation it is found that they were not identical.

It now appears that certain of the streets of Woollahra which ran into the Point Piper Road were by Armstrong made to encroach upon that road as aligned under Morkill's survey, and thus to narrow it, or on the other hand, if the full width be maintained, to thrust the western building line further upon the western or Paddington side of the road; this is particularly the case at the part of the road in question.

It must, however, be borne in mind that the only alignment of the Point Piper Road which has taken place under an Act of Parliament is that indicated by a plan of Morkill's survey; and although Armstrong, in his survey of the streets of Woollahra, gave an altered position for the building and kerb-lines of that road, no proclamation followed—neither under 4 William IV No. 11, nor 2 Victoria No. 2; and although the re-marking of the road might have been misleading to the Borough Councils, there was no legal sanction to its adoption, nor did the name of the road appear in the schedule of streets on the plan of the Woollahra alignments.

When Morkill's survey was made the full width of the road (50 feet) had not been left between the fences that in some places enclosed the properties on both sides of the road; it therefore became necessary under alignment to cut off a few feet from the enclosed land on both sides, and this was done at the part of the road now particularly under dispute, namely, at the properties known as "Edgecliff" and "Orierton," and the properties on the opposite or Paddington side, but Mr. Armstrong's survey subsequently made encroached still more on the properties on the Paddington side, and avoided those on the Woollahra side, at the same part in question.

As there is but one legal alignment of the Point Piper Road, and as the question has arisen whether the full width of road in a certain place shall be obtained from land on one side only or from both sides of the road, there appears to be but one course open, which is to re-establish as nearly as possible the alignment under Morkill's survey, which allows of land to be legally taken from properties on both sides of the road at the particular place which is under dispute.

A. J. STOPPS.

The Surveyor-General:—Point Piper Road, surveyed August, 1863; preliminarily notified November, 1863; confirmed, March, 1864; aligned, November, 1864. Woollahra streets surveyed, 1865; notified, January, 1866; confirmed, June, 1866; aligned, February, 1867.

No. 42.

The Under Secretary for Mines to The Council Clerk, Woollahra.

Sir,

Department of Mines, Sydney, 9 January, 1884.

With reference to the alignment of Point Piper Road, I am directed by the Secretary for Mines to inform you that alignment under Mr. Morkill's survey will be adopted, and survey effected to ascertain how the several properties will be affected, and the question of compensation for the removal of fences may be dealt with after the survey is made.

I have, &c.,

GERARD E. HERRING

(For the Under Secretary.)

The Council Clerk, Paddington. The Secretary to the South Head Roads Trust and Mr. W. J. Trickett, M.P., were informed in similar terms.

No. 43.

The Council Clerk, Woollahra, to The Under Secretary for Mines.

Sir,

Borough of Woollahra, Council Chambers, 13 February, 1884.

Adverting to your letter of the 9th ultimo, on the subject of the alignment of the Point Piper Road, wherein you state that alignment under Mr. Morkill's survey will be adopted and survey effected to ascertain how the several properties will be affected, I have the honor, by direction of the Council of this Borough, most respectfully to protest against the adoption of such survey without further inquiry.

In support of such procedure, I am further instructed to remind you that, at a deputation which recently waited on the Honorable the Minister for Mines, a promise was given by Mr. Abbott to the effect that preparatory to any particular survey being adopted the Commissioner for Works and the Surveyor-General should attend at this office and receive evidence on each of the surveys in question. It is the wish of this Council therefore that the Honorable the Minister will be pleased to authorize the carrying out of such arrangements.

I have, &c.,

C. A. VIVIAN,

Council Clerk.

The Surveyor-General, B.C., 15/2/84.—G.E.H., *pro* U.S.

By this letter it appears that the Borough Council of Woollahra has been under the impression that the Surveyor-General and the Commissioner for Roads were to have taken oral evidence of some persons (not named) as to the surveys in question. This course was not understood to have been directed, and consequently was not taken. Had such a course been taken the inquiry could have resulted in nothing but loss of time, as it would have been valueless, the only reliable data respecting the surveys being the plans and documents relating thereto in the possession of the Surveyor-General; and these were the only legal foundation upon which works of construction, &c., could have been carried out, and they were the only evidence that was taken. No doubt when the copy of the joint report of the Surveyor-General and the Commissioner for Roads has been furnished in compliance with the request conveyed in letter 81²⁸⁸, it will be seen that all the facts necessary to enable a satisfactory settlement of the question to be adopted have been fully elicited.—A. J. STOPPS (for Surveyor-General), 1 April, 1884.

Papers containing the report in question, copy of which has been asked for, are now herewith.—A.J.S. (for Surveyor-General), 1 April, 1884.

No. 44.

Minute of Secretary for Mines.

SEND the Honorable Alex. Campbell copy of the report of Messrs. Bennett and Adams upon the Point Piper Road.

J. P. ABBOTT,

14/3/84.

The Surveyor-General, B.C., 15/3/84.—T.C.B., *pro* U.S. The report in question, with the other papers in the case, were referred to the District Surveyor for re-marking the road, and he will be asked to return them, in order that the copy of report may be furnished.—A. J. STOPPS (for Surveyor-General), 17 March, 1884. Inform Mr. Campbell, M.L.C.—G.E.H., *pro* U.S.

The Surveyor-General, B.C., 3/4/84.—G.E.H., *pro* U.S.

These papers are now returned to Mr. D.-S. Woolrych, for the carrying out of instructions of the 14 January, 1884.—A. J. STOPPS (for Surveyor-General), 22 April, 1884.

Transferred to Mr. Surveyor Hedgeland.—F. B. W. WOOLRYCH, D.S., 26 April, 1884.

No. 45.

Memorandum from Surveyor-General.

Surveyor-General's Office, 15 March, 1884.

MR. District-Surveyor Woolrych is requested to return papers relating to the Point Piper Road which were forwarded to him on 17th January, 1884, under instructions No. 84/23, in order that a copy of the joint report of the Surveyor-General and the Commissioner for Roads may be furnished to the Honorable Alex. Campbell as directed by the Secretary for Mines.

A. J. STOPPS

(For Surveyor-General),

17 March, 1884.

Mr. Surveyor Hedgeland.—F.B.W.W., 20/3/84. Returned accordingly.—G.C.H., 22/3/84.

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No. 46.

The Under Secretary for Mines to The Hon. Alex. Campbell, M.L.C.

Sir, Department of Mines, Sydney, 19 March, 1884.
I have the honor to inform you that the report of Messrs. Bennett and Adams upon the Point Piper Road is with the other papers in the case which have been referred to the District Surveyor for the re-marking of the road, and he will be asked to return them in order that a copy of such report may be furnished you.

I have, &c.,

GERARD E. HERRING
(For the Under-Secretary).

No. 47.

The Under Secretary for Mines to The Hon. Alex. Campbell, M.L.C.

Sir, Department of Mines, Sydney, 3 April, 1884.
Referring to my letter of the 19th ultimo, I have the honor to forward herewith a copy of the report of the Surveyor-General and the Commissioner and Engineer for Roads on the alignment of the Point Piper Road as mentioned therein.

I have, &c.,

GERARD E. HERRING
(For the Under Secretary).

No. 48.

The Hon. Alex. Campbell, M.L.C., to The Under Secretary for Mines.

Sir, Sydney, 18 July, 1884.
On behalf of myself and the other Commissioners of the South Head Roads Trust, I have to call your attention to the delay which has taken place in removing the encroachment on the Old Point Piper Road between Glebe and Albert Streets, and have to request that you will cause immediate steps to be taken to have the proper alignment pegged out on the west side by the surveyor.

When that is done have the goodness to inform me, so that the Commissioners may take the necessary steps to have the road widened in conformity with the original survey defining the road.

Yours truly,

ALEX. CAMPBELL.

It has been ascertained that the surveyor is at present engaged in endeavouring to re-establish the position of that part of the Point Piper Road under reference, with the object of permanently marking its alignment. Probably the Honorable Alexander Campbell should be so informed.—A. J. Stopps (for Surveyor-General), 8 August, 1884. Yes.—H.W., 12/8/84.

No. 49.

The Council Clerk, Woollahra, to The Under Secretary for Mines.

Sir, Borough of Woollahra, Council Chambers, 9 August, 1884.
I have the honor most respectfully to request your attention to the fact that no reply has yet been received at this office to my communication of the 13th February last, on the subject of the alignment of the Point Piper Road.

I have, &c.,

C. A. VIVIAN,
Council Clerk.

The Surveyor-General, B.C., 13/8/84.—G.E.H., pro U.S.

No. 50.

Mr. Surveyor Hedgeland to The Surveyor-General.

Sir, Bondi, 12 August, 1884.
In accordance with your instructions to Mr. District-Surveyor Woolrych, and now transferred to myself, requesting a survey to be made of that part of the Point Piper Road referred to in the accompanying papers, with a view of re-establishing the alignment under Morkill's survey, I have the honor to state that the plan transmitted to you showing my former survey, appears to be fully sufficient for the purpose of re-establishing the alignment under Mr. Morkill's survey referred to.

2. The portion of Point Piper Road, the alignment of which I have now re-established, commences at the northern boundary of "Rosemount," and extends to the junction with Edgecliff Road.

3. The alignment is marked with 3 inch square pegs sunk to the head in the ground, and their position is shown upon the plan by circles in blue. At the suggestion of the Hon. A. Campbell, I have also placed 3 inch square pegs to mark the building line at the southern boundary fence of "Lewisham," and also on either side of Albert, High, and Glebe Streets, which show how much those streets at present overlap Point Piper Road.

4. I understood from the Hon. A. Campbell that the trustees of the road will erect alignment-posts if it be desirable, but with the present formation of the road, I am of opinion that if erected they would interfere with the traffic and be dangerous.

5. I beg to draw your attention to the fact that since my survey was made the fences on the western side of this road from the boundary between the properties of Davis and McClelland (now Hanlon and Cather) to the junction with Glebe-street, have further encroached upon Point Piper Road, and the corner post at the junction with the southern side of Glebe-street is now 5 feet 6 inches on the footway, whereas it was about 1 foot only when I made my survey.

6. The owner of "Pearl Cottage" informed me that these fences were removed with the connivance of the Borough Council of Paddington.

13—C

Encroachments.

Encroachments.

7. With regard to encroachments on the Paddington side of Point Piper Road the fences, excepting that portion above referred to, stand in the position they were when the alignment was made. Some of the fencing is old, and where the original fences may exist, I am uncertain if they can at present be removed without the consent of the owners.

8. Commencing at the southern dividing fence of "Lewisham" the encroachment upon the footway is 3 feet 8 inches, and at the junction with the southern side of High-street 4 feet 4 inches. The frontage to Point Piper Road is about 96 feet, and embraces "Lewisham" and "Maidstone Cottage," both of which are owned by Mr. May, who resides in the latter.

9. On the northern side of High-street the encroachment is 4 feet 9 inches, and at "Pearl Cottage" as the fencing now stands, 5 feet 11 inches, having a frontage of about 138 feet, and embracing the following properties:—

"Woodlands," Cohen, M.P., owner; Woolcott, agent, 50, Castlereagh-street.

Weatherboard cottage, Edward Hanlon, owner.

Weatherboard store and "Pearl Cottage," both owned by Cather, who resides in the latter.

10. From "Pearl Cottage" the encroachment continues about 258 feet to the corner post at the junction with the southern side of Glebe-street, where the encroachment is 6 feet 6 inches, being about 5 feet more than existed at the time of my survey. This frontage embraces the following properties:—

A stone cottage, Mrs. Pound, owner and occupant.

Three weatherboard cottages, Mr. Fry, owner.

A weatherboard cottage belonging to Mrs. M'Dougall, and

"Trelaine," belonging to Mr. George Thorne.

11. The total length of the encroachments is about 30 rods, and the cost of simply putting back these fences I do not think would amount to more than from £7 to £10. Some of the fencing is weatherboard, and the rest picket and paling fences.

12. On the Woollahra side of Point Piper Road, at 22½ feet northerly from the northern boundary wall of "Rosemount," the dwarf stone walls, iron gates and railings fronting "Lancaster Villas" create an encroachment which continues increasing to the junction with the south side of Albert-street, where the fence of the corner house stands 8 feet 6 inches upon the road; and the house, which is semi-detached and has its frontage towards Albert-street, also encroaches 5 inches at its southern angle and 2 feet 6 inches at the north-western upon Point Piper Road.

13. "Lancaster Villas" collectively comprise eight semi-detached residences, and the whole are owned by Thomas L. Baker, of Market Chambers, 472, George-street.

14. The house at the junction of Albert-street and Point Piper Road belongs to T. H. Hill, and his agent is Augustus Hill, "Rancliffe," Ocean-street, Woollahra.

15. Between Albert-street and Edgecliff Road, the frontage on the eastern side of Point Piper Road embraces the properties known as "Orielson" and "Edgecliff," which are bounded by a substantial stone wall surmounted with a weatherboard fence. This wall encroaches upon Point Piper Road at the junction with the northern side of Albert-street, 9 feet 5 inches, and the encroachment gradually decreases to 5 feet 10 inches at the bend opposite "Pearl Cottage," when it continues about the same to the junction with Edgecliff Road, where the corner post stands 5 feet 8 inches upon the footway.

16. The owner of "Orielson," I am informed is the representative of the late — Caldwell, and the agent of the property, W. P. Woolcott, Fitz-Evans Chambers, Castlereagh-street. "Edgecliff" belongs to T. H. Brown, who is at present in England; W. P. Woolcott is also agent of this property.

17. Owing to the varying materials of iron, wood, and stone with which the encroachments are constructed on the Woollahra side of Point Piper Road, the question of cost of removal to the proper building line can only be reliably obtained from a contractor or some other qualified person. I am doubtful whether your instructions at present justify my procuring such an estimate.

I have, &c.,

GEORGE C. HEDGELAND.

No. 51.

The Under Secretary for Mines to The Hon. Alex. Campbell, M.L.C.

Sir,

Department of Mines, Sydney, 13 August, 1884.

See No. 48.

With reference to your letter of the 18th ultimo, respecting the encroachment on the Old Point Piper Road, between Glebe and Albert Streets, I have the honor to inform you that the surveyor is at present engaged in endeavouring to re-establish the position of that part of the Point Piper Road alluded to, with the object of permanently marking its alignment.

I have, &c.,

HARRIE WOOD,
Under Secretary.

No. 52.

The Under Secretary for Mines to The Council Clerk, Woollahra.

Sir,

Department of Mines, Sydney, 13 August, 1884.

See No. 49.

With reference to your letter of the 9th instant and previous communications, respecting the alignment of the Point Piper Road, I have the honor to inform you that the surveyor is at present engaged in endeavouring to re-establish the position of the Point Piper Road, with the object of permanently marking its alignment.

I have, &c.,

HARRIE WOOD,
Under Secretary.

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No. 53.

The Secretary, South Head Roads Trust, to The Under Secretary for Mines.

Sir,

Sydney, 19 August, 1884.

With reference to your letter of the 13th instant, addressed to the Honorable Alexander Campbell, in which you state that a surveyor is engaged permanently marking the alignment of the Old Point Piper Road, I have the honor, by direction of the Commissioners of the South Head Roads Trust, to request that a proclamation may be issued without delay aligning the said road in accordance with the marking referred to, and that the necessary steps be taken to remove encroachments upon that alignment.

I have, &c.,

GERARD PHILLIPS,
Secretary to the S.H.R. Trust.

The Surveyor-General, B.C., 20/8/84.—T.C.B., *pro* U.S.

No. 54.

Minute of Surveyor-General.

Point Piper Road.

THE direction of the Minister to re-mark the portion of the Point Piper Road in dispute in accordance with the alignment under Morkill's survey has now been carried out, and the question as to what action, if any, the Crown will take to cause the obstructions to be removed should probably now be considered.

If, in view of all the circumstances reported on S1-~~2~~³, it be determined to accept some responsibility, it should probably be limited at most to paying the cost of removal of fences back to the proper line, and in that event the Works Department might be the proper one to cause the work to be done.

It has been personally stated by the Honorable Alexander Campbell (who is one of the trustees of the road) that there is no desire on the part of the Road Trust or of the Woollahra Council to have the encroaching fences on the eastern or Woollahra side removed; the action should therefore probably be restricted to the western or Paddington side of the road.

Between the time of the survey made in 1881, to determine the position of existing fencing with respect to the proper alignment, and the recent re-marking of that alignment as directed by the Minister, the Borough Council of Paddington has permitted additional encroachments to be made by certain land owners, and should any responsibility with regard to the removal of fences be undertaken by the Crown, that responsibility should probably not extend to the removal of the recent encroachment, the cost of which might be borne by the Paddington Council.

In any case it is recommended that the Borough Councils of Woollahra and of Paddington, as well as the Secretary of the Road Trust, be informed that the proper alignment of that part of the Point Piper Road between "Rosemount" and the Edgecliff Road has now been re-established and marked upon the ground.

A. J. STOPPS

(For Surveyor-General),

24 September, 1884.

Submitted.—G.E.H., *pro* U.S., 26/9/84.

I think the Works Department should carry out any work necessary by reason of the alignment, and the Councils mentioned, as well as the Secretary to the Trust, may be informed of the alignment.—J. P. ABBOTT, 27/9/84.

Forwarded to the Department of Works with reference to paragraph 2 of the Surveyor-General's minute. The Under Secretary for Public Works, B.C., 29/9/84.—G.E.H., *pro* U.S. Roads, B.C., 30/9/84.—J.R.

No. 55.

The Under Secretary for Mines to The Council Clerk, Woollahra.

Sir,

Department of Mines, Sydney, 29 September, 1884.

In the matter of the alignment of the Point Piper Road, I am directed by the Secretary for Mines to inform you that the proper alignment of that part of the Point Piper Road between "Rosemount" and the Edgecliff Road has now been re-established and marked upon the ground.

I have, &c.,

GERARD E. HERRING

(For the Under Secretary).

The Council Clerk, Paddington, and the Secretary to the South Head Roads Trust were informed in similar terms.

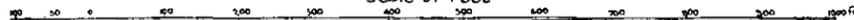
[Five plans.]

COPY
FROM PLAN
OF
POINT PIPER ROAD
TO BE OPENED UNDER ACT OF COUNCIL IV WILL IV N^o XI
AS A PARISH ROAD

Laid before the Executive Council on the 13th Oct 1863 Minute 63/38
(Signed) A.C. Budge
Clerk of the Council
Laid before the Executive Council on the 7 Nov 1864 Minute 64/46
Signed A.C. Budge
Clerk of the Council

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
SYDNEY, NEW SOUTH WALES

Scale of Feet

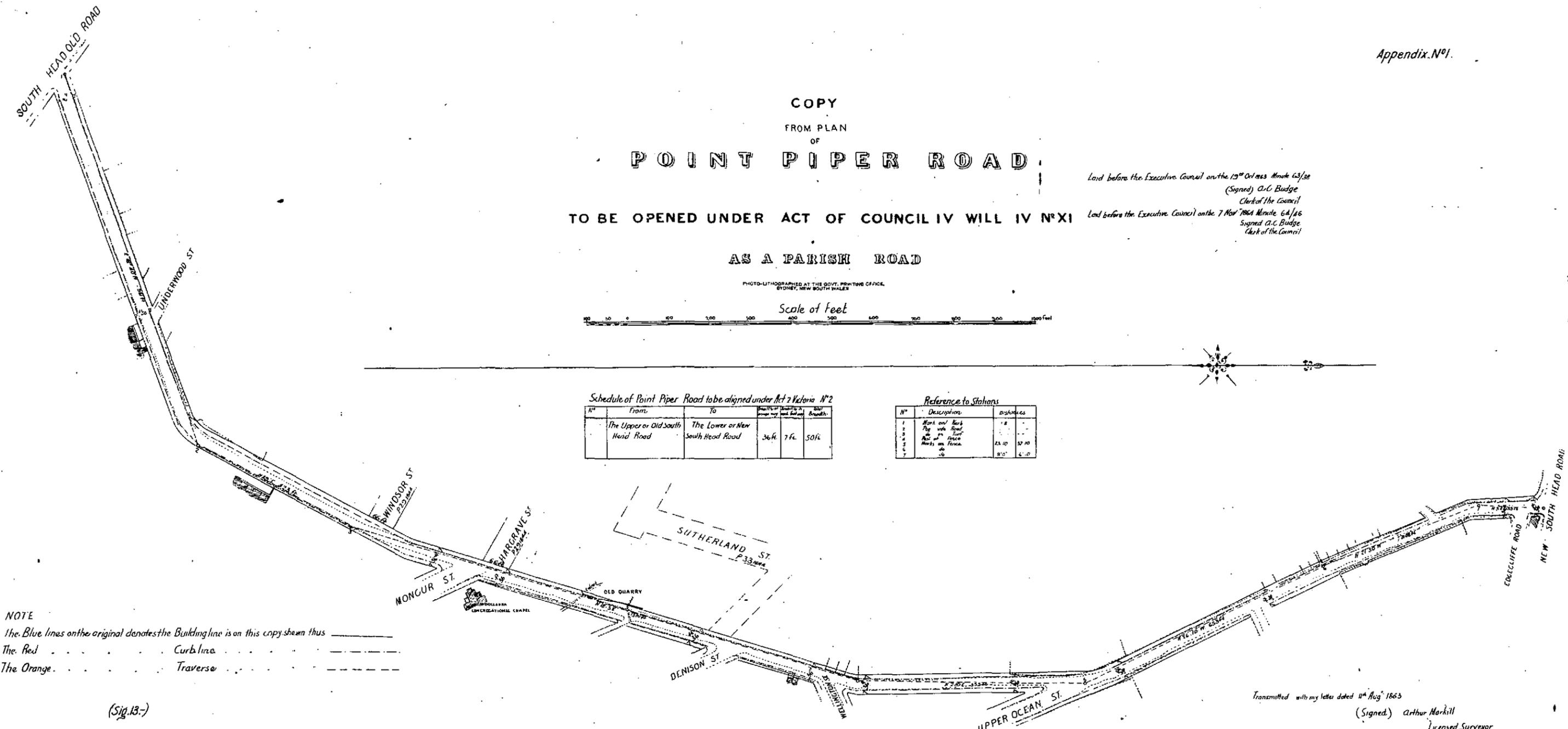


Schedule of Point Piper Road to be aligned under Act 2 Victoria N^o 2

| N ^o | From | To | Length of Road to be opened | Width of Road to be opened | Area |
|----------------|----------------------------------|----------------------------------|-----------------------------|----------------------------|--------|
| 1 | The Upper or Old South Head Road | The Lower or New South Head Road | 36 1/2 | 7 1/2 | 50 1/2 |

Reference to Stations

| N ^o | Description | Distance |
|----------------|---------------|----------|
| 1 | Start on Road | 18 |
| 2 | Top of Hill | 25 |
| 3 | Top of Hill | 32 |
| 4 | Top of Hill | 39 |
| 5 | Top of Hill | 46 |
| 6 | Top of Hill | 53 |
| 7 | Top of Hill | 60 |



NOTE

The Blue lines on the original denote the Building line is on this copy shown thus ————
The Red Curb line - - - - -
The Orange Traverse - - - - -

(Sig. 13.-)

Transmitted with my letter dated 11th Aug 1863

(Signed) Arthur Markill
Licensed Surveyor

B

COPY

From Tracing
of

POINT PIPER ROAD

from

MONCUR ST to The EDGCLIFFE ROAD

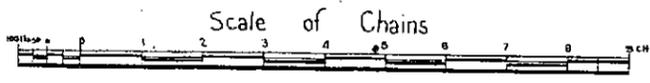
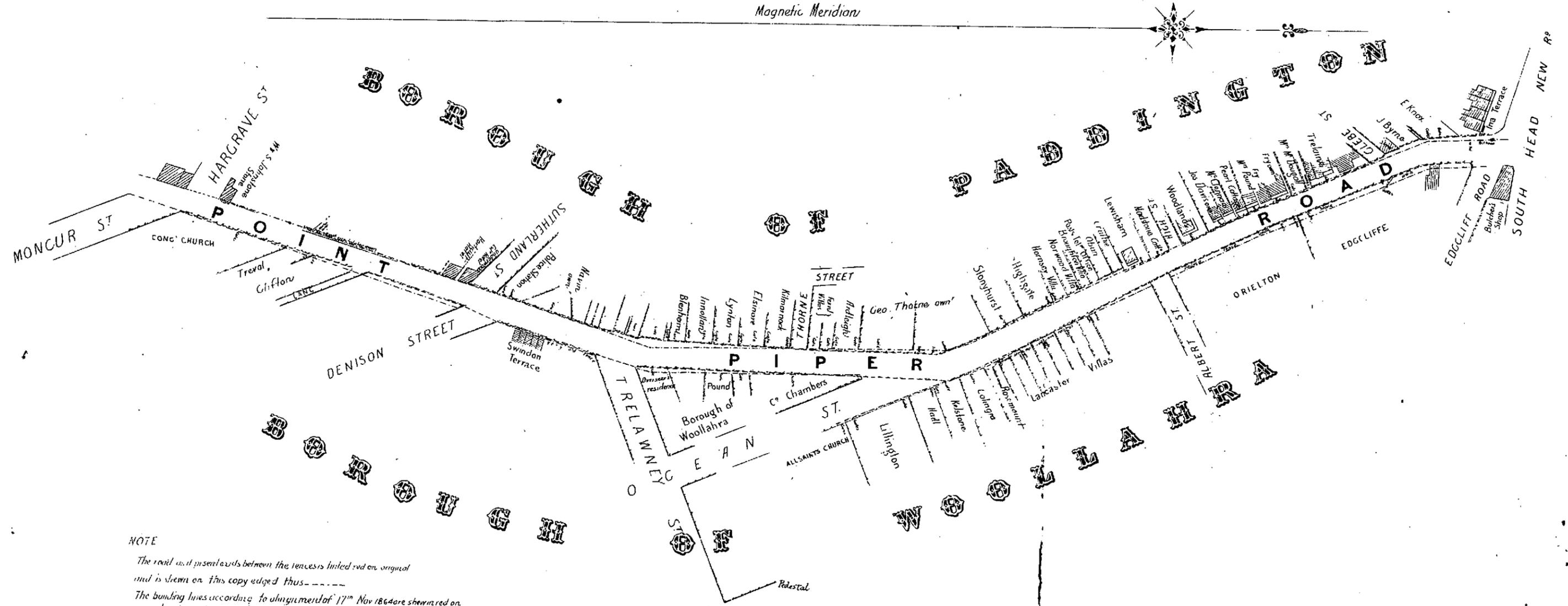


PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
SYDNEY, NEW SOUTH WALES.

Magnetic Meridian



NOTE

The road as it present exists between the fences is lined red on original and is shown on this copy edged thus -----
 The bunding lines according to alignment of 17th Nov 1864 are shown red on original and are shown on this copy thus -----

(Sig. 13.)

Transmitted to the Surveyor General with Field Book and my letter dated Oct 24th 81/16

Signed Geo. C. Hodgkiss
Surveyor

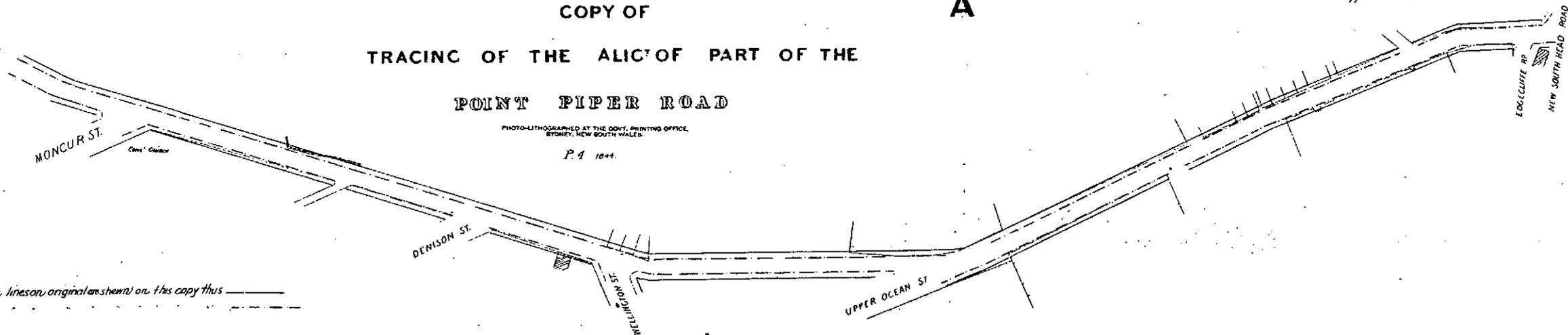
COPY OF
TRACING OF THE ALIG OF PART OF THE
POINT PIPER ROAD

A

Appendix No 2 A

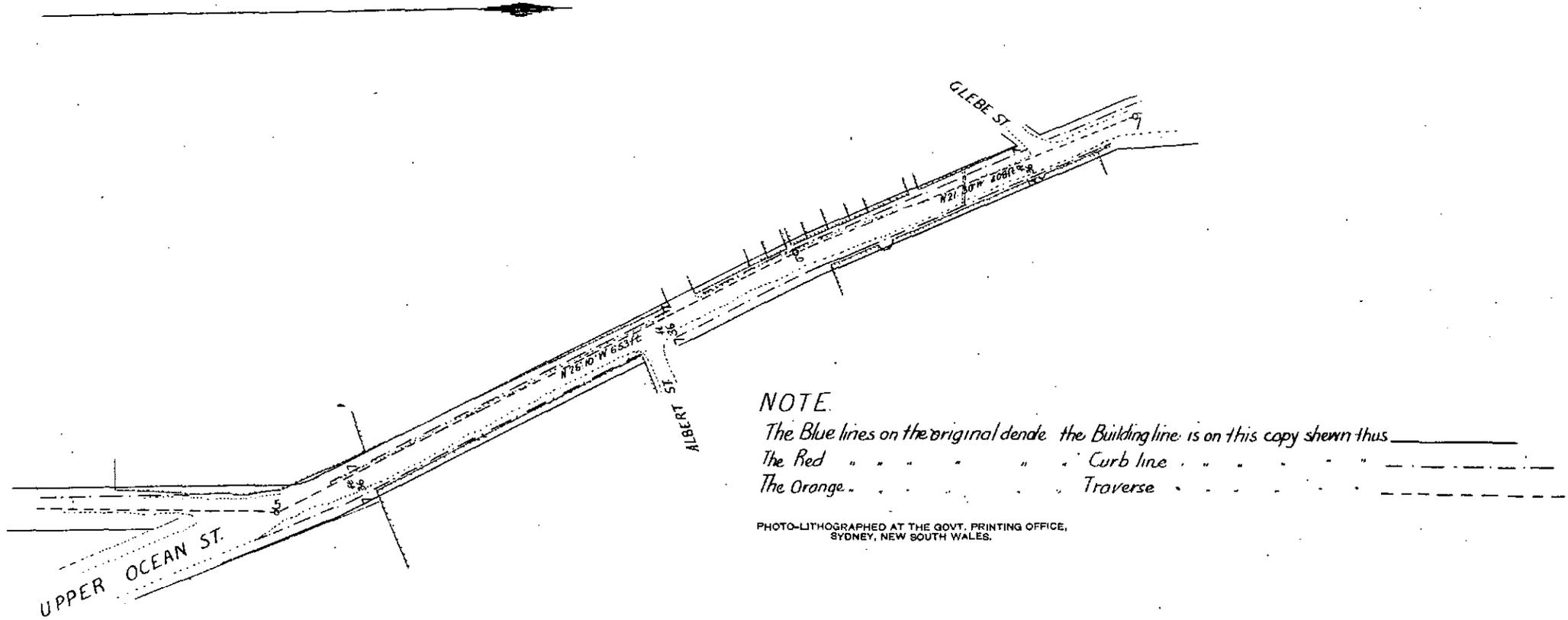
PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
STONEY, NEW SOUTH WALES.

P. 4 1041.



blue lines on original as shown on this copy this ———
red - - - - -

(See B)



NOTE.

The Blue lines on the original denote the Building line: is on this copy shown thus _____
 The Red " " " " " Curb line " " " " " _____
 The Orange " " " " " Traverse " " " " " _____

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
 SYDNEY, NEW SOUTH WALES.

Reference to Stations

| N ^o | Description | Distances | |
|----------------|---------------|-----------|---------|
| 5 | Markson Fence | 23' 10" | 37' 10" |
| 6 | do | | |
| 7 | do | 8' 0" | 6' 10" |

PLAN

showing part of the

POINT PIPER ROAD

Compilation to show fences as they now exist with reference to original alignment by M^r Morkill,

1883.

SCALE OF FEET.



PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES.

Appendix N^o 4.

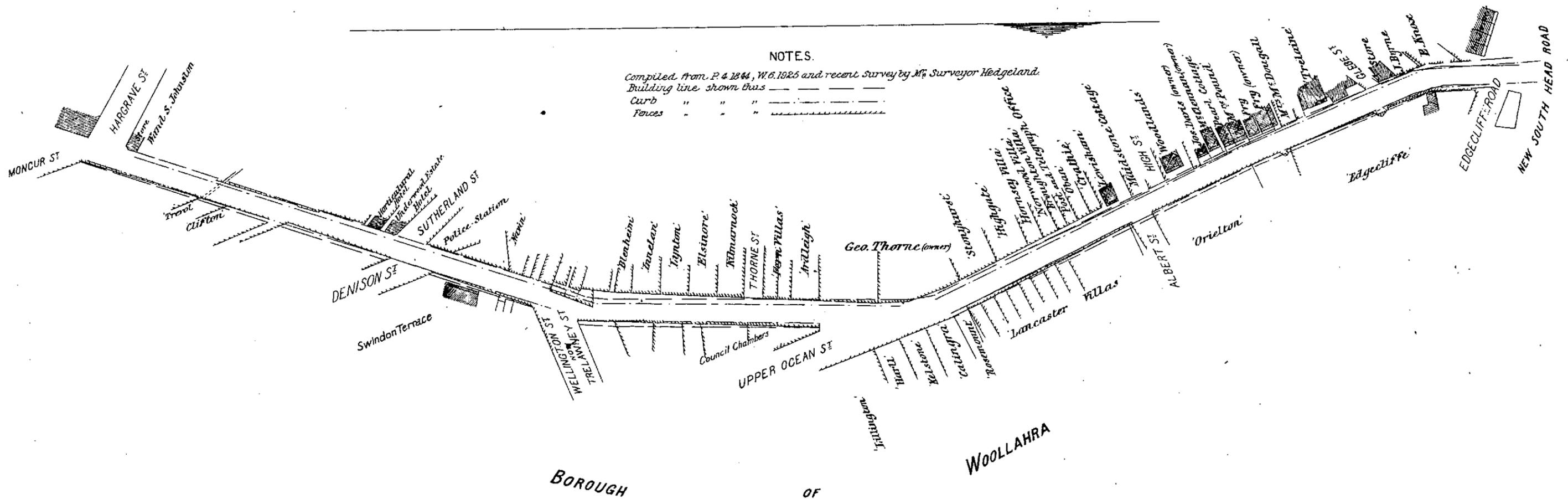
NOTES.

Compiled from P. 4 1844, W. 6. 1925 and recent Survey by M^r Surveyor Hedgeland.

Building line shown thus ————

Curb " " " ————

Fences " " " ————



1884.

NEW SOUTH WALES.

MUNICIPALITIES.

(BOROUGH OF CUDGEGONG—AMENDED BY-LAW.)

Presented to Parliament, pursuant to Act 31 Vic. No. 12, sec. 153.

Colonial Secretary's Office,

Sydney, 5th November, 1884.

BOROUGH OF CUDGEGONG—AMENDED BY-LAW.

THE following amended By-law, made by the Council of the Borough of Cudgegong, having been confirmed by His Excellency the Governor, with the advice of the Executive Council, is published in accordance with with the requirements of the Municipalities Act of 1867.

WILLM. B. DALLEY.

BOROUGH OF CUDGEGONG.

PASSED at a Meeting of the Borough Council of Cudgegong, held at the Council Chambers, Mortimer-street, East Mudgee, on Tuesday, the 29th July, 1884. In substitution of Clause 4 of By-laws of the Borough Council of Cudgegong, relating to hours of Meeting of this Council, viz. :—

That the Meeting of the Council shall be held every alternate Tuesday, at 2 o'clock p.m., at the Council Chambers.

(L.S.) WILLM. SMITH,
Mayor.

1884.

NEW SOUTH WALES.

NUISANCES PREVENTION ACT, 1875.

(BOROUGH OF SINGLETON—BY-LAWS.)

Presented to Parliament, pursuant to Act 39 Vic. No. 14, sec. 18.

Colonial Secretary's Office,
Sydney, 15th November, 1884.

BOROUGH OF SINGLETON.—BY-LAWS.

THE following By-laws, made by the Council of the Borough of Singleton for carrying into effect the provisions of the "Nuisances Prevention Act, 1875," having been confirmed by His Excellency the Governor, with the advice of the Executive Council, are published in accordance with the requirements of the above-cited Act.

WILLM. B. DALLEY.

BOROUGH OF SINGLETON.

BY-LAWS UNDER THE NUISANCES PREVENTION ACT, 1875.

1. Every person who shall erect any building or buildings within the boundary of the Borough of Singleton shall, before commencing such buildings, give notice in writing to the Council Clerk of the said Borough of his intention of so doing in order that the proper officer of the Council may inspect the site of the proposed building or buildings for the purpose of directing the position of the drains or closets required to be erected on the said site, and no person shall lay, dig, or construct any drain or closet except in the line or position authorised in writing by the officer appointed in that behalf.

2. No person shall erect or commence to erect any closet, or to form, excavate, or make any cesspit except in such place or position as shall be approved by the Inspector of Nuisances or other officer for the time being appointed by the Council of the said Borough in that behalf; and any person who shall erect or commence to erect any closet, or to form, excavate, or make any such cesspit without having obtained the approval of the said Inspector or other officer, or in any place or position other than the place or position approved of by the said Inspector or other officer as aforesaid, shall forfeit and pay a penalty of not less than ten shillings nor more than forty shillings, but any person who shall feel aggrieved by the decision of such Inspector or other officer may appeal against the same to the Council.

3. Every cesspit to be constructed within the Borough shall be built of nine-inch brick-work set in cement, floor as well as walls, and the top of such cesspit shall be at least twelve inches higher than the highest part of the surface of the ground immediately adjoining such cesspit, and no cesspit shall be formed, excavated, or made under any dwelling-house, nor at a less distance than twenty feet therefrom. If any person shall so form, excavate, or make any cesspit which shall not be in accordance with this By-law, or shall form, excavate, or make any cesspit under any dwelling-house, or at a less distance than twenty feet therefrom, shall forfeit and pay a penalty of not more than five pounds nor less than two pounds.

4. The size of each cesspit shall be not less than 3 feet 6 inches by 4 feet and 5 feet deep, inside measurement.

5. Every closet shall be built with walls not less than 7 feet high, and shall be not less than 3 feet 6 inches wide and 4 feet 6 inches long, and shall be provided with a door capable of

being fastened inside, the whole of the floor in front of the seat to be so constructed that it will form a trap door to lift up against the seat by means of two strong hinges; and every person who shall build or erect any closet which shall not be in accordance with this and the foregoing By-law shall forfeit and pay a penalty of not more than two pounds nor less than ten shillings.

6. Where two or more closets adjoin each other there shall be a sufficient dividing wall, not less than nine inches in thickness, between every two closets, and such wall shall extend from the bottom of the cesspit to the roof of the closet, so as to effect a complete separation; and if any person shall erect any two or more closets adjoining each other and not in accordance with this By-law, he shall forfeit and pay a penalty of not more than two pounds nor less than ten shillings.

7. A separate closet shall be provided for each tenement, and any persons offending against the provisions of this By-law shall forfeit and pay a penalty of not more than five pounds nor less than two pounds.

8. If any alterations shall be requisite in the opinion of the Inspector of Nuisances or other officer as aforesaid for preserving public health or decency in case of any existing cesspit or closet, and the Council shall adjudge such cesspit or closet to be injurious to health or opposed to decency by exposure or otherwise, and the owner or occupier shall not make the necessary alterations after receiving fourteen days' notice from the Council Clerk, it shall be lawful for the Inspector of Nuisances or other officer as aforesaid to remove the said nuisance; and any expense incurred thereby may be sued for and recovered in a summary way before any two or more Justices of the Peace.

9. The Council may from time to time, as found to be necessary, appoint a place for depositing night-soil, and all night-soil removed from the Borough shall be deposited at such place as aforesaid.

10. All nightsoil requiring to be removed from time to time from any cesspit or closet within the Borough shall be conveyed to the place appointed for that purpose in proper night carts approved of by the Council, and such removal of night soil shall (subject to the provisions of section 9 of the Act 39 Victoria No. 14) be effected by the Contractor under any contract in that behalf for the time being in existence, in

such manner as may from time to time be decided by the Council, and the Contractor for the time being or other person who may be authorized under section 9 of the Act aforesaid to remove any nightsoil, shall be responsible for duly and carefully conveying the whole of the nightsoil entrusted to his care to the place appointed for depositing the same, and in the direction and position ordered by the proper Officer of the Council, and no nightsoil shall be removed from any cesspit or closet except between the hours of 10 p.m. and 6 a.m. Any person guilty of a breach of this By-law shall be liable to a penalty not exceeding ten pounds nor less than one pound.

11. Persons desirous of using earth closets may be permitted to do so on making written application to the Council, and intimating the arrangements to be made for their construction and management, provided that such arrangements shall be approved by the Council.

12. The Inspector of Nuisances or other Officer as aforesaid may visit and inspect any premises, or do any work authorized by the Nuisances Prevention Act, 1875 therein, on any lawful working day between the hours of 10 a.m. and 4 p.m., and any person who shall hinder or obstruct any Inspector of Nuisances or other Officer as aforesaid upon any such visitation or inspection or in the doing or performing of any work shall forfeit and pay a penalty of not more than two pounds nor less than ten shillings.

13. All expenses incurred by the Council in emptying any cesspit shall be repaid to the Council by the owner or occupant of the premises whereon such cesspit is situated, within fourteen days after a written demand of the amount made by the Council or Inspector of Nuisances shall have been served upon him, otherwise the same may be recovered in a summary way before any two Justices of the Peace.

14. The Inspector of Nuisances shall furnish the Council with a monthly return showing the number of cesspits emptied, the amount due and payable for each cesspit, and the amount of arrears due for emptying cess-pits. He shall collect the amounts so due and payable, and account therefor to the Council at least once in every month, or as may be determined upon by such Council.

15. It shall be the duty of the Inspector of Nuisances to report the existence of any gutter, drain, or filthy premises that may be brought under his notice, and take such action for removing or abating the same as may be directed by the Council.

Made and passed by the Singleton Borough Council,
this seventeenth day of September, one thousand
eight hundred and eighty-four.

(L.S.) GEO. LODER,
Mayor.
C. POPPENHAGEN,
Council Clerk.

1884.

NEW SOUTH WALES.

NUISANCES PREVENTION ACT, 1875.

(MUNICIPAL DISTRICT OF LEICHHARDT.—ADDITIONAL BY-LAW.)

Presented to Parliament, pursuant to Act 39 Vic. No. 14, sec. 18.

Colonial Secretary's Office,
Sydney, 5th November, 1884.**LEICHHARDT MUNICIPALITY—BY-LAW.**

THE accompanying Additional By-law, made by the Council of the Municipal District of Leichhardt, under the powers conferred by the "Nuisances Prevention Act 1875," having been confirmed by His Excellency the Governor, with the advice of the Executive Council, is published in accordance with the requirements of the abovesaid Act.

WILLM. B. DALLEY.

ADDITIONAL BY-LAW UNDER NUISANCES PREVENTION ACT.

THAT all earth closets shall be emptied not less than once in every seven days by a Contractor appointed by the Council, at a cost of sixpence per emptying, such sum to be paid to the said Contractor or his Agent by the owner or occupier of the premises in connection with which such earth closets shall be; the said Contractor shall supply dry earth or ashes for the use of each earth closet so emptied by him; any owner or occupier of premises shall be at liberty to bury the contents of his earth closet within the land occupied or owned by him, provided that no nuisance be created thereby; any occupier or owner who does not procure the emptying of his earth closet as aforesaid shall be liable to a penalty not exceeding two pounds and not less than five shillings; should the Contractor fail to call once in every seven days when required to do so, he shall upon proof of such default be liable to a penalty not exceeding ten pounds and not less than one pound.

Made and passed by the Municipal Council of Leichhardt, in Council assembled this 28th day of July, 1884.

WALTER BEAMES, Council Clerk.
28th July, 1884.

(L.S.) JOHN YOUNG,
Mayor.

1884.

NEW SOUTH WALES.

MUNICIPALITIES ACT OF 1867, AND NUISANCES
PREVENTION ACT, 1875.

(BOROUGH OF PARRAMATTA—AMENDED BY-LAWS.)

Presented to Parliament, pursuant to Acts 31 Vic. No. 12, sec. 158, and 39 Vic. No. 14, sec. 18.

Colonial Secretary's Office,
Sydney, 19th November, 1884.

BOROUGH OF PARRAMATTA.—AMENDED BY-LAWS.

THE following amended By-laws, made by the Council of the Borough of Parramatta, under the "Municipalities Act of 1867," and the "Nuisances Prevention Act, 1875," respectively, having been confirmed by His Excellency the Governor, with the advice of the Executive Council, are published in accordance with the requirements of the abovesaid Acts.

WILLM. B. DALLEY.

BY-LAWS OF THE BOROUGH OF PARRAMATTA.

No. 1. On and after the passing of the following By-laws by the Municipal Council of the Borough of Parramatta, and the confirmation by His Excellency the Governor, and publication thereof, in accordance with the 158th section of the Municipalities Act of 1867, the By-laws hitherto in force in the said Borough shall be and are hereby repealed, and the following By-laws shall be and are substituted in lieu thereof, that is to say:—

BY-LAWS OF THE BOROUGH OF PARRAMATTA.

PART I.

BY-LAWS for the regulation of the proceedings of the Council of the Borough of Parramatta.

2. The following shall be the order of business at all meetings of the said Council other than special meetings:—

- First. The reading, confirmation, and signing minutes of last previous meeting.
- Second. Reports from Committees of the Council, to be presented and ordered upon subject to By-law 7.
- Third. Petitions to be presented and ordered upon subject to the provisions of By-law 19.
- Fourth. Correspondence shall be read and ordered upon by reference to a Committee or otherwise.
- Fifth. Orders of the day (if any) shall be dealt with in their order on the business paper, provided nevertheless, that the Council may at any time by resolution postpone the consideration of any order or orders of the day to any later period of the meeting, or to any future meeting, and such postponed order or orders of the day shall be dealt with at the period appointed by such resolution.
- Sixth. Motions shall be disposed of in their order on the business paper, but any motion or motions may be postponed to a later period of the meeting, or to any future meeting, in the same manner as hereinbefore provided in regard to any order or orders of the day, and such postponed motion or motions shall accordingly be dealt with at the period to which they shall have been so postponed.

Standing Orders of the Council of the Borough of Parramatta
General duties of the Chairman.

- 3. The Chairman shall preserve order, and his decision on disputed points of order shall be final.
- 4. The Chairman may take part in all proceedings of the Council.
- 5. The Chairman shall put all questions and declare the sense of the Council thereon.
- 6. The Chairman may, without waiting for the interposition of any member of the Council, call to order any member proceeding to speak a second time on the same question, except in explanation, and without introducing any new matter.

General Rules for the conduct of business.

- 7. Reports from committees shall be received before any other business, but shall not be considered or adopted without due notice thereof.
- 8. Whenever any question of order arises it shall be immediately taken into consideration.
- 9. Every member of Council who shall make any motion or move any resolution, shall be allowed to reply; and every member shall have the liberty of speaking once on each amendment, as well as on the original motion.
- 10. No member shall digress from the matter under discussion, or make personal reflections, or impute motives.
- 11. When any member shall use any expression capable of being applied offensively, and the Mayor's attention being called thereto by one of the Aldermen, the Mayor shall order such offensive words to be taken down by the clerk, and request the member so offending to retire, and shall decide as to the points of order, which decision shall be reported to the member on his return, who shall then be allowed to speak in explanation.
- 12. It shall be competent for any member to divide the Council on any question, both in full council and in committees of the whole Council.
- 13. All divisions, with the names of the Aldermen, shall be entered on the minutes of the Council.

14. Any member may require the question or matter under discussion to be read for his information at any time during the debate, but not so as to interrupt any other member while speaking.

15. Any number of amendments may be proposed on a motion before the Council, and when more than one amendment is moved and seconded, the question shall first be put on the last amendment, and then on the next to the last, and so on, in the reverse order in which they are moved, except when such motion or amendment shall relate to the fixing of salaries, rates, or other matters of finance, in which case the lowest sum shall be put first, and then the next lowest, and so on to the highest.

16. Any motion for adjournment, if seconded, shall be immediately put without discussion, but if such motion be negatived it shall not be competent for any member to make a similar motion until after other business has been transacted.

17. The Council Clerk shall receive every notice of motion if put in writing, and when moved and seconded it shall be considered the property of the Council, and shall not be withdrawn without leave of the Council.

18. When any Alderman shall have spoken to a resolution that is before the Council, and afterwards rises and states his intention to move an amendment on the same, before being permitted to speak to any such amendment he shall state the same, and hand it in writing to the Council Clerk, whereupon it shall be considered the property of the Council, and shall not be withdrawn without leave from the Council.

Petitions.

19. On the presentation of a petition no debate shall take place until notice has been given in the usual manner, and the only question that can be entertained by the Council on the day of its presentation shall be that the petition be received or that it be referred to a Committee.

20. It shall be incumbent on any member presenting a Petition to acquaint himself with the language thereof, and to report to the Council that he considers it unobjectionable.

21. All Petitions shall be received only as the Petition of the parties signing the same.

Committees.

22. The Chairman of every Committee shall be the convener thereof, and may direct the Council Clerk to call meetings whenever he shall consider it expedient.

23. The rules of the Council shall be observed in a Committee of the whole Council, excepting the rule limiting the number of times of speaking.

24. Every report of a Committee shall be signed by the Chairman thereof.

Miscellaneous regulations.

25. In cases where securities are required by the Municipalities Act, sureties shall be approved by the Council, and it shall not be competent for the Council to accept as surety any of its members or any person holding office under the Council.

26. No work affecting the funds of the Municipality shall be undertaken until the probable expense be first ascertained by the Council, and all accounts to be paid by the Council shall be examined by the Finance Committee, and reported on by them before any warrant shall be issued for the payment thereof.

27. The Treasurer's accounts shall be laid before the Council by the Mayor at the first meeting of each quarter, or oftener if required.

28. No person shall be at liberty to remove any book, paper, or record from the Council Clerk's office, without leave first had and obtained from the Mayor.

29. The seal of the Municipality and all charters, deeds, muniments, and records of the Council shall be kept in the Council Chamber, in the custody of the Council Clerk, unless the Council shall otherwise order.

30. Any one or more of the standing orders may be suspended, *pro tempore*, in a case of emergency, if a majority of those present shall deem such suspension necessary.

31. All persons liable to pay rates or assessments shall pay the amount when due at the office of the Council Clerk, in the Municipal Council Chamber during office hours.

PART II.

BY-LAWS for the regulating and licensing of public carriers, carters, water-drawers, and public vehicles, omnibuses, cars, hackney carriages, cabs, water-carts, drays, carts, or vans, and the drivers and conductors of passenger-carrying vehicles.

32. No vehicle shall ply or be used for hire within the Borough of Parramatta, unless the same be duly licensed in the manner hereinafter described.

33. Before any license for plying a vehicle, or to drive or conduct the same, shall be granted, the person requiring such license shall obtain from the Council Clerk, free of charge, a requisition in the form of the Schedule hereunto annexed marked with the letter A, or to the like effect, and duly fill up and sign the same, and deliver it to the Council Clerk; and all drivers or conductors shall obtain a certificate from two res-

pectable householders setting forth that the applicant is of good character and competent to act as such driver or conductor, as the case may be.

34. No license shall be granted if in the opinion of three Aldermen, who shall be appointed by a resolution of the Council, any vehicle is unsafe or in bad repair, or otherwise unfit for the accommodation and conveyance of passengers therein, nor shall it be licensed until the number of such vehicle be paid thereon, as provided by numbers 41 and 42 of these By-laws respectively.

35. Licenses for proprietors, drivers, and conductors of passenger-carrying vehicles shall be in the form contained in the Schedule hereunto annexed marked with the letter B, or to the like effect, and no person shall ply, drive, or conduct any vehicle for hire without such license.

36. Every license granted under these By-laws shall be under the common seal of the Borough of Parramatta, and signed by the Mayor and countersigned by the Council Clerk, and shall be in force from the date of such license until the 31st day of December next ensuing, subject to the conditions in By-law 40, and no such license shall include more than one vehicle, provided that where the licensed vehicle shall be under repair, if the proprietor shall so desire, he may be permitted to substitute another for a period to be then specified and endorsed on the license signed by the Mayor and countersigned as aforesaid.

37. No license shall be granted to any person to drive any passenger-carrying vehicle who shall be under the age of eighteen years.

38. All licenses shall be made out by the Council Clerk and numbered consecutively.

39. The person in whose name a license shall appear to have been obtained shall be *prima facie* deemed to be the owner of the vehicle in respect of which the same shall have been taken out.

40. The three Aldermen aforesaid shall, as often as they may deem it necessary, cause an inspection to be made of all or any licensed vehicles and of the harness, horse, or horses, and if any such vehicle, harness, horse, or horses shall, at any time, be found by the said Aldermen to be unfit for use, the Mayor may cancel the license of such vehicle on the written report of the said Aldermen.

41. The number of the license granted to every omnibus or car in figures not less than four inches in height, and for every hackney carriage or cab in figures not less than two inches in height, of proportionate breadth, white upon a ground of black, shall be painted outside on the panel of the door or doors of such vehicle, or on such other part or parts thereof as the Aldermen aforesaid may direct, and such numbers shall be kept legible and undefaced during all the time such vehicle shall ply or be used for hire.

42. The number of the license of every hackney carriage, or cab shall be painted or printed in clear legible figures on a card or plate six inches by three inches with the table of fares fixed by the Council, and shall be affixed at the upper part of the front panel or in such other place or places inside of such carriage or cab as the three Aldermen aforesaid shall direct, and such card or plate shall be kept so affixed and legible and undefaced during all the time the carriage or cab shall ply or be used for hire.

43. Carters, plying for hire, of water carts, drays, carts, or vans are to be registered at the Council Clerk's office, and receive a license for which each applicant shall pay in accordance with Schedule C.

44. The owner's name and place of abode in letters two inches high, and proportionately broad, and the number of license, and the words "licensed cart, dray, or van," as the case may be, in letters one inch long, shall be painted upon the right or off side of such cart, dray, or van, legibly in white letters on a black ground.

45. All vehicles licensed to carry passengers shall be provided with suitable carriage lamps to burn candles, one to be fixed on each side of the driver's box, and a third one inside of all omnibuses and closed coaches, and the same shall be lighted not later than one hour after sundown, and kept burning while the vehicle is on the stand or running the streets either with or without passengers.

46. When any carriage is submitted for inspection by the owner or other applicant with the view to obtain a license, the Aldermen appointed by the Council to that duty shall then determine upon the number of passengers the vehicle shall be permitted to carry, and give a certificate to that effect, such number to be mentioned in the license.

47. The number of passengers each vehicle is licensed to carry shall be printed or painted in legible characters, and affixed within and without the vehicle, as directed by the inspecting Aldermen.

48. No licensed vehicle shall be driven past a place of public worship on Sundays during divine service at a quicker pace than a walk, and no bugle, horn, whistle, or other instrument shall be used on that day for any purpose.

49. No person suffering from any infectious disease shall ride in or upon any licensed vehicle, and no driver or conductor shall knowingly carry or permit to be carried any such person, or (except to some police office or watch-house) any corpse, or any

person in a state of intoxication, or who is so noisily or violently conducting himself or otherwise so misbehaving as to occasion any annoyance or to disturb the public peace, and no passenger shall carry on any licensed passenger-carrying vehicle any animal or any substance of any offensive character, or that might soil or damage the vehicle or the apparel of other passengers, and no driver or conductor shall sleep in or upon any licensed vehicle or use the same for eating his meals therein.

50. No driver or conductor shall carry on any omnibus at any one time a greater number of passengers than the number it shall be licensed to carry inside or outside as the case may be, and no omnibus shall be licensed for more passengers than the same will accommodate upon fit seats properly cushioned, allowing for each passenger a space of 18 inches, measuring in a straight line lengthwise on the front of each seat, nor shall any vehicle be taken off the line of road for which it shall be licensed. Provided that no child under five years of age sitting on the lap shall be deemed to be a passenger, and no passenger to carry more than one child.

51. No owner, driver, or conductor of any omnibus shall demand, receive, or take from any passenger a larger fare than shall be shown in large immovable figures in some conspicuous place both inside and outside the omnibus, as the fare for which such omnibus plies. Provided that no fare shall be increased except between the hours of 10 p.m. and 5 a.m., and no driver or conductor of any omnibus shall neglect or refuse to admit and carry any person for whom there is room, and to whom no reasonable objection can be made under these By-laws, nor, except in cases of accident or other unavoidable cause, shall any driver or conductor stop such vehicle upon any place where foot passengers usually cross the carriage way.

52. Any person having taken his seat in or upon any omnibus, shall pay the fare when demanded, after the commencement of his journey.

53. The driver and conductor of any vehicle shall carefully examine the same immediately after setting down all passengers, and in every case of property having been left in such vehicle by any person having used or hired the same, such property if found by another passenger or other person, shall be delivered to the driver or conductor, who shall deliver the same with any other property found by him within twelve hours after such finding, at the Council Clerk's Office, and no owner shall detain any property delivered to him by any driver or conductor in his employment, longer than the time before mentioned, but shall deposit it at the Council Clerk's Office as before mentioned.

54. For every license issued under these By-laws, there shall be paid to the Council Clerk or other officer authorised by the Council to receive the same, the several sums set forth in Schedule C to these By-laws.

55. Wherever the word "vehicle" shall be used in these By-laws, the same shall be construed to extend and apply to any omnibus, car, hackney carriage, or cab. The word "omnibus" shall apply to any vehicle upon four wheels drawn by two or more horses, having seat accommodation for more than ten passengers and a driver. The word "car" shall apply to any vehicle upon two or four wheels drawn by one or more horses having seat accommodation for not more than ten nor less than five passengers and a driver. The word "hackney carriage" shall apply to any vehicle upon four wheels drawn by two or more horses having seat accommodation for not more than five passengers and a driver, and in respect of which a hackney carriage license shall have been obtained. The word "cab" shall apply to any vehicle upon two wheels having seat accommodation for not more than two passengers and a driver, in respect of which a cab license shall have been obtained. The word "cart" shall apply to any cart, dray, van, or waggon drawn by one or more horses, and used for the carriage of goods or parcels. The word "water cart" shall apply to any cart used for the carriage of water, in respect of which a water cart license shall have been obtained.

56. No proprietor or driver of any hackney carriage or cab, shall demand or receive more than the several fares or sums set forth in Schedule D to these By-laws, or such other sums as the Council of the said Borough shall from time to time determine or appoint in substitution thereof as hereafter provided.

57. The Council of the said Borough may from time to time by resolution passed in that behalf alter the said Schedule D, and the respective sums chargeable thereunder, or any of them, and such alterations shall become of full force and effect so soon as the same shall have been publicly notified by advertisement in the New South Wales Government Gazette, and at least one newspaper circulating within the Borough, and the Council of the said Borough shall not be responsible for any loss which such alterations may have or may be alleged to have occasioned to the holders of licenses for the time being, or any of them.

58. All tolls shall be paid by the hirer of any hackney carriage or cab in addition to the ordinary fare.

59. No driver of any hackney carriage or cab shall refuse to take up any passenger or passengers unless already engaged for hire, nor refuse to convey such passenger or passengers to such

place or places, within the said Borough, as such passenger or passengers may reasonably desire, provided nevertheless, that the provisions of this By-law shall not extend or apply to any of the persons disqualified from using public vehicles by By-law 49.

60. No driver of any hackney carriage or cab shall engage to convey any person or persons at a particular time and afterwards neglect or refuse to do so.

61. The west side of Church-street, from George-street, extending southerly, and the south side of Harrold-street from the Windsor Road, extending westerly, shall be stands for licensed hackney carriages and cabs; and the north side of Macquarie-street, from Church-street to Marsden-street, shall be a stand for licensed drays, carts, or vans, until otherwise ordered by resolution of Council, and any other place or places within the Borough which the said Council shall by resolution from time to time appoint, either in substitution for, or in addition thereto; provided always that no such resolution or resolutions of Council as aforesaid shall have any force or effect until notice thereof shall have been published in the New South Wales Government Gazette, and at least one newspaper circulating within the Borough.

62. No driver of any licensed vehicle shall be or remain at such a distance from his licensed vehicle, anywhere within the said Borough, so as not to have immediate and full control over the same.

63. No vehicle shall be allowed to stand or remain stationary on any street within the Borough, except on the duly appointed stands, for a longer period than the time necessary to take up or set down any passenger or passengers, or requiring or using the same for loading, unloading, receiving, or delivering the goods or parcels which the driver of such vehicle shall have been employed to carry.

64. All hackney carriages and cabs standing upon any duly appointed cabstand within the Borough shall be deemed to be disengaged, and shall not refuse to convey any passenger or passengers to such place or places within the said Borough as they may reasonably desire, provided nevertheless, that the provisions of this By-law shall not extend or apply to any of the persons disqualified from using public vehicles by By-law 49.

65. All hackney carriages and cabs carrying passengers shall (except when turning street corners or going over crossings) proceed at a speed of not less than six miles an hour, unless when attending funerals or when otherwise ordered by the hirer.

66. Copies of Schedule D, hereto attached, shall be printed or written in legible characters, and exhibited on boards placed in conspicuous positions, one at each cab stand within the Borough, and one at the Parramatta Railway Station, in such place as the Commissioner for Railways may approve.

67. Copies of all By-laws passed by the Council for the regulation of licensed vehicles shall be delivered with each license issued.

BOROUGH OF PARRAMATTA.
SCHEDULE "A"

Of By-laws for Regulating and Licensing Public Carriers and Public Vehicles.

A REQUISITION FOR LICENSE.

To the Council Clerk of the Borough of Parramatta.

I, _____, residing in _____ Street, within the Borough of Parramatta, do hereby request that a license may be granted to me, _____, within the limits of the said Borough.

Dated at Parramatta, this _____ day of _____, A.D. 188 _____.

We certify that _____, is above the age of eighteen, of good character, and capable of driving.

BOROUGH OF PARRAMATTA.
SCHEDULE "B"

Of By-laws for Regulating and Licensing Public Carriers and Public Vehicles.

FORM OF LICENSE.

This is to certify that _____ is hereby licensed from _____ to 31st December, 188 _____, inclusive, within the Borough of Parramatta, subject nevertheless to all and every the By-laws, Rules, and Regulations in force relating hereto.

Given under my hand, and under the Common Seal of the Borough Council of Parramatta, in the Colony of New South Wales, this _____ day of _____, A.D. 188 _____.

Mayor.

Council Clerk.

SCHEDULE "C."

TABLE of Licensed Fees, payable by Proprietors, Drivers, and Conductors of Licensed Vehicles :—

| Proprietors of— | On and after 1st January. | On and after 1st April. | On and after 1st July. | On and after 1st October. |
|--|---------------------------|-------------------------|------------------------|---------------------------|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Omnibuses | 2 0 0 | 1 10 0 | 1 0 0 | 0 10 0 |
| Cars | 1 10 0 | 1 2 6 | 0 15 0 | 0 7 6 |
| Hackney carriages... | 2 0 0 | 1 10 0 | 1 0 0 | 0 10 0 |
| Cabs | 1 10 0 | 1 2 6 | 0 15 0 | 0 7 6 |
| Water-carts, drays, carts, or vans. | 1 10 0 | 1 2 6 | 0 15 0 | 0 7 6 |
| For every Driver's License for a Vehicle to carry passengers. | | | | 0 5 0 |
| For every Conductor's License for a Vehicle to carry passengers. | | | | 0 5 0 |

SCHEDULE "D."

RATES AND FARES to be paid for any Hackney-carriages and Cabs within the Borough of Parramatta :—

| | s. d. |
|--|-------|
| For a Cab for any time not exceeding one quarter of an hour, to carry one or two passengers, if required by hirer. | 1 0 |
| For every subsequent quarter of an hour, or part thereof. | 1 0 |
| But if engaged for more than one hour then to be paid at the rate of ninepence for every additional quarter of an hour or part thereof. | |
| For a Hackney-carriage for any time not exceeding one half-hour, to carry five persons, if required by hirer. | 2 6 |
| For every subsequent quarter of an hour or part thereof. | 1 3 |
| But if engaged for more than one hour, then the fare to be paid at the rate of one shilling and three pence for every additional quarter of an hour or part thereof. | |

PART III.

BY-LAWS for the care and management of the public roads, public streets, and public thoroughfares.

68. The surveyor, or acting surveyor of the Borough duly appointed by the Council thereof, shall be the proper officer for marking out, where necessary, any roads, streets, or lanes within the Borough; he shall also be the proper officer for marking out the carriage and footways in such roads, streets, and lanes, or other public places, but it shall be sufficient for him for this purpose to place posts or kerbstones at the corners or intersections of the streets, or wherever the same may be necessary or desirable, so as to give a width of forty-two feet for the carriage way and twelve feet for the footway on each side, when the street shall be sixty-six feet or more wide, and in proportion wherever the said public roads, streets, lanes, or public places, are of other widths than sixty-six feet.

69. With regard to any building hereafter to be built or rebuilt, it shall not be lawful for any coping, parapet, overhanging eaves, cornice, window, string cornice, dressing, or other architectural decoration, forming part of any external wall, to project more than eighteen inches, nor any balcony more than thirty-six inches beyond the general line of front in any street or road. All overhanging eaves to be properly guttered together with down pipes.

70. Provided always that nothing in these By-laws contained shall be deemed to prevent any person from placing a moveable awning in front of any shop or house, and such awning shall be at least eight feet above the height of the footway, and that the posts be placed fair with the kerbstone, or outer edge of the footway.

71. No down pipe from any house or other building, nor any pipe or gutter from any land, shall be allowed to discharge water on any footpath within the Borough, but all such pipes or gutters must be connected with the street gutter by means of pipes placed under the footpath by the occupier or the proprietor of such building or land under the direction of the Council's Overseer of Works, and at the expense of such proprietor or occupier, and shall before commencing the work leave three clear days' notice with the Council Clerk of his intention so to do, and shall reinstate the said footpath in as nearly as practicable the same condition as it was in before laying down the said pipes.

72. The occupier or proprietor of any house or building within the said Borough having a verandah or awning extending over any portion of any footpath shall cause the said portion of footpath under such awning or verandah to be paved with stone or covered with asphalt to the satisfaction of the Works Overseer of this Council.

73. No rubbish, sweepings, broken glass, ashes, offal, dung, soil, blood, dead animals, filth, or other offensive matter or thing shall be thrown or placed in or upon any street, footway, water channel, or any public place or thoroughfare within the Borough.

74. No person shall damage any public building, wall, parapet, sluice, bridge, road, street, sewer, watercourse, kerbstone, gutter, or other public property within the Borough.

75. No person shall injure any public fountain, pump, cock, or water pipe, or any part thereof.

76. No person shall injure any public lamp, lamp-pillar, or pipe connections and fittings of same.

77. No person shall, without authority of the Council, light or extinguish any public lamp, or extinguish any lamp in use for the purpose of guarding the public against obstructions or excavations in the streets.

78. No person shall ride on horseback or drive any wheeled vehicle on the footway, or lead or drive thereon any horse or other beast.

79. No person shall place on any street or footway any building material, except in cases where buildings shall be in course of construction, and then only under the sanction in writing of the Mayor or Council Clerk previously obtained; and no person shall have any excavations for cellars or other purposes, wells or waterholes in or adjoining any public place unfenced or in such a state as to be dangerous to passers by, and in all places where buildings are being constructed or where any obstruction or other danger to passers by shall exist the person causing the same shall erect a boarding round the said obstruction or danger, and make all necessary provision to secure the safety of passers, and shall provide lights on either side thereof and keep the same burning brightly and conspicuously from sunset to sunrise.

80. No person shall destroy or damage any shrub or tree growing in any street, thoroughfare, or public place within the Borough, nor injure any hedge, fence, gate, name-plate, or building thereon, or set fire to any shrub or tree, or cut or remove any timber from any such street, thoroughfare, or place, or destroy, deface, tear, or otherwise injure or obliterate any notice, proclamation, or other instrument or writing purporting to be under the authority of the Council, the Mayor, or any officer of the Council which shall be exhibited or affixed in or to any public place within the said Borough.

81. All persons conducting or taking horses along any street, thoroughfare, or public place within the Borough shall keep them secured by means of halters or bridles and shall lead them, and no person shall run or drive, or cause to be run or driven, any horse or horses loose through any such street, thoroughfare, or public place as aforesaid; provided nevertheless that horses being taken to the public pound, and afterwards impounded therein, or mobs of horses being driven to or from market shall not be within the meaning of this By-law.

82. Every carriage, cart, dray, buggy, or other wheeled vehicle, usually drawn by horses, which shall be in or upon any street, thoroughfare, or public place within the said Borough, earlier in the daytime than one hour before sunrise or later in the night time than one hour after sunset shall have attached to it one or more sufficient lights which shall be kept burning conspicuously in order to prevent collisions and accidents.

83. Persons riding on horseback and the drivers of such vehicles as are referred to in By-law No. 82, shall keep their left-hand side of any street along which they are proceeding, keeping to the left of horsemen and vehicles passing in the contrary direction, and to the right of horsemen and vehicles proceeding in the same direction as themselves.

84. No person shall keep, breed, or feed any swine within the distance of one hundred yards from any public building, place of worship, school-room, dwelling-house, public pathway, street or road, public park or recreation ground, or other public place within the said Borough.

85. It shall not be lawful for any person to suffer any horse, cow, calf, or other animal belonging to him or under his charge to stray or go about, or be tethered or depastured in any street, thoroughfare, or public place within the said Borough.

86. No person driving or riding within the Borough shall allow his horse or horses to go out of a walking pace whilst turning any of the street corners, nor whilst passing over crossings at the intersections of streets within the said Borough.

87. No person shall throw or place upon any street, crossing, footpath, or waterway in the Borough of Parramatta any fruit, fruit-skin, rind, or peel, or any other vegetable matter.

88. All persons standing or loitering upon any of the streets, footways, crossings, or other public places in the Borough of Parramatta, to the inconvenience of passers-by, or in any way interrupting the traffic, shall discontinue to do so on being required by any officer or servant of the Municipal Council of the Borough of Parramatta, or any police officer.

89. Any street musician or vocalist shall when requested by any householder, or his servant, or by any officer or servant of the Municipal Council of the Borough of Parramatta, or by any police officer, depart from the neighbourhood of the premises of such householder.

90. No person shall be allowed to use any vehicle of any kind, or adopt any temporary means whatsoever for the purpose of plying his vocation, whereby any number of persons may be attracted and congregated together on any street, road, footpath, thoroughfare, or public place within the Borough of Parramatta, thereby interfering with, or in any manner lessening the free passage in any such street, road, footpath, thoroughfare, or public place, and any person so doing shall after being warned to desist by any public officer, or any officer of the Borough Council of Parramatta, either refusing or delaying to do so shall be deemed guilty of an offence against this By-law.

91. No owner or occupier of any house or place within the said Borough shall neglect to keep clean any private avenue, passage or passages, yard, and ways within the said premises so as by such neglect to cause a nuisance by offensive smell or otherwise.

92. No person shall ride or drive through or upon any street or public place within the Borough of Parramatta so negligently, carelessly, or furiously that the safety of any other person shall or might be endangered thereby.

93. No person shall set or place or cause or permit to be set or placed any stall-board, chopping-block, show-board (on hinges or otherwise), basket-ware, merchandise, casks or goods of any kind whatsoever, or shall hoop, place, wash, or cleanse, or shall cause to be hooped, placed, washed or cleansed any pipe, barrel, cask, or vessel in or upon or over any carriage or footway in any street or public place within the said Borough, or shall hang out or expose, or shall cause or permit to be hung out or exposed any meat or offal or other thing or matter whatsoever from any house or other building or premises, or any other matter or thing from and on the outside of the front or any other part of any house or other building or premises over or next to any such street or public place.

94. The Council may recover and the owner or occupier of any premises shall pay such sums for the removal of rubbish from the said premises as may be decided upon from time to time by resolution of the Council of the Borough of Parramatta, and all such rubbish to be removed as ordered by the Council.

95. No person shall carry or convey or cause to be carried or conveyed through, upon, or over any street or public place in the said Borough, except between the hours of eight o'clock at night and six o'clock in the morning, any unwholesome or offensive matter of any kind whatsoever, and nothing herein contained is to have the effect of repealing any By-law for the mode and times of removal of night-soil.

PART IV.

BY-LAWS to carry into effect the provisions of the Nuisances Prevention Act, 1875, within the Borough of Parramatta.

96. Every person about to erect a closet or form a cesspit shall, before commencing any such work, give to the Council Clerk seven days' notice in writing of his intention, and of the proposed position of such closet or cesspit.

97. No closet shall be erected or cesspit formed except in such position as shall be approved of by the Council or by the Inspector of Nuisances or other officer appointed by the Council; provided that where practicable no cesspit shall be formed within twenty feet of any dwelling-house or factory.

98. Each closet shall have a man-hole of the clear internal dimensions of two feet three inches by two feet outside the walls of the closet, and connected with the pit, as shown on the drawing exhibited at the Council Chamber, and constructed of the same material specified for the construction of the soil-pit, and covered closely with strong stone flags, or such other material as the Council or its officer may approve.

99. The walls of every soil-pit shall be built of brick or stone, of a thickness of not less than nine inches, and shall be built in cement, and rendered three-quarters of an inch thick with the cement inside, at bottom and on the walls, in such a manner as to make it perfectly water-tight to the satisfaction of the Inspector of Nuisances or of such other officer as may be appointed by the Council.

100. Every closet shall be built seven feet high from the floor to the wall-plate of roof, and shall not be less than three feet six inches wide and four feet six inches long, and shall be provided with a door capable of being fastened from the inside, and shall have ventilating holes four-and-a-half inches wide, or a window that will open.

101. When two or more closets adjoin each other there shall be a brick or stone dividing wall of not less than four-and-a-half inches in thickness between every two closets, and each wall shall extend from the bottom of the cesspit through the roof of the closets, so as to effect a complete separation.

102. A separate closet shall be provided for every tenement.

103. Until otherwise provided by the Council, all night-soil shall be removed from cesspits by the servants of, or the contractors with the Council in water-tight covered vehicles, between the hours of 11 o'clock in the evening and 5 o'clock in the morning.

104. Until and unless otherwise provided by the Council, all night-soil shall be disposed of by burying it in the earth.

105. In case the Council shall sell or give away any night-soil, the same shall be removed in the same manner as above provided, and on being removed from the vehicle in which it is carried shall be deodorised by chemicals, or in some other manner, or covered with earth, so as to prevent any offensive smell arising therefrom.

106. The Inspector of Nuisances or other officer appointed by the Council may visit and inspect any premises within the Borough as authorised by the Nuisances Prevention Act, 1875, on all days except Sundays, between the hours of 10 o'clock in the morning and four o'clock in the evening.

107. Any person desirous of erecting an earth-closet or any other improved plan of closet shall be at liberty to do so after giving notice of his intention to the Inspector of Nuisances or other officer appointed by the Council (subject to the approval of the Council or such Inspector or other officer), but all night-soil shall be removed therefrom once in four days, and buried in the earth.

108. The Council may recover, and the owner or occupier of the premises shall pay such reasonable sums for the emptying of cesspits as may be decided upon from time to time by resolution of the Council.

109. No owner or occupier of any premises within this Borough, or any other person shall erect or construct upon his premises any closet or cesspit otherwise than in accordance with these By-laws.

110. All closets appertaining to dwelling-houses of more than three rooms shall be built with cesspits of not less than four feet by three feet, clear internal measure, exclusive of the man-hole mentioned in By-law No. 98, and of a depth of not less than four feet nor more than six feet below the surface of the ground, and the top of every cesspit shall not be less than six inches higher than the highest part of the ground immediately adjoining it: Provided always that this By-law shall not apply to such closets as are provided for under By-law No. 107.

111. The place of deposit for night-soil shall be in such locality as may be from time to time determined upon by the Council, and no night-soil shall be deposited in any other locality, except as allowed by the Nuisances Prevention Act, 1875 or these By-laws.

112. No person shall empty, or aid or assist in emptying, whether entirely or only partially, any cesspit within the said Borough without the authority of the Council or of the Inspector of Nuisances, or other officer appointed by the Council; and every person so doing shall be liable to a penalty of not more than £10 nor less than 10s.

113. All words occurring in these By-laws and which also occur in the Nuisances Prevention Act, 1875, shall have the like meaning assigned to them as are provided in the 4th section of the same Act.

PART V.

BY-LAWS for the regulation and management of the Queen's Wharf at Parramatta, and the maintenance of good order thereat.

114. That the wharf shall be considered as divided into three parts or lots to be numbered respectively 1, 2, and 3, the dividing lines to be defined by the Town Surveyor or Acting Town Surveyor, as the Council may from time to time direct.

115. That the side lines or boundaries of the respective lots shall be in parallel lines with the Government brick wall on east side of said wharf, and commence at the river.

116. That lot 1 shall be reserved and appropriated for and to the use of steamers, licensed watermen, or private individuals, for the purpose of landing or taking off passengers.

117. That lot 2 shall be reserved and appropriated for the loading and unloading of Colonial produce or general merchandise.

118. That lot 3 shall be reserved and appropriated for the loading and unloading of timber, bricks, manure, lime, sand, and shells, or other things of a like nature.

119. That all articles landed at or upon any portion of lot 2 of the said wharf shall be removed therefrom by the persons landing the same within twenty-four hours after the time of landing. Bricks, firewood, and other articles allowed to be deposited on lot 3 shall be removed within forty-eight hours after being landed, excepting the articles mentioned in By-law 122 of these By-laws, and therein provided for.

120. That the Council may from time to time as it shall deem advisable, appoint a wharfinger or wharfingers not being the lessee or lessees, and such wharfinger or wharfingers shall have power to and are hereby authorised and required to keep good order upon the wharf and every part thereof, and to remove all disorderly persons therefrom.

121. No boat shall be allowed to remain at the passenger stairs longer than is necessary to land or receive passengers.

122. No rubbish, cinders, ballast, shells, animal or vegetable matter shall be landed, except on lot 3 of the said wharf, and only in bags, baskets, or casks, and such articles shall be taken away within twelve hours after landing.

123. The lessee, wharfinger, collector, or other person authorised by the said Council for the time being in that behalf, shall be entitled to demand and receive of and from every person using the said wharf, the fees or dues mentioned or set out in Schedule E hereunto annexed.

124. Every person using the said wharf and failing to observe and comply with the regulations and provisions contained in these By-laws shall be deemed an offender, and liable to prosecution and conviction.

SCHEDULE E.

TABLE of dues to be paid for goods shipped or landed at the Queen's Wharf, Parramatta:—

| | s. | d. |
|--|----|----|
| Wool, per bale | 0 | 4 |
| Sheet bark, per dozen, part of dozen | 0 | 3 |
| Tanner's bark, per ton | 1 | 0 |
| Beef, mutton, and pork, per tierce or cask | 0 | 2 |
| Beef, per carcass, and in proportion for quarters | 0 | 2 |
| Mutton, per carcass | 0 | 1 |
| Bricks, per 1,000, or any portion of 1,000 | 1 | 0 |
| Tiles and flagstones, per 100 feet superficial | 0 | 6 |
| Stone for building purposes, per perch | 0 | 6 |
| All other stone, per perch | 0 | 3 |
| Lime, manure, and sand, per ton | 0 | 4 |
| Brooms, per dozen | 0 | 1½ |
| Butter and lard, per keg | 0 | 1½ |
| Cheese, per cwt. | 0 | 2 |
| Grain, per ton | 0 | 6 |
| Sawn timber, and timber in logs, per 1,000 feet superficial | 1 | 0 |
| Lathes and shingles, per 1,000 | 0 | 6 |
| Palings, per 100 | 0 | 2 |
| Flour, per ton | 0 | 6 |
| Hides, each | 0 | 0½ |
| Calves and pigs, each | 0 | 2 |
| Sheep, each | 0 | 1 |
| Horses and horned cattle, each | 0 | 6 |
| Hay and straw, per ton (pressed) | 0 | 6 |
| Hay and straw, per ton (unpressed) | 1 | 0 |
| Salt and coal, per ton | 0 | 6 |
| Poultry, per dozen, at the rate of | 0 | 3 |
| Firewood and billet wood, per ton | 0 | 3 |
| Potatoes and other vegetables, per ton | 0 | 6 |
| Charcoal and ashes, per bag | 0 | 0½ |
| Fruit, per case | 0 | 0½ |
| Railway sleepers, per 100 | 2 | 0 |
| Any other articles not herein enumerated, at the rate of per ton | 0 | 6 |

PART VI.

BY-LAWS for the control and management of the Parramatta Market.

125. The Market reserve and weighbridge, Parramatta North, shall (under the direction of the lessee or officer for the time being in charge thereof) be available to the public in the daytime between the hours of six in the morning and six in the evening during the summer months, and seven in the morning and five in the evening during the winter months, every day throughout the year, except Sundays, Christmas Day, Good Friday, and days duly proclaimed as public holidays, and the same shall be under the control and management of the lessee of the Market, or of the officer of the Council, or other person in charge for the time being; and for the purpose of these By-laws the summer months shall be deemed to be and comprise the months of October to March inclusive, and the winter months shall be deemed to be and comprise the months of April to September inclusive.

126. The lessee, or officer, or other person in charge for the time being, shall keep and maintain all the Market premises in a clean and proper state and condition, and be responsible for good order being preserved on the said premises, and shall not allow any drunken or disorderly person to remain thereon.

127. Every person behaving disorderly or riotously, or in a manner calculated to occasion annoyance, confusion, or disturbance, or use insulting, obscene, or indecent language or gestures, within the said Market premises, or within hearing or view thereof, shall be removed therefrom by the lessee or officer or person in charge for the time being of the said premises, and shall be deemed an offender, and liable to conviction under these By-laws.

128. No person shall place or deposit on any part of the said Market premises any earth, soil, rubbish, broken glass, dead animals, filth, or nuisance whatsoever.

129. No person shall, without the authority of the said Council, or of the lessee, or officer in charge, enter, or be in or upon any part of the said Market premises, except during the hours provided for by By-law No. 125 of these By-laws.

130. The lessee, or officer or person in charge, of the said Market reserve and premises for the time being, shall so long as he continues lessee or to have charge, as aforesaid, as the

case may be, keep all buildings and fences, and the said weighbridge, and the fittings thereof, and appurtenances thereto, safe and in good repair, and in good working order and condition, and in such order and condition peaceably and quietly surrender and yield up the same to the Council of the said Borough, or any officer authorised in that behalf, the expense of so doing to be borne by the lessee (if any), but if there be no lessee then by the Council.

131. Any lessee, or other person for the time being having charge of the weighbridge, who shall wilfully give an incorrect weight shall be deemed an offender, and liable to conviction under these By-laws.

132. Every person shall pay to the lessee or officer in charge for the time being, for using the Market reserve and weighbridge respectively, the several fees and dues mentioned and set forth in the schedule hereto annexed marked F.

133. All fees and dues to be collected under these By-laws shall be deemed to be due in advance, and no portion of the goods shall be sold or delivered until payment of such fees shall have been made.

SCHEDULE F.

| | s. | d. |
|--|----|----|
| For every article or load weighed other than farm produce:— | | |
| Not exceeding 10 cwt. | 0 | 6 |
| Exceeding 10 cwt. and not exceeding 1 ton | 0 | 9 |
| Exceeding 1 ton | 0 | 1 |
| For every load of hay, straw or other farm produce weighed:— | | |
| Not exceeding 1 ton | 1 | 0 |
| Exceeding 1 ton and not exceeding 30 cwt. | 1 | 6 |
| Exceeding 30 cwt. | 2 | 0 |
| For every cart with produce exposed for sale on Market reserve, drawn by one horse or other animal | 0 | 6 |
| For same, drawn by two horses or other animals | 1 | 0 |
| For every horse, mare, gelding, foal, ass, or mule exposed for sale on the Market reserve | 0 | 6 |
| For every head of neat cattle exposed for sale on said reserve | 0 | 6 |
| For every sheep or lamb exposed for sale on the said reserve | 0 | 0½ |
| For every pig or goat exposed for sale on the said reserve | 0 | 2 |

PART VII.

By-laws for the Interment of the Dead.

134. No dead body (except as hereinafter provided) shall be interred in any cemetery within the Borough of Parramatta now open or hereinafter to be opened for burials within the distance of one hundred yards from any public building, place of worship, schoolroom, dwelling-house, public pathway, street, or road, public park, or recreation ground, or other public place whatsoever within the said Borough. Provided always that in any case in which on the day of these By-laws being passed there shall be vested in any person an exclusive right of interment, purchased or acquired, in any vault or inclosure in any cemetery within the said Borough then open for burials, and being within the said prohibited limit, it shall be lawful for the Mayor of the said Borough from time to time on application being made to him as hereinafter mentioned, and on his being satisfied that the interment of a body in such vault or inclosure will not be injurious to health or otherwise objectionable to grant a license for such interment in writing under his hand, subject to such conditions as he shall deem necessary and proper in each particular case, and for every such license there shall be charged a fee of five shillings and that no more vested rights shall be acquired during the current year.

135. Every such application for the interment of a body as aforesaid, shall be in writing, and shall state the grounds on which it is made, and shall also truly state how much the position of the vault or inclosure is within the said prohibited distance.

136. Any person or persons having charge of any cemetery, or other person or persons who shall inter, or cause, or permit to be interred, or assist in interring any dead body within this Borough contrary to the provisions of these By-laws, or otherwise commit a breach of any of them shall for the first offence forfeit and pay a penalty not exceeding fifty pounds (£50) nor less than five pounds (£5), and for every subsequent offence a penalty not exceeding fifty pounds (£50) nor less than ten pounds (£10), to be recovered before two Justices in a summary way upon prosecution by the Inspector of Nuisances or such other officer as the Council may appoint.

PART VIII.

BY-LAWS for the control and maintenance of order on Alfred-square.

137. The public shall at all times have free access to the said Square.

138. No person or persons shall obstruct the thoroughfare, create a disturbance, fight, use obscene language, or conduct himself in a disorderly or indecent manner, or misbehave themselves in any way within the said Square.

139. No person or persons shall destroy the trees, fencing, seats, or any property that is now or may be erected by the Council on the said Square.

140. No person or persons shall cut grass on the said Square without having first purchased the right to the same or obtained permission from the Mayor to do so.

PART IX.

BY-LAWS for regulating the supply and distribution of water in or connected with the Borough of Parramatta.

141. No person shall destroy or damage, or attempt to destroy or damage any reservoir, dam, tank, tunnel, water-course, sluice, main pipe, aqueduct, bridge, road-way, or engine, or other part whatever of the works of this Council.

142. The Council may supply any person with water for other than domestic purposes, by measure, at such rates, upon such terms, and subject to such conditions as decided upon by the Council, and "domestic purposes" shall not be for or include a supply of water for stables or for manufacturing purposes, or for irrigation, water-power, fountains, or any ornamental purpose.

143. The Council may let for hire to any consumer of water, supplied by measure, any meter or instrument for measuring the quantity of water supplied and consumed, and any pipes and apparatus for the conveyance, reception, or storage of the water for such remuneration in money as may be agreed upon between the Council and the consumer.

144. Every person who shall have agreed with the Council for a supply of water, by measure, shall, at his own expense, unless he hire a meter from the Council, provide a meter and keep and maintain the same in good working condition to the satisfaction of such officer as may be appointed by the Council, and in the event of any repairs being required notice in writing shall be immediately given by such person to the Council or its officer, and a registration of the quantity used shall be taken before such repairs are effected.

145. Every person requiring to remove or alter the position of any meter shall give six days' notice in writing to that effect to the Council or its officer, and a registration of the quantity of water used shall be taken before such removal or alteration is made.

146. No person under the provisions hereinbefore contained shall refuse or neglect to provide a meter for his use after having been required by the Council or its duly-appointed officer so to do.

147. Any person having supplied himself with a meter, under the provisions of these By-laws, and the same becoming out of repair, shall not fail to give immediate notice thereof to the Council or its duly appointed officer.

148. Should any person refuse or delay to have such meter properly repaired and put in correct working order after having been required by any officer of the Council so to do, the Council may shut off the supply of water from the premises of such person, either by cutting the service pipe or otherwise, until such meter shall have been properly repaired and certified by some officer of the Council as being in proper working order.

149. No plumber or other person shall fix or refix any meter upon any premises supplied with water by the Council without having first obtained a certificate from the Council or its officer, that the said meter has been examined, and found in correct working order.

150. If any person remove, or alter the position of, or in any way interfere with any meter without giving such notice as aforesaid, he shall for each such offence forfeit a sum not exceeding twenty pounds (£20).

151. The Inspector of Waterworks, or other authorised officer of the Council, may, pursuant to section 119 of the Municipalities Act of 1867, enter any house, building, or lands, to, through, or into which water is supplied by the Council by measure or otherwise, in order to inspect the meters, instruments, pipes, and apparatus, for the measuring, conveyance, reception, or storage of water, or for the purpose of ascertaining the quantity of water supplied or consumed; and may from time to time enter any house, building, or lands, for the purpose of removing any meter, instrument, pipe, or apparatus, the property of the Council: and if any person hinder any such officer from entering or making such inspection or effecting such removal, he shall be deemed an offender and liable to conviction under these By-laws: Provided, however, that the power of entry be exercised only between the hours of ten in the forenoon and four in the afternoon.

152. No pipes shall be other than of a strength and material approved of by the officer of the Council, and every such owner or occupier shall, before he begin to lay any such pipes, give to the Council or its officer two days' notice in writing of his intention so to do.

153. Before any pipe is made to communicate with the pipes of the Council the person intending to lay such pipes shall give two days' notice to the Council or its officer of the day and hour when such pipe is intended to be made to communicate with the pipes of the Council, and every such pipe shall be so

made to communicate under the superintendence and according to the directions of the officer of the Council appointed in that behalf, and the bore of any such pipe shall not exceed three quarters of an inch except with the consent of the Council or its officer aforesaid.

154. If any person supplied with water by the Council wrongfully does, or causes or permits to be done, anything in contravention of any of the provisions of this part, or wrongfully fails to do anything which under any of those provisions ought to be done for the prevention of the waste, misuse, undue consumption, or contamination of the water of the Council, the Council may (without prejudice to any remedy against him in respect thereof) cut off any of the pipes by or through which water is supplied to him or for his use, and may cease to supply him with water so long as the cause of injury remains or is not remedied.

155. If any person supplied with water by the Council wilfully or negligently causes or suffers any pipe, valve, cock, cistern, bath, soil-pan, water-closet, or other apparatus or receptacle to be out of repair or to be so used or contrived that the water supplied to him by the Council is or is likely to be wasted, misused, unduly consumed, given away or contaminated or so as to occasion or allow the return of foul air or other noisome or impure matter into any pipe belonging to or connected with the pipes of the Council he shall be deemed an offender, and upon conviction punishable under these By-laws.

156. If any person—

1st. Not having from the Council a supply of water for other than domestic purposes uses for other than domestic purposes any water supplied to him or her by the Council, or

2nd. Having from the Council a supply of water for any purpose other than domestic, uses such water for any purpose other than those for which he is entitled to use the same, he shall for every such offence be liable to a penalty not exceeding forty shillings.

157. It shall not be lawful for the owner or occupier of any premises supplied with water by the Council or any consumer of the water of the Council or any other person to affix or cause or permit to be affixed any pipe or apparatus to a pipe belonging to or used by such owner, occupier, consumer, or any other person, or to make any alteration in any such communication or service pipe, or in any apparatus connected therewith without the consent in every such case of the Council or its officer, and if any person acts in any respect in contravention of the provisions of the present section he shall for every such offence be liable to a penalty not exceeding five pounds nor less than ten shillings.

158. If any person not being supplied with water by the Council, wrongfully takes or uses any water from any reservoir, watercourse, conduit, or pipe belonging to the Council, or from any pipe leading to or from any such reservoir, watercourse, conduit, or pipe, or from any cistern or other like place, containing water belonging to the Council, or supplied by them for the use of any consumer of the water of the Council, he shall for every such offence be liable to a penalty not exceeding five pounds.

159. The Inspector of Waterworks or other person appointed by the Council for that purpose may, pursuant to section 119 of the Municipalities Act of 1867, between the hours of ten o'clock in the forenoon and four o'clock in the afternoon, enter into any land, house, or premises supplied with water by the Council, in order to examine if there be any waste or misuse of such water, and if such Inspector or other person at any such time be refused admittance into such land, house, or premises for the purpose aforesaid, or be prevented from making such examination as aforesaid, the Council may turn off the water supplied by them from such land, house, or premises.

160. If any person bathe in any stream, reservoir, aqueduct, or other waterworks belonging to the Council, or wash, throw, or cause to enter therein any dog or other animal, he shall for every such offence forfeit and pay a sum not less than five pounds.

161. If any person throw or convey, or cause or permit to be thrown or conveyed any rubbish, dirt, filth, or other noisome thing into any such stream, reservoir, aqueduct, or other waterworks as aforesaid, or wash or cleanse therein any cloth, wool, leather, or skin of any animal, or any clothes or other thing, he shall for each such offence forfeit and pay a sum not less than five pounds.

162. If any person cause the water of any sink, [sewer, or drain, steam-engine, boiler, or other filthy water belonging to him or under his control, to run or be brought into any stream, reservoir, aqueduct, or other waterworks belonging to the Council, or shall do any other act whereby the water of the Council shall be fouled, he shall for each such offence forfeit and pay a sum not exceeding ten pounds nor less than two pounds.

163. Any person who shall without the authority of the Council or its duly appointed officer re-establish any such connection which may have been cut off, removed or severed by him, or who shall in any manner wilfully injure or tamper

with any connection, pipe, cistern, ball-cock, stop-cock, or waste-pipe which may have been approved by the Council or its officer so as to destroy, diminish, or endanger its efficiency, shall for each such offence forfeit and pay a penalty not exceeding ten pounds nor less than two pounds.

PART X.

BY-LAWS for the restraining of Noisome or Offensive Trades.

164. No person shall carry on any noisome or offensive trade within the Borough of Parramatta, so as to injure or be a nuisance as hereinafter stated to the inhabitants thereof.

165. Any manufacture, trade, calling, or operation in the conducting, following, or carrying on of which, or in consequence of, or in connection therewith, or from the premises where the same is conducted, followed, or carried on, any gas, vapour, effluvia, or any large quantities of smoke shall be evolved or discharged, which gas, vapour, effluvia, or smoke shall be calculated to injure animal or vegetable life, or in any other way to injure or be a nuisance to the inhabitants of the said Borough shall be considered a "noisome and offensive trade" within the meaning of these By-laws: Provided this By-law shall not extend to any registered or incorporated gas company.

166. Upon the complaint in writing of any householder that any noisome or offensive trade is being so followed, conducted, or carried on in the vicinity of his residence or property as to injure his health or the health of any member of his family, or to be a nuisance to such householder or his family, the Inspector of Nuisances, or any other person or persons appointed by the Council, shall make an inspection of the premises where such trade is alleged to be conducted, followed, or carried on as aforesaid, and of the premises or property of the complainant, and shall inquire into the grounds for such complaint, and shall report thereon to the said Council; and if the said Council shall on consideration of such report, or after any such further inquiry as may be deemed necessary be of opinion that the said complaint is well founded, and that any manufacture, trade, calling, or operation so complained of, and so being conducted, followed, or carried on as aforesaid, is a "noisome or offensive trade" within the meaning of these By-laws, notice shall be given to the person or persons conducting, following, or carrying on such trade to cease and discontinue the same within such reasonable time not being less than thirty days nor more than sixty days, as the said Council may direct, or so to conduct, follow, or carry on his, her, or their manufacture, trade, calling, or operation as that within such reasonable time as aforesaid, the same shall wholly and permanently cease to be noisome or offensive within the meaning of these By-laws, either to the said complainant or to any other resident within the said Borough, if any such trade shall not be discontinued as aforesaid, or shall not be so conducted as that it shall wholly cease to be noisome and offensive as aforesaid, within the time named in such notice as aforesaid, any person conducting, following, or carrying on such trade as aforesaid shall for the first offence forfeit and pay a sum not less than forty shillings nor more than five pounds, for a second offence a sum not less than five pounds nor more than twenty-five pounds, and for a third and every subsequent offence a sum not less than ten pounds nor more than fifty pounds.

167. The like proceedings shall be taken as aforesaid whenever there shall be a complaint as aforesaid, that any manufacture, trade, calling, or operation is about to be commenced or entered upon which is likely to prove noisome and offensive within the meaning of these By-laws, save and except the notice to be given as aforesaid shall be given to the person or persons about to enter upon such manufacture, trade, calling, or operation, and shall require him, her, or them not to commence or enter upon the same, or take such measures as shall effectually prevent the same from being noisome and offensive, within the meaning of these By-laws, to any resident within this Borough; and any person who shall in such case commence, enter upon, or continue any such manufacture, trade, calling, or operation, so that the same shall in any way be noisome or offensive within the meaning of these By-laws, shall for every such offence forfeit and pay a sum not less than five pounds nor more than fifty pounds.

168. Service of any such notice as aforesaid upon the occupier or owner of any premises or land wherein or whereon any such manufacture, trade, calling, or operation is being conducted, followed, or carried on, or is about to be commenced or entered upon, or at the last known place of abode of such occupier or owner, or upon any person on the said premises or land, shall be a good and sufficient service of such notice for all the purposes of these By-laws; and every person who shall be actually engaged in superintending, directing, or managing, or who shall be in any other way actually engaged or employed in any such manufacture, trade, calling, or operation as aforesaid, shall be liable to be regarded and treated as a person conducting, following, or carrying on such manufacture, trade, calling, or operation, within the meaning and for all the purposes of these By-laws.

169. The Inspector of Nuisances, so far as relates to the By-laws comprised in Part IV. hereof, and in all other cases, the said Inspector of Nuisances, or any other officer duly appointed by the Council, shall be the person to see the foregoing By-laws carried into effect, and to institute and prosecute all legal proceedings thereunder.

170. Any person offending against the provisions of any of the foregoing By-laws (except those relating to the conduct of business in the Municipal Council) by any act of omission or commission, shall upon conviction thereof, where no other punishment is specially provided, be liable to forfeit and pay a sum of not more than twenty pounds nor less than ten shillings, and all fines, penalties, and forfeitures under the said By-laws shall be recovered in a summary way before any two or more Justices.

All the foregoing By-laws were passed by the Municipal Council of the Borough of Parramatta, at a meeting held on Monday, the 25th day of August, 1884.

F. C. COX,
Mayor.

SYDNEY WICKHAM, Council Clerk.

The Corporate Seal being attached to the said By-laws the 20th day of September, 1884.

(L.S.) F. C. COX,
Mayor.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

EDUCATION.

(APPOINTMENT OF UNDER SECRETARY OF PUBLIC INSTRUCTION.)

Ordered by the Legislative Assembly to be printed, 25 November, 1884.

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 21st November, 1884, That there be laid upon the Table of this House,—

“ Copies of all correspondence and other documents having reference to
“ the appointment of a successor to Mr. Wilkins as Under Secretary to the
“ Department of Public Instruction.”

(*Mr. Suttor.*)

SCHEDULE.

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EDUCATION.

No. 1.

Mr. C. J. Graham to The Minister of Public Instruction.

Sir,

Orange, 31 March, 1884.

I have the honor to offer myself as a candidate for the office of Under Secretary for Public Instruction, now vacant.

I am a graduate of the University of Cambridge, England, and during the first three years that there was a Government Department of Education in Queensland I filled the office of Under Secretary there.

I left Queensland to enter into business pursuits in this Colony, and I have resided here nearly five years.

I have reason to believe my administration of the department in Queensland, including the organization thereof on the transfer from the Board to the Government, was considered satisfactory and successful both by the Government then in power and the country generally. I resigned of my own accord, chiefly from a desire to reside in a cooler climate.

Should you entertain my application, I beg to refer you to the Hon. S. W. Griffiths, Premier of Queensland, who was Minister for Education when I was Under Secretary; to the Hon. Sir Arthur Palmer, who then led the Opposition in politics; and generally to any persons in public life or the Civil Service, or holding leading social positions in Queensland from 1872 to 1879, whose opinion will be considered valuable by you.

I have, &c.,

C. J. GRAHAM.

Acknowledge, and state this, his application, will have due consideration.—J. P. ABBOTT, 2/4/84.

[Enclosure.]

J. M. Thompson, Esq., to The Minister of Public Instruction.

Dear Abbott,

1 April, 1884.

If the name of Mr. C. J. Graham, of Orange, has not come under your notice as a desirable person for Under Secretary for Education, I can say that you may go far before finding a better man. He was Under Secretary in Brisbane, appointed by a political opponent—Griffiths—and left because the climate did not suit him.

I have not his authority to mention his name. Mr. Mackay, editor of the *Town and Country Journal*, can tell you all about him. He was at one time proprietor of a paper himself, and is an able writer.

Excuse this interference, and if the suggestion is not acceptable tear this up.

Yours, &c.,

J. MALBON THOMPSON.

No. 2.

The Acting Under Secretary of Public Instruction to Mr. C. J. Graham.

Sir,

Department of Public Instruction, Sydney, 8 April, 1884.

I am directed by the Minister of Public Instruction to acknowledge the receipt of your letter, dated 31st March ultimo, in which you apply for the position of Under Secretary for Public Instruction, and to acquaint you that your application will have due consideration.

I have, &c.,

G. MILLER,

Acting Under Secretary.

No. 3.

Mr. E. Johnson to The Minister of Public Instruction.

Sir,

Chief Inspector's Office, Department of Public Instruction, 14 May, 1884.

As the Legislative Assembly has voted a retirement allowance to Mr. Wilkins, the present Under Secretary, I beg to apply for the position about to be vacated by that officer.

In support of my application, I may state that I have been upwards of twenty-nine years in the school service of the Colony, and during that period have performed the duties of Teacher, Lecturer in the Training School, Inspector of Schools, Inspector of the Training School, Examiner, Acting Secretary, and Chief Inspector. I have thus had experience in nearly all the professional branches of the Department, besides being thoroughly acquainted with the clerical routine of the office.

In 1854 I was selected by the Privy Council in England, on the recommendation of the Principal of my College, Dr. Temple, now Bishop of Exeter, to fill the office of Teacher under the National Board of this Colony. Some time after my arrival here I voluntarily underwent examination, and succeeded in gaining a Special First Class certificate, the highest in the power of the Board to bestow. My examiners included, among others, the late Professors Woolley and Pell, Professors Smith and Stephens, and the late Mr. Pillard. I may add that I was the only teacher who gained that distinction, notwithstanding that some of our best teachers, including University graduates, competed for it.

Towards the latter part of 1874 I was selected by the late Council of Education to perform the duties of Secretary during the absence of Mr. Wilkins on sick leave. I discharged those duties for upwards of three months—until Mr. Wilkins' return to work. The members of the Council were pleased to express their satisfaction with the manner in which I had conducted the business of the Department, and awarded me a bonus in recognition of my services.

In

In 1880, when the Department passed under a Minister, I was chosen by Sir John Robertson to fill my present office, and was placed next in rank to the Under Secretary. My appointment was gazetted immediately after that of the Under Secretary, and I was granted my present salary—the second highest paid to any officer under the Department.

Since my appointment in 1880 I have not been a day from my post, and for two years (1880–1882) the business of my office was so heavy that to keep abreast of it I had to labour day and night. Owing to the ill-health of the Under Secretary much of that officer's work has devolved on me, and I have done most of the work connected with the re-organization of the school service.

As to the manner in which I have performed my duties I may refer to the several Ministers under whom I have served; and I have pleasure in enclosing herewith testimonials from them on that point.

In conclusion, I may be permitted to add that the present Under Secretary was promoted to his office from that of Chief Inspector, and that a similar practice is observed in Victoria, Queensland, and other Colonies when a vacancy in the Under Secretaryship occurs.

I have, &c.,
EDWIN JOHNSON.

[Enclosures.]

Sir John Robertson to Mr. E. Johnson.

My dear Mr. Johnson,

I have your letter of yesterday's date, in which you inform me that you are a candidate for the office of Under Secretary for Public Instruction, and ask a few words from me as to the manner in which you performed the very important office of Chief Inspector when I was Secretary.

I can have no difficulty, but on the contrary, have great pleasure, in saying that I received the greatest possible assistance from you in opening for the first time the separate Ministerial Department of Public Instruction. Your zeal and great ability could not have been surpassed by any man, and I am sure that no one could have better performed the duty of Chief Inspector. That being so, I can have no doubt that you would conduct the business of Under Secretary with distinguished success.

Yours, &c.,
JOHN ROBERTSON.

G. H. Reid, Esq., to Mr. E. Johnson.

My dear Mr. Johnson,

In response to your request, I can have no hesitation in stating that, during the time I held the office of Minister of Public Instruction, you discharged the duties of your office with great zeal and conspicuous ability, and that I have the highest possible opinion of your character and services.

Wentworth Court, 27 March.

Yours, &c.,
G. H. REID.

F. B. Suttor, Esq., M.P., to Mr. E. Johnson.

Dear Sir,

In reply to your note, requesting that I will write you a few words expressing my opinion of the manner in which you performed the duties of your office during the time I administered the Department of Public Instruction, I have very much pleasure in saying that I always found you anxious and willing to perform the very heavy and responsible work that was cast upon you, and ready to give the Minister every assistance in your power in dealing with the cases that came before him for decision.

Your ability and great knowledge of the working of the Department cannot be doubted, and what is essential in an officer holding your position. I believe the vast majority of the officers placed under you have the utmost confidence in your impartiality and fairness.

I am, &c.,
F. B. SUTTOR.

No. 4.

Mr. G. Miller to The Minister of Public Instruction.

Sir,

Department of Public Instruction, Sydney, 26 May, 1884.

I have the honor to apply for the appointment of Under Secretary of this Department, which is soon to become vacant through the retirement of Mr. Wilkins.

For your information I may state that I have served for twenty-two years in the Public Departments of this Colony, viz., two years in the Account Branch of the General Post Office, three years in the Colonial Secretary's Office, and seventeen years in the Education Office.

While in the Colonial Secretary's Office I held the position of Private Secretary to Mr. (afterwards Sir Charles) Cowper and to Mr. William Forster respectively.

I was appointed Chief Clerk under the Council of Education on the 18th January, 1875, since which time I have always acted for Mr. Wilkins during his absence from duty; and twelve months ago, when his health completely broke down, I was formally appointed by the Governor-in-Council Acting Under Secretary.

From this statement you will observe that I have had no experience as a schoolmaster or an inspector; but I would respectfully urge that such qualifications are not indispensable in connection with the office I seek. With an Inspectoral Staff, comprising a Chief Inspector, a Deputy Chief Inspector, and thirty-two Inspectors, and an Examining Branch consisting of three Examiners, the Minister has always at his command a sufficiency of professional officers. Moreover, the work of this office is so heavy and is increasing so rapidly that it would be impossible for the Under Secretary to attend to professional duties. He has to submit to the Minister all cases requiring his decision from the Chief Inspector's Branch, the Chief Examiner's, the Architect's, the Principal Attendance Officer's, and the Church and School Lands; also from various institutions under the control of this Department, such as the University, the Museum, the Observatory, the Free Libraries, the Schools of Arts, and kindred institutions aided from the Consolidated Revenue, and the Industrial Schools. In submitting all these cases the Under Secretary is expected to exercise such supervision as will prevent any of them from being put before the Minister for approval which are not in accordance with law or regulation. He has to sign large numbers of letters daily, many of which must be carefully read through, and much of his time is also occupied in interviewing persons of all classes who desire to obtain information on various points. It is indeed difficult to give
more

more than an outline of the many duties an Under Secretary has to perform in a Department so great as this has become. I have found it impossible to perform my duties within the recognized office hours, and have constantly worked overtime both as Chief Clerk and as Acting Under Secretary.

In conclusion, I would earnestly express the hope that my application will receive your favourable consideration. The Examining and Inspectoral Staffs are, as vacancies occur therein, always within the reach of teachers who deserve to rise in the Service, and I would respectfully submit that the Under Secretaryship should be open to the non-professional officers, who otherwise must abandon all hope of being advanced to high positions. In other Departments of the Public Service, where a great portion of the work is professional in character, gentlemen have been appointed to the position of Under Secretary who have no professional qualifications.

I have not sought testimonials, because I think the recommendation of Mr. Wilkins (under whom I served for many years) that I should act as Under Secretary, and that the distribution of the work of the office should be left to my discretion, is sufficient testimony that he regarded me as being capable of performing the duties of the position.

I have, &c.,
G. MILLER.

[Enclosures.]

The Under Secretary of Public Instruction to Mr. G. Miller.

My dear Mr. Miller,

Sydney, 26 May, 1884.

In enclosing to you the accompanying document, I feel that I should inadequately discharge my obligations to you if I failed to thank you for the frank and loyal co-operation and the valuable assistance you have given me during the whole period of our official connection. Above all permit me to thank you for the kindly way in which you have undertaken the heavy burden of my duties during the time of my enforced absence from office, and to express the hope that your future career may be in the highest degree prosperous.

I am, &c.,
W. WILKINS.

Department of Public Instruction, 26 May, 1884.

MR. GEORGE MILLER has served with me under the late Council of Education and the present Department of Public Instruction for about seventeen years. Commencing in one of the subordinate positions of the Service, he has, by his own merit, obtained promotion step by step, and now holds the highest rank in the office next to the Under Secretary. In every position he has filled his duties have been performed with assiduity and efficiency, and he has uniformly exhibited a courteous demeanour and an obliging disposition, while to myself he has rendered on all occasions ready and valuable assistance.

Mr. Miller has also made himself acquainted with the work of the several branches into which the office has been divided, and the knowledge thus acquired has doubtless proved to be of essential service to him while acting as Under Secretary during my absence on leave.

W. WILKINS,
Under Secretary.

G. H. Reid, Esq., to The Minister of Public Instruction.

My dear Trickett,

Wentworth Court, 27 May, 1884.

Mr. Johnson, the Chief Inspector, asked me some time ago to give him a note as to my opinion of the way in which he performed his duties whilst I was Minister, and I gave him with pleasure a note in reply, expressive of the extremely high opinion I hold in reference to Mr. Johnson in every respect.

Mr. Miller, the acting Under Secretary, has not applied to me for any similar letter, probably from a delicacy arising out of our long personal friendship and intimacy; but I think it right and due to him to state that, whilst I was Minister, he also performed his duties with unvarying zeal and great efficiency, and gave me reason to form the most favourable opinion of him as Acting Under Secretary.

I wish you to understand that I do not desire to recommend the claims of one officer as superior to those of another; my simple desire is to do justice, so far as I am concerned, to both.

Yours, &c.,
G. H. REID.

No. 5.

Mr. A. L. Forbes to The Minister of Public Instruction.

Dear Sir,

Examiner's Office, 16 June, 1884.

I have taken a liberty in sending the accompanying application direct to yourself, which in the circumstances I trust you will excuse. I may state that I have not so acted without the knowledge of Mr. Gardiner.

I have, &c.,
A. L. FORBES.

[Enclosure.]

Mr. A. L. Forbes to The Minister of Public Instruction.

Sir,

Examiner's Office, 16 June, 1884.

I have the honor to bring under your notice the following considerations, and to found thereon a conditional application for the office of Under Secretary, now vacant through the resignation of Mr. Wilkins.

I premise that the claim of Mr. Gardiner, Chief Examiner, is paramount on every tenable ground. In his favour are seniority, experience, sound judgment, and prudence. I know of no officer whose claim on these grounds surpasses, or even rivals, that of Mr. Gardiner.

Should he, however, shrink from accepting the appointment, when offered to him, as I trust it will be, I respectfully submit my own claim to consideration. In point of seniority I stand next to Mr. Gardiner, having been nearly thirty-one years in the Service.

As a graduate of the University of Aberdeen, Scotland, I became a teacher under the National Board in 1853. For a number of years I occupied the position of teacher. During seven or eight years I occupied that of an inspector; and since October, 1872, I have been engaged in the work of examining.

My present position is that of senior examiner.

It is of consequence, as showing the estimation in which I was held by the late Council of Education, that I refer to my appointment by that body in 1875 as monthly examiner of the Training School, which office I held until Mr. Reid resolved to place the Training School under the Inspection Branch—a change brought about in a way to which I need not now refer, although I would feel thankful if you would read the correspondence.

As regards my educational fitness, my general experience, and my capacity for work, I think I occupy fully a favourable ground as any officer in the department. I may here add that as regards experience, in addition to that gathered in teaching, inspecting, and examining, I performed the duties of the Chief Examiner during his year's absence at a time when all inspection work passed through this Branch for revision and report.

From

From my long connection with the Service then, and my faithful performance of the duties of the several offices with which I have been entrusted, I think it will be conceded that I do not put forward a groundless claim to the appointment in view, whilst cheerfully recognising Mr. Gardiner's prior claim.

I therefore most respectfully, in the terms and on the grounds submitted, make application for the office of Under Secretary, now vacant; and,

I have, &c.,
A. L. FORBES, M.A.

P.S.—As bearing upon my remarks relative to my connection with the Training School, permit me to explain that the first Minister of Public Instruction under the Act, Sir John Robertson, placed the training of students, the applications of persons for admission as teachers, and the supervision of applicants' examinations in Sydney for office as pupil teachers, entirely under the Examining Branch. His successor, Mr. Sattor, continued this arrangement, and I need not add that this arrangement was considered best for the interests of education.

A. L. FORBES, M.A.

Submitted.—G.M., 17/6/84. Place with other applications.—W.J.T., 17/6/84.

No. 6.

Mr. G. Wilson-Brown to The Minister of Public Instruction.

Sir,

Education Office, Melbourne, 3 November, 1884.

Referring to your telegram of the 1st instant, on the subject of the salaries and relative positions of the Secretary and Inspector-General for this Department, and to the reply sent thereto of the same date, I have the honor to inform you that the salaries attached to these offices are, as stated respectively, £900 and £750 per annum; that the positions are not equal, the Inspector-General being subordinate to the Secretary; and that the present Secretary and his predecessor were promoted from the Inspectoral Staff.

I have, &c.,
G. WILSON-BROWN,
Secretary.

No. 7.

Mr. G. Miller to The Minister of Public Instruction.

Dear Sir,

Monday, 3 November, 1884.

Pardon me for troubling you with a few words which I forgot to mention this morning. It was stated by Mr. Johnson that I had recently obtained "promotion," whereas he had not. The only promotion in rank that I have had in ten years was my appointment to the office of Acting Under Secretary. I was appointed Chief Clerk in February, 1875, at £450 per annum. During upwards of ten years my pay has been increased at different times by £150, while the work and responsibility cast upon me, owing to the rapid growth of the business of the Department, has necessarily been very great. When my salary was made £550 by the Council of Education, I was entrusted with the duty of signing the bulk of the letters for the Secretary, and to be responsible for the correctness of what I signed; thus relieving the Secretary, and enabling him to give more attention to matters of administration. When the Department became a Ministerial one my salary was not at the time increased, but remained at £550 until the beginning of 1883, when it was increased by £50 in view of the fact that I took upon myself the whole responsibility of the Under Secretary's position during his absence at any time. When the change from the Council of Education took place Mr. Johnson received an increase of £100 per annum upon his salary, which at the time was £600 only. If you should require a verification of this please refer this note to Mr. Wilkins.

Having performed the duties of Under Secretary for such a long period—practically since March, 1883, I trust with satisfaction to my superiors—it would indeed be most painful to have to go back to a subordinate position. I have had rather a hard time of it, what with newspaper articles and certain unpleasant surroundings of which you of course know nothing. If I be passed over I can see no other course than to endeavour to find the means of leaving a Service in which my prospects of rising higher would be destroyed.

I cannot now but feel that it would be most unpleasant to work under Mr. Johnson, after what I consider to be the very ungenerous way in which he has spoken of me.

Believe me, &c.,
G. MILLER.

No. 8.

Minute of Cabinet.

CABINET.—Mr. Johnson's appointment to the Under Secretaryship for Public Instruction approved.

W.B.D.,
14/11/84.

Executive minute to be prepared.—W.J.T., 14/11/84.

No. 9.

Minute paper for the Executive Council.

Appointment of Under Secretary.

Department of Public Instruction, Sydney, 14 November, 1884.

I RECOMMEND, for the approval of His Excellency the Governor in Council, that Edwin Johnson, Esquire, Chief Inspector of Schools, be appointed Under Secretary of this Department, with salary at the rate of £900 per annum, to take effect from the 14th November, 1884.

W. J. TRICKETT.

Approved.—A.L., 18/11/84.

1884.

NEW SOUTH WALES.

UNIVERSITY OF SYDNEY.

(AMENDED BY-LAWS.)

Presented to Parliament, pursuant to Act 14 Vic. No. 31, sec. 21.

Department of Engineering.

136. The Board of Examiners in Science shall conduct the examinations in the Department of Engineering as provided for in By-laws 118, 119, 120.

137. There shall be two degrees in Engineering, viz., Bachelor of Engineering (B.E.), and Master of Engineering (M.E.)—the examinations for which shall take place once a year.

138. Candidates for the degrees in Engineering must have attended lectures and passed the examinations in the first year of the Arts course satisfactorily, unless exempted under By-law 49.

139. During the second year candidates shall attend lectures, and pass examinations in the following subjects:—

- Mathematics (as in the second year of Arts), including plane and solid Geometry.
- Chemistry, as in the second year of Science.
- Physics, as in the second year of Science.
- Physical Geography and Geology.
- Surveying.
- Applied Mechanics.
- Geometrical and Mechanical Drawing.

140. During the third year candidates shall attend lectures and pass examinations in the following subjects:—

1. Mathematics, as in the third year of Arts.
2. Engineering (Section I).
3. Mineralogy and Geology.
4. Engineering, Drawing, and Design, and one of the following branches of Engineering:—
 - I.—Civil Engineering (Section II) and Architecture.
 - II.—Mechanical Engineering and Machine construction.
 - III.—Mining Engineering, Metallurgy, Assaying, and Mining Law.

Candidates selecting Mechanical Engineering are exempted from Lectures and Examinations in Physical Geography, Geology, and Mineralogy; candidates selecting Mining Engineering are exempted from the Lectures and Examinations in pure Mathematics. All candidates are required to prepare and submit to the Board of Examiners an original set of working drawings and specifications of Machinery or works in connection with the branch or branches of Engineering selected.

141. At both the second and third Annual Examinations Honour papers shall be set where necessary.

142. A candidate shall not be admitted to the degree of Bachelor of Engineering unless he shall produce a certificate from the Dean of the Faculty of Science that he is, of nine terms standing, that he has passed all the examinations, and has satisfactorily complied with all the other conditions required of him since his admission to the University.

143. The candidate who shall most distinguish himself in the Honour division of the third Annual Examination shall, if of sufficient merit, receive a gold medal or prize of the value of £10.

MASTER OF ENGINEERING.

144. Candidates for the degree of Master of Engineering shall be Bachelors of Engineering of not less than three years standing; they will be required to produce to the Board of Examiners satisfactory certificates, or other evidence, of having been engaged during three years in the practice of one of the three branches of Engineering specified in By-law 146, one year at least of which must have been spent in acquiring a practical knowledge of the branch or branches selected, under the direction of an Engineer or Architect practising the branch or branches in which they wish to be examined.

145. Candidates for the degree of Master of Engineering shall pass examinations in one of the following divisions or branches:—

1. Civil Engineering, Architecture, and Building construction.
2. Mechanical Engineering and Machine construction.
3. Mining Engineering, Metallurgy, and Assaying.

146. The diploma for the degrees of Bachelor and Master in Engineering shall specify the branch or branches of Engineering for which they are granted.

147. The fees for the degrees of Bachelor and Master of Engineering shall be £10 respectively; no candidate shall be admitted to the examinations unless he shall have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him, but he shall be admissible to one subsequent examination for the same degree without the payment of an additional fee.

148. Graduates in Engineering in any branch may, upon passing the examination in any other branch or branches, and producing satisfactory evidence of practical work therein, receive a certificate for such additional branch or branches. The fee for such additional examination shall be £10.

ADMISSION AD EUNDUM GRADUM.

149. *Admission ad eundum gradum* in this University may, at the discretion of the Senate, be granted without examination to Graduates of the following approved Universities, that is to say, the Universities of Oxford, Cambridge, London, and Durham, the Victoria University, the Universities of St. Andrew's Edinburgh, Glasgow, Aberdeen, and Dublin, the Queen's University of Ireland, and the Royal University of Ireland, lately established in its place, and the Universities of Melbourne, New Zealand, and Adelaide; and may also be granted to Graduates of such other Universities as the Senate may from time to time determine. Provided always that they shall give to the Registrar, to be submitted to the Senate, sufficient evidence of their alleged degrees respectively, and of their good fame and character. Upon the approval of his application each candidate shall pay to the Registrar a fee of £2 for the entry of his name on the University books, in addition to the prescribed fee for his degree.

EVENING LECTURES.

150. Evening Lectures, embracing all the subjects necessary for the degree of Bachelor of Arts, shall be given at the University at such times and in such order as the Senate may from time to time direct.

151. All students who desire to attend Evening Lectures must make application in writing to the Registrar, and must show to the satisfaction of the Senate that their circumstances are such as to preclude their attendance during the day.

152. The evening course for the degree of Bachelor of Arts shall extend over a period of five years.

153. During the first biennium undergraduates shall attend lectures in those subjects which are prescribed in By-law 64 for the ordinary first year of the Arts course.

154. During the second biennium undergraduates shall attend lectures in those subjects which are prescribed in By-law 65 for the ordinary second year of the Arts course, with the exception of the lectures on Physical Geography and Geology, Zoology and Botany.

155. Undergraduates who attend Evening Lectures shall be required to pass the two examinations prescribed in By-law 66 at the end of the first and second biennia of their course respectively.

156. During the fifth year undergraduates shall attend lectures on those subjects which are prescribed under By-law 67 for the ordinary third year of the Arts course. Having kept fifteen terms and passed the preceding examinations they shall be admissible to the examination for the degree of Bachelor of Arts.

157. In all cases not provided for in the preceding seven By-laws students attending Evening Lectures shall be subject to the same By-laws, Rules, and Regulations as other Students.

ACADEMIC COSTUME.

158. Addendum.—Bachelor of Engineering—A plain black stuff gown, with hood of black stuff edged with light maroon coloured silk.

Master of Engineering—A Master of Arts gown, with black silk hood lined with light maroon coloured silk.

Provided that Students in the Medical School shall wear, while in attendance on courses of instruction, a corded silk sash of purple edged with scarlet $1\frac{1}{2}$ inches wide, and worn over the left shoulder so as to be visible across the chest.

W. M. MANNING, Chancellor.

H. E. BARFF, Registrar, 16 August, 1884.

Laid before the Executive Council on 16th September, 1884.—ALEX. C. BUDGE, Clerk of the Council. AUGUSTUS LOFTUS.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

ADMINISTRATION OF JUSTICE.

(POLICE MAGISTRATE FOR THE MACLEAY RIVER.)

Ordered by the Legislative Assembly to be printed, 26 November, 1884.

RETURN to an *Address* of the Honorable the Legislative Assembly of New South Wales, dated 7th October, 1884, praying that His Excellency the Governor will be pleased to cause to be laid upon the Table of this House,—

“Copies of all correspondence, memorials, petitions, minutes, papers, and documents relating to the appointment of a Police Magistrate for the “Macleay River.”

(*Mr. R. B. Smith.*)

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ADMINISTRATION OF JUSTICE.

No. 1.

Mr. J. B. Casey, C.P.S., Kempsey, to The Principal Under Secretary.

Sir,

Macleay River, 21 May, 1872.

I beg the favour of submitting to the Honorable the Colonial Secretary the following circumstances, which I trust will be considered as entitling me to additional remuneration for the duties which I perform here.

My salary as Registrar of the District Court is £30 per annum. Information within your immediate reach will confirm my statement, that the business transacted in the Kempsey District Court is much larger than that of other District Courts, where the Registrars obtain a higher rate of pay than I do. I held the appointment of Visiting Magistrate to the Bellinger River for eighteen months. I had to open the Court and keep the records there. I was deprived of the small emoluments derivable from that office on the appointment of a resident Stipendiary Magistrate. The expression of the inhabitants and of the members of the Bench towards me when I ceased to visit the Bellinger River allows of my stating that I performed the duty satisfactorily. I hope that the Honorable the Colonial Secretary will not consider that I put forward an unreasonable claim in soliciting the appointment of Police Magistrate in conjunction with my office as Clerk of Petty Sessions for this district.

I have been nineteen years in the service of the Government of New South Wales.

During the last eleven years I have held my present office. I have endeavoured to perform my duty with satisfaction to the Government and credit to myself. I can afford no other support to this application than the services enumerated in the memorandum annexed.

I have, &c.,

J. B. CASEY, J.P., C.P.S.

Memorandum.

I served as Ensign and Lieutenant from 1837 to 1840 in the British Auxiliary Legion under Lieutenant-General Sir De Lacy Evans.

On the recommendation of Sir De Lacy Evans I received an order for an appointment from the Secretary for the Colonies in December, 1841. I arrived in Tasmania in 1842, and was appointed Assistant Superintendent of Convicts. I was afterwards appointed Superintendent of Convicts. This office ceased when the probation system of convict discipline was abolished.

I came to New South Wales in 1848. I received an appointment in the Audit Department in 1853 from which I was transferred to my present office in 1860.

Submitted.—24 May, 1872.

No. 2.

Mr. J. B. Casey to The Under Secretary of Justice, &c.

Sir,

Macleay River, 19 August, 1874.

I beg the favour of your submitting this letter to the Honorable the Minister for Justice.

In June, 1872, having ceased to be Visiting Magistrate to the Bellinger River, owing to the appointment of a resident Stipendiary Magistrate there, I applied to the Honorable the Colonial Secretary to be appointed Police Magistrate of this district in conjunction with my office as Clerk of Petty Sessions.

That application was approved, and in the Estimates of Expenditure for the year 1873 pay was voted for the conjoined offices of Police Magistrate and Clerk of Petty Sessions for the Macleay River.

A similar item appears in the Estimates for 1874, and was voted also.

The appointment has never been notified in the *Government Gazette*, nor has it been notified to me, though I have for many years performed the duty. I respectfully solicit that this may be done. During the eighteen months that I was Visiting Magistrate to the Bellinger, in no instance was my conduct of the public business questioned. There is in your office a letter from the other members of the Bench addressed to me, confirmatory of this statement.

The records of your office show that nearly all the magisterial duty here devolves upon me, and after more than twenty-one years' service, I hope that it will not be considered that I ask for what I am not entitled to in preferring the request that my appointment as Police Magistrate and Clerk of Petty Sessions may be notified in the usual form observed under similar circumstances in other districts.

I have, &c.,

J. B. CASEY, J.P., C.P.S.

Inform Mr. Casey that his request cannot be complied with.—27/4/75. Mr. Casey informed, 28/4/75.

No. 3.

The Under Secretary of Justice, &c., to Mr. J. B. Casey.

Sir,

Department of Justice, 28 April, 1875.

With reference to your letter of the 19th August last, requesting appointment of Police Magistrate, Macleay River, in addition to your office as Clerk of Petty Sessions, I am directed by the Minister of Justice and Public Instruction to inform you that your request cannot be complied with.

I have, &c.,

W. E. PLUNKETT,

Under Secretary.

No. 4.

No. 4.

Mr. J. B. Casey to The Under Secretary of Justice, &c.

Sir,

Court-house, Macleay River, 14 May, 1875.

I beg to acknowledge receipt of your letter dated 28th April, notifying that my application to be appointed Police Magistrate in conjunction with my office of Clerk of Petty Sessions would not be complied with.

I do not presume to question that decision. I have been thirty-four years in the army, the Imperial Civil Service, and the Civil Service of New South Wales. I hold documents testifying that I performed my duty with satisfaction to the Government and credit to myself. For more than five years I have fulfilled nearly every function of a Police Magistrate in this district; that I did so with attention and exactitude the records of your office will confirm. No decision of mine has ever been questioned. Every Judge and Crown Prosecutor who has officially visited this district expressed approval of the manner in which I performed the duties of the different offices that I hold.

In this community, as in every other, there are persons who are not fastidious as to what they assert with the object of gratifying hate and prejudice. The animosity of such parties I treat with disregard and indifference, but if any representation has either directly or otherwise been made, implying that I have at any time violated or forgotten the integrity, or failed to meet, under any circumstances, the requirements of my office, I will be sincerely grateful for the information that affords me the opportunity of proving such imputations to be in every particular unsupported by either fact or probability.

The Honorable the Minister for Justice has also belonged to that Department of the British Service where all must be not only unsullied but unsuspected, and I am confident that any allegation intended to injure in his breast one of the oldest officers of the Government will have on significance with him, until that officer fails completely to dissipate it.

I have, &c.,

J. B. CASEY.

I do not think it is necessary to take any further steps in this matter.—J.D., 20/8/75.

No. 5.

Mr. E. W. Rudder to The Minister of Justice, &c.

Sir,

Kempsey Villa, 1 September, 1875.

I have the honor to transmit the enclosed memorial, and have respectfully to recommend it to the favourable consideration of the Government.

Upon a perusal of the names it will be found that the list includes four Magistrates, four of the Clergy, two attorneys, and most of the respectable residents, storekeepers, and others of this district.

I have, &c.,

E. W. RUDDER.

[Enclosure to No. 5.]

Sir,

Kempsey, Macleay River, 5 June, 1875.

We, your petitioners, landholders and others, resident on the Macleay River, feel that you would be conferring a great benefit upon the district by your recommendation to His Excellency of the appointment of a Police Magistrate, the more particularly since we are given to understand that the Government has decided upon the establishment of a penal settlement at Trial Bay. And we, your petitioners, most respectfully request that you may be pleased to give this matter your favourable consideration.

In the event of your compliance with the prayer of your petitioners we would venture respectfully to submit the name of J. B. Casey, Esquire, J.P., Clerk of Petty Sessions, who from the very able and zealous manner in which he has performed his arduous duties in that capacity in this district, extending over a period of fifteen years, which, together with his educational attainments, ability, and moral standing, as well as intimate acquaintance with the duties of his office, would justify our most unqualified recommendation of him for this appointment.

Mr. Casey has neither directly or indirectly been instrumental in originating this movement beyond the possession of those qualifications which constitute his fitness for our recommendation; nevertheless we feel justified in observing that that gentleman would look upon his promotion as an acknowledgment of his long and faithful services.

[Here follow 111 signatures.]

The Colonial Secretary.—J.D., 10/9/75. The Principal Under Secretary, B.C., 10th September, 1875.—W.E.P.

No. 6.

Mr. J. B. Casey to The Under Secretary of Justice, &c.

Sir,

Court-house, Macleay River, 5 February, 1876.

I beg the favour of your moving the Hon. the Minister for Justice to reconsider my application for the appointment of Police Magistrate in conjunction with my office as Clerk of Petty Sessions.

I have performed the duties of both offices for several years, I hope not unsatisfactorily, and former correspondence relates the services which supported my application.

The promotion I solicit would, if conferred, increase my means, and enable me to educate my children properly. To me it will be a great benefit if many years' service are considered as having earned and deserved what I respectfully apply for.

I have, &c.,

J. B. CASEY, J.P., C.P.S.

No. 7.

Mr. E. W. Rudder to The Minister of Justice, &c.

Sir,

Kempsey Villa, East Kempsey, 14 August, 1876.

It is now, I believe, more than twelve months since I had the honor to transmit to you a memorial, very numerously signed, recommending Mr. J. B. Casey, C.P.S. and J.P. of this district, to the favourable consideration of the Government for appointment to the office of Police Magistrate.

To this document the courtesy of an acknowledgment has not been accorded to this day, and I have been left open to the suspicion of suppressing a public document confided to my care for transmission. Under these circumstances I have ventured to bring it a second time under your notice, and to request the favour of an acknowledgment.

I have, &c.,

E. W. RUDDER.

Mr.

Mr. Casey, C.P.S., J.P., was informed, on 28th April, '75, that his application to be appointed P.M., Kempsey, could not be complied with. The Minister of Justice subsequently wrote a memo. to effect "that he did not think it necessary to take any further steps in the matter." The papers were afterwards forwarded to the Colonial Secretary's Department, and were returned to this Department towards the close of February last. Mr. Rudder may be so informed in acknowledging the receipt of his letter of September last with memorial, in reply to this communication.—J.D., 24 Aug., '76. Prepare letter, 26/8/76. Mr. Rudder informed, 28/8/76.

No. 8.

The Under Secretary of Justice, &c., to Mr. E. W. Rudder.

Sir, Department of Justice, &c., Sydney, 28 August, 1876.
Referring to your letter of the 15th September last, forwarding memorial, and to further communication of 14th instant, recommending appointment of the Clerk of Petty Sessions, Kempsey, as Police Magistrate at that place, I am directed by the Minister of Justice and Public Instruction to inform you that Mr. Casey was informed on 28th April last that his appointment as Police Magistrate could not be recommended, and Mr. Docker in a subsequent minute declined to re-open the matter.

I have, &c.,
W. E. PLUNKETT,
Under Secretary.

No. 9.

Mr. J. B. Casey to The Colonial Secretary.

Sir, Macleay River, 18 October, 1876.
I venture to place before you the following circumstances, with the object of removing an unfavourable impression:—

I performed the duties of Visiting Justice for eighteen months at the Bellinger River. The appointment of resident Stipendiary Magistrate deprived me of the emolument arising from the office of Visiting Magistrate.

Of the great number of cases which came before me my decision was in no instance complained of. When I ceased to visit the Bellinger River the local Justices addressed to me a letter expressing unreserved approval of the manner in which I had conducted the public business.

In June, 1872, I applied for the appointment of Police Magistrate in conjunction with my office of Clerk of Petty Sessions here.

That application was approved of, and in the Estimates for 1873, 1874, and 1875, pay was voted under the head "Macleay River" for a Police Magistrate and Clerk of Petty Sessions. In 1876 the item appears as pay for a Clerk of Petty Sessions only.

I beg to refer to an occurrence which has given me much pain. In February, 1875, this district was visited by a disastrous flood. Some hours before the rain commenced I had gone on board the steamer lying at the Heads for the purpose of going to Sydney to place my son at school. The only opportunity that I had of returning to Kempsey was the river steamer, which conveyed a deputation of the inhabitants, who entreated me to proceed to Sydney and represent the condition of the district—a large area inundated; between three and four hundred people driven from their homes; postal and telegraphic communication stopped. I complied with the request urged upon me; my doing so received your disapproval. I regretted then, and do so now, that my action should be considered by you as objectionable, but I submit that it would be difficult for any one to disregard the pressure of the circumstances that caused me to act as I did.

Since I was placed on the Commission of the Peace nearly all the magisterial duty has devolved upon me, and it is by no means light. No decision of mine has ever been questioned.

I have upwards of 1,400 conditional purchasers in this district. No complaint has ever been made, and the expressions of the free selectors' opinion would not be dissatisfaction at the manner in which I perform the duties of my agency.

I hope you will not interpret as irrelevant my stating that I am intimately known to some of your personal friends. I was for some years in the employment of Mr. A. Bell, of the Murray, and I am confident that he would assure you that I am unlikely to act with impropriety or neglect any duty confided to me. The present Consul for the United States, a gentleman you probably often meet, under whom I held an office for several years of much trust and confidence, would bear testimony not disadvantageous to me.

I applied for the office of Police Magistrate, in conjunction with my appointment as Clerk of Petty Sessions, in the hope that the usual increase of pay would follow whereby I could educate my children. I have long performed the duties of both, and I can truthfully describe them as laborious, for I am unable to leave my office before 6 p.m., often much later, on any day of the week.

My ability and intelligence, though limited as both undoubtedly are, have been applied to perform my duty usefully. I have endeavoured to earn the position I seek. I will be materially served and sincerely thankful if you, considering I deserve it, reconsider with favour my application.

I have, &c.,
J. B. CASEY.

The Under Secretary of Justice, &c., B.C., 24/10/76.—H.H. Inform that it is not intended at present to invite the Legislature to sanction the salary of a Police Magistrate for the Macleay River.—J.D., 31/10/76. Prepare letter, 31/10/76. Mr. Casey, 1/11/76.

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No. 10.

The Under Secretary of Justice, &c., to Mr. J. B. Casey.

Sir, Department of Justice and Public Instruction, Sydney, 1 November, 1876.
Referring to your letter of 18th instant, applying for appointment as Police Magistrate for the Macleay River, I am directed by the Minister of Justice and Public Instruction to inform you that it is not intended at present to invite the Legislature to sanction the salary of a Police Magistrate for above place.

I have &c.,

W. E. PLUNKETT,
Under Secretary.

No. 11.

Mr. C. J. N. Dease to The Minister of Justice, &c.

Sir, 3, Bligh-street, Sydney, 15 February, 1878.
I have the honor to address you on the subject of obtaining for the Macleay district a Police Magistrate. As the proprietor of the local paper, the *Macleay Herald*, I have been writing as forcibly as I could on the indispensable necessity of such an appointment in the interest of justice. Twelve months since I had an interview with Sir John Robertson on the subject, and received a promise that we should have a Police Magistrate. People have frequently travelled 40 miles on Petty Session business and found the Court adjourned for want of a second Magistrate. What renders the case anomalous is, that Mr. Casey, the Clerk of the Court, who is a Magistrate, is called upon to discharge all the duties of that officer, with the singular exception of being unable to act without a second Magistrate. We have reason to believe that frequent representations on this subject have been made by our representative, Mr. R. B. Smith; and why such an important district as the Macleay (one of the most important in the Colony) should be exceptionally treated in this respect we can't imagine. It is therefore with much anxiety, and as much impressiveness as I feel at liberty to use, that I appeal to you, as the Minister of Justice, to see that the people of the district shall be relieved from this oppressive grievance.

I have, &c.,

CHRIS. J. N. DEASE.

Request the Bench to inform me of the names, residences, as to distance from Court, and whether any difficulty by reason of non-attendance of Justices; and if so, whether there are gentlemen residing near the Court who would attend.—J.L., 23/2/78.

Prepare letter, 25/2/78. Letter to Bench, 26/2/78.

No. 12.

The Under Secretary of Justice, &c., to The Bench of Magistrates, Macleay River.

Gentlemen, Department of Justice and Public Instruction, Sydney, 26 February, 1878.
Representations having been made to this Department of the necessity for appointing a Police Magistrate for the Macleay River, and it having also been stated that great inconvenience is occasioned through the non-attendance of Justices; I am directed by the Minister of Justice and Public Instruction to request that you will have the goodness to forward a return showing the names of Magistrates attending the Macleay Bench, with their residences, and distance from town in each case, and whether there are any special circumstances which would prevent them from attending in the ordinary manner.]

I have, &c.,

W. E. PLUNKETT,
Under Secretary.

No. 13.

Memo. from Mr. J. C. N. Dease to Minister of Justice, &c.

3, Bligh-street, 18 February, 1878.

MEMO.—Mr. Dease presents his compliments to the Minister of Justice, and begs to enclose him two extracts from the *Macleay Herald*, 29th September and 6th October, 1877, referring to the absolute necessity for a P.M. for the Macleay district, and sustaining the statement made in his letter of the 15th instant.

[Enclosure 1 to No. 13.]

Gladstone Petty Sessions Court.

We are informed that there are ten cases for adjudication on Wednesday next, many of which must necessarily be postponed if a second Magistrate does not attend.

We call special attention to this fact, in the hope that a second Magistrate may be found to sit with Mr. Casey, J.P. Some of the people have to come 20 miles to attend the Court, and it is to be hoped they may not be disappointed for want of a second Magistrate.

[Enclosure 2 to No. 13.]

As will probably be seen by the Police Court report, Wednesday last was a field day for the lawyers here; but whether it was so considered by the Magistrates and the litigants, is an open question. The fillip contained in the last *Macleay Herald*, it is presumed, had the effect of securing the attendance of a second, and wonderful to say, a third Magistrate. Before passing from the subject of the attendance of Magistrates, I think it well to observe that it is a matter of wonder that there is not in the important and extensive district of the Macleay, a Police Magistrate, who, in his dual capacity, could deal with all the cases brought before the Bench, where two ordinary Magistrates are necessary for adjudication. Between Fredericktown and the Macleay Heads, there is not a single Magistrate—and, taking social position, education, and independence into necessary account, there are scarcely any qualified for the position—and it is too much to ask Magistrates living at a distance from the locality, to leave their business and incur the fatigue and expense of attendance at a distant Court.

It is therefore a necessity that we should have a Police Magistrate, and I trust that our worthy Member will secure to the district the advantage of an immediate appointment of one.

No. 14.

No. 14.

Mr. J. B. Casey to The Under Secretary of Justice, &c.

Sir,

Court-house, Macleay River, 19 March, 1878.

Attending to your letter of the 26th February, I have the honor to inform you that the Bench of Magistrates will assemble on Tuesday, the 2nd of April, to consider the necessity for the appointment of a Police Magistrate in this district, when the information you require shall be furnished.

The distances at which some of the Justices reside from Kempsey, and their business engagements at this season, are obstacles to their meeting earlier.

I have, &c.,

J. B. CASEY, J.P., C.P.S.

Read.—J.L., 30th March, '78.

No. 15.

The Bench of Magistrates, Kempsey, to The Under Secretary of Justice, &c.

Sir,

Court-house, Macleay River, 2 April, 1878.

We have the honor to acknowledge the receipt of your letter dated the 26th February, stating that representations had been made to your department that necessity existed for the appointment of a Police Magistrate in this district, and further observing that it had also been stated that great inconvenience arose from the non-attendance of Justices. We are not aware that inconvenience has resulted from the non-attendance of Magistrates, and no special reason exists for Justices not being present when the public business requires it at Petty Sessions.

The return transmitted herewith affords the information as to the name and residence of each member of the Bench, which your letter called for.

We have, &c.,

F. GOULBURN PANTON, J.P.,
ERNEST RUDDER, J.P.,
JAMES THOMPSON, J.P.,
JOHN LYNN, J.P.

Under the circumstances as shown by within letter I cannot see any reason for considering the necessity of the appointment of Police Magistrate.—J.L., 29/4/78.

[Enclosure to No. 15.]

RETURN showing the names of the Justices forming the Bench at West Kempsey, their residence, and distance from the Court-house.

| Names of Magistrates. | Residence, and distance from the Court-house. | |
|--------------------------|---|--|
| Charles Spencer | Clybuca, 18 miles | The infirmities of advanced years and ill-health prevent Mr. Spencer from attending the Bench. |
| F. G. Panton | Belgrave, 9 miles. | |
| R. A. H. Kemp | Glenrock, 3 miles. | |
| E. Rudder | Oaklands, 9 miles. | |
| O. O. Dangar | Kempsey, $\frac{1}{2}$ of a mile. | |
| Aaron Crosman | West Kempsey. | |
| Sydney Verge | West Kempsey. | |
| James Thompson | Towell Creek, 42 miles. | |
| John Lynn | West Kempsey. | |
| J. B. Casey, C.P.S. | West Kempsey..... |  | Attends daily, and has for years performed all the duty which did not require the presence of a second Justice. |

No. 16.

The Under Secretary of Justice, &c., to Mr. R. B. Smith, M.P.

Sir,

Department of Justice, Sydney, 1 May, 1878.

Referring to my letter of the 26th ultimo, acknowledging receipt of communication forwarded by you from Mr. C. J. Dease, urging appointment of a Police Magistrate for the Macleay District, I am directed by the Minister of Justice and Public Instruction to inform you that under a communication received from the Bench at that place, he does not consider the appointment of a Police Magistrate for the Macleay necessary.

I have, &c.,

W. E. PLUNKETT,
Under Secretary.

No. 17.

Mr. G. Forsyth to The Minister of Justice, &c.

Dear sir,

Summer Island, Macleay River, 16 May, 1878.

While on a visit here from Tumut my brother, Mr. Thomas Forsyth, of Long Reach, near here, who has been resident on his farm for the last twenty years, informs me that it is the wish of the whole of the residents on the river from Kempsey to the heads, a distance of 30 miles (who are now very numerous), that a Police Magistrate should be appointed for the Courts of Petty Sessions at Gladstone (Darkwater) and the Kempseys.

There are no J.P.'s on the Lower Macleay, and consequently the Court at Gladstone is dependent on the Magistrates near Kempsey doing duty there occasionally. I find a memorial for a Police Magistrate is shortly to be presented to you, and I have been asked by several of the residents on the river to recommend to you the necessity for such an appointment. I have visited the Macleay several times during the

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the last twenty years, and find a very great improvement both in farming and other pursuits, and the population has, with the trade of the port, quadrupled itself and become very important.

I take the liberty of bringing the subject of a Stipendiary Magistrate under your notice.

Believe me, &c.,

GEO. FORSYTH.

P.S.—I will do myself the pleasure of waiting upon you on my return to Sydney.—G.F.

Mr. Casey, J.P. and C.P.S., Kempsey, Macleay River, visits Gladstone and Darkwater once a month.—J.L., 30th May, '78. Letter to Mr. Forsyth.—8/6/78.

No. 18.

Mr. G. Forsyth to The Minister of Justice, &c.

Sir,

Belle Vue, Cook's River, 27 May, 1878.

In reference to my letter relative to the appointment of a Police Magistrate at Gladstone, Macleay River, for which the inhabitants are petitioning you, I am informed the Government, acting on the advice of the local Bench at Kempsey, deem the appointment unnecessary.

I beg to recommend to your notice my brother, Mr. Thomas Forsyth, of Long Reach, Macleay River, who is well fitted to be placed in the Commission of the Peace, and could attend the Courts held at Gladstone, Belmore River.

I will do myself the pleasure in waiting upon you before I return to Wagga Wagga.

I have, &c.,

GEO. FORSYTH.

No. 19.

The Under Secretary of Justice, &c., to Mr. G. Forsyth.

Sir,

Department of Justice and Public Instruction, Sydney, 8 June, 1878.

Referring to your letter of 16th ultimo, calling attention to the necessity for the appointment of a Police Magistrate at Gladstone and the Kempseys, I am directed by the Minister of Justice and Public Instruction to state, for your information, that Mr. Casey, J.P. and Clerk of Petty Sessions, Kempsey, Macleay River, visits Gladstone (Darkwater) once a month, and under these circumstances Mr. Leary cannot see any reason for considering the necessity of the appointment of a Police Magistrate as suggested.

I have, &c.,

W. E. PLUNKETT,

Under Secretary.

No. 20.

Mr. J. B. Casey to The Under Secretary of Justice, &c.

Sir,

Court-house, Macleay River, 12 April, 1879.

In reference to former correspondence on the subject of my application to be appointed Police Magistrate in conjunction with my office as Clerk of Petty Sessions, I beg the favour of your moving the Honorable the Minister for Justice to give favourable consideration to my claim to that position.

I have performed the duty of Police Magistrate here for eight years. I was Visiting Magistrate to the Bellinger River, distant from this nearly 70 miles, until the appointment of a Resident Stipendiary Magistrate there. On my ceasing to visit the Bellinger River, the feeling as to my discharge of the public duty was expressed, unequivocally, in a communication addressed to me, and which should be found with the other papers in your office relating to the subject of this letter.

Within the preceding six years business of every description has largely increased here. Every interest has many representatives. Kempsey, from a village, has become a large and populous town, having a considerable import and export trade. These changes cause much additional magisterial duty to that which had to be performed ten years since.

I am Visiting Justice to Gladstone, a township on the Lower Macleay. So much has the public business increased, that I have to hold a Court of Petty Sessions twice in each month. On a recent visit I had to deal with thirty-four complaints. Since the commencement of the present year the public business disposed of included fifty-five cases and twenty-five applications for licenses.

From the gentleman who originated and transmitted the accompanying solicitation I have obtained the annexure, which I respectfully submit. I can only offer in support of my application the long-trying service of twenty-six years. My exigencies would require only little, but there are those dependent upon me for support and education. Hence it is not unreasonable that I should prefer my claim to a position that I have earned, and which I hope the Honorable the Minister for Justice will consider that I deserve.

I have, &c.,

J. B. CASEY, J.P., C.P.S.

Mr. Casey may be informed that I do not consider it necessary to alter existing arrangements.—F.B.S., 24/4/79.

No. 21.

The Under Secretary of Justice, &c., to Mr. J. B. Casey.

Sir,

Department of Justice and Public Instruction, Sydney, 24 April, 1879.

Referring to your letter of 12th instant, further with reference to your being appointed Police Magistrate at West Kempsey, I am directed by the Minister of Justice and Public Instruction to inform you that he does not consider it necessary to alter existing arrangements.

I have, &c.,

W. E. PLUNKETT,

Under Secretary.

No. 22.

No. 22.

Mr. J. B. Casey to The Under Secretary of Justice, &c.

Sir,

Court-house, Macleay River, 4 January, 1881.

In reference to former correspondence on the subject of my application to be appointed Police Magistrate in conjunction with my office as Clerk of the Court of Petty Sessions, I beg that you will do me the favour to submit the subject again to the Honorable the Minister for Justice.

During the past ten years I have performed all the functions of Police Magistrate of this district. I was Visiting Magistrate to the Bellinger River, until the appointment of a Resident Stipendiary Magistrate there deprived me of that office. I have been Visiting Magistrate to Gladstone since July, 1877, and the duties of Warden were recently entrusted to me—the latter neither laborious nor difficult, but unaccompanied by any remuneration.

Conferring upon me, officially, the appointment I apply for with the dual powers, would facilitate and expedite Petty Sessions business by preventing delays and adjournments.

Excepting myself there are now only two Justices, a local storekeeper, at Kempsey. No other member of the Bench resides nearer than 9 miles. Some of the Justices live at a distance of 25 miles and upwards, which is an obstacle to regular attendance.

During the many years that I have been in the Commission of the Peace, I have investigated a great number of cases at Kempsey, the Bellinger River, and Gladstone. In no instance has any decision of mine been appealed against. I believe I may refer to the Department of the Attorney-General for confirmation of my statement that magisterial duty has been discharged by me satisfactorily.

I have been an officer of the Government for twenty-eight years, and for more than twenty-one years I have been Clerk to the Court of Petty Sessions.

Such long-trying service is the only support I can give to my application. I am confident that it will have weight with the Honorable the Minister for Justice.

I have, &c.,

J. B. CASEY, J.P., C.P.S.

Mr. Casey, J.P. and C.P.S., Kempsey, renews his application to be appointed Police Magistrate in conjunction with his present office without addition to his salary. He was informed in reply to a similar application on 24 April, 1879, that Mr. Suttor, then Minister of Justice, did not consider it necessary to alter existing arrangements. No new facts are stated in present communication, and as the local Bench do not agree upon the matter, as to the necessity of appointing a P.M., there appears to be no sufficient reason for departing from the decision already arrived at in this matter.—20/1/81. Approved.—J.G.L.I., 24/1/81. Mr. Casey informed, 29/1/81.

No. 23.

The Under Secretary of Justice, &c., to Mr. J. B. Casey.

Sir,

Department of Justice, Sydney, 29 January, 1881.

With reference to your letter of the 4th instant and previous correspondence on the subject of your application to be appointed Police Magistrate at Kempsey in conjunction with your office as Clerk of Petty Sessions, I am directed by the Minister of Justice to inform you that there appears to be no sufficient reason for departing from the decision already arrived at in this matter, and which was conveyed to you in my letter of the 24th April, 1879.

I have, &c.,

W. E. PLUNKETT,

Under Secretary.

No. 24.

Minute of Minister of Justice.

Mr. E. W. RUDDER, J.P., represents the necessity for the appointment of a Police Magistrate at Kempsey, and that many of the Magistrates are storekeepers who adjudicate in cases in which their customers are interested. Place growing in importance.—H.E.C., 16/3/83.

Put by.—H.E.C., 27/3/83.

No. 25.

Minute of Minister of Justice.

INFORM R. B. Smith, Esq., M.P., with reference to his personal interviews, applying for the appointment of a Police Magistrate at Kempsey, that having regard to the satisfactory manner in which the duties of the local Bench are performed and other circumstances, it is not deemed advisable at present to make such appointment.—H.E.C., 8/1/84.

R. B. Smith, Esq., M.P., informed, 17/1/84.

No. 26.

The Under Secretary of Justice to Mr. R. B. Smith, M.P.

Sir,

Department of Justice, Sydney, 17 January, 1884.

With reference to your personal inquiries at this Department respecting the appointment of a Police Magistrate at Kempsey, I am directed by the Minister of Justice to inform you that, having regard to the satisfactory manner in which the duties of the local Bench are performed and other circumstances, it is not deemed advisable at present to make such appointment.

I have, &c.,

W. E. PLUNKETT,

Under Secretary.

No. 27.

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No. 27.

Mrs. P. B. Casey to The Minister of Justice.

Sir,

7, Olivia Terrace, Sydney, 17 April, 1884.

Under the impression that you will not consider it intrusive, I beg that you will read the paragraph marked in the newspaper sent herewith.

In 1866, my husband, Mr. J. B. Casey, was placed in the Commission of the Peace. From that date until the 31st December, 1882, no complaint was made of delay occurring, for nothing occurred to warrant it. What has occurred since my husband ceased to hold office correspondence has made known to you and deserves attention. The offices he held are now distributed between five persons, with a considerable diminution of work. His habits, the whole tenor of his life, should have protected him from the treatment he has undergone: a tranquil home broken up, our children scattered, privation and suffering for his not being superhuman; he is now confined to his bed by sickness, suffering from an ailment that most probably will render necessary a surgical operation; hence this communication is addressed to you by me.

Faithfully, &c.,
P. B. CASEY.

[Enclosure to No. 27.]

Extract from the *Macleay Chronicle*, 10th April, 1884.

The public were treated to another vexatious delay at the Police Court on Tuesday last. Mr. Wilson appeared at the usual time, but as all the business required two Justices, the Court was not opened until after 2 p.m. In addition to the loss of valuable time and inconvenience it is a positive hardship on complainants and defendants. An instance of this occurred, where a complainant (who subsequently lost his case) stated that he had an important witness present at the proper time of the Court to open, but as he declined to wait all the day, he had gone home, a distance of 4 or 5 miles. The question is, when are we going to have a Police Magistrate, or are we ever going to get such an officer?

Submitted.—W.E.P., 28/4/84. There is no intention at present to appoint a Police Magistrate at Kempsey.—H.E.C., 30/4/84. Mrs. Casey informed.—2/5/84.

No. 28.

The Under Secretary of Justice to Mrs. P. B. Carey.

Madam,

Department of Justice, Sydney, 2 May, 1884.

In acknowledging the receipt of your letter of the 17th ultimo, forwarding copy of the *Macleay Chronicle* of 10 April, 1884, with paragraph marked respecting the want of a Police Magistrate at Kempsey, I am directed by the Minister of Justice to inform you that there is no intention at present to appoint a Police Magistrate at Kempsey.

I have, &c.,
W. E. PLUNKETT,
Under Secretary.

No. 29.

Memorial to The Colonial Secretary.

(Presented by R. B. Smith, Esq., M.P., 4th June, 1884.)

Sir,

Kempsey, Macleay River, 19 April, 1884.

We, the undersigned residents of Central Kempsey, West Kempsey, East Kempsey, and other portions of the Macleay River, desire to bring under your notice the necessity that exists for the appointment of a Police Magistrate at West Kempsey. There is at the present a population exceeding 6,000 persons on the river, and in consequence of the irregular attendance of the unpaid Magistracy serious inconvenience is often experienced by the general public.

In view of the foregoing we submit that this district is fully entitled to a Police Magistrate, and we would respectfully ask that the wish of the community as shown by signatures attached be taken into your early consideration.

We are, &c.,

[Here follow 220 signatures.]

Let inquiry be made as to the necessity for appointing a Police Magistrate at Kempsey; ascertain amount of business done during each of the past three years in Petty Sessions, and whether the local Magistracy give such attention to the business as to avoid any public inconvenience.—H.E.C., 10/6/84.

Letters to C.P.S., Kempsey, and J.G.P., 17/7/84.

No. 30.

Mr. F. Abigail, M.P., to The Minister of Justice.

Sir,

Sydney, 5 June, 1884.

I have the honor to hand you a cutting from the *Macleay Chronicle*, and beg to say the gentleman mentioned in it, Mr. G. Stevenson, has been known to me for years as a very worthy man.

I am, &c.,
F. ABIGAIL.

[Enclosure to No. 30.]

Extract from the *Macleay Chronicle*.

The Police Magistracy.

A petition asking for the appointment of a Police Magistrate has in the course of a few days been very numerously signed, principally in the neighbourhood of Kempsey.

The Macleay district has long been labouring under disadvantages, which are sufficiently apparent for all to understand, in consequence of the continued neglect to appoint such an officer. We venture to affirm that no district in the Colony of equal importance has been so persistently ignored by the Department of Justice, for we have not failed to point out again and again the inconvenience imposed on those who have business at the Court. The public sentiment in this matter

matter is also fully shown by the fact that nineteen-twentieths of those who were asked signed the petition without hesitation. Seven Magistrates have attached their signatures, and taking into consideration that the text condemns the unpaid Bench to a certain extent for neglect of duties, the fact tells heavily in favour of the prayer. Other Magistrates refused to sign; and this is not very surprising, for the placing of a permanent Chairman would be a slight lowering of the dignity which attaches to their position. But it must be remembered that the office of Magistrate was created for the people, and not the people for the Magistrates; consequently it is the people who have to be first considered in this matter. While on the subject we may mention that, although the petition to be forwarded prays only for the appointment of a Police Magistrate, there has been a document in circulation asking that such an appointment be made, and recommending that Mr. G. Stevenson, Clerk of Petty Sessions, should receive the appointment. But that gentleman being informed of the fact, at once waited upon the party in charge of the document, and, although there were then some 200 signatures attached to it, he insisted on his name being withdrawn, on the ground that any preferment he would obtain must come direct from the Department. His request was complied with, but the fact that a recommendation for his advancement was so numerous showed that the prompt and intelligent discharge of his duties by Mr. Stevenson has gained the confidence and good wishes of most all with whom he has come in contact. The Department, however, ought to know who is best fitted for the position, and whoever it may chance to select will be expected to perform the duties in a thoroughly independent, intelligent, and vigorous manner. An incompetent man will not suit the requirements of the Macleay.

Acknowledged.—9/6/84. Submitted.—W.E.P., 9/6/84. Seen.—H.E.C., 10/6/84.

No. 31.

The Under Secretary of Justice to Mr. R. B. Smith, M.P.

Sir,

Department of Justice, Sydney, 9 June, 1884.

I have the honor, by direction of the Minister of Justice, to acknowledge the receipt of a petition presented by you at this Department on the 4th instant, from the inhabitants of the Macleay River, praying that a Police Magistrate may be appointed at Kempsey, and to inform you that full inquiry will be made into the matter of the petition before a decision is arrived at.

I have, &c.,

W. E. PLUNKETT,

Under Secretary.

No. 32.

The Under Secretary of Justice to The Inspector-General of Police.

Sir,

Department of Justice, Sydney, 17 July, 1884.

In transmitting to you the accompanying petition, &c., from certain inhabitants of Kempsey, Macleay River, presented by R. B. Smith, Esq., M.P., respecting the necessity for appointment of a Police Magistrate for that district, I am directed by the Minister of Justice to request that you will have the goodness to cause inquiry to be made as to the necessity for appointing a Police Magistrate at West Kempsey, and whether the local Magistracy give such attention to the business as to avoid any public inconvenience.

I may mention that the Clerk of Petty Sessions at Kempsey has been called upon to furnish a return of business done during the last three years at that place, showing the attendance of the Magistracy during the same period.

I have, &c.,

W. E. PLUNKETT,

Under Secretary.

No. 33.

The Under Secretary of Justice to Mr. J. B. Casey.

Sir,

Department of Justice, Sydney, 17 July, 1884.

I am directed by the Minister of Justice to request that you will furnish, as soon as possible, a carefully prepared return showing the amount of business done in Petty Sessions at the West Kempsey Police Court, during each of the past three years, and also the attendance of the local Magistracy during the same period with their names in full, and the distance they reside respectively from the Court-house.

I have, &c.,

W. E. PLUNKETT,

Under Secretary.

No. 34.

Mr. G. Stevenson, C.P.S., Kempsey, to The Under Secretary of Justice.

Sir,

Police Office, West Kempsey, 24 July, 1884.

In consonance with the instructions conveyed in your letter of 17th instant, I have the honor to attach herewith return showing the business transacted, and the attendance of Magistrates for the years 1881-2-3.

You will observe that Messrs. Casey, Crossman, and Lawson have left the district, Mr. Garvan, deceased in 1882, and Mr. Verge suffers from deafness. The return does not include the attendance nor business of sittings on adjourned cases, such being recorded in a very perfunctory manner. In the years 1881-2 the Bench book was very irregularly kept, in some cases neither decision or order being entered, nor signatures of Magistrates, and in many instances one Justice adjudicating where only two or more had jurisdiction.

In the early part of 1883 a man was sentenced to four months in Port Macquarie gaol with hard labour on a simple charge of "drunkenness," and a woman to one month for a similar offence. Mr. Wilson resides about 500 yards from the Court-house, but his office, where he is usually to be found, is at Kempsey, three-quarters of a mile distant; he was assisting Mr. Casey, Clerk of Petty Sessions, during the latter part of 1882, and was Acting Clerk of Petty Sessions from 1st January to 1st September, 1883. The attendances of Messrs. Lawson and McKell, Police Magistrates, were in connection with the business of the Licensing Court, such attendances ceasing in August, 1883, when the present Licensing Court was appointed.

I have, &c.,

G. STEVENSON,

Clerk of Petty Sessions.

[Enclosure

[Enclosure 1 to No. 34.]

RETURN of Business transacted at Police Court, West Kempsey—years 1881-2-3.

| Year. | No. of Sittings of Court. | Summons Cases. | Police Cases. | Licensing Court Applications. | Other Applications. | Small Debts Court. | Total Business. |
|-------------|---------------------------|----------------|---------------|-------------------------------|---------------------|--------------------|-----------------|
| 1881..... | 87 | 121 | 99 | ..... | 69 | 54 | 343 |
| 1882..... | 105 | 89 | 118 | 59 | 26 | 58 | 350 |
| 1883..... | 121 | 120 | 117 | 49 | 37 | 67 | 390 |
| Totals..... | 313 | 330 | 334 | 108 | 132 | 179 | 1,083 |

N.B.—This return does not include the sittings of the Court at the hearing of adjourned cases—these usually occurring when the Justice was Acting ministerially—being generally conducted by the Clerk of Petty Sessions, and subsequently by the Acting Clerk of Petty Sessions. The first half of this year, i.e., to 30th June, shows a marked increase in the Court business; the cases and applications numbering 278, as against 172, 175, and 195 in a similar period of the three preceding years respectively.

Police Office, West Kempsey, 24/7/84.

G. STEVENSON,
Clerk of Petty Sessions.

[Enclosure 2 to No. 34.]

RETURN showing attendance of Magistrates at West Kempsey Police Court for years 1881-2-3.

| Magistrates. | Miles from Court. | Attendances. | | | | Remarks. |
|---|-------------------|--------------|-------|-------|--------|---------------------------------|
| | | 1881. | 1882. | 1883. | Total. | |
| James William Wilson, Acting C.P.S..... | $\frac{3}{4}$ | 19 | 45 | 94 | 158 | Member Licensing Court. |
| John Bartholomew Casey, C.P.S..... | ... | 71 | 77 | ... | 148 | Left district. |
| Frederick Goulburn Panton..... | 9 | 24 | 16 | 31 | 71 | Licensing Magistrate. |
| Otho Orde Dangar..... | $\frac{3}{4}$ | 9 | 10 | 26 | 45 | |
| Henry Garvin..... | ... | 12 | 10 | ... | 22 | Deceased. |
| Phillip Calfe Hill..... | $\frac{3}{4}$ | 5 | 6 | 11 | 22 | |
| Aaron Crossman..... | 130 | 16 | 2 | ... | 18 | Left the district. |
| Robert Augustus Hadden Kemp..... | 1 | 4 | 6 | 11 | 21 | |
| Charles Sutherland..... | 15 | ... | ... | 15 | 15 | Member, Licensing Court. |
| Enoch Rudder..... | 12 | 8 | 1 | 5 | 14 | |
| Thomas Charles K. McKell..... | 80 | ... | 5 | 8 | 13 | Police Magistrate, Boat Harbour |
| James Cheers..... | 5 | ... | 4 | 2 | 6 | |
| James Johnston..... | 5 | 2 | 1 | 2 | 5 | |
| Sydney Verge..... | $\frac{1}{2}$ | 2 | 1 | 1 | 4 | Deaf. |
| William Douglass Scott..... | 30 | 2 | ... | 2 | 4 | |
| James Thompson..... | 50 | 1 | 1 | 2 | 4 | |
| George Forsythe..... | 18 | ... | 1 | 2 | 3 | |
| Edwin Herbert Becke..... | 20 | ... | ... | 3 | 3 | |
| C. Lawson, P.M..... | ... | ... | 2 | ... | 2 | Left district. |
| John Lynn..... | 25 | 1 | ... | 1 | 2 | |
| George Henderson..... | 5 | ... | ... | 1 | 1 | |
| Thomas Forsythe..... | 18 | ... | ... | 1 | 1 | |
| Totals..... | ... | 176 | 188 | 218 | 582 | |

G. STEVENSON,
Clerk of Petty Sessions, 24/7/84.

Submitted.—W.E.P., 31/7/84. Submit when Estimates for 1885 are being prepared.—H.E.C., 5/8/84. Inform Mr. R. B. Smith, M.P.—H.E.C., 5/8/84. Mr. Smith informed.—6/8/84.

No. 35.

The Inspector-General of Police to The Under Secretary of Justice.

Sir, Police Department, Inspector-General's Office, Sydney, 5 August, 1884.

In accordance with the request conveyed in your letter, dated the 17th ultimo, I do myself the honor to enclose copies of reports I have obtained from Superintendent Sanderson and Inspector Harrison, regarding the application for the appointment of a Police Magistrate at Kempsey. Although I have no personal knowledge of the locality, I have no hesitation in endorsing the recommendation, as I consider the appointment of a Police Magistrate necessary.

It may, however, be worthy of the Minister's consideration whether, if such an appointment be made, the Police Magistrate at Kempsey could not visit Trial Bay (Arakoon) and the Bellinger, and thus admit of the withdrawal of the Police Magistrate at the latter place.

Superintendent Morisset, who was for many years in charge of the district, concurs in thinking the appointment of a Police Magistrate at Kempsey very desirable.

I have, &c.,
EDMUND FOSBERY,
Inspector-General of Police.

[Enclosures to No. 35.]

Inspector Harrison to The Superintendent of Police, Northern-eastern District.

North-eastern District, Kempsey, 28 July, 1884.

MEMO.—In accordance with instructions received, I have the honor to furnish a return of arrests and police cases heard before the Court here during the last twelve months, together with names and occupations, distance from Court-house, &c., of the Magistrates.

As

As there is an energetic C.P.S. here there would not be very much for a Police Magistrate to do, there being only this Court and Gladstone, at the present time, but the establishing of a Court at Trial Bay is, I presume, not far distant.

From my experience since I have been here the services of a Police Magistrate are highly desirable. Nearly the whole of the local J.P.'s are old residents, and more or less mixed up in business with the inhabitants, and in a great—a very great—many instances are bound by ties of relationship.

The police have certainly had cause to feel dissatisfied with the result and disposal of many cases brought before the Bench.

The Police Magistrate from the Bellinger used to attend this Court, but has not done so during the last twelve months. The people in general are anxious to have a Police Magistrate, but the local J.P.'s are, I believe, adverse to it.

CHAS. E. HARRISON,
Inspector.

Superintendent Sanderson to The Inspector-General of Police.

West Maitland, 1 August, 1884.

MEMO.—According to Mr. Harrison's report there are five J.P.'s residing within 2 miles and three within 5 miles of Kempsey, the number of prisoners arrested during twelve months being only 114. I am of opinion that a Police Magistrate at Kempsey is not required.

C. SANDERSON,
Superintendent.

WILL Superintendent Morisset favour me with his views on this subject? I am disposed to think that a Police Magistrate should be appointed at Kempsey to visit Arakoon and the Bellinger, when a resident P.M. could be dispensed with.—E.F., 2/8/84. Superintendent Morisset, Goulburn.

RETURN showing names of Magistrates, occupation, and distance from Kempsey Court-house.

| Name. | Residence. | Occupation. | Distance from Court-house. |
|----------------------------------|-----------------------------|------------------------|----------------------------|
| | | | Miles. |
| Wilson, Jas. Wm..... | West Kempsey | Surveyor | 1 |
| Verge, Sydney | " | Grazier | 1 |
| Dangar, Otho Orde | Kempsey | Storekeeper | 1 |
| Hill, Phillip Calfe | " | " | 1 |
| Kemp, Robert A. H. | Yarra | Grazier | 2 |
| Panton, Frederick Goulburn | Yarrawell..... | " | 9 |
| Sutherland, Chas..... | Deep Creek, Corangula | " | 15 |
| Rudder, Enoch..... | Oaklands | " | 12 |
| Cheers, James | Frederickton | Retired grazier | 5 |
| Johnston, James | " | Auctioneer | 5 |
| Henderson, George | " | Retired grazier | 5 |
| Scott, Douglass Wm. | Moparrabah..... | Grazier | 30 |
| Thompson, James..... | Towell Creek | " | 50 |
| Lynn, John | Yarrahappinni..... | Farmer | 25 |
| Becke, Edwin Herbert | Corangula..... | Manager of Mines | 20 |
| Forsyth, George | Long Reach..... | Farmer | 18 |
| Forsyth, Thomas | " | " | 18 |

Estimated population within an area of 5 miles of Kempsey, 2,600; estimated population within an area of 60 miles west, 14 miles south, 15 miles north, and 10 miles east, who have to transact business at Kempsey Court-house, 2,000; number of persons arrested by Kempsey police from June, 1883, to 30 June, 1884, 114; summons cases tried from 1st July, 1883, to 30th June, 1884, at Kempsey Court-house for obscene language and other breaches of Police Act, 157.

CHAS. E. HARRISON,
Inspector.

Submitted.—W.E.P., 6/8/84. A letter should be written to the local Bench to elicit their opinion as to the appointment of a P.M.—H.E.C., 8/8/84. Bench, Kempsey, 11/8/84.

No. 36.

The Under Secretary of Justice to The Bench of Magistrates, West Kempsey.

Gentlemen,

Department of Justice, Sydney, 11 August, 1884.

I am directed by the Minister of Justice to invite you to have the goodness to favour with a report at your earliest convenience, as to the necessity for the appointment of a Police Magistrate at West Kempsey.

I have, &c.,

W. E. PLUNKETT,
Under Secretary.

No. 37.

Mr. G. Stevenson to The Under Secretary of Justice.

Sir,

Police Office, West Kempsey, 25 August, 1884.

By direction of the Bench of Magistrates in special meeting assembled, I have the honor to inform you that on receipt of your letter dated 11th instant, I issued an invitation to each of the seventeen Justices resident in the Macleay District, asking them to meet at this office on 22nd instant, for the purpose of preparing a report in consonance with the request of the Minister of Justice, as to the necessity for the appointment of a Police Magistrate at West Kempsey.

In response thereto, ten Justices met, three sent apologies for their non-attendance, and four were unrepresented; but a number of those absent informed me that they had signed a petition in favour of the appointment of a Police Magistrate. I attach a copy of resolutions passed at such meeting, a return of the business transacted at this office from 1st January to 30th June, 1884, and a copy of the Roster for your information.

I have, &c.,

G. STEVENSON,

Clerk of Petty Sessions.

[Enclosures

[Enclosures to No. 37.]

RETURN of business transacted at the Police Office, West Kempsey, for half-year ending 30 June, 1884.

| 1884. | No. of sittings of Court. | Summons Cases. | Police Cases. | Licensing Court Applications. | Other Applications. | Small Debts Court. | Total Business. |
|--------------------|---------------------------|----------------|---------------|-------------------------------|---------------------|--------------------|-----------------|
| 1 Jan. to 30 June. | 71 | 86 | 78 | 26 | 34 | 54 | 278 |

N.B.—As in the case of the returns of the business transacted during the years 1881-2-3, forwarded on 24th ultimo, the sittings of the Court at the hearing of adjourned cases and adjourned cases are not included in the above return. It will be observed that during the first half of the present year, as compared with the six preceding half-years, the business transacted at this Court increased by 52.17 per cent., and the sittings of the Court increased by 36.54 per cent.

G. STEVENSON,
Clerk of Petty Sessions.

Police Office, West Kempsey, 22 August, 1884.

MINUTES of Meeting of Magistrates, resident in the Macleay River District, held at the Police Office, West Kempsey, on the 22nd August, 1884.

Present—Messrs. F. G. Pantou, R. A. H. Kemp, O. O. Dangar, J. Johnston, J. W. Wilson, J. Thompson, P. C. Hill, G. Henderson, James Cheers, and Thomas Forsyth.

Moved by Mr. Pantou—seconded by Mr. Dangar—

“That in the opinion of the Magistrates present, there does not exist a necessity for the appointment of a Police Magistrate for the Macleay District.”

Carried by majority of 7 to 3.

Moved by Mr. Dangar—seconded by Mr. Wilson—

“That the Clerk of Petty Sessions be requested to prepare a letter to the Minister of Justice, providing him with the following information:—The particulars of business done in the Kempsey Court from the 1st January to 1st July, 1884—Also with the fact of the Bench having arranged for 2 (two) sittings in each week, and that a Roster has been prepared, arranging for the attendance of Justices on those days.”

Carried unanimously.

Apologies for non-attendance were received from Messrs. E. Rudder, G. Forsyth, and John Lynn, J's.P., who each expressed themselves in favour of the appointment of a Police Magistrate.

F. GOULBURN PANTON, J.P.,
Chairman.

ROSTER.

For the three months commencing on and from the 1st August, 1884, viz. :—August 1st : Messrs. Kemp, Rudder, and Cheers ; 4. Messrs. Pantou, Dangar, and Becke ; 8. Messrs. Rudder, Wilson, and Johnston ; 11. Messrs. Dangar, Henderson, and Thompson ; 15. Messrs. Wilson, Hill, and Scott ; 18. Messrs. Henderson, Sutherland, and Verge ; 22. Messrs. Hill, Verge, and Cheers ; 25. Messrs. Sutherland, Becke, and Johnston ; 29. Messrs. Pantou, Rudder, and Thompson.

September 1 : Messrs. Kemp, Dangar, and Lynn ; 5. Messrs. Rudder, Henderson, and Verge ; 8. Messrs. Becke, Hill, and Dangar ; 12. Messrs. Johnston, Sutherland, and Wilson ; 15. Messrs. Thompson, Henderson, and Verge ; 19. Messrs. Lynn, Wilson, and Hill ; 22. Messrs. Pantou, Sutherland, and Cheers ; 26. Messrs. Kemp, Verge, and Johnston ; 29. Messrs. Scott, Henderson, and Dangar.

October 3 ; Messrs. Rudder, Verge, and Hill ; 6. Messrs. Dangar, Wilson, and Lynn ; 10. Messrs. Henderson, Sutherland, and Thompson ; 13. Messrs. Kemp, Hill, and Scott ; 17. Messrs. Pantou, Rudder, and Cheers ; 20. Messrs. Wilson, Sutherland, and Henderson ; 24. Messrs. Hill, Johnston, and Lynn ; 27. Messrs. Pantou, Dangar, and Scott ; 31. Messrs. Kemp, Wilson, and Cheers.

G. STEVENSON,
Clerk of Petty Sessions.

Police Office, West Kempsey, 22/8/84.

Mr. F. Goulburn Pantou, J.P., to The Minister of Justice

Sir,

Police Office, West Kempsey, 25 August, 1884.

By direction of the Bench of Magistrates acting in and for the Macleay River District, in special meeting assembled at the Police Office, West Kempsey, on the 22nd instant, I have the honor to inform you that the following resolution was carried unanimously, viz. :—“That, in the opinion of the Magistrates present, the time has arrived when a new Court-house at West Kempsey should be erected on the site now occupied as a residence by the Sergeant of Police, and that in the interests of the public the sooner the building is constructed the better.”

I have, &c.,

F. GOULBURN PANTON, J.P.,
Chairman.

Submitted.—W.E.P., 30/8/84. As the honorary Magistrates have made arrangements for the satisfactory conduct of the Court business, I do not see the necessity for appointing a P.M.—H.E.C., 2/9/84. Inform Mr. R. B. Smith, M.P., of decision, 3/9/84. Mr. Smith, M.P., 3/9/84.

No. 38.

The Under Secretary of Justice to Mr. R. B. Smith, M.P.

Sir,

Department of Justice, Sydney, 3 September, 1884.

Referring to a petition presented by you at this Department on the 4th June last from the residents of the Macleay River, and previous correspondence respecting the appointment of a Police Magistrate at West Kempsey, I have the honor to inform you that as the honorary Magistrates have made arrangements for the satisfactory conduct of the Court business, the Minister of Justice does not see the necessity for appointing a Police Magistrate at that place.

I have, &c.,

W. E. PLUNKETT,
Under Secretary.

1884.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

WATER SUPPLY, SYDNEY AND SUBURBS.

(CAPACITY OF CANAL AND RESERVOIR.)

Ordered by the Legislative Assembly to be printed, 21 November, 1884.

Question.

FRIDAY, 21 NOVEMBER, 1884.

2. MR. HAMMOND to ask THE SECRETARY FOR PUBLIC WORKS,—

- (1.) To what extent has the area of the Canal for Sydney Water Supply from the Nepean River been increased since February, 1881, when the then Minister for Works ordered the Prospect Scheme to be continued?
- (2.) To what extent has the storage capacity of the Prospect Reservoir and the height of its dam been increased since the above date?
- (3.) What proportion of the interest on the Loan necessary for the completion of the Prospect Works, and also of the annual charges for repairs, &c., will be debited to the Municipalities of Sydney and Suburbs?
- (4.) Who is responsible for the enlargement of the original design and the increased cost thereof?
- (5.) How many million gallons will actually be delivered into Sydney as at present estimated for?
- (6.) What is the amount of money already voted in excess of the original estimates for the completion of this work?

Answer.

- (1.) The area of the canal has not been increased since the date referred to, but it has been from 84 to 155 million gallons per diem since Mr. Clark made his estimate of the cost of the works, upon which the first vote was taken.
This is quite in accordance with the spirit of the recommendation of that gentleman. To quote from his report, Mr. Clark says:—"Further examination shows that even this quantity of water may be considerably increased, and that by enlarging the capacity of the conduit from 84 to 120 million gallons per day, a quantity varying from 6 million gallons per day in 1872 to 27 million gallons in 1870 could be further secured.
Similarly by increasing the conduit to carry 160 million gallons daily an increased quantity of from 12 to 50 million gallons per day in the above-named years respectively could be effected.
- (2.) There has been no increase since the date named, but it is proposed to raise the dam 3 feet higher than contemplated by Mr. Clark. This has necessitated a correspondingly enlarged section for the whole work; the object has been not so much to increase the storage capacity of the Reservoir as its stability. The greater height is intended to prevent a possible over-wash which might endanger the dam. The canal below Prospect having been increased from a capacity of 29 million gallons per diem to 50 millions, it is intended to increase the capacity of the delivery pipes from 8 million gallons per diem as proposed by Mr. Clark to 18 million gallons.
When the demands of Sydney require it, by means of additional pipes, the supply can be raised to the full capacity of the canal.
- (3.) The Honorable Member will see, on referring to the Metropolitan Water and Sewerage Act 43 Vic. No. 32, under the authority of which the Sydney Waterworks are being carried out, that it is impossible at present to answer this question. I would especially direct his attention to the sixth part of the said Act.
- (4.) I do not know that I can refer to any written authority on the subject, but I understand the then Minister for Works fully approved of this enlargement, the wisdom of which is beyond dispute.
- (5.) 18 million gallons, which, as before explained, can be increased to 50 million gallons per diem.
- (6.) Mr. Clark's estimate, on which the first vote of £1,086,768 was taken, was £1,170,761. See Mr. Clark's report, dated 15th May, 1877, page 42, and Loan Act, 1879, 43 Vic., No. 11.
A further vote of £553,000 was taken last session to cover, "*inter alia*," the cost of the greatly enlarged capacity of the work, as fully explained in the papers laid on the Table of the House on the 10th October, 1883, at the instance of the Honorable Member for South Sydney, Mr. Poole.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

LOCAL OPTION.

(PETITION FOR EXTENSION OF—STAR OF HOPE DIVISION SONS OF TEMPERANCE.)

Received by the Legislative Assembly, 19 November, 1884.

To the Honorable the Speaker and the Honorable the Members of the Legislative Assembly of New South Wales, in Parliament assembled.

THE Petition of the undersigned, on behalf of the Star of Hope Division Sons of Temperance, Balmain, consisting of one hundred and two members, humbly prayeth that such a measure of Local Self Government may be passed by your Honorable House that will extend the principle of Local Option to the renewal of Publicans' Licenses.

And your Petitioner, therefore, humbly prays that your Honorable House will take the premises into favourable consideration, and grant such relief as may seem best to your Honorable House.

And your Petitioner, as in duty bound, will ever pray.

WM. W. SMITH,
Chairman.

Similar Petitions were received:—

- On 19 November, 1884, from Chairman, on behalf of the "Dewdrop" Lodge.
- " " from Chairman, on behalf of the "Goulburn" Division, No. 44, Sons of Temperance.
- " " from the "Hope of Goulburn" Lodge of Good Templars; 3 signatures.
- " " from Chairman, on behalf of the "Evening Star Division" Sons of Temperance, of Balmain.
- " " from the "Hand and Heart" Lodge of the Independent Order of Good Templars; 15 signatures.
- " " from Chairman, on behalf of the "Progress" Lodge, No. 366, Independent Order of Good Templars.
- " " from Chairman, on behalf of the "Nil Desperandum" Tent of the Independent Order of Rechabites.
- " " from Chairman, on behalf of the "Happy Dawn" Lodge of Good Templars at Araluen.
- " " from Chairman, on behalf of the "M'Laughlin" Lodge of the Independent Order of Good Templars at Taree, Manning River.
- " " from the "Resolution" Lodge of Good Templars, Narrandera; 2 signatures.
- " " from Chairman, on behalf of the "Happy Home" Lodge, No. 362, Independent Order of Good Templars.
- " " from Chairman, on behalf of the "A. S. Browne" Lodge.
- On 20 November, 1884, from the Chairman, on behalf of the "Evening Star" Lodge, No. 18, of the Independent Order of Good Templars.
- " " from the Chairman, on behalf of the "Prince Alfred" Division, No. 29, Sons of Temperance, Parramatta.
- " " from the Chairman, on behalf of the "Nil Desperandum" Lodge of Good Templars, Emmaville.
- " " from the Chairman, on behalf of the "Star of the Glen" Lodge of Good Templars, Glen Innes.
- " " from the Chairman, on behalf of the "Guiding Star" Tent of the Independent Order of Rechabites.
- " " from the Chairman, on behalf of the "Multum in Parvo" Good Templar Lodge, Hinton.
- " " from the Chairman, on behalf of the "Hope of Grenfell" Lodge, No. 205, of the Independent Order of Good Templars, Grenfell.
- On 21 November, 1884, from the Chairman of the "Harvest Home" Lodge, Tamworth.
- " " from the Chairman of the "Hope of Uralla" Lodge.
- " " from the Chairman of the "Rose of Marrickville" Lodge.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

LOCAL OPTION.

(PETITION FOR EXTENSION OF—"BANNER OF HOPE" LODGE.

Received by the Legislative Assembly, 25 November, 1884.

To the Honorable the Speaker and the Honorable the Members of the Legislative Assembly of New South Wales, in Parliament assembled.

The Petition of the undersigned, on behalf of the Members of the "Banner of Hope" Lodge, consisting of 108 Members,—

HUMBLY PRAYETH:—

That such a measure of local self-government may be passed by your Honorable House that will extend the principle of local option to the renewal of publicans' licenses.

And your Petitioner therefore humbly prays that your Honorable House will take the premises into favourable consideration, and grant such relief as may seem best to your Honorable House.

And your Petitioner, as in duty bound, will ever pray.

J. A. M'INTYRE, W.C.T.

Similar Petitions were received:—

- On 25 November, 1884, from the "Loyal Alfred" Lodge of Good Templars, Spring Hill; 2 signatures.
 " " " from the Chairman of the "Dawn of Freedom" Lodge of Good Templars.
 " " " from the "Life-boat" Lodge; 2 signatures.
 " " " from the Chairman of the "Prince Edward of Wales" Lodge.
 " " " from the Chairman of the "Wardell Hope" Lodge.
 " " " from the "Solid Rock" Division, Sons and Daughters of Temperance; 2 signatures.
 " " " from the Chairman of the "Pride of St. Peter's" Lodge.
 " " " from the "Haste to the Rescue" Lodge; 2 signatures.
 " " " from the Chairman of the "Millewa" Lodge, Albury.
 " " " from the Chairman of the "Murray Valley Tent," Albury.
 " " " from the Chairman of the "Blue Ribbon Society," Albury.
 " " " from the Chairman of the "Crystal Fountain" Lodge.
 " " " from the Chairman of the "Ark of Safety" Lodge.
 " " " from the Chairman of the "Hope of Orange" Lodge.
 " " " from the Chairman of the "Bright Example" Lodge.
 " " " from the Chairman of the "Star of Hope" Lodge, Ghatsworth.
 " " " from the Chairman of the "Rock of Refuge" Lodge, Maclean.
 " " " from the Chairman of the "Star of the South" Lodge, Cooma.
 " " " from the Chairman of the "Evening Star" Lodge, 123, I.O.G.T.
 On 26 November, 1884, from the Chairman of the "Home of Peace" Lodge, Granville.
 " " " from the "Unity" Lodge; 2 signatures.
 " " " from the Chairman of the "Bound to Succeed" Lodge, Mulbring.
 " " " from the "Prince Edward of Wales," I.O.G.T.; 2 signatures.
 " " " from the Chairman of the "True to the Core" Lodge, Waldegrave.
 " " " from the Chairman of the "Wilberforce" Lodge, Milthorpe.
 " " " from the Chairman of the "Emulation" Lodge, Grafton.
 " " " from the Chairman of the "Nil Desperandum" I.O.G.T. Lodge.
 " " " from the Chairman of the "Hope of Chippendale" Tent, Independent Order of Rechabites, New South Wales District.
 " " " from the Chairman of the "John Wright" Lodge, I.O.G.T., of Tingha.

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

TYPHOID FEVER.
(RETURN RESPECTING.)

Ordered by the Legislative Assembly to be printed, 26 November, 1884.

RETURN (*in part*) to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 24th July, 1884, That there be laid upon the Table of this House, a Return showing,—

“ 1.) The number of deaths that have occurred in the Colony from typhoid fever during the last five years, specifying the age, sex, and number in each year and registrar district respectively.

“ (2.) Also a similar Return showing the number of cases treated during the same period in the various Hospitals throughout the Colony, the age, sex, how long ill, and number of deaths in each year and in each Hospital respectively.”

(Dr. Ross.)

TYPHOID FEVER.

SUMMARY of Deaths from TYPHOID FEVER during the past Five Years.

| | Sydney. | Suburbs. | Country Districts. | Total. |
|--------------|---------|----------|--------------------|--------|
| 1879 | 77 | 38 | 150 | 265 |
| 1880 | 54 | 35 | 149 | 238 |
| 1881 | 58 | 35 | 173 | 266 |
| 1882 | 96 | 71 | 283 | 450 |
| *1883 | 77 | 93 | 227 | 397 |

1,616

* Returns from Tenterfield and Hillston not to hand.

E. G. WARD,
Registrar-General.

DEATHS from TYPHOID FEVER in the undermentioned Registry Districts.

| | | Under 1 year. | 1 to years. | 2 to 3 years. | 3 to 4 years. | 4 to 5 years. | 5 to 10 years. | 10 to 15 years. | 15 to 20 years. | 20 to 25 years. | 25 to 30 years. | 30 to 35 years. | 35 to 40 years. | 40 to 45 years. | 45 to 50 years. | 50 to 55 years. | 55 to 60 years. | 60 to 65 years. | 65 to 70 years. | 70 to 75 years. | 75 years and upwards. | Age not specified. | Grand Total. |
|------------------------------|-----------|---------------|-------------|---------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| Sydney. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males ... | 4 | ... | 2 | 2 | ... | 4 | 3 | 4 | 5 | 9 | 6 | 1 | 2 | 1 | 2 | 1 | 1 | ... | 1 | ... | ... | 48 |
| | Females.. | ... | ... | ... | ... | ... | 4 | 1 | 5 | 5 | 6 | 2 | 2 | ... | ... | ... | 2 | ... | 1 | ... | 1 | 29 | |
| 1880 | Males ... | 1 | 1 | 3 | 2 | ... | 4 | 4 | 4 | 1 | 2 | 2 | 1 | ... | ... | ... | 1 | ... | 2 | ... | ... | 28 | |
| | Females.. | 1 | 1 | 1 | 1 | ... | 1 | 1 | 6 | 5 | 2 | 4 | ... | ... | ... | ... | 3 | ... | 1 | ... | ... | 26 | |
| 1881 | Males ... | 1 | 1 | 1 | 2 | ... | 1 | 1 | ... | 7 | 6 | 3 | 3 | ... | 1 | 1 | 1 | ... | ... | ... | ... | 24 | |
| | Females.. | 1 | 1 | 1 | 1 | ... | 5 | ... | 6 | 7 | 2 | 3 | 3 | 2 | 1 | 1 | 1 | ... | 1 | ... | ... | 34 | |
| 1882 | Males ... | 1 | 1 | 1 | 2 | ... | 4 | 1 | 5 | 9 | 14 | 5 | 4 | 6 | 3 | 5 | ... | ... | ... | ... | 1 | 62 | |
| | Females.. | 2 | 1 | 1 | 1 | ... | 1 | 2 | 4 | 5 | 3 | 3 | 4 | 4 | 2 | 1 | ... | ... | ... | ... | ... | 34 | |
| 1883 | Males ... | 1 | 2 | 1 | 1 | ... | 4 | 3 | ... | 6 | 5 | 7 | 3 | 3 | 2 | 1 | ... | ... | 1 | ... | ... | 40 | |
| | Females.. | ... | ... | ... | 1 | ... | 3 | 4 | 9 | 8 | 7 | ... | 1 | 2 | ... | 1 | ... | ... | 1 | ... | ... | 37 | |
| | | 11 | 6 | 8 | 12 | 5 | 25 | 20 | 43 | 61 | 55 | 32 | 23 | 20 | 8 | 13 | 9 | 1 | 7 | 1 | 2 | 362 | |
| Balmain. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 |
| 1880 | Males ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | 1 | |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 |
| 1881 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | 1 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 |
| 1882 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| 1883 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 1 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | | ... | ... | ... | ... | ... | 1 | 1 | 3 | 3 | 2 | 2 | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | 14 |
| Leichhardt.* | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1880 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1881 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1882 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1883 | Males ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 3 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | | ... | ... | ... | ... | ... | 1 | ... | ... | ... | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4 |
| Burwood (Canterbury). | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1880 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1881 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | 1 | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3 |
| 1882 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1883 | Males ... | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 |
| | Females.. | ... | ... | 1 | ... | ... | ... | ... | ... | 1 | ... | 2 | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | 6 |
| | | ... | 1 | 1 | ... | ... | 1 | ... | 3 | 1 | 2 | 1 | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 12 |

* No deaths from Typhoid Fever occurred in my district from 1st July to 31st December, 1882, since my appointment dating on and from 1st July, 1882.

| | | Under 1 year. | 1 to 2 years. | 2 to 3 years. | 3 to 4 years. | 4 to 5 years. | 5 to 10 years. | 10 to 15 years. | 15 to 20 years. | 20 to 25 years. | 25 to 30 years. | 30 to 35 years. | 35 to 40 years. | 40 to 45 years. | 45 to 50 years. | 50 to 55 years. | 55 to 60 years. | 60 to 65 years. | 65 to 70 years. | 70 to 75 years. | 75 years and upwards. | Age not specified. | Grand total |
|-------------------------------|---------|---------------|---------------|---------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|--------------------|-------------|
| Gunning (Yass Plains). | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1880 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1881 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1882 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1883 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| Hastings and Manning. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1880 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1881 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | 1 | | | | | | | | | | | | | | | | |
| 1882 | Males | | | | | | | | | | | | 1 | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1883 | Males | | | | | | | | | 1 | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 1 | | 1 | 1 | | 1 | | | | | | | | | | | 5 |
| Hay. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | | | | | | | 1 | | | 2 | | | | | | | | | | | | 3 |
| | Females | 1 | | | | | | | 1 | 3 | | | | | | | | | | | | | 5 |
| 1880 | Males | | | | | | | | | | 1 | | | | | | | | | | | | 1 |
| | Females | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1881 | Males | | | | | | | | | 1 | | | | | | | | | | | | | 1 |
| | Females | | | | | | 1 | | | | | | | | | | | | | | | | 1 |
| 1882 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1883 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 | | | | | 1 | 1 | 1 | 4 | 3 | | | 1 | | | | | | | | | 12 |
| Hill End. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | | | | | | | 1 | | | | | | | | | | | | | | | 1 |
| | Females | | | | | | | | | | | | | | 1 | 1 | | | | | | | 3 |
| 1880 | Males | | | | | | | 1 | | | | | | | | | | | | | | | 1 |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1881 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1882 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1883 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 2 | | | | | | | | 1 | 1 | | | | | 1 | | 5 |
| Inverell. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | | | | | | | | 1 | | | | | | | | | | | | | | 1 |
| | Females | 1 | | | | | | | | | | | | | | | | | | | | | 1 |
| 1880 | Males | | | | | | | 1 | 1 | | | | | | | | | | | | | | 2 |
| | Females | | | | | | | | | | | | | | 1 | | | | | | | | 2 |
| 1881 | Males | | | | | | | | | 1 | | | | | | | | | | | | | 1 |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1882 | Males | | | 1 | | | | | | | | | | | | | | | | | | | 2 |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1883 | Males | | 1 | | | | | | | | | | | | | | | | | | | | 1 |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 | 1 | 1 | | | | 2 | 3 | 1 | | | | 1 | | | | | | | | | 10 |
| Jerilderie.* | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1880 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1881 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1882 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1883 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | | | | | | | | | | | | | | |
| 1884 | Males | | | | | | | | | | | | | | | | | | | | | | |
| | Females | | | | | | | | | 1 | | | | | | | | | | | | | 1 |
| | | | | | | | | | 1 | | | | | | | | | | | | | | 1 |

* From May, 1881, to May, 1884, as far as my books extend.

| | | Under 1 year. | 1 to 2 years. | 2 to 3 years. | 3 to 4 years. | 4 to 5 years. | 5 to 10 years. | 10 to 15 years. | 15 to 20 years. | 20 to 25 years. | 25 to 30 years. | 30 to 35 years. | 35 to 40 years. | 40 to 45 years. | 45 to 50 years. | 50 to 55 years. | 55 to 60 years. | 60 to 65 years. | 65 to 70 years. | 70 to 75 years. | 75 years and upwards. | Age not specified. | Grand Total. |
|--------------------------------------|---------|---------------|---------------|---------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| Morpeth. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1883 | Males | .. | .. | .. | .. | 1 | 1 | .. | 2 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | .. | .. | .. | .. | 1 | 1 | 1 | 2 | .. | 4 | .. | 1 | .. | 3 | .. | .. | .. | .. | .. | .. | .. | |
| The Murray (Moulamein). | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1883 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Mudgee. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | 1 | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | 1 | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | 1 | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | 1 | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | |
| 1883 | Males | 1 | .. | .. | .. | .. | .. | 3 | .. | .. | .. | 1 | .. | .. | 2 | .. | .. | 1 | .. | .. | .. | .. | |
| | Females | .. | 1 | 1 | .. | .. | 1 | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | 1 | 3 | 1 | .. | 1 | 2 | 1 | 7 | 4 | 3 | 1 | 2 | 3 | 2 | 2 | .. | .. | 1 | .. | .. | .. | |
| Murrumburrah (sub Young). | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1883 | Males | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Upper Hunter (at Murrurundi). | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1883 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | .. | .. | .. | .. | .. | .. | 1 | 1 | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Muswellbrook. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1883 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |

| | | Under 1 year. | 1 to 2 years. | 2 to 3 years. | 3 to 4 years. | 4 to 5 years. | 5 to 10 years. | 10 to 15 years. | 15 to 20 years. | 20 to 25 years. | 25 to 30 years. | 30 to 35 years. | 35 to 40 years. | 40 to 45 years. | 45 to 50 years. | 50 to 55 years. | 55 to 60 years. | 60 to 65 years. | 65 to 70 years. | 70 to 75 years. | 75 years and upwards. | Age not specified. | Grand Total |
|----------------------------------|---------|---------------|---------------|---------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|--------------------|-------------|
| Wellington. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1883 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | |
| Wentworth. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1883 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | 1 | .. | .. | .. | .. | .. | .. | .. | 2 | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4 | |
| Wentworth (at Wilcannia). | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | |
| | Females | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | 1 | .. | 1 | 1 | 5 | 1 | .. | .. | 1 | .. | 1 | .. | .. | .. | 1 | .. | .. | 11 | |
| | Females | .. | .. | .. | .. | .. | 1 | 1 | 2 | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 6 | |
| 1883 | Males | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | 1 | .. | .. | 1 | .. | 2 | 2 | 2 | 8 | 1 | 1 | 1 | 2 | .. | .. | .. | .. | 1 | .. | .. | 22 | |
| The Hawkesbury (Windsor). | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 3 | |
| | Females | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | |
| 1883 | Males | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 3 | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | .. | .. | 1 | .. | .. | 1 | .. | .. | 1 | .. | 1 | 2 | 1 | 1 | .. | .. | .. | 1 | .. | .. | 9 | |
| Wollombi. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1883 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| Illawarra (Wollongong). | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1880 | Males | .. | .. | .. | .. | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 3 | |
| | Females | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | |
| 1881 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| 1882 | Males | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | |
| | Females | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | |
| 1883 | Males | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | |
| | Females | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | | .. | .. | .. | .. | .. | 2 | 2 | 2 | .. | 2 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 9 | |

| | | Under 1 year. | 1 to 2 years. | 2 to 3 years. | 3 to 4 years. | 4 to 5 years. | 5 to 10 years. | 10 to 15 years. | 15 to 20 years. | 20 to 25 years. | 25 to 30 years. | 30 to 35 years. | 35 to 40 years. | 40 to 45 years. | 45 to 50 years. | 50 to 55 years. | 55 to 60 years. | 60 to 65 years. | 65 to 70 years. | 70 to 75 years. | 75 years and upwards. | Age not specified. | Grand Total |
|--------------------------------|-----------|---------------|---------------|---------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|--------------------|-------------|
| Illawarra (at Woonona). | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1880 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1881 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1882 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1883 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| Yass. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1880 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1881 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1882 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | 3 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| 1883 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 |
| | | ... | ... | ... | ... | ... | ... | ... | 3 | ... | 1 | 1 | ... | ... | ... | ... | ... | 1 | ... | ... | ... | 2 | 8 |
| Young. | | | | | | | | | | | | | | | | | | | | | | | |
| 1879 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | 1 | ... | 1 | ... | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5 |
| 1880 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 1881 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Females.. | ... | ... | ... | ... | 2 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3 |
| 1882 | Males ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | Females.. | ... | ... | ... | ... | ... | ... | 2 | ... | 1 | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | 4 |
| 1883 | Males ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3 |
| | Females.. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | | ... | 1 | ... | 1 | ... | 2 | 1 | 3 | 2 | 3 | ... | ... | ... | ... | 2 | ... | 1 | ... | ... | ... | ... | 16 |

1884.

LEGISLATIVE ASSEMBLY,
NEW SOUTH WALES.

WOOD PAVEMENT BOARD.

REPORT,

MINUTES OF PROCEEDINGS,

AND

APPENDIX.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
26 November, 1884.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1884.

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1884.

WOOD PAVEMENT BOARD.

REPORT.

SIR,

Your Board, appointed to enquire into the alleged deleterious effects of wood-paving upon the public health, sat from the 4th August to the 26th November; and having examined various witnesses, arranged and conducted many experimental investigations, personally examined the actual state of the various roadways of Sydney which are paved with wood, and having considered such recorded evidence as at present exists upon this subject, now beg leave to make the following Report:—

2. The proportion borne by the area of the roadways to the whole area upon which any city stands is so considerable that its state must obviously be capable of exerting a great influence for good or ill upon the public health; and much evidence is available which shows more or less directly that the better kept the roadways are, the harder, smoother, drier, and cleaner they are, the better is the state of the public health and of the public purse. Nevertheless, the state of the roadways is one only of the many elements which go to form the complex conditions of city life; its influence cannot be completely and certainly separated from that of every other element; its value, therefore, cannot be ascertained exactly. This is true even when the roadways are considered collectively; when the influence of a particular kind of roadway is sought the difficulty is greatly increased. Not only is no city uniformly paved with one kind of material, but any particular kind exists only in small proportion to other kinds; it is not possible, therefore, to obtain exact or direct evidence of its effects upon health. These remarks apply to Sydney and to the wood-paving laid down here as well as to almost all other cities. The only course open to your Board therefore in conducting this investigation was to consider wood, under the conditions to which it is exposed when it is used as a pavement, in the light of the known behaviour of wood and its known effect upon health when it is exposed in the neighbourhood of man under other but similar conditions.

3. It will be useful to take in the first place a general review of the ways in which the public health may be affected by the state of the roadways, and to deduce from them the considerations by which a critical examination of any particular kind of road should be guided. The most important properties of a roadway in relation to health are cleanliness and dryness. Road detritus consists of the dust which results from the wear and tear of material; of abraded stone or wood, or asphalt, and abraded iron from shoes and tires; of dung; and of the many different matters, animal, vegetable, and mineral, which find their way in larger or smaller quantities to the highways. These are moistened, and disintegrated or dissolved, by the fresh water which is poured out as rain, by the sea-water with which the dust is laid, and by the urine of animals. The mixture having been in great part ground up and disintegrated by the traffic and by moisture, lies exposed to the sun's heat. While sufficient moisture remains, the heat favours putrefaction; and when the moisture has been entirely driven off, the solid particles form dust which, being caught up by the air, is carried into the skin and lungs of man. There it acts prejudicially in one or all of three ways as the case may be. It clogs those organs so as to interfere with their functions mechanically; the sharper and the acrid particles irritate them, and in this way interfere with their functions physiologically; and those infinitely minute forms of life which carry on the fermentative processes of putrefaction, together with those which find their *habitat* in putrefying substances, enter the lungs along with the dust, and finding their way thence into the blood, cause those phenomena in the body which are known as disease. The powers of sharp
insoluble

insoluble particles of iron and stone upon the lungs when habitually inhaled are seen in the well-known prevalence of lung-diseases among knife-grinders, pottery makers, and granite workers; and it cannot be doubted but that the same particles inhaled from time to time as road-dust cause a degree of irritation which, if it do not sometimes lead to actually the same result at last in delicate persons, at all events interferes with the process of respiration in all. The fermenting excreta of animals do not greatly differ in their effects upon health from fermenting human excreta; and the mere surface cleansing of streets has again and again been seen to exercise a favourable influence upon the health of adjacent inhabitants. The dirty skins of the inhabitants of cities are due, not to coal-smoke, as is generally supposed, but to street filth; and the results of the careful washing of dirty children has been shown to be striking in proportion to the filthy origin of the dirt. Thus the Traction on Roads Committee (1875) of the London Society of Arts records, among other examples, that of large numbers of children who, when collected in Ragged Schools unwashed, caused illness both among themselves and their teachers which ceased to arise as soon as the children were systematically washed. So in other schools, where the children were lodged in tumble-down houses, general cleansing of the premises and removal of old cess-pits reduced the mortality among them from 12 per 1,000 to 8; but personal cleanliness being thereafter enforced this rate was further reduced to 4 per 1,000. And lastly, with regard to the infinitely small organised bodies whose vital processes effect the oxidation and reduction of compounds of every kind, and of which some if they find their way into the animal body produce disease, it is to be noticed that organic filth not only affords many of them their proper sphere of action and so carries them into the body when it is inhaled as dust or vapour, but itself acts detrimentally upon the body in virtue of its chemical properties and deprives it of that power of resistance to the invasion of these microbes which exists in states of perfect health, and which constantly guards man from disease. But the phenomena of life are not manifested except in the presence of water; except under conditions of moisture putrefaction does not proceed. A road pavement therefore must not only be kept clean but no less carefully it must be kept dry too. As well to keep a pavement clean as to keep it dry, it must be made of material which is not only impervious to moisture, but which is tolerably smooth. The only kind of pavement which is perfectly smooth and perfectly impervious is monolithic or sheet asphalt. Granite cubes or sett-paving are tolerably smooth and quite impervious. But this kind of road is composite in structure, for the surface consists of the face of the cubes and of the material filling the joints; and in fact in all block pavements these interstices taken together equal not less than one-third of the entire surface of such a road-way. One-third of the area then is not only permeable to the solution of organic matter which, after every shower runs over it, but is quite beyond cleansing. Wood paving is not smooth at all in this sense; and, in addition, it offers the same proportion of joint surface as granite. The second consideration is that of noise. In order to gauge the true value of quietness, inquiry into the effects of noise upon the constitution should be made of persons whose mode of life enables them to form a practical opinion. Such persons are those who, having conducted their business in shops and offices facing streets paved with granite setts, have continued the same business in the same houses after that paving has been exchanged for monolithic asphalt; persons who, living generally out of town, can compare the effects of a visit to a city with the effects of a similar amount of physical exertion taken in the country; persons whose occupation is intellectual rather than manual; and persons having a healthy but sensitive nervous system. By all of such persons evidence is offered that street noises are causes of fatigue, and that they make a real demand upon the physical powers of the constitution. The brain-worker knows that they either distract his attention, and so render his labour more arduous, or that he has to make a conscious effort to suppress or disregard them which is exhausting, and which is distinctly separable from the effect of the work in hand. Cases are not wanting, either, which show that when persons who have lived habitually in the country are suddenly transferred to life in a city, dangerous illness is sometimes caused which the symptoms show are due to irritation of the brain, of which noise is the only apparent cause; while examples of the lesser degrees of nervous perturbation from this cause are often witnessed here in persons who, after living for years in the dead silence of the bush, repair to this city for change. Another and quite serious effect of street noises

noises is interference with sleep. Persons who live by manual labour, and who become in consequence muscle-tired, sleep soundly and disregard noises; but persons whose occupation leaves them brain-tired are not able to neglect the impressions constantly poured through the ear into an irritable brain, and they lose their sleep. This, as has been recently pointed out, tends to habits of drinking. Alcohol is taken late at night in order to induce sleep; or early in the morning in order to dispel the uncomfortable effects of want of sleep. The uniform experience of all such persons as those here indicated cannot be disregarded, even by those whose general robustness enables them to believe that they are indifferent to noise, on the ground that the former are in reality not quite healthy. Noise adds to the fatigue which the day's occupations bring to every brain; and as it is an unnecessary cause of fatigue, it by just so much impairs the usefulness of every individual. The practical importance of this subject is as yet by no means generally recognized. The degree of noise which any pavement causes is, then, a most important consideration in judging its fitness. Sett-paving is by far the noisiest; asphalt by far the least noisy. Asphalt is a bad conductor of sound; and, in fact, owing in part to that property and in part to its smoothness, almost the only noise caused by it is the sharp click of horses' hoofs upon it. Wood compares unfavourably both with asphalt and with well-formed macadam in this respect. If the material with which a road is paved be either too rough or too smooth it endangers life directly by causing horses and foot passengers to trip or slip; and if it be too smooth accidents are caused through the inability of the horses to check themselves promptly. Wood and monolithic asphalt are both slippery, but under different conditions. Strictly, asphalt is not slippery either wet or dry; but a slight shower renders it slippery, if it be not kept perfectly clean, by combining with the dust and coating it with a layer of mud of greasy consistency. As soon as it becomes thoroughly wetted the slipperiness disappears. But dirt enough to produce this effect should never be found on this kind of pavement, except for a short distance from the point where it joins some other kind, from which the traffic carries the mud on to the asphalt. It is stated that fewer horses fall on asphalt than on granite and hurt themselves less.* A wood pavement is more or less slippery when it is slightly wet from the mud, and when it is quite wet its state is no better; added to this it takes very long to dry.† The degree of slipperiness depends partly upon the kind of wood used; very hard woods are the most dangerous, but soft woods are not markedly better. Nevertheless, the general opinion seems to be that wood is on the whole somewhat less slippery than asphalt. The above-named conditions of cleanliness, quietness, and surety of foothold, bear directly upon the public health; the following bear upon the public welfare, involving questions of economy, and touch health only indirectly for the most part. The question of first cost and maintenance cannot be discussed here. It may be observed that the question is complicated in various ways; and that that paving which is indisputably the least costly to put down and maintain is not necessarily the least costly to the community. Thus a pavement which causes the accumulation of an excessive amount of filth, or which is excessively difficult to cleanse, gives rise to heavy charges for scavenging which may easily outweigh the advantages yielded by cheapness of material or construction in the first place. So also a road which makes haulage difficult causes the expense of it to be vastly in excess of the engineer's estimate, for the loss of time and horse-power thus caused do not appear in his calculations. The amount of detritus yielded by different kinds of road is one of the most important of these considerations. It causes expense for mere sweeping and removal in the following proportion according to the cost of labour in different cities: one load of refuse is removed under similar circumstances of weather, traffic, &c., from 344 square yards of macadam, 500 square yards granite cubing, 1,666 square yards wood, and 4,000 square yards monolithic asphalt (Heywood). The amount of labour necessary to gather one load would probably be greatest on asphalt; but the labour necessary to cleanse equal surfaces of these roads would be least in the following order; asphalt, wood, granite, macadam. But the degree of cleansing possible in any reasonable sanitary sense is far greater for asphalt than for any of the others. The relative positions assignable from this point of view to wood, granite, and macadam are not easily defined. Wood, however,

* Colonel Heywood, City Engineer, city of London, quoted by E. B. Bell, Esq., C.E., *The Building News*, 1881, vol. II., p. 85.

† See Professor Liversidge's experiments upon this point, pages 37 to 40.

however, presents the largest extent of retentive surface, which is also absorbent, and it cannot be cleansed by any known process; the retentive surface exposed by granite consists of the filling between the cubes alone, which, however, is equal to not less than one-third of the total area of the road; absorption and difficulty of cleansing are of course very great in the case of macadam, but the drainage which this kind of road admits of avoids retention to a great extent and so diminishes putrefaction. Special arrangements are necessary to prevent the entry of road detritus into the sewers and drains from which its removal is vastly more expensive. It also stops them, or more correctly, impairs their carrying capacity; and when washed down to an outlet in navigable waters the quantity derived from some kinds of road is so great that the channels are silted up. Thus the macadamised roads in Birmingham (red sandstone) yielded in the settlement tanks, constructed to collect such matters, 360 cubic yards of mud holding 80 per cent. of water or 70 cubic yards dry solid material per diem (Bailey-Denton). This, it is true, is an extraordinary instance; but it serves to illustrate the proposition that a good road paving should, among other qualities, possess that of yielding but little detritus. So also a Commission, appointed in 1879 to remedy the pollution of the Seine, drew attention to the increasing deposit of road dust in that river, which was considered equal to a volume of from 200,000 to 300,000 cubic metres of mud per annum. The next of the more important points is the expense incurred for haulage upon different kinds of surface. This was ascertained as far as possible by the Traction on Roads Committee, already referred to, and may be compared with the assistance of the following table:—

| Kind of Road. | Speed per mile per hour. | Draught in pounds per ton of load. |
|---|--------------------------|------------------------------------|
| Granite setts by side of tramway | 2·87 | 44·752 |
| Asphalt (monolithic) | 3·56 | 69·753 |
| Wood blocks | 3·339 | 106·880 |
| Good gravelly macadam road | 3·45 | 114·322 |
| Granite macadam newly laid | 3·507 | 259·008 |

The expenses caused by difficult haulage are due to the larger number of horses necessary, the more time expended, and greater wear and tear of both horses and vehicles; these are avoidable expenses and are reduced to the minimum upon waterways. Upon roadways, they are least upon tramways (which, however, do not exist for this purpose save in a few Italian towns), and next upon asphalt.

4. The previous section serves rather to indicate the extent and importance of the influence which roadways exert upon the public health and welfare than to define it exactly; nor is this occasion of a special enquiry into the suitability of a particular material for paving one upon which these general considerations need be very fully entered upon. But in order that the opinion to be given may be reasonably intelligible it is necessary that the general conditions with reference to which it is formed should be recalled to your mind; and it is only needful to add that in reflecting upon the real value of certain of them which may appear, at first sight, of insignificant weight, it must not be forgotten that they are to be regarded not as they affect the individual alone but as they affect so many hundred thousand persons. In other words the small impairment of effective working power which is in any individual case negligible, becomes when repeated in a large number of cases an appreciable and very serious loss. It does not seem of much consequence, to use a familiar illustration, that one man should be 5 minutes late in beginning work, but every large employer of labour is alive to the fact that if 600 hands are all of them 5 minutes late, he loses time in consequence equal to five 'days' labour of one man. When such trivial losses are multiplied by thousands they are proportionately more serious; and when they are occasioned, not so much perhaps by illness as by disinclination for work, and loss of power to work rapidly or effectively, the less energetic enemies to health (such as noise for instance) which habitually produce just these effects, are in this way set in their true light.

5. The following table is intended to show what a model pavement should be and the degree in which each of the four kinds of pavement in common use approach it. The four columns having reference to the latter have been compiled from well-known works or reports upon this subject. But it has not always been easy to decide

decide upon the comparative merits of the four different kinds because with one exception they depend upon the conditions to which they are exposed rather than upon their intrinsic nature; upon the whole, however, the table is sufficiently correct for the purpose which it is here intended to serve. The question of cost is unanswered, not only because it depends in all cases upon local circumstances largely, but because as has already been pointed out any calculation of the cost of a roadway based merely upon the items of laying, maintenance, and cleansing, is fallacious:—

| A model road pavement | Granite sett paving. | Monolithic (sheet) asphalt. | Wood-blocks. | Macadam. |
|---|---|------------------------------------|--|---------------------------------------|
| Should be impervious.* | Joints pervious, equal to one-third of whole surface, and retentive | Impervious. | Absorbent and retentive. | Pervious. |
| Should afford good foothold. | Fairly good. | Good. | Variable with moisture and kind of wood. | Good. |
| Should be hard. | Too hard, injuring horses feet, and vehicles. | Hard and elastic. | Not sufficiently hard. | Soft. |
| Should offer little resistance to traction. | Considerable. | Little. | Variable with age, &c. | Medium. |
| Should be noiseless. | The most noisy. | The least noisy. | Less than granite; more than asphalt. | Less than granite; more than asphalt. |
| Should be cheap. | ? | ? | ? | ? |
| Should yield no detritus. | Less than macadam more than wood or asphalt. | Yields least detritus. | Least except asphalt. | Yields most detritus. |
| The surface should be easily cleansed. | Less easily than asphalt. | Most easily cleansed. | Not easily cleansed. | Not easily cleansed. |
| Should suit all traffic. | Practically suits all. | Suits all traffic. | Does not suit very heavy traffic. | Not heavy traffic. |
| Should be adapted to every grade. | Not to very steep grades. | Grades must not be more than 1-50. | Not to very steep grades. | All grades. |

From this comparative statement it appears that no one pavement has all the qualities which are necessary to make a perfect pavement. Monolithic asphalt comes nearest to the model. It is the only material which can be kept perfectly clean, and it costs less for cleansing than any other. In point of hardness, smoothness, and noiselessness, it is unmatched. But it is adapted only to low grades—grades so low that it is practically useless in this city except for the sidewalks; and this failure depends upon the qualities of smoothness and hardness which, important as they are in other respects, render the foothold comparatively insecure. In

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* With regard to "perviousness," it is necessary to observe that the action of various materials upon the solution of organic filth permeating them is not the same. Sheet asphalt, being impervious, has no action upon it. Macadam causes its oxidation and destruction by a contact action which is similar to that by means of which water is purified in a filter; but when it is absorbed by wood it fills the interstices, is retained, and undergoes putrefactive fermentation instead of the complete oxidation which renders it harmless. The same kind of action takes place in the joints of sett-paving as in macadam, but in a less degree because the acting surface is less.

a similar way each other kind of material may be criticised. Some objections, varying in character with the kind of road, appear in all; and these are only in part overcome by varying the material with the kind of country over which the road is taken, and with the kind of traffic for which it will be chiefly used. Whatever material is chosen from among those which, up to this date are available, the pavement made with it must be a compromise. There is at present no pavement which can be called "best"; only some kinds are less objectionable than others.

6. It is most convenient to consider at this point what the construction of a wood pavement should be; and so to define what it is exactly that your Board understands by the term "wood pavement." It does not mean, to any ears, a cord road any more than it means that primitive paving which, consisting of undressed cross sections of the trunks and the thicker branches of trees, was used by the Russians more than a century ago, and which within living memory still covered the upper part of King-street in this city. Nor does your Board understand by it the blocks of wood unprepared except by squaring, which, laid upon a thin layer of sand and having the joints filled with gravel and tar, constitute what is called wood paving in all or nearly all cities in the United States. Wood, being an organic body, is prone to decay; it decays more quickly in the presence of moisture, and most quickly when that moisture is impregnated with the special compounds which excremental matters yield. What precautions in laying a wood pavement does this knowledge show to be necessary? Evidently that it must rest upon a waterproof layer; that that layer must be firmly supported so as to avoid the formation of hollows; that the blocks must be kept in close contact with each other so that liquids may not lodge between and under them; and that for the same purpose the interstices must be filled with a waterproof and elastic material not easily dislodged by traffic. The surface still remains unprotected; and as wood is a porous body its substance must be filled with some material which will prevent the absorption of liquids, if any such be practically available. But the structure of wood is such that under the repeated blows of traffic its fibres separate just as the handle of a chisel if struck with iron frays out at the end, and at last presents almost the appearance of the stump of a painter's brush; so that unless this fraying can be prevented it is of little use to impregnate each string of fibre with waterproof matter since the bundles of adjacent strings will hold in their interstices just that putrescible solution of filth which must be carefully removed from all roads but more especially from wood roads. The blows which produce this effect upon wood paving are struck in part by the feet of the horses; but chiefly, for practical effect, by the wheels which strike heavier or lighter blows in proportion to the rate of speed and the smoothness or roughness of the surface. A smooth surface then is essential to wood paving; and for this reason the courses must be set almost as close as possible. They cannot be set quite close as the joints are, or it would be practically impossible to travel over them. But on the other hand chamfering to improve the foothold is quite inadmissible, and has indeed long ago been finally condemned. A road of chamfered blocks wears out much more quickly than one of square blocks; but this is not the greatest objection to chamfering from a sanitary point of view. The intervals thus produced cause the wheels to rebound and to strike those blows which separate the fibres, and so leads to the retention of the filth. The above requirements are plainly those which must be fulfilled by a wood pavement before the sanitarian can consent to consider seriously whether wood is a proper material to use for the intended purpose; and the following are the details of construction which, according to Sir Robert Rawlinson, K.C.B., and other eminent engineers, are necessary. The foundation must be absolutely true, firm, and sound; one compacted by ramming alone must be rejected entirely. Nor must the kind to be recommended be overlaid with any layer of sand or of boards (Nicholson's pavement). It should consist of sound cement-concrete (Rawlinson), or fresh-ground lias lime-concrete (Copland), which should have ten or twelve days to set. Upon this should be laid a waterproof layer of tar-felt (Rawlinson), or of $\frac{1}{3}$ -inch asphalt (Copland), the latter being also approved by Rawlinson. The former deadens the vibration of wood; but asphalt answers this purpose quite as well, and has the additional advantage of elastic solidity. A layer of tar-felt should be placed in the joints and courses (Rawlinson), and both should be set close; or (and this seems preferable) the joints should be close, the courses $\frac{2}{3}$ of an inch wide, and both sealed by pouring in liquid asphalt hot enough to unite with the asphalt layer over the foundation. In this way the
road

road surface is made into one sheet, which, while it is perfectly waterproof so far as earth vapour and the percolation of water between the blocks is concerned, is also sufficiently firm and sufficiently elastic to avoid dislocation by wear or by the expansion and contraction due to variations in temperature. The kind of wood, as regards texture, which is considered most suitable is the softer kind. Rawlinson and others condemn woods of distinctly hard grain, partly on account of their slipperiness, and partly because they unnecessarily jar the vehicles passing over them. The former objection is the most important, since, as has already been shown, it cannot be obviated by increasing the width of the courses or by chamfering without inducing other and still more serious evils. A road thus laid is waterproof as far as it can be rendered so in course of construction, and no road not so constructed is worth serious consideration from a sanitary point of view. But the porous and destructible nature of the material itself remains; and the various methods which have from time to time been adopted with a view of rendering wood (but not wood pavements in particular) durable and waterproof have still to be considered. It is not necessary to enter into this subject here; the very number of the various processes invented for this purpose suggests that not one has yet been discovered which is quite satisfactory. For the preservation of wood used for paving nothing seems to be so good as dead-oil; but, notwithstanding the 5 or 6 per cent. of phenol and cresol which this body should contain, although it delays decay it does not prevent it. Certain of its constituents absorb oxygen and resinify within the pores of the wood, and therefore prevent the free circulation of air and water within them; the phenols named coagulate and combine with the albuminoid constituents of the fibres; but upon the whole, the practical opinion held seems to be expressed with sufficient accuracy in the extract (*Appendix A*, page 44) from the report of the Commission appointed to investigate the wood-pavements of Boston, U.S.A., where it is stated that the Commission had not been able to find a preservative process cheap enough to be recommended without qualification. Not only is the process of impregnating wood with dead-oil comparatively slow and expensive, but the wood itself must be first artificially dried if the impregnation is to be thorough; and 10·5 blocks of the most approved dimensions, or 3 x 6 x 9 inches, which are equal to a cubic foot nearly, will absorb at least ten pounds (or one gallon) of oil. The wood-pavements laid in the streets of Sydney are not constructed upon the principles just described. The blocks are painted with tar, and they are laid upon a cement concrete foundation, of which the surface is floated level with $\frac{3}{4}$ of an inch of cement and sharp river sand in the proportion of 2 to 1; and the courses are filled with a mixture of blue metal screenings, or gravel, and pitch tempered with tar, heavily rammed.* Your Board begs leave to point out that this defective method of construction leaving the blocks open to the entrance of moisture to them from the earth below, and to the percolation of street filth from above, except (in the latter case only) for a short time after the pavement is laid, renders it possible to predict with great certainty what the state of the blocks and of the bed will be found to be on examination. What that state actually is will be shown later; it is desired only to point out in this place that a wood-pavement thus constructed with what are well-known defects is, in view of the special weaknesses of this material, beneath serious criticism. It cannot be dry under these circumstances, and the moisture wetting and impregnating it must be a solution of organic filth of the most offensive, and of a very dangerous, kind; common sense, quite independent of special knowledge, condemns it. It is necessary to add here that the City Surveyor in an able and interesting report (*Appendix B*, page 45), presented by him to the City Council in 1881, shows that he is alive to the considerations here pointed out, and that in recommending the system of the Asphalt Wood Company (or Copland's), he did what could be done to secure a pavement laid upon correct principles and in one of the best ways.

7. Such small evidence of a direct kind as exists, showing that woodpaving has exerted harmful effect upon the public health may now be reviewed; but it must not be forgotten that, for reasons fully given under section 2, much evidence of this satisfactory kind cannot possibly be forthcoming, nor must it be forgotten that direct evidence is not in this and in many other subjects of State Medicine necessary, although it may for a purpose of demonstration be desirable; but that indirect evidence or argument from analogy is often scarcely less strong. It is so in the

*See page 58, "Road Pavements in Sydney," by A. C. Mountain, City Engineer. A paper read before the Engineering Association of New South Wales, March 13th, 1884.

the present case. Memphis, Tennessee, is a city which has been often visited by yellow fever, but in 1878-9 it suffered so severely from this disease that the National Board of Health of the United States despatched a Commission consisting of eminent physicians to report upon its sanitary condition. The report of this Commission constitutes the 3rd supplement to the Weekly Bulletins of the Board; and while it shows that the general state of the city as to construction, drainage, scavenging, and unremedied natural disadvantages was exceedingly bad, no reference is anywhere made to the wood with which very many of the roads (as it appears from other sources) were paved. The only reference to road-paving made by the Commission is contained in the following recommendation, that "with the exception of those devoted to heavy traffic, all streets should be constructed of Paducah gravel laid on a properly shaped road-bed, after the subsoil drains have been established, and that the gutters and kerbs should be made of concrete." This Commission sat from November 24th, 1879, to January 3rd, 1880. Dr. G. B. Thornton, the President of the Board of Health in Memphis, nevertheless wrote in his Annual Report for the year 1882, dated 1883: "From a sanitary point of view I respectfully urge upon the Council the necessity of taking up the rotting blocks and *débris* on these streets before warm weather sets in, and replacing them with some character of stone pavement. This (and improved drainage, which Dr. Thornton mentions elsewhere) I consider essential to the thorough sanitation the city must enjoy to reach the theoretic standard of death-rate for both races." And he adds that, "the decline in deaths from malarial and miasmatic fevers over that of '80 and '81 I attribute in a great measure to the getting rid of the decayed Nicholson pavement. What remains of it I cannot but regard as an exciting cause for the continuance of these fevers. The two or more miles of this decayed and rotting pavement * * * should be removed * * * and replaced by stone * * * which, while it may be more expensive and more noisy, * * * is less absorbent and less liable to give off miasms. * * *" So also Dr. O. W. Wight, Health Officer of Detroit, U.S.A., in a report presented by him to the City Council, condemns the wood-paving of that city. He concludes by saying that wood-blocks absorb water and the infusion of horse-dung which it makes, urine, &c., the lower ends rapidly become covered with a white fungus, and the whole block saturated with moisture holding organic matter in solution which putresces during the warm weather and adds to the unhealthiness of the city. The interstices of the blocks and the perforations of decay allow water to pass down and saturate the subsoil, the blocks getting separated by the concussion of traffic. Dr. Wight quotes Professor Brewer, of Yale College, who also, doubtless, draws his opinion from his experience of American pavements, and who says that "a white fungus growth begins on the surface, which rapidly becomes slimy. This fungus grows more rapidly upon the end of the grain than upon the radial or tangential sides. Heartwood and sapwood behave alike in this respect, the difference being one of degree only. The growth continues and the wood remains offensive until decay is complete." Other similar reports and observations made in cities of the United States, ascribing the prevalence of fevers to this pavement, might be cited; but it will perhaps be sufficient to say that there is practically no difference of opinion between the writers, and that wood pavements are condemned in America, both by society and by scientific men. But it will not escape your observation that the quotations here made use terms in speaking of these pavements, which, if they are not exaggerated, show its state to be such as would not for a day be tolerated either in this city or in London, or in many other places in which wood paving has been used now for many years; and that up to the present date no such direct evidence as is furnished from America has, to the knowledge of your Board, been offered from any other part of the world. There must then be some very striking difference between the pavements in use there and elsewhere; and the following enumeration of the kinds generally laid, or rather of the manner in which they are laid, in American cities, will show what that difference consists in. Lieutenant-Colonel Gillmore in his work "Roads, Streets, and Pavements, 1876," deals at length with the subject of wood paving. He describes no method of construction which includes a solid foundation, or water-tight joints. He describes the Nicholson and the Stowe pavements at length. The former consists of sand compacted by ramming, over which is laid a flooring of pine boards, and on these the blocks, the joints being filled with gravel and coal-tar. The latter dispenses with the flooring boards, and the blocks are fixed by wedges. The
Nicholson

Nicholson paving was used in London by the Improved Wood-paving Company, but in 1876 the Chairman wrote to "The Builder" to say that the soil sank under the boards and dislocated the blocks, and that they had relinquished this feature in favour of a concrete foundation. Mr. Chesborough, City Engineer of Chicago, quoted by Colonel Gillmore, enumerates several kinds of American paving, none of which has a solid foundation or any water-proofing. Mr. E. P. North having read a paper on the construction and maintenance of wood-paving before the American Society of Civil Engineers in 1880, Mr. R. E. Andrews during the discussion which ensued condemned the American modes of laying in detail. Among other things, he said, that "almost without exception green or wet blocks are used more or less thoroughly dipped in tar on a bed of sand not always well rammed and with or without the interposition of a tarred pine board with transverse joints from 1 to 1½ inch wide, filled with gravel and coal tar, and I might add the whole done in most unworkmanlike manner." So also when the report above quoted of Dr. Wight, of Detroit, was reprinted, in so far as it concerned wood-paving in the London Sanitary Record, Sir Robert Rawlinson at once wrote to that journal and pointed out that although Dr. Wight's condemnation of the specimen under his notice was quite proper it did not by any means justify him in condemning all wood-paving in the same terms. Thus it appears that the American evidence upon this subject is not quite of the force which at first sight it appears to have. It goes as nearly as possible to prove that wood-paving unintelligently constructed is a source of disease; but it may be assumed that no person who has reflected upon the subject ever has supported the view that streets covered with rotten wood, saturated with manure and constantly wet, are harmless. The true value of this evidence is to show, not that all cities adopting wood-paving must suffer in the same way, but that wood is a dangerous material to use in proportion to its powers of absorption and to its liability to decay.

8. The actual state of the wood-paving now lying in some of the streets of Sydney has been carefully examined by your Board. The main points to be ascertained by them were whether the mode of construction permits the penetration of moisture to the blocks from below, and the percolation and collection of street-filth about them from above, and whether the blocks themselves had absorbed organic matter. For this purpose, ten blocks were raised by your Board in different localities, and, having been carefully numbered, were removed for examination (see page 22). In all cases the concrete bed was moist which in some cases your Board was informed was due to "sweating," *i.e.*, the rise of moisture from the earth through this porous material. In three cases of blocks taken up at various points in Parramatta-street, none of which were close to the tram-lines but about mid-way between the nearest line and the gutter, there was a large amount of slimy mud, which in all cases emitted the ammoniacal odour which indicates contamination with animal excreta. In all of these the joints and courses appeared to be uninjured. In all cases the upper surfaces of the blocks were worn and the fibres more or less separated to a depth of one-fourth of an inch or more, according as the edges or centres of the surface were regarded. In many places in the immediate neighbourhood of the tram lines the blocks were loose and the grouting between them destroyed, and at the bottom of these joints much water and filth could be seen without removing the blocks. So far as construction is concerned this is found by your Board not to be such as is calculated to ensure the dryness without which wood decays rapidly; and it is apparently unable to withstand the vibration of the adjacent tram lines. The lodgment of filth observed in the latter positions is regarded by them as being of quite serious proportions. The chemical examination of the blocks having for its object to ascertain whether they actually had absorbed organic matter, was entrusted to Professor Liversidge, F.R.S., and Mr. Dixon, F.C.S. The result of their observations (which are published at length at pp. 37-41) may be summarised as follows; the reports furnished also contain a description of the appearance of the blocks. The ten blocks having been numbered consecutively from 1 to 10, No. 3, hardwood, taken from King-street, opposite the Arcade; No. 5, spotted gum, from Pitt-street, opposite Cunningham & Co.'s Printing Works; No. 9, black-butt, Parramatta-street, opposite Cohen's pawnshop; and No. 10, turpentine or black-butt (see *Appendix H*), taken up near Buckland-street, Parramatta-street, were forwarded to Professor Liversidge. All these blocks were frayed to a depth of about ¼ inch. They were all cracked

cracked or fissured over the surface generally. They were all stained more or less deeply; the stain did not follow the cracks in the case of blocks 3 and 5. In blocks 9 and 10 the stain was uniformly diffused, and in addition did follow the cracks, or, in other words, was more intense on each side of each crack than elsewhere. These latter blocks are those which were removed from Parramatta-street, and which were found to be standing in much moisture and slimy mud at the time of raising. In order to ascertain exactly the depth to which the staining went, half of each block was sawn into narrow strips. It was found that the staining diminished in area regularly as each successive strip came nearer to the centre of the block; and the area of unstained wood occupied the centre of each strip. This showed that the absorption which caused the staining had taken place equally on every side of the block; it shows therefore that had the construction been such as to keep the sides and bottom dry, still absorption would have taken place from the upper or running surface and the complete staining of these blocks throughout would by such improved construction be delayed only, and not prevented. These stains were plainly due to the absorption of street filth, and were proportional to the persistence and amount of filth bathing them, as appears from comparison of blocks 3 and 5 with blocks 9 and 10. They were, however, in the next place, analysed in order to ascertain the exact nature of the stain, and whether parts unstained were really as free from impregnation as they appeared to be to the eye. The method pursued was as follows:—Each half of each block having been cut into strips of $\frac{3}{16}$ of an inch in thickness longitudinally, each strip was numbered with the number of the block from which it was cut, and the strips afforded by each block were in addition lettered alphabetically beginning with the outside strip. The presence of what are called nitrites, indicate the presence of nitrogenous organic matter (or, in this case, excremental filth) in a state of decomposition; nitrites were accordingly first sought for. They were found abundantly present in strips 3 B, 5 B, 9 B, 9 C, 10 B. These strips had all of them their outermost edges attached; they were certainly impregnated with fermenting filth to a small depth. But how deeply did this impregnation extend? In order to answer this question shavings were turned out of the central parts of the blocks. Any nitrites found in the wood taken thus from the heart of each block could not be derived from smearing of the surface or from quite superficial soakage; they must be due to a real impregnation of the whole block, if found at all. In this way it was found that blocks 5 and 9 yielded traces of nitrites, while blocks 3 and 10 were perfectly free. Blocks 5 and 9 had therefore absorbed, even to their very centres, organic filth; but of course the quantity was much smaller there than at the edges. The process of absorption in fact was not complete, but unmistakably, was in process of completion. And here it must be carefully noted that these blocks 5 and 9 came respectively from King-street and from a foundation which appeared to be clean at the time of examination, and from Parramatta-street, where there was much moisture and filth emitting ammoniacal (urinous) odours under the block. So that from this experiment some evidence may be derived to show that even if the mode of construction had been of the best known kind and quite sufficient to prevent the collection of filth about the bases of the blocks, yet that contact of filth with the running surface alone would be sufficient to impregnate the blocks to their very centre. Chlorine is an element which is present in large quantity, both in sea water and in urine, but it does not exist naturally in wood, except in very small quantity. Its presence in considerable quantity in the blocks is, therefore, a certain indication that absorption of a fluid containing chlorine has taken place. Whether this fluid be sea water or be urine could not of course be settled from the mere presence of the chlorine. But at all events it is clear that whether the chlorine found in any particular case be due to sea water or to urine or to the two together is dependent upon merely accidental circumstances; and the conditions of road traffic show that in any given case chlorine found in wood blocks in this city would most probably be due to the presence of both the fluids named. But the true significance of the chlorine found in these blocks is derived from considering the already ascertained presence of the nitrites in conjunction with it; these were found throughout the blocks; and any chlorine accompanying them must therefore be derived in part from road filth, although a part might be due to sea water. And, quite in accordance with this recognised method of reading such analyses as these, while all the central shavings yielded chlorine, blocks 5 and 9 yielded the largest proportion—the very blocks
from

from whose central shavings most nitrites had been obtained. More forcible evidence that these blocks have absorbed organic filth even to their centres could scarcely be imagined; and, if anything be wanting for the present practical purpose of your Board, that is supplied by the fact that these two blocks were found at the time of removal to occupy very different apparent relations to the amount of filth around them; one actually standing in wet mud, the other standing upon a foundation as perfect as when it was laid, moist, but to the eye quite clean. Two or three other bodies were tested for which need not be described here. The aqueous extract (or evaporated infusion) of the central strips (3 G, 5 F, 9 F, and 10 G; and 3 E, 5 E, 9 E, and 10 E), on being appropriately treated yielded unmistakable evidence of the usual kind of the presence of animal excreta. The terms in which alone this evidence can be expressed, although having a definite and pregnant meaning for the chemist, would not be generally understood. Upon this point, therefore, your Board begs leave to refer you to Professor Liversidge's Report (page 38). Mr. Dixon conducted an independent examination of blocks 1, cedar, from King-street, near the Federal Bank, 4 feet from the gutter; of block 2, cedar, from the same place, but from the middle of the road; and of block 8, Riverstone blue gum, from opposite No. 47 Parramatta-street (page 40). They were sawn, numbered, and lettered as already described. Nos. 1 and 2 were blocks of cedar, and their analysis showed that while chlorides were abundantly present, nitrites were entirely absent. This, as Mr. Dixon points out, probably shows that putrefaction had not in the case of this wood proceeded to an appreciable extent. But it is not to be taken as showing that absorption had not taken place; and in fact, upon being examined by Dr. Morris, he found that it yielded under suitable treatment as many organisms of putrefaction as other blocks in which putrefaction had occurred, and in similar forms, only their development from the chips of cedar blocks took much longer (24 hours as against 6 hours) than their development from blocks of other kinds of wood. In the case of block 8 Mr. Dixon arrived at precisely the same result as has already been described in reviewing Professor Liversidge's Report; it is unnecessary, therefore, to repeat it. Mr. Dixon, too, found both nitrites and chlorides in the central portions of this block, but in smaller proportion, of course, than in a section which was entire and therefore included the outside edges. All of these blocks, too, were cracked, and worn as well on the upper surfaces, and Mr. Dixon noticed that a stain continued into the wood from the bottom of each crack, following the same direction, and extending to four or five times the length of the crack. In addition to the analyses Professor Liversidge added certain experiments with a view of ascertaining the powers of absorbing water possessed by local hard grained woods; and he found that hardwood blocks can and do absorb a large quantity of liquid even in a comparatively short time.* The microscopical examination of the blocks was entrusted to Dr. Morris (pp. 40-41.) He found in abundance those minute forms of life which are everywhere associated with the decay of organic matter. On putting an infusion of the chips from some of the blocks through the process known as that of cultivation, the fluid, which immediately after its preparation was perfectly clear, bright, and inoffensive, in so short a space of time as six hours became hazy and offensive to the smell; and the haziness was found upon examination to be caused by the presence of an infinite multitude of the organisms of putrefaction. He thus demonstrated, under conditions which allowed of an exact description of the result, the process which is always going on wherever wood is found saturated with organic filth—that is to say, in the streets of this city; and he found these organisms not only in the blocks which, by chemical examination, had been found to be impregnated with decomposing filth, but also in the cedar blocks in which the chemical examination had failed to detect the same impregnation. The cedar had resisted decomposition; but how long it would continue to do so is not known to your Board. Only Dr. Morris's experiment may be taken to show that this power is not absolute but that in course of time putrefaction would occur. You will observe that this chemical and microscopical examination of the wood blocks actually present in this city affords evidence obtained by three different members of your Board independently of each other, which is not only concordant but is precisely such as from other considerations your Board was led to expect.

9.

* See Professor Liversidge's Report, page 37.

9. The properties of wood in relation to disease are known to be such as encourage the growth of the causes of disease, which themselves belong to the vegetable kingdom, to favour their accumulation and to ensure their spread. Perhaps the best known illustration of this subject which can be given is derived from the conditions under which the cause of ague, or the intermittent fevers, is seen to be most active. These are described by an eminent authority (Dr. W. C. Maclean) as follows: "Malaria has generally been said to be the product of heat, moisture, and vegetable decomposition," and it is in localities which supply these three conditions that such fevers are most prevalent and most fatal as a rule. The same writer records the example of a ship on board which a fatal form of yellow malarial fever occurred and of which the timbers were on examination found to be in a state of decay, and permeated by fungi of a white or cream colour, giving off an offensive and sickening odour. The fact that moisture between decks is a source of illness is so well known that salt water (which cannot be dried at sea) is never used there; and when it is considered necessary to scrub the decks in that situation, fresh water is used and is artificially dried by the use of hot sand. The floors of hospital wards should never be wetted because it is known that when they are frequently washed certain diseases show themselves among the patients, and are liable even to assume the endemic (or permanent) form. It has been found necessary in consequence to construct these floors of very hard wood, to dress them with wax and turpentine, and to restrict cleansing to dry rubbing or occasional scraping. Certain diseases are known to penetrate and cling to wood—in other words to live in wood; as for instance yellow-fever. Wood decays much more rapidly if it be alternately wetted and dried than if it be constantly wet; but it decays most rapidly when it is in contact with certain excremental products of the animal body. It is upon such grounds as these that wood as a material for street paving has been condemned by all sanitarians who have considered the subject. The Professor of Hygiène in the College of Montpellier, France, is one of those who has spoken most forcibly in condemnation of wood-paving upon these grounds. His words have often been quoted, and need scarcely be repeated here; they are clear, forcible, and unmistakable. So also spoke the Committee of the Society of Arts already quoted; upon this subject their Report concludes by saying that "the sanitary evidence will be found to be clear, consistent, and decidedly against it."

10. Your Board therefore begs leave to express the opinion, based upon all of the foregoing considerations, that wood is a material which cannot be safely used for paving unless it can be rendered absolutely impermeable to moisture, and so laid that while the entrance of water between the blocks is rendered impossible the separation of the fibres at the surface by the concussion of traffic is also effectually prevented. These conditions have nowhere, to the knowledge of your Board, been fulfilled. In this city no attempt to fulfil them has been made; and the analyses show that the blocks in actual use here have absorbed an amount of organic filth which is large in comparison with the short time during which they have been laid, and which is distributed throughout the blocks in such a manner as shows that their complete impregnation is only a matter of time. The foul and dangerous processes to which this impregnation of the wood gives rise when with it is combined alternate wetting and more or less thorough drying by the sun, and the construction which, while it does nothing to exclude the air entirely, of necessity interferes with its free circulation, are well shown by Dr. Morris's experiment already referred to; and it is perhaps well to point out that the use of sea-water to lay the dust is so far from tending to prevent these processes that in addition to introducing the organisms proper to sea-water where otherwise they would not be found, it appears to have given rise to certain forms of life which hitherto have not been recognized and which flourish in conjunction with the better known forms both of fresh and salt water. In offering this opinion your Board has certain advantages which wood-pavement offers in comparison with other kinds in mind; and does not lose sight of the fact already here recognized, that every pavement is a compromise. But before a given material or mode of construction can be scientifically admitted as an alternative to other kinds and to other modes, it must be shown that its admitted defects are remediable or that they are of no greater consequence than the defects of every other available material. Neither has been shown in the case of wood. So far as the careful researches of your Board go the porous, absorbent, and destructible nature of wood

wood must in their opinion be declared to be irremediable by any process at present known; nor, were any such process discovered, would it be effectual unless it were supplemented by another which should prevent fraying of the fibre. Still less can the defects of wood be considered to be of less consequence than the defects of other kinds of material. The covering of roadways to a vast extent of surface with decaying vegetable material has been shown in the United States to be a cause of malarial fever, and an aggravation to yellow fever, in a degree of probability which is very high; and these results are such as knowledge of the usual effects of decaying vegetable matter under other but similar circumstances would lead your Board to anticipate. Wood, then, should not be accepted as an alternative to other materials; and if in other climates than that of the American cities referred to, and under other modes of construction than are used in Sydney, the same effects are not known as yet to have followed, it must not be forgotten either that wood-paving has nowhere been so largely used in proportion to other kinds as in America or that the disastrous and obvious effects noticed in that country are not the only serious effects which wood may cause. In this city it may perhaps be considered that an amount of wood has not yet been laid sufficient to affect the public health, whatever its condition within reasonable limits may be; and upon this ground your Board does not recommend that the present paving should be removed, but that the Board of Health should be empowered to examine it, and to report upon it, from time to time, with a view of ascertaining its behaviour under longer exposure to weather and traffic than it has yet had; and that it should be no longer watered but cleansed by sweeping at least twice a day (the sweeping to be done at right angle to the direction of the street, or parallel to the courses, so that the latter may be cleared out by the broom) in order that destructive dampness and penetration of dissolved organic matter may be reduced as much as possible. But the presumption is, upon the evidence here adduced, that in this climate the results alluded to would ensue if the extent of surface were sufficiently enlarged or fouling and decay sufficiently extensive. Your Board therefore recommends that the paving of the streets of this city with wood should be discontinued; and desires to add that this recommendation is intended to apply not to the particular mode of construction here adopted alone, but to the material itself, and to every known method of construction.

We have the honour to be,

Sir,

Your most obedient Servants,

CHARLES K. MACKELLAR, Chairman.
 A. LIVERSIDGE.
 WILLIAM MORRIS.
 JAMES BARNET.
 W. A. DIXON.
 J. ASHBURTON THOMPSON.

The Honourable The Colonial Secretary.

November 26, 1884.

WOOD PAVEMENT BOARD.

MINUTES OF PROCEEDINGS.

The Medical Adviser to the Government to The Principal Under Secretary.

Sir, Board of Health Office, 127, Macquarie-street, Sydney, 30 June, 1884.

I have the honor to attach, for the perusal of the Hon. the Colonial Secretary, certain correspondence which has passed between Mr. Burton Bradley, the Honorary Secretary of the Health Society of New South Wales and myself concerning the supposed deleterious effects of wood-paving upon the public health; and as the Municipal authorities are about to enter into contracts for paving a large portion of the city in this manner, I would advise that an investigation of the matter be made by such a scientific Committee as is referred to in the correspondence.

I have, &c.,
CHARLES K. MACKELLAR.

[Enclosures.]

The Medical Adviser to the Government to The Hon. Secretary, Health Society.

Dear Sir, 30 June, 1884.

I have the honor to acknowledge receipt of your letter of the 5th instant, drawing attention to an enclosed copy of a communication concerning the supposed deleterious effects of wood paving received by your Society from Mr. W. B. M'Clure. I very carefully read Mr. M'Clure's letter and the attached extracts, and I have since taken opportunity to familiarise myself, as far as the circumstances would allow, with the hygienic questions concerning street paving generally, and particularly with regard to the proneness of wooden blocks to absorb organic matters, and I have come to the conclusion that the danger likely to arise from paving the streets of this city with Colonial hardwood blocks must be infinitely less than that which has attended the application of wood-paving to the streets of some cities in the United States.

The class of wood pavement used in America—the country from which most of Mr. M'Clure's information seems to have been derived—has been, so far as I am aware, wholly composed of pine, a material notoriously soft, friable, and liable to absorb moisture, whilst our Colonial hardwood is not prone to do either in anything like the same degree. Again, our climate is exceedingly dry, and when the rain does fall it is in such quantities as to most effectually wash and cleanse our streets; but at the same time I am prepared to allow that the fouling of the different kinds of wood pavement is merely a question of degree; in time no doubt any timber would become faulty in that respect.

The fact that the Municipal authorities are about to enter into contracts for the paving of a large portion of the city with wood gives this matter a special importance at the present time. Although, as I have already said, I am by no means clear that the grave consequences which are said to have attended such a proceeding in some other cities are likely to occur here, yet I have nevertheless deemed it my duty to advise the Colonial Secretary to take steps to have the investigation by scientific men carried out as suggested.

I have, &c.,
CHARLES K. MACKELLAR,
President of the Board of Health and Medical Adviser to the Government.

The Hon. Secretary, Health Society, to The Medical Adviser to the Government.

Sir, Health Society of New South Wales, 58 Margaret-street, Sydney, 5 June, 1884.

I have been requested by the Council of this Society to forward to you, for the information of the Government, the enclosed letter of 3rd instant, addressed to me as the Secretary of this Society, by Mr. W. B. M'Clure, and its accompanying extracts from printed and written papers, bearing upon the subject of his warning against the extended use of wood pavements in this city.

I am to observe that my Council, owing to Dr. West's state of health, depriving them of his attendance at their meetings, do not possess technical knowledge enabling them to deal with the subject, which, however, they would commend to the grave consideration of the Government.

I have, &c.,
BURTON BRADLEY,

Hon. Sec.

[Sub-enclosure.]

W. B. M'Clure, Esq., to The Hon. Secretary, Health Society.

Dear Sir,

Normanby House, Wynyard Square, 3 June, 1884.

Enclosed please find extracts from official documents. The originals will be furnished if required.

In view of the facts that the City of Sydney is now authorized by Parliament to borrow the large sum of £200,000, with the evident intention of greatly increasing the area of wood pavements in Sydney, it looks to me, that these facts should engage the attention of thoughtful men, and of all who have an interest in the well being here, and that such persons should insist upon a halt in this matter of extension of wood roadways, and consider what has been the effect of wood pavements in cities of similar climatic conditions, and then proceed to organize a plan to employ a number of scientific Colonial gentlemen, who in the interests of truth and well being of the community, will take up several yards in each street of wood blocks, viz., King-street, Pitt-street, Parramatta-street, examining the sanitary condition of the concrete foundation and subsoil below,—analyse the wood blocks themselves, and thus ascertain if they do or do not already show signs of contamination by animal matter. If such contamination of concrete and blocks is found to exist even in the smallest degree, for the pavements are new, then the people of Sydney should be warned in no uncertain tone of the risk (certain danger) in store for them, because animal matter in a state of putrefaction in connection with wood, insures the rapid decay of the wood, and 50,000 tons of decaying vegetable and animal matter in the streets of Sydney is certain to bring about a most sorrowful state of affairs, and especially are such facts worth the fullest consideration when we remember that in four years at most the Panama Canal will be open for traffic; that much of the trade from Europe, America, and West Indies will come to Sydney *via* that canal; that Vera Cruz, Panama, and the islands of the Caribbean Sea, are the natural home of yellow fever all the year round, a fever so persistent in the tenacity of its life germs, that after twelve months' seclusion, one trunk full of clothing has proved ample to decimate the population of a large city. The people of Sydney have no experience of what it means, being declared an infected port. Your writer has. No vessels arriving or departing, business suspended, the employment nil, nothing to do but attend the sick and bury the dead. Having in the course of my life to twice go through such experiences, it is only natural that I have no wish to renew them. My wish is, that through you, I can warn, and ask the people to think, to pause, and ask why similar conditions elsewhere should not produce similar results here.

Sanitary conditions to be effective must be carried out at those times when most people see no cause for alarm, and therefore the case seems to them to be unnecessary worry and expense.

But note, when these precautionary measures are most successful their greatest value may be the least appreciated should the expected disease not come. The warnings are held as false alarms, the precautions as excessive. Draw upon actual facts for a moment. The friends of a typhoid fever patient will remember and be grateful by the care shown by the doctor who treated the disease, but would have certainly thought the same doctor most intrusive and troublesome had he taken one half the trouble to see that the cause of the fever was prevented.

A man seeks the advice of a doctor because he knows or thinks he is sick. Under like circumstances this community will do the same thing; but how can they be expected to seek hygienic advice when as a community they know nothing of there being any necessity to do so?

It is certain that you will hear that all these dreadful tales of evil of wood pavements from wood pavements in America have no application to Sydney, our climate is so different, our wood is so different, the wood is so hard it cannot be impregnated with street filth.

To which I reply that from a long experience in yellow-fever countries, and wide opportunity of observation in other climates, I feel certain the continued neglect in Sydney of sanitary laws will bring about a state of affairs here most detrimental to the population of the whole Colony. Going on as you are you run a fearful risk; should cholera or yellow-fever be introduced to Sydney it would not only be epidemic but become endemic.

As regards the false assertion Australian woods cannot be impregnated with street filth because of their density, my answer is, density only delays impregnation, but the density cannot prevent the ultimate result of contact with street filth. Every form of wood whether hard or soft is only a collection of vegetable fibre that must contract when dry, expand when wet, and dislocate under the effects of street travel, and it is of the highest importance to the people of Sydney that before they go to vast expense in more wood pavements they stop, consider, and have scientific search into the actual condition of the wood pavements already down and learn where they are tending.

The health of the city of Sydney is a matter of vast importance to the whole colony; therefore the hygienic facts set forth ought to be thought worth the careful consideration of the thoughtful members of Parliament whoever they may be.

Knowing what I do from the practical events of life, seeing what I do as affairs go on here, permit me to offer a suggestion (my wish is to remain wholly unknown): The best course of procedure is to get some earnest Members of Parliament to ask the Government to appoint a Committee of from three to five Members, empowered to call for persons and papers, and that the Committee be instructed to employ Dr. Rennie, Professor Liversidge, Charles Watts, W. A. Dixon, as chemists, to analyse wood blocks, concrete foundations,

foundations, and subsoil, and Dr. W. Morris as microscopist to search for the bacteria, microdescent, or particles that include the contagion of vaccine, and other forms of minute matter liable and apt to be in a mixture of wood and animal matter very highly hurtful to health.

Apologising for these hurried remarks and their want of condensation, yet still hoping that you will find the subject matter worth your attention and instant action, and awaiting your reply,

I am, &c.,

W. B. M'CLURE.

GENERAL GILMORE'S TREATISE ON PAVEMENTS.

A PRACTICAL and general recognition of the fact, so well known in the medical profession and among all ranks of cultured people, that the pavements of a city exert a direct and powerful influence upon the health of its inhabitants has never been secured.

The noisome and noxious exhalations emanating from the putrescent matter, such as horse dung and urine collected and held in the joints of stone pavements, is a sanitary objection to their use. Exceptions to wood pavements may be taken upon the same and even stronger grounds for the material itself undergoes inevitable and sometimes early and rapid decay in the process of which the poisonous gases resulting from vegetable decomposition are thrown off.

Professor Fonsagrives, of Paris, says that the hygienist cannot look favourably upon a street covering consisting of a porous substance capable of absorbing organic matter, and by its own decay giving rise to noxious miasma which proceeding from a large surface cannot be regarded as insignificant. The dust produced by the abrasion and wear of a wooden pavement is regarded by physicians as extremely irritating to the organs of respiration and to the eyes. Being light in weight, wood dust floats longer in the atmosphere and is carried to a greater distance than the dust from other suitable material.

Report of P. Le Neve Foster, Secretary Society for encouragement of Arts and Manufactures :—

"Wood pavements are wet or damp, more or less, except during very continued dry weather. Its structure is admirably adapted to receive and hold, and then give off in evaporation very foul matter which taint the atmosphere and injure health.

"The condition of a pavement being able to absorb moisture is of itself bad, but when the pavement absorbs and retains putrescent matter such as horse dung and urine it is highly noxious."

The Board of Health Committee for Washington, Capital of United States, reported in 1876 as follows :—

Probably four-fifths of our paved streets are paved with wood, varying in kind, some having been treated with antiseptics before being laid. Within three years from the time they were laid every street gave more or less evidence of rapid decomposition, and some of the streets have decayed so rapidly as to give rise to a mass of dangerous putrefaction; the broken surface of the pavements mentioned has allowed the lodgment of animal and vegetable filth between and about the wood blocks, not only increasing the putrefying mass, but adding to the rapidity of decomposition, and from such decomposition arise gases, fungi, infusoria develop which entering the air we breathe, are most poisonous, engendering zymotic diseases, such as typhoid fever, intermittent and malarial fever, dysentery, and diphtheria. The Committee pray that these pavements are removed."

Now the above is the Report of a Board of Local Physicians, known as National Board of Health. Hear further on this. Note well :—

"In 1880, Senor Da Costa, now President of Venezuela, arrived in Sydney on a pleasure tour. He was well-known to the writer as a Spanish Diplomatist, of European reputation, accustomed to all the Courts of Europe, and who had been the Ambassador at Washington at the very time that two million pounds worth of the wood pavements had to be taken up and burned, to save the lives of the people from typhoid and other forms of fever. This gentleman was at 'Petty's Hotel.' I called upon him in company with Mr. Augustus Morris, and Senor Da Costa then and there fully confirmed the above statements, and went further, that the next day he was at lunch with Mr. Stuart (now Premier) and would repeat to him the above assertions. At this lunch Mr. Morris was present, and he assures me that he heard the whole frightful picture of evils of wood pavement in Washington fully stated to Mr. Stuart. Further comment is needless.

Extract from Lecture of M. Leon Malo, of Paris, France, 1880, of Annals of Roads and Bridges :—

"Assuredly the deleterious effects of wood pavements cannot be over-estimated, and are rather to be gauged by inference than by direct figures, but it is none the less dreadful. We cite in support of our opinion, that of the Sanitary Inspector of New York (the celebrated Dr. Raymond), who in his report read before the National Board of Health, formally attributes to the miasmas emanating from the wooden pavements the ravages of the last fever epidemic in New Orleans, which in a few weeks carried off 12,000 people." (See *New York Times*, 24 December, 1878.)

The conditions resulting from opening up old cemeteries in Europe are full of teaching for us if we are only willing to learn from those who have lived before us, for it teaches us how apparently small causes have large results.

It has been proven that seeds 3,000 years old will sprout when planted. Would it not be the veriest hardihood to say that we cannot impart the germs of yellow fever and other diseases and make them endemic when it has been shown that materies morbi can live under ground, may be frozen and boiled without in any way losing vitality, ready on the instant to spring into activity upon meeting its nidus (or nest), vegetable matter in decomposition combined with the animal filth.

Should not these well-ascertained facts cause us to demand a halt, to wait, consider where we are tending. For most of us the grave is close by. Human approbation or dislike is nothing to us. We are actuated only by a desire to do good, to be right, and if our experience, facts learned, are rejected, we can only be sorry for those who will not learn, except from the most severe of teachers' experience.

Appended

Appended as an illustration are copies of certificates from Mr. W. A. Dixon, and Thos. Rowe, architect, showing facts here in Sydney quite worth your attention:—

20 December, 1883.

"I HAVE subjected the wood-paving block handed me by you, with a view to discover how much animal matter had penetrated into the upper part of it. The result is that 1.9% is animal matter; actually the 2% should be taken into consideration as the introduction of animal matter would speedily cause vegetable albuminoids to pass into same condition.

Note:

Same block of wood was only 90 days was then taken up and remained in the office of a most respectable man for two years, all the volatile matters had passed away before subjection to analysis. Is there not cause for thought here, a forecast of the future?

Note:

28 March, 1884.

"From experience of late in using wood blocks for yards, in connection with large warehouses, I have watched the effects, and found that when horses urinate it is immediately absorbed into the timber under the animals' feet.

"In taking up blocks for repairs there is a smell arising from the surface of the concrete foundations, under the wood blocks. I am afraid that this kind of pavement, nice as it appears to be, will in time prove injurious to the health of the citizens.

"The timber referred to is Colonial hardwood, of the best kind, laid with care.

THOS. ROWE."

This last statement is from an honest experienced man, who was naturally slow to give up previously formed ideas.

Examples can be multiplied, but need more be said, investigate should be the word, and learn what is true; wait and see, but search for truth.

The editor of *Buck's Works*, published by Sampson, Low, Scarle, and Rivington, Fleet-street, London, 1883, are full of instructive knowledge on sanitation. The mass of facts shown are so large, and known to the writer from personal experience to be so true, that extracts seem to be impossible. One fact on page 504 is shown—that a merchant imported a lot of bagging for baling cotton, and this action decimated a town.

From a late edition of *London Morning Post*:—

"At a time when every attention is being given to improve the sanitary condition of all large towns, one can but see the spread of wood pavements in the metropolis (London) with much concern and alarm. On the score of health and expense the ratepayers are to be pitied. (See evidence of Sir Joseph Whitforth before the Health of Towns Commissioners; Mr. Edward Chadwick, C.B., Society of Arts report, 1875; report of Mr. Van Mount, Commissioner of Public Works for City of New York, when after spending 2,500,000 dollars in wood pavements, had to burn the whole lot to save the lives of the people.) "Wood is cheap in America, but as pavement is nasty and death-dealing, are we out here unwilling to profit by the experience of other communities; will we not search into what has been done, and see where we as a community are drifting? It will not cost much money to do so. Every careful navigator on a coast makes a land-fall to get his bearings and new departure. Ought not now our thoughtful Sydney men to examine where we are in the matter of public health?"

Submitted, 2/7/84. Dr. Mackellar, Professor Liversidge, Dr. Morris, the Colonial Architect and W. A. Dixon may be invited to peruse these papers, carry out the investigation, and report thereon.—A.S., 3/7/84. The Medical Adviser to the Government, B.C., 16 July, 1884.—C.W.

The Principal Under Secretary to The Medical Adviser to the Government.

Sir,

Colonial Secretary's Office, Sydney, 25 July, 1884.

In reply to your letter of the 19th instant, I am directed to inform you that the Colonial Secretary has appointed you to be Chairman of the Board of Inquiry as to the alleged deleterious effects of wood-paving.

I am also desired to state that Mr. John Ashburton Thompson, M.D. (Brux.), San. Sci. Cert. (Camb.), has been appointed a member of the above Board.

I have, &c.,

CRITCHETT WALKER,

Principal Under Secretary.

FIRST Meeting of the Board of Inquiry as to the alleged deleterious effects of Wood-paving, held at the Office of the Board of Health, 127, Macquarie-street, on Monday, 4th August, at 2 p.m.

PRESENT:—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.

A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.

WM. MORRIS, Esq., F.P.P. and S., Glas., Fellow Royal Microscopical Society, London.

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J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

The Honorable the Colonial Secretary's minute of the 3rd August, appointing the Board of Inquiry, together with the other correspondence on the subject of wood pavements, having been previously forwarded to the individual members of the Board, were taken as read.

The Board, after a discussion as to the course that their investigations should take, instructed the Secretary to request Mr. Burton Bradley, Mr. W. B. McClure, and Mr. Mountain, to present themselves for examination at the next meeting.

Read and confirmed.

C. K. MACKELLAR,

Chairman.

SECOND

SECOND Meeting of the Board of Inquiry as to the alleged deleterious effects of Wood-paving, held at the Office of the Board of Health, 127, Macquarie-street, on Monday, 11th August, at 2 p.m.

PRESENT :—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 The Colonial Architect (JAMES BARNET, Esq.)
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

1. The minutes of the previous meeting were read and confirmed.
2. Mr. W. B. M'Clure and Mr. A. C. Mountain, City Surveyor, were examined. Mr. Burton Bradley, Honorary Secretary to the N.S.W. Health Society, was present during Mr. M'Clure's examination.
3. A letter from the manager of the Rock Pavement Co., of Pitt-street, suggesting that Mr. H. M. Deakin and Mr. Michael Leeds should be examined by the Board, was read, and the Secretary was instructed to request these two gentlemen to attend at the next meeting.
4. The Chairman stated that he had received an intimation from Mr. Walter Harper, C.E., a gentleman who states that he has made the subject of wood pavements a special study; that he desired to give evidence before the Board. The Secretary was instructed to request Mr. Harper to attend at an early meeting.
5. As the subject under the consideration of the Board was of the greatest importance to the Municipal Council of Sydney, as they have already spent and contemplate spending other large sums of money in paving the streets with wooden blocks, the Secretary was instructed to communicate with the Town Clerk, and inform him that the Board would be glad to receive any information on the subject which the Council might be possessed of, and also to examine any witnesses they might desire to call.
6. The Secretary was also instructed to communicate with the tramway authorities, and request from them any information they might be possessed of on the subject, especially in regard to the laying of wooden blocks in the streets traversed by tramways.
7. A press copy of a report on Wood and Asphalt Pavements, by Mr. W. C. Bennett, Commissioner for Roads, dated 27 February, 1884, was laid on the table by the Chairman, and the Secretary was instructed to invite Mr. Bennett to attend at the next meeting.

Read and confirmed.

C. K. MACKELLAR,
 Chairman.

THIRD meeting of the Board of Inquiry as to the alleged deleterious effects of wood-paving, held at the office of the Board of Health, 127, Macquarie-street, on Friday, 15th August, at 2 p.m.

PRESENT :—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 The Colonial Architect (JAMES BARNET, Esq.)
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

1. The minutes of the previous meeting were read and confirmed.
2. Mr. W. C. Bennett, Commissioner for Roads, was examined.
3. A letter, dated 15th August, from the Town Clerk, in reply to the Board's communication of the 12th instant, intimating that the "City Surveyor has been instructed to open such portions of the wood-pavements as may be required by the Board," was received during the meeting and read.
4. The Secretary was instructed to place an advertisement in the daily papers, requesting all persons who had any knowledge of the subject under the consideration of the Board, and were desirous of giving evidence, to forward their names and addresses.

Read and confirmed.

CHARLES K. MACKELLAR,
 Chairman.

FOURTH meeting of the Board of Inquiry as to the alleged deleterious effects of wood-paving, held at the office of the Board of Health, 127, Macquarie-street, on Wednesday, 20th August, at 2 p.m.

PRESENT:—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

1. The minutes of the previous meeting were read and confirmed.
2. Mr. Walter Harper, C.E., was examined.
3. A letter from Mr. A. C. Mountain, the City Surveyor, dated 16th August, forwarding copies of reports made by him to the City Council, and a tracing showing extent of wear of asphalt blocks in George-street, with a request that they should be added to his evidence, was read and it was ordered that the papers should form a part of Mr. Mountain's evidence, although the merits of asphalt pavement did not come within the scope of this inquiry.
4. The Secretary reported that, in accordance with the instructions of the Board, he had placed an advertisement in the daily papers inviting all persons who had any knowledge of the subject under the consideration of the Board, to forward their names and addresses, together with the nature of the evidence they desired to give. In reply to these advertisements only one gentleman had forwarded his name, viz., Mr. John Plummer, whose letter was read, and it was decided that it would not be necessary to examine him.

Read and confirmed.

CHARLES K. MACKELLAR,
 Chairman.

FIFTH meeting of the Board of Inquiry as to the alleged deleterious effects of wood-paving, held at the office of the Board of Health, 127 Macquarie-street, on Monday, the 25th August, at 2 p.m.

PRESENT :—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 The Colonial Architect (JAMES BARNET, Esq.)
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

THE members of the Board proceed to inspect the wood pavements in King-street, George-street, Parramatta-street, Pitt-street, and Oxford-street. Blocks were taken up and examined in the several streets visited :—

Block No. 1, taken up in King-street, near the Federal Bank, about 4 feet from the footpath, was found to be hard and perfectly sound. The floating and concrete underneath were in a satisfactory state, being well set and hard. No moisture underneath the blocks. The kind of wood used was cedar,

Blocks No. 2, taken up in the middle of the road opposite the Federal Bank. The block had sunk forming a hollow. The top-side was considerably worn, but the blocks were otherwise in good condition. Floating and concrete dry and hard underneath. Blocks made of cedar.

Blocks No. 3, taken up opposite the Arcade, in a hollow about 8 feet from the footpath. One block was rotten and came out in fragments. The other perfectly sound. A piece of the batten also taken out and found quite sound. The blocks are made of hardwood. No moisture found beneath. Floating and concrete hard and well set.

Block No. 4, taken up in King-street, near Braun's pawnshop, about 6 feet from the flags. Perfectly sound; no moisture.

Block No. 5, taken up in Pitt-street, about the middle of the road, in front of Cunninghame and Co.'s printing works. Block, floating, and concrete perfectly sound; no moisture.

Block No. 6, taken up in Pitt-street, near the Bank of Australasia, about 6 feet from the flags. Perfectly sound; no moisture underneath; block canted slightly over; wood used, blackbutt. Floating and concrete hard and well set.

Block No. 7, taken up in Parramatta-street, in front of Mr. J. Smith's butcher's shop. Block sound, but wet underneath. Concrete hard but the floating gone.

Block No. 8, taken up near furniture shop, No. 47, Parramatta-street, made of Riverstone bluegum. Block sound, but much moisture underneath, giving off an effluvia of ammonia and tar.

Block No. 9, taken up in Parramatta-street, near Cohen's pawnshop. Block sound; much moisture underneath, emitting ammoniacal effluvia.

Block No. 10, taken up near Buckland-street, about 6 feet from the channel, which was flooded. Block sound, floating gone, and much moisture on the concrete; emitting ammoniacal odours.

The Board visited Oxford-street, but took up no blocks in that street.

Read and confirmed.

CHARLES K. MACKELLAR,

Chairman.

SIXTH meeting of the Board of Inquiry as to the alleged deleterious effects of wood-paving, held at the Office of the Board of Health, 127 Macquarie-street, on Monday, the 1st September, at 2 p.m.

PRESENT :—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 The Colonial Architect (JAMES BARNET, Esq.)
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

1. A letter from Mr. W. B. McClure, dated the 30th August, requesting that this Board would again inspect the same street (as they had done on the 25th instant) within twenty-four hours after a period of continued rain, and giving certain other information on the subject under consideration, was read.

2. The Commissioners then had a conversation in respect to the wooden blocks taken up by them on the 25th August, and it was decided that they should be sawn lengthways into narrow strips, one-half of which should be sent for examination to Professor Liversidge, and the other to Mr. Dixon.

Read and confirmed.

CHARLES K. MACKELLAR,

Chairman.

SEVENTH meeting of the Board of Inquiry as to the alleged deleterious effects of wood-paving, held at the office of the Board of Health, 127 Macquarie-street, at 2 p.m. on Wednesday, the 15th October, 1884.

PRESENT :—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 The Colonial Architect (JAMES BARNET, Esq.)
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.

1. The previous minutes were read and confirmed.

2. A letter, dated 23rd September, from the Commissioner for Railways, in reply to the Board's communication of the 12th of August, stating that his Department was not in possession of any information on the subject under the discussion of the Board, was read.

3. A letter, dated 3rd October, from Mr. W. B. McClure, forwarding extracts from papers bearing on the subject of wood pavements, and requesting that they should form part of his evidence, was read.

4. Mr. Dixon read and laid on the table a report of the result of his chemical examination of three wood blocks taken from the Sydney streets. Read and confirmed.

CHARLES K. MACKELLAR,

Chairman.

EIGHTH

EIGHTH meeting of the Board of Inquiry as to the alleged deleterious effects of wood-paving, held at the Office of the Board of Health, 127 Macquarie-street, at 2 p.m. on Thursday, the 6th November, 1884.

PRESENT:—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

1. The previous minutes were read and confirmed.
 2. Professor Liversidge read and laid on the table a report of the results of his examination of wood blocks taken from the streets of Sydney.
 3. Dr. Morris also read and laid on the table a report of his microscopical examination of wood blocks.
 4. A discussion then ensued as to the general tone of the Board's Report, which Dr. Ashburton Thompson was requested to prepare and submit at the next meeting.
- Read and confirmed.

CHARLES K. MACKELLAR,
 Chairman.

NINTH meeting of the Board of Inquiry as to the alleged deleterious effects of wood-paving, held at the Office of the Board of Health, 127 Macquarie-street, at 2 p.m. on Thursday, the 20th November, 1884.

PRESENT:—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 The Colonial Architect (JAMES BARNET, Esq.)
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

1. The minutes of the previous meeting were read and confirmed.
 2. A Draft Report (which had previously been forwarded to the individual members of the Board) was submitted by Dr. Ashburton Thompson, and, having been partially considered, the meeting adjourned.
- Read and confirmed.

CHARLES K. MACKELLAR,
 Chairman.

TENTH meeting of the Board of Inquiry as to the alleged deleterious effects of wood-paving, held at the Office of the Board of Health, 127 Macquarie-street, at 2 p.m. on Monday, the 24th of November, 1884.

PRESENT:—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 The Colonial Architect (JAMES BARNET, Esq.)
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

1. The minutes of the previous meeting were read and confirmed.
 2. The Secretary laid upon the table the Eighth Annual Report of the Department of Public Works, Chicago, for 1883, and the Board directed that that portion of the Commissioner's Report referring to street pavements should be added as an appendix to the Board's Report.
 3. The Draft Report was then further considered and adopted.
- Read and confirmed.

CHARLES K. MACKELLAR,
 Chairman.

WOOD PAVEMENTS BOARD.

MINUTES OF EVIDENCE.

MONDAY, 11 AUGUST, 1884.

Present:—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 The Colonial Architect (JAMES BARNET, Esq.)
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

William B. McClure, Esq., called in and examined:—

1. *Chairman.*] You are aware of the object with which you are called here. We desire to obtain some information concerning the deleterious effects of the wood paving in this city. We shall be glad to have your views on the matter; your name is frequently mentioned in the correspondence which has taken place with the Government concerning this question? I have spent much of my life in travelling, and I have endeavoured to make the best use of my opportunities for observation. I have lived in cities with widely different climates—climates varying from severe winters to tropical heats—and I have paid great attention to what has been done with respect to the paving of those cities. Wherever I have been* I invariably found a common sentiment to the effect that wood paving, when extensively adopted and when allowed to remain down sufficiently long to become filthy, produces conditions which are inimical to health. This is most marked in climates which have a very short winter, or no winter at all. I have seen the hardest West Indian woods tried by way of experiment, but it was only a question of time, the same results were produced. In the principal cities of America wood has been extensively tried, but there in the warm climates as elsewhere they have been compelled to abandon it, on account of its becoming filthy and wearing out. I was in New Orleans in 1853—I was there for several months during the epidemic of yellow fever; for five months not a vessel arrived or departed. The scavengers' waggons were used to cart the dead out to the trenches; no graves were dug, nor were any coffins used. I understand that there is a gentleman in this city who was in New Orleans at the same time, and who is able to corroborate that statement. In 1879 New Orleans went through a similar experience. Dr. Raymond, Health Officer of New York, was a member of the International Health Committee, who were appointed to go into the South and inquire into the cause of the extreme severity of the epidemic. His report was to the effect that the wooden pavements of New Orleans were the chief cause of the yellow fever. I was in Memphis, Tennessee, in 1878; at that time they had a severe scourge of yellow fever. In the first frost they supposed they were quit of it, but in the next year the fever broke out with greater malignity, so much so that the Government of the United States were compelled to take possession of the city; no one was allowed to leave the place; a cordon of soldiers was drawn up outside the city; the army tents were used for the patients; and they were removed to the suburbs for treatment. The Government of the United States fed the entire population, and the State of Tennessee appointed a Commission under seal for the collection of funds for the widows and orphans. I do not know the number of the dead, but it was immense. At the close of that epidemic the Government of the United States applied to the Governors of the English, French, and Spanish West Indian Islands to appoint a capable physician from each island to confer with American physicians, and to compose an International Health Commission in order to investigate the cause of the yellow fever being so severe. These gentlemen declined to act in the first instance on the ground that their advice might not be adopted. A special Session of Congress was called, and a short Act was passed rendering it obligatory on the Government to adopt the recommendation of the Commission. The Commission at once went to work, and the first thing they did was to recommend that these infected, filthy wooden pavements should be taken up. That statement, I believe, can be borne out by the American Consul, Mr. Kahlo.† In Washington, in the years 1875 and 1876, they tore up and destroyed, chiefly by burning, the wooden pavements of that city, which had cost ten millions of dollars, or two millions sterling. That was done owing to the quantity of remittent and intermittent typhoid fever of a specially malignant character which had prevailed in the city. These pavements had been down only from one to four years. I did not think at that time that I should require proofs of these facts or I could have collected them when on the spot, but I have here a pamphlet, published by M. Leon Malo, a French engineer, in which he says:—

Assuredly the deleterious influence of miasmas, extending over and emanating from the different kinds of open-joint pavements, cannot be over-estimated, and it is rather to be gauged by inference than by any direct observation that can be easily reduced to figures; but it is none the less evident, none the less dreadful. We cite, in support of our opinion, that of the Sanitary Inspector of New York, Dr. Raymond, who, in a report read before the Hygienic Society (National Board of Health), formally attributes to the miasmas emanating from the wooden pavements the ravages of the last yellow fever epidemic in New Orleans, which in a few weeks carried off 12,000 people. (See *New York Times*, 24 December, 1878.)

2.

* NOTE (on revision):—In warm climates.

† NOTE (on revision):—Mr. Kahlo knows, at any rate, that the United States Government had to take possession of Memphis and cleanse the city.

W. B.
M'Clure, Esq.
11 Aug., 1884.

2. Are you aware that yellow fever prevailed in New Orleans long before the wooden pavements were thought of? I believe that yellow fever has prevailed there, more or less, ever since white people went to the place. It has been found more difficult to deal with when the city has been paved with wood. The experiment has been tried several times. It was found that when there were large quantities of wooden pavements, which were allowed to remain down sufficiently long to become filthy, the epidemic was more severe.

3. Can you tell us whether Memphis was visited by yellow fever before the wooden pavement was laid? * I do not know; it was visited by the disease in 1878. I do not mean to say that the wood pavements were the cause of the disease, but they form a nest for the propagation of the germs.

4. Can you tell us whether, since the wood pavements have been removed, yellow fever in those places has materially decreased? I do not believe there has been an attack of yellow fever since I was at Memphis. At one time, when the fever broke out, I know that the sewers and cesspools were not properly attended to. A disease of that kind is seldom produced by a single cause, it is generally brought about by a variety of causes. Last year I put myself in correspondence with the health officer of the city of Memphis; I wrote inquiring whether he could furnish me with a report of the epidemic of yellow fever which had devastated Memphis. The reply I received was not very satisfactory. The health officer said, so far as he knew, no report of the epidemic could be obtained, although they had had it. You will find it mentioned, I think, on page 508, of vol. 2 of Albert Buck's work on Hygiene.

5. What is the latitude of Memphis? That I have forgotten; but I know that it is 1,500 feet above the level of the sea.

6. You stated that the authorities at Washington had destroyed £2,000,000 worth of this wood pavement;—can you give us documentary evidence of it? I have a book, published in London in 1879, which deals with the street and foot walk pavements of Montreal, Canada. The author says:—

A Board of Health Committee of Washington reported the following:—"That four-fifths of the newly-paved streets of our city are paved with wood, varying in kind, some having been treated with antiseptics before being laid. That within three years from the time they were laid every one of them gave more or less evidence of very rapid decomposition, and some of them have decayed so rapidly as to give rise to a mass of dangerous putrefaction. That, moreover, the broken surface of the pavements above-mentioned has allowed the lodgment of an immense quantity of animal and vegetable filth, impossible even to calculate, between and under the blocks of wood, not only greatly increasing the putrefying mass but adding to the rapidity of its decomposition. That from said decomposition gases arise, fungi and infusoria develop, which, entering the air we breathe, are poisonous, engendering zymotic diseases, such as typhoid, malarial and intermittent fever, dysentery, diphtheria, &c. And the Committee pray that as soon as the wood pavements give evidence of general decomposition they be removed. This report is endorsed by the city engineer, who says, further, that the only way to repair them is to get rid of them."

7. If water obtains access to the foundation of the pavement it is an indication that the pavement is defective in construction, is it not? You will find that all descriptions of wood contract and expand at different seasons of the year. All the mechanism devised will fail to effect a remedy in that particular. You cannot successfully fight against nature's laws. Here is a report of the City Engineer of Montreal:—

The foot-walks outside the business portion of Montreal have commonly been made of 3-inch planks of pine and hemlock, laid on tamarac sills, which are now gradually being replaced on account of their unhealthiness, new York bluestone or mountain graywacke having been laid during the last two years.

I was in Montreal in 1879, when the Board of Health met there to deal with the question of the typhoid fever of the previous summer. I remember distinctly that they considered that these wooden side-walks—these decaying, filthy wooden side-walks—were the cause of much of the fever that existed in the city. It was in consequence of the fever that the side-walks were removed.

8. These were not wooden pavements in the sense in which they are constructed in this city, but were merely a planked walk, I suppose? The whole footway was planked over. It was 10 feet wide.

9. There was no attempt to exclude water? No, the planks were merely laid on sills.

10. Can you give us any information as to the description of timber used? Pine, I believe, and also larch.

11. I presume that most of the American pavements were constructed of soft friable pine? I believe that is so. I am aware also that they used cedar and oak, but whether they used oak or cedar the result was just the same. It must be borne in mind that the pine contains resin and other properties, antiseptic in their character, and where you obtain harder woods you lose these qualities—you gain in one way and lose in another.

12. *Professor Liversidge.*] Were these woods treated with antiseptic compounds? In Washington the general feeling is against it; they find from practical experience that the wood wore more rapidly after being treated.

13. You have no details of the treatment? No; I never expected that a question of this kind would arise.

14. *Dr. Ashburton Thompson.*] You do not appear to consider that the manner in which the wood is laid is of any consequence? I think not.

15. The American method of construction, then, as far as its injurious effects go, is as good as any other? Yes, I am opposed to wood paving in any form. I am acquainted with the mode of construction in London and elsewhere, and I think them all objectionable.

16. Are you aware that the mode of constructing wood pavements in America is condemned by American engineers? Not so much by engineers as by sanitarians.

17. I speak of the mode of construction only? I am not acquainted with it.† I have heard of various plans, but I have found that different Boards of Health have condemned them.

18. You said that the epidemic in New Orleans was more severe and intractable when the wood pavements were down than when they were not down, yet the pavements were laid down from time to time? Yes, the people appeared to have forgotten the lesson which was taught them.

19.

* NOTE (on revision):—Memphis never had yellow fever until it had filthy wooden pavements. It is some 1,500 feet above the sea.

† NOTE (on revision):—I am not fully informed as to American engineering objections.

19. Can you tell me where the effect of this particular wood pavement is described? No, I cannot.* I resided in New Orleans. Here is an extract from a London paper:—

CLEANSING THE LONDON STREETS.—The condition of the streets of the city in point of cleanliness, or rather want of cleanliness, is a matter to which it is a wonder attention has not been more often drawn. Great improvements have been made during recent years in the direction of noiselessness, as all those who remember the state of things before the introduction of asphalt and wood pavements can testify; but the equally important consideration of their sanitary state appears to have been overlooked. The ancient scavenger has given place to a little boy, who goes about with shovel and brush removing the dirt and depositing it in the street orderlies. But whether it is due to the mode in which these boys perform their work, or whether it is on account of the system employed, the result is that a fine layer of malodorous material is spread thinly over the surface, and the effect, at least to those who are favoured with sensitive organs of smell, is highly unpleasant. Going along some of the main thoroughfares in the city, even only a day after some of the drenching rains with which we have been favoured much against our wish, the air is heavy with a sour stench which is most offensive.

That sour stench comes from the wood; you cannot avoid it; I do not care how you treat it; it is impossible to get rid of it. After the wood has been down sufficiently long to become impregnated with animal matter you will surely have this sour smell arising from the process of putrefaction.

20. You say that a sour smell would arise from the wood;—are you aware that Colonel Heywood has said that, although some of the streets of London have been paved with wood for more than thirty years, no complaints of unhealthiness or offensive smells have been made? Sir William M'Arthur gave me a letter to Colonel Heywood in January, 1883. Colonel Heywood gave me a forenoon, and a more thorough opponent of wood paving I have never met with in my life. You will find some observations by Colonel Heywood upon this question in Mr. Gilmore's work, but it is quite possible that Colonel Heywood may have changed his mind since he wrote and spoke on the subject in 1875.

21. *Mr. Barnet.*] Can you tell us what they substituted for wooden pavements in the City of New York? Stone, generally.

22. What kind? Various forms of granite; as a rule, cubes.

23. *Dr. Ashburton Thompson.*] But the City of London is still largely paved with wood? The City of London proper contains between 3 and 4 miles of wood paving only. The suburbs are paved by the vestries, and each vestry adopts what kind of paving it likes.

24. Are you under the impression that there is no asphalt in the city of London? Oh no; I have ridden over it often.

25. The extract you have read does not specify any particular kind of paving? Of course a person's argument strikes different people in different ways, but the writer speaks distinctly of a sour smell arising from the pavement, and you would not obtain a sour smell from asphalt.

26. Would that not be the case if matter were allowed to remain on the surface sufficiently long? But it is not allowed to remain sufficiently long to ferment. I cut out of a recent London paper the following observations:—

A great authority in France, M. J. Fonssagrives, of Paris, wrote as follows in 1874:—"The hygienist cannot look favourably upon a street covering consisting of a porous substance capable of absorbing organic matter, and by its own decomposition giving rise to noxious miasma, which proceeding from so large a surface cannot be regarded as insignificant. I am convinced that a city with a damp climate, paved largely with wood, would become a city of marsh fevers." Sir Joseph Whitworth, in his evidence before the Health of Towns Commissioners, stated that—"The wood being very porous, and the fibre vertical or nearly so, the manure, when pulverised by the action of the wheels, becomes so embedded in the fibre that it is impossible to remove it except when the wood is very dry or very wet." Mr. Edwin Chadwick, C.B. (Society of Arts Report, 1875), says:—"Sanitary authorities are certain that if any well paved and dry playground were taken up and a wood pavement substituted the effects experienced in hospitals and on shipboard from the simple dump of the wood would be manifested among the children; but if that wood pavement were daubed with dung and mud, and put in the common condition of the wood pavement in the streets, it would become as it were the floor of a fever nest." Mr. Chadwick continues:—"Impregnation of the wood with mineral matters to preserve it from decay may diminish these evils, but nothing as yet tried prevents the fibres from being separated, the absorption of dung and putrescent matter by the wood being continued. The condition of absorbing mere moisture is of itself bad, but when the surface absorbs and retains putrescent matter, such as dung and urine, it is highly noxious." In the same report we read that a Mr. Sharp, acting for the Corporation of the city of London, examined some blocks of wood taken up for repavement, and found them "perfectly stained and saturated with wet and urine at the lower portions." M. Fonssagrives further reports (*Hygiene Navale*, page 200): "The structure of wood is admirably adapted to receive and hold, and then give off in evaporation, very foul matters, which taint the atmosphere and injure health." I have before me the report of Mr. van Noort, Commissioner for Public Works of the city of New York. That city spent 2,500,000 dollars in wood pavement, which necessitated an annual outlay in repairs of over 300,000 dollars. He states that many complaints have been made of the offensive and unhealthy effluvia emitted from our streets paved with wood. This department has used its best endeavours, and all the means at its command to remedy the evils, but it had only been able to do so to a limited extent." It was finally decided to remove all the wood pavement in New York in spite of the heavy outlay, owing to the cost of repairs and the offensive nature of the material, though it was impregnated with mineral matters. Wood is "cheap" enough in America, but also "nasty." Are we to shut our eyes to such facts as these, and, with the cry of *Sanitas sanitas, omnia sanitas* in our ears, is our damp climate to have more and more wood pavements? And are the pockets of the ratepayers to suffer as did the city of New York? The busy inhabitants of the busiest city in the world want a noiseless pavement, but not one saturated with damp and uncleanness.

A gentleman in this city, who is well known to most of the Board, was once a great advocate of wood pavements, but we have talked over the matter and he is now of my opinion. Under date March 28th, of 1884, he writes to me the following letter:—

Dear Sir,

28 March, 1884.

With reference to your enquiries about wood pavements,—from experience of late in using wood blocks for yards in connection with large warehouses, I have watched the effect, and have found that when horses stale on same, the urine is immediately absorbed into the end grain of the timber, therefore does not run any distance on the surface of pavement immediately under the animals' feet.

In taking up blocks for repairs or otherwise, there is a smell arising from the surface of the concrete foundation under blocks.

I am afraid that this kind of pavement, nice as it appears to be, will in time prove injurious to the health of the citizens.

I shall be very cautious in using this kind of pavement in future.

I have, &c.,
THOS ROWE.

Mr. M'Clure.

The timber referred to is Colonial hardwood, best kind, laid with care.

27. You have given us a quotation from the work of M. Fonssagrives;—have you seen the original work? No.

28. You are clearly of opinion that all wood pavements are bad? I have seen wood pavements laid in this city with a great deal of care; some of the blocks have been taken out and have been examined and analysed;

*NOTE (on revision):—My conversations were privately with New Orleans doctors who had studied the disease.

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analysed; the matter taken from them has also been analysed, and it has been discovered to have been as bad as that found in any sewerage. The pavement had been recently laid down, and it had been laid down with a great deal of care. But it is a very short matter, a pick and crowbar would settle the question.

29. You are firmly of opinion that construction has nothing to do with the matter? You cannot alter the character of the wood; it contracts in dry weather and it expands when it is wet; that mechanical action of itself prevents you from making it watertight. All wood when wet will decay, and it is very well known that you cannot obtain more unhealthy conditions than animal and vegetable matter in a state of decay.

30. Has creasoting wood any influence in preventing expansion and contraction? Not so far as I have any knowledge.

31. *Mr. Barnet.*] What would you recommend as a substitute for wood paving? I hardly know that that is a question that I ought to answer. We find advocates of some particular form of paving advocating its adoption under all circumstances; nothing is more foolish. The description of pavement used on the road must depend upon a variety of circumstances. It must depend upon the weight and speed of the traffic passing over it; upon the gradient; upon the amount of sunshine, and the direction of the prevailing winds. A vast number of considerations enter into the question as to what is the best form of pavement to adopt. It is perfectly true that I am an advocate of a certain description of pavement, but although that is so I am not so foolish as to recommend it for every place and under all circumstances.

32. What form of pavement is that? Asphalt in various ways; in blocks or in sheet.

33. *Dr. Morris.*] Have you seen any kyanized wood? I have been to a factory at St. Louis, which I believe was established for the purpose.

34. What did they use? It looked to me like sulphate of some kind. They were melting it.

35. *Professor Liversidge.*] Was it of a blue colour? Yes.

36. *Dr. Morris.*] Have you ever seen silicates used? No; the factory at St. Louis was closed; they found that it would not pay. The views which I have expressed in the course of my evidence will be found by the Board on reference to pages 551 and 552, and pages 575, 576, and 577 of the first volume of Dr. Buck's treatise on hygiene, also on page 449 of the second volume, treating of the absence of frost fostering the hibernation of yellow fever; also on page 508 of volume the second, on which the author says:—

There has always been a strong disposition to ignore or conceal the existence of yellow fever in New Orleans, and strong pressure brought to bear on city members of Board of Health to induce their recognition of existence of yellow fever or cholera until the diseases had spread beyond their control.

37. *Chairman.*] In referring to the epidemic at Memphis you led us to believe that it was supposed to be the result of the use of the wooden pavement? I have in my hand an address by Dr. G. B. Thornton, delivered before the Medical Society of the State of Tennessee, in which he says:—

Since your last Convention in this City, four years ago, Memphis has been the field of events which have made it sadly conspicuous throughout the entire country. Twice has it been visited by that violent epidemic disease, yellow fever, whose subtle character, insidious approach, rapidity of spread and awful fatality, place it among the first on the list of malignant diseases in our nosological tables. "Still as the breeze, but dreadful as the storm," was the epidemic of 1878, which President Hayes said in a message to Congress, in alluding to the subject: "It is impossible to estimate with any approach to accuracy occasioned by this epidemic. It is reckoned by the hundreds of millions of dollars."

It is remarkable that Dr. Thornton should continue his address without making reference to the wooden pavements? What I said with reference to the outbreak of yellow fever at New Orleans being caused by the wood-paving was on the authority of Dr. Raymond, the Health Inspector of New York, who was one of the Commissioners sent to New Orleans. The *Times* of the 12th December, 1878, says:—

In concluding his report Dr. Raymond directs the attention of the Board to the acknowledged filth in the southern cities visited in this and other years by yellow fever. In almost every instance there were leaking vaults, the contents of which soaked into the soil, and found their way into the well water used for drinking; open ditches with sluggish streams formed the only sewers into which drained the surface and slop water, while decayed wooden pavements, saturated with all kinds of filth, stretched for miles through the heart of a city whose sick and dead are to be numbered by thousands. Should the present winter be a mild one, the germs of the disease will not be destroyed, but will, with the approaching summer, gather new force, and continue their devastating march north, east, and west. The coming six months should be looked upon as a golden opportunity in which to put our homes in order.

I do not make the assertion that wood-paving was the cause of the outbreak of the fever in Memphis; I said that when the International Commission was appointed the first thing they did was to order the wooden paving to be destroyed. The pavements were so old and filthy that it was impossible to clean the city until they had been destroyed. Memphis was thoroughly paved with wood.

38. *Dr. Ashburton Thompson.*] About how soon does wood begin to decay? It depends upon the nature of the subsoil, and whether it is well drained or not. It also depends upon the amount of traffic passing over it. The pavements which have comparatively little traffic over them take some time before the fibres are dislocated. When the pavement is exposed to constant traffic, to repeated pounding by horses' feet, it would not take more than three or four years to destroy the pavement.

39. Is that the average? The average may be put down as six or seven years.

40. That is in America? Yes.

41. *Chairman.*] The epidemic at Memphis has a peculiar interest for us, because I observe that Memphis is in 35° north latitude, whereas the City of Sydney is in 34° south latitude? I have spent a good deal of my life in countries which are affected by yellow fever, and in my opinion you are cultivating here conditions favourable to the reception of the disease.

42. *Dr. Ashburton Thompson.*] You are probably aware that the view of wood pavements taken by the London *Lancet*, which is derived of course from local experience, is not at all the same as the opinion which has been formed in America? I was not aware of that.

43. An editorial published in the *Lancet* in 1875 says that "even where wood is not protected by antiseptic treatment no disagreeable or noxious smells can arise from its decay. We do not know whether the wood in question had been specially prepared, but it is notorious that at the present time great care is taken in this respect, not to prevent the evolution of odorous matter but to arrest the process of decay"? In January, 1883, I was in London. I had conversation with gentlemen who took the opposite view of the question, and who trembled for the fate of the city if the wooden pavements were continued.

44. It is singular that in June, 1883, the *Lancet* published an article containing the following observation: "A contemporary announces that in view of the alleged increase of serious affections of the eyes and lungs, consequent upon the extension of wooden pavements in the metropolis, Viscount Newport will ask a question in Parliament." The idea was ridiculed, and the *Lancet* said that the whole thing was a hoax, that no evidence was offered on the subject, and that the allegation lacked the ordinary character of verisimilitude? Of course if you were laying the pavement in such cities as Stockholm or Copenhagen the wood would do very well; but you cannot lay it down with impunity in such a climate as this.*

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45. *Chairman.*] Do you anticipate terrible results from the continued use of the pavement in Sydney? I look at the question in this way: You lay down in your streets 150,000 tons of vegetable matter, becoming in course of time impregnated with filth. Supposing a vessel arrives here by way of Panama, bringing yellow fever, or from India bringing cholera, these pavements would form a very good nest in which the germs of these diseases would fructify. I hold that to be as certain as that two and two make four. It is only fair to say, however, that I do not think I ever saw wooden pavement laid with more care than I have seen it in this city.

46. *Dr. Ashburton Thompson.*] Is it laid with more care than the American pavement? Yes.

47. Do you think as much care is taken as in laying the pavement in London and in Paris? I have seen as bad pavement laid in London as in any part of America.

48. *Chairman.*] From what I can learn of American pavements the pavements in Sydney are infinitely superior? Yes, they are laid here with great precision and care.

49. *Dr. Morris.*] How are the pavements laid in America? In some cases on cement, as in Sydney; in other cases other modes are adopted.

50. Do you think that cement is deleterious to the wood pavement? Not under all circumstances; I should say that it would be the case if there was no escape for the water. In Chicago the pavements are often laid on cement; you will find a description of them in John Gilmore's book. I have not seen them laid in cement at Chicago, but I have seen them at New York and Boston.

51. *Chairman.*] In your opinion the use of tar as a means of excluding water from wood blocks is useless—are the tar acids of any use? The tar acids will help to rot the cement, but it is of no use to put tar between blocks which will expand and contract. The expansion and contraction will not allow the tar to remain, and you will not prevent the street filth from getting through and becoming stagnant.

52. With reference to the action of tar acids, do you speak from experience? No, only from a limited experience; but I have had a very large experience in sugar acids.

53. *Chairman.*] Do you think that frequent cleansing and dressing with antiseptic materials will not prevent the danger which you anticipate? No, because the filth is below.

54. *Dr. Ashburton Thompson.*] With reference to this matter, I find that Mr. E. P. North read a paper, in 1880, before the American Society of Civil Engineers, and that during the discussion Mr. Andrews, an engineer, said that "almost without exception green or wet blocks were used, more or less thoroughly dipped in tar, on the bed of sand, not always well rammed, with or without the interposition of a tarred pine board, with transverse joints from one to one and-a-half inches wide, filled with gravel or coal-tar." That is the description given in 1880 of the mode of laying this pavement in America, and it is given by a gentleman who presumably knows what he is talking about? I have met Americans who did not know half so much about America as I do. There are upwards of 3,000 miles between San Francisco and New York, and I suppose there are 3,500 miles between Boston and New Orleans. What is true of one locality has not the slightest bearing upon another. The method adopted at New Orleans would be of no use at Boston, and the method adopted in Boston would not be used at Chicago. The question of sub-soil regulates the practice. A man speaks of his own locality, and assumes that because the practice is adopted there it is adopted generally, but that is not the case.

55. But this is a professional engineer, speaking of a professional matter? What is true of this locality is not true elsewhere. In some cases what is true of New Orleans may not be true in Sydney.

56. In New York the wood is not laid with great care. Mr. North says "that wood pavements would have been used long ago during the Tweed days but for the evident jobs"? They are almost all jobs.

57. *Dr. Morris.*] If the wood is properly dried before the tar is applied, would it be still deleterious to health? No matter how dried, wood is an absorbent; that fact answers the question.

58. I believe one of the defects in the pavement is that the wood used is too open? In all cases in which antiseptics have been used I believe the process has been abandoned on account of its expense.

59. *Professor Liversidge.*] It was abandoned on account of the expense—not because the process was useless? They thought that the expense was greater than the additional benefit derived.

60. *Chairman.*] I believe that in almost all block pavements the joints form one-third of the whole surface? Not in every form but in most forms; they are constantly growing wider.

61. Whatever form of block is used a large amount of water and animal matter will collect between them and sink down? That would be true of every form of block but the asphalt block; that expands under pressure, and it is impossible for filth to get below it.

62. Your experience of asphalt and other blocks shows that the gaps become wider, and that the filth accumulates? No, not as regards the asphalt blocks; that is a mistake. I have seen asphalt blocks between which you cannot introduce the blade of a pen-knife.

63. Could you point out various defects in wooden pavements if you were asked to do so? Yes.

64. In order to illustrate the harm of which you speak, would you be prepared to go to various parts of the city and point out blocks of pavements which you would expect on removal to be impregnated with animal filth? Yes.

65. If you wish to make any further statement to the Board we shall be glad to hear it; we shall also be glad to receive any documentary evidence you may wish to put in in support of the statements which you have made? I have nothing further to say at present; I merely speak as a resident of the city, interested in the common good. If wooden pavements are extended, I am sure that injurious effects will follow. If it can be shown that I am wrong, I am ready to haul down my colours at once; if I am in the right, I shall have performed what I conceive to be a public duty in calling attention to the matter.

Adrian

* NOTE (on revision).—It is well known that wood fibre, being light, floats in the air.

Adrian Charles Mountain, Esq., called in and examined:—

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66. *Chairman.*] You are the City Surveyor? Yes.
67. You have heard the evidence which Mr. M'Clure has given to the Board concerning wood-paving and its use in the United States? Yes.
68. We shall be glad to have your opinion. Have you had any experience in the laying of wood-paving? I have had no experience as an engineer beyond the past four or five years, during which time I have been laying it for the Municipal Council of this city; but for years before I studied the matter very thoroughly, and it was after a very careful examination of the various systems adopted in Europe, and with the knowledge of what had been done in America, that I came to the conclusion of recommending to the authorities of the city the advisableness of laying down this description of paving. I made that recommendation in the shape of a rather lengthy report, which was printed and which was noticed by the Press at the time. I now furnish a copy of same to the Board. (*Vide Appendix A 1.*) If the members of the Board refer to the report they will see that nearly every quotation given by Mr. M'Clure is contained in it, showing that at the time I made the recommendation I was fully posted up in the objections, as well as in the recommendations, which could be urged for or against the system.
69. You have heard that the friable nature of wood has been supposed to be the cause of a great deal of malarial sickness in several towns? I have heard so.*
70. Have you taken any means of preventing it from becoming a source of trouble in Sydney? I have taken what are in my opinion the most effectual means, that is to say, I have spared no expense in trying to have the pavements laid down in a thoroughly solid and substantial manner.
71. Have you had occasion to remove any blocks of the pavement after a certain interval? Frequently.
72. What has been the condition of those blocks? The condition of most of the blocks I have seen has been good. In one case, however, some blocks taken up from one of the first roadways laid down—the experiment being made with hardwood, had from precautionary measures made the joints unnecessarily wide, and there was a certain degree of abrasion on the edge of the block.
73. *Mr. Barnett.*] Cannot you give us some succinct account of your experience from the commencement of the laying of the wood pavement in Sydney? It would save the time of the Board if I were to put in, as part of my evidence, a paper which I read before the Engineering Association of New South Wales on the 13th March, 1884. It contains a succinct account of the whole process from the commencement. (*Vide Appendix C.*)
74. *Mr. Morris.*] You have not changed your opinion since you wrote it? No.
75. Then it faithfully represents your present opinion? Yes, I commence with the description of the laying of the wood pavement in King-street.
76. Is there any reference to the laying of the asphalt blocks? You will find mention of that in the report which I have presented. They had only been laid a few months, and at that time they bade fair to fulfil all the promises made in respect to them.
77. *Mr. Dixon.*] Mr. M'Clure said that the asphalt blocks came closer and closer together;—was that found to be the case when the blocks were taken up? Mr. M'Clure was quite right in that statement. Many of the blocks were adhering together, forming a homogeneous mass. The objection to them was their want of durability.†
78. There was no fear of the water finding its way through? No. When the blocks were taken up I observed that the sand upon which they had been laid was clean and unchanged in colour.
79. *Professor Liversidge.*] Has any water found its way under the wooden blocks? I have seen patches opened in George-street and in other parts in which, after a fair shower of rain, water may be seen retained.
80. What I want to know is whether the water has percolated when the blocks have been down? I have noticed the "sweating" which is inseparable from any wood in a moist state, that is to say, the impress of the block has been left upon the concrete.
81. The concrete had the stamp of the wood? Yes. But apart from that is there any indication of the water finding its way through the wooden blocks, and between the joints? It is not possible, as far as the main joints between rows is concerned; and would not exist to any appreciable extent, in my opinion, at the end, or butt-joints of blocks.
82. But you have seen some? I think in the case of an opening in George-street I have seen a trace of it where the butt-joints had shrunk a little, but that was before the blocks were run in with English pitch, which encircled them on the concrete? That was when the tar and screenings were caulked in alone.
83. As the paving is at present laid in Sydney can the water find its way down? I should hardly like to give a positive expression of opinion on that point, but I think not.
84. I want to know what you have seen yourself? I have not made a minute inspection myself when any blocks have been removed. None of my overseers have, however, reported to me that they detected any percolation, nor do I think, as I said before, that any such percolation occurs; at all events to a noticeable degree.
85. *Mr. Dixon.*] What quantity of tar coating is used. Is there one coat? The blocks are painted on the outside. They were originally steeped in boiling refuse from the Kerosene Oil Works. The cost of thoroughly creosoting them under pressure, after some inquiries, I found to be too great to adopt. I made that observation in the paper which I have just handed in. I also became decidedly of opinion that in dealing with the hundreds and thousands of blocks of the density of the Australian hardwood, such treatment would be injurious, because you would hermetically seal the outside surface of the wood and promote decay. I think the dry rot would ensue. The Board are aware that the more dense the timber the longer it takes to season, and the time which would be allowed for the seasoning of the hardwood blocks would not be sufficient to enable all the sap to dry from the heart of them. It would be hermetically sealed by the process which I have mentioned.
86. *Dr. Ashburton Thompson.*] Do you prefer hardwood for this purpose? Undoubtedly. Of course the soft wood makes a more comfortable road; for instance, the noise of the vehicles is lessened, and they form less slippery roads, but are not so durable. 87.

* NOTE (on revision):—I here handed in an extract from Dr. Raymond's report, partially quoted by Mr. M'Clure, drawing the Board's attention to those portions not read by that gentleman.

† NOTE (on revision):—Since my evidence was given I have handed in to Chairman copy of report to Council on wear of asphalt blocks, and tracing showing extent of same.

87. *Mr. Barnet.*] Have you tried soft wood? There are several pieces of pavement made of soft wood remaining in King-street. It was an experimental work. Eight or nine descriptions of wood were used to enable me to form an estimate of the relative durability of hardwood.
88. *Dr. Morris.*] Were the blocks creasoted? They were not put under pressure.
89. Thorough creasoting takes about 10 lbs. to the cubic foot, I believe; at least I know that to be the case with ordinary pines? Under no pressure could you put that into hardwood. Tallow-wood, spotted-gum, blue-gum, and blackbutt are the woods which so far seem the most adapted to this use. In my original specifications I included brush-box, but in consequence of its excessive cross shrinking and warping I had to exclude it.
90. *Mr. Dixon.*] Was much tallow-wood laid down? Less of that kind, I fancy, than of any other.
91. It is the most expensive? It is the most difficult to obtain.
92. You are acquainted with the process of kyanising? Only theoretically. I know it as a professional man from my reading. I never had occasion to use it in actual work.
93. What I want to know is whether any of the wooden blocks used in Sydney have been properly kyanised? No; so far as I am aware no attempt has been made to do so.
94. The blocks have been simply painted? They have been dipped and boiled from two to four hours.
95. *Mr. Morris.*] How did the boiled blocks turn out—are they still in use? Yes, but I left off boiling the blocks because I thought it an unnecessary expense.
96. When the various repairs have been in process have you noticed any soakage of water upon the concrete? I have never noticed it.
97. Nor has it been pointed out to you? It has not. I may explain the reason why I discontinued the boiling process. Some blocks were put into the cauldron of boiling creasote for twenty-seven hours. They were then placed aside and allowed to dry. I had them sawn through when they were dry and I found that the liquid had penetrated to an extent which was scarcely perceptible—not more than $\frac{1}{8}$ of an inch. It seemed to me that in view of this test it was rather far fetched to talk of the wood absorbing street refuse and horse urine.
98. *Professor Liversidge.*] Have you any of these blocks left? I believe there is one in the room of the Engineering Association.
99. You say that certain patches of this pavement have been taken up. Has that been done in consequence of the wear? The taking up of the pavement was necessitated by alterations in gas and water connections.
100. Not on account of wear and tear and decay? No.
101. *Dr. Ashburton Thompson.*] Are you aware whether any soakage has been found along the tramway lines? That is an exceptional case. I think a great deal of the abuse which has been heaped upon the wooden pavements has been probably due to the fact that the permanent way of the tramway lines is not adapted to the laying of such a pavement.
102. *The Chairman.*] The cross-sleepers of the tram-lines vibrate so much as to disturb the foundations of the wooden blocks? They are never in a state of perfect repose.
103. It is not a suitable pavement in a street through which a tramway passes? I do not say that; I say that the present system of permanent way as carried out by the Department is not adapted to the paving of streets with wood or any other kind of blocks. It would require a radical alteration in the permanent way of the tram-lines. That I think would be acknowledged by the Engineer of Tramways himself.
104. *Mr. Barnet.*] What is the thickness of the concrete? About 6 inches.
105. You are aware that the rows of blocks in Parramatta-street have in some places taken various curve forms? I do not know how to account for it, unless it be that a heavy rainfall which took place at the time when the pavement was being laid unsettled the whole foundation, which was of pipeclay, and enabled that very treacherous material to mingle with the concrete before the same was properly set.
106. On the one side of the road, on the left hand, going in one direction, the blocks are rounding very rapidly at the surface? I have not observed it; it is probably owing to the fact that the blocks have been thrown out of their proper vertical position in consequence of the settlement of foundation I have just mentioned.
107. *Chairman.*] Have you noticed in the King-street pavement that the soft wood has been more friable than the hardwood? I have noticed it particularly.
108. *Mr. Dixon.*] What kinds of soft wood were used? Several kinds—Colonial pine, cedar, and Baltic pine—similar to that which is generally used in London.
109. I have noticed in King-street that for several days after rain some sections are longer damp than others. Are these composed of soft or hard wood? They are the soft woods. I conclude that it is owing to the greater power of absorption of the soft wood.
110. *Mr. Barnet.*] Is it not the custom to coat the blocks with tar and sand when they are laid down? That is the practice in Sydney; the pavement is finished off with a coat of tar and fine blue-stone screenings.
111. Has that process been repeated at any time subsequent to the laying of the road? In one case it was done to make the road less noisy.
112. *Professor Liversidge.*] You mentioned that your experiment of boiling the blocks led you to form the opinion that they would not absorb urine or other organic fluids. Are the conditions equally favourable? In the one case the block is simply placed in a pot; in the other it is placed endways in the street, one end being pounded by horses' feet and the general traffic until it presents very much the appearance of a brush? I have read of it, but I have never seen anything like a brush at the end of a hardwood block. I was called upon some time ago to examine a block which was alleged to have been subjected to the fair wear and tear of traffic, but the block appeared to me to have met with foul play. In fact I could see traces of its having been hammered.*
113. *Chairman.*] We shall presently go round the city in order to obtain specimens of each variety of wooden blocks which you have used, and we should be glad if you would be good enough to lift such blocks as Mr. M'Clure may point out? I shall be glad to do anything which the Board may desire, in order to facilitate their inquiries, but I must decline to act at the dictation of Mr. M'Clure.
114. *Chairman.*] Mr. M'Clure has given us evidence to the effect that the wood-paving in this city is only
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*NOTE (on revision) :—I have since my examination handed in copy of a report to the Council on the wear of blocks in King-street, under date, 23/3/82.

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in a less degree likely to absorb water than is the American pavement. In order to verify that statement he is prepared to show us blocks of pavement which on examination we shall find impregnated with animal matter. What we want to know is whether you will be good enough to lift these blocks in order that we may verify the statement by our own senses? I am sure the Mayor of the city will afford every assistance in permitting such an examination as you seek, and I shall be happy to do anything you may require. Mr. McClure mentioned in his evidence the outbreak of yellow fever at Memphis. Perhaps I may be permitted to submit for the information of the Board a letter which I have received from the engineer of Memphis. (*Vide Appendix D.*) The letter is to the effect that since the outbreak of yellow fever there has been a great public prejudice against wooden pavements. The engineer, however, mentions the mode of construction, and says that the pavements are badly laid—that in fact the matter was job. He appears as a professional man to attach very little importance to the public scare.

115. *Professor Liversidge.*] You say that the blocks with which you made the experiment took in tarry matter to the depth of only $\frac{1}{8}$ of an inch. To what depth would water soak into such wood? I should not like to hazard an opinion.

116. You led us to believe just now that as the blocks would not take up more than this small quantity after 27 hours' boiling they would not, therefore, take up more than that quantity of urine, which as far as this particular matter is concerned, may be considered water. The upper portion of the block will after a short time lose its coating of tar. How long does that coating last? It depends upon the traffic. I have seen it last for five or six months at the sides of the roadway.

117. At that rate the wear and tear would be only $\frac{1}{2}$ of an inch per annum? I should say that that would be the extreme wear and tear in the case of well-laid hardwood.

118. That gives the road a life longer than is usually given, does it not? I estimate that hardwood, if carefully laid down, ought to last from twelve to fifteen years.

119. According to your estimate it would take eight years to wear away an inch? Yes; but when an inch and a half is worn away the roadway becomes bumpy, and has to be removed. The rest of the roadway is so much waste material.

120. *Mr. Barnet.*] Did you not take up some asphalt blocks to discover how they had worn? Yes, after they had been down twelve months.

121. What was the effect of the wear and tear? It was very considerable. I read a report to the Council on this subject. It was printed in the *Herald*. I had cross-sections taken showing the amount of wear.

122. Have you not taken up wooden blocks and tested them in the same way? Yes. I had some blocks taken up in King-street.

123. *Dr. Morris.*] Were not some of the asphalt blocks damaged by kerosene? It was said that a leakage of kerosene had occurred in the hold of the ship in which they were imported. I have seen some of the blocks which were absolutely destroyed by the kerosene. It rotted them. When I found any of these blocks I discarded them from the work.

124. *Dr. Ashburton Thompson.*] Were these compressed asphalt blocks? Yes.

125. Did they not wear to your satisfaction? No; the roadway was taken up in thirteen months.

126. Why? It had worn right through. Some of the blocks had worn from 5 to less than 2 inches.

127. Then you think that asphalt blocks are not fitted for the pavement of streets? My opinion is, that for the pavement of streets with heavy traffic we have not yet discovered any composition sufficiently durable to stand the wear and tear.

128. Did you communicate with the Company on the subject of this wear and tear;—if it wears out in this rapid manner how do they find customers? I had no communication with the Company, simply because some Sydney importers introduced them to the Council. It was through them only that the business was transacted. I have received a letter from the District Council of Washington. (*Vide Appendix A 4.*) An incidental reference is made in another letter received from the same office to asphalt blocks. The writer states that some of them have lasted for ten years, and that other blocks have not lasted for one year. There is an uncertainty in the manufacture. The probability is that the blocks which lasted ten years were not subjected to the heavy traffic to which the other blocks were subjected.

129. *Mr. Barnet.*] Are they not making blocks of that kind here? I do not know whether they have commenced to make them. I saw the works in an incomplete condition some months back.

130. Where? At Greenwich Point.

131. Is that Mr. McClure's Company? I believe Mr. McClure is managing it.

132. *Dr. Morris.*] Have you observed that in some places they are paving streets with ordinary clay bricks boiled in tar? Yes, I have recently read statements to that effect.

133. *Dr. Ashburton Thompson.*] Do you think that a soft-wood block, properly creasoted, would last longer than a hardwood block not creasoted? I can scarcely venture to give an absolute opinion; but I should be inclined to give a preference to the hardwood block, without creasoting, in the matter of durability and resistance to wear of traffic.

134. *Mr. Barnet.*] You have laid some streets with blue stone cubes? Yes, one half of Sussex-street is laid in that way.

135. How does it answer? Far better than the old macadam; there can be no doubt about that.

136. *Chairman.*] For slow heavy traffic the blue stone cubes are superior? They are superior to wood on steep gradients. They can be always kept rough in order to give a foot-hold for a horse.

137. *Dr. Morris.*] You have made no experiment in the direction of introducing the tarry element into wood by pressure? No. I should be glad, however, to see such an experiment carried through.

138. Does any repair of wooden pavement take place without your sanction? Nothing is done with the pavements without my authority. That is why some of Mr. McClure's statements surprised me so much.

139. *Mr. Barnet.*] Are you aware that they are now laying in London and Paris wooden pavements which are an improvement upon the old system? I have had visits from engineers and other gentlemen passing through the city. They have complimented me upon the manner in which the wooden pavements were being laid down here, stating, among other things, that they noticed a great similarity between the method adopted by me and that in vogue in London and Paris.

140. *Chairman.*] Are you acquainted with Shiel's composite block paving? Yes; but I have had no actual experience of its efficiency.

141. *Mr. Dixon.*] How would simple concrete answer for a pavement? It is too friable.

FRIDAY,

FRIDAY, 15 AUGUST, 1884.

Present:—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
 A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
 WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
 The Colonial Architect (JAMES BARNET, Esq.)
 W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
 J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

W. C. Bennett, Esq., Commissioner and Engineer for Roads, examined:—

142. *Chairman.*] This is a Board, Mr. Bennett, which is charged with the duty of inquiring into certain alleged deleterious influences produced by the use of wood pavement in cities; and the Board desire that you will be good enough to give them some information on the subject? All the information I can give you is contained in the report which I prepared at the instance of the Colonial Secretary. It was with reference to a loan proposed to be raised by the City Council. I then ascertained all that I could ascertain on the subject, and I recommended that before any large sum was expended on wood pavement some information ought to be obtained from America as to its alleged insanitary effects.

W. C.
 Bennett, Esq.
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143. You desire then to hand in that report as your evidence? Yes.

144. In a general way do you think that the wood pavement is open to the objections which have been urged against it because of its proneness to decay and to absorb organic liquids, which will certainly facilitate its early decay and decomposition? I would rather avoid expressing an absolute opinion on that point, because there is wood and wood, and we have not had sufficient experience of the hardwoods of this country to judge with certainty. It seems obvious, however, that they are open to such influences, but that they are actually so I am not in a position, nor do I think any one else is in a position, to say positively.

145. That is to say that what is urged against the soft woods of other countries may be in a less degree urged against the hard woods we would substitute for them here? Yes; but the wood generally used in America is very soft. I have seen it asserted that the hardwood pavement in America was equally susceptible to the same influences.

146. You have had an opportunity of examining portions of wood pavement taken from the streets of Sydney, have you not? Not so much as I should like. I have had no authority to take up any of the wood pavement.

147. But you nevertheless have taken some up, I understand? No.

148. I understood from something which appeared in the *Evening News* that you had? No, it is a mistake.

149. This is stated in the *Evening News*:—"Alderman Taylor called the attention of the Mayor to the fact that at a certain spot in the city wood paving was being taken up, and, as he believed, by those who were anxious to have the wood-paving system condemned?" I have heard nothing about it. My name is not mentioned there.

150. No, but I thought as you had been commissioned by the Government to inquire into the subject, that it referred to you? No; my commission to inquire is disposed of in that report which is before you. I am on another Board with Mr. Moriarty with reference to the injury done to the wood pavement in Parramatta-street, but I have not interfered with the pavement.

At the request of the Board Mr. Bennett read the report above referred to, as follows:—

REPORT ON Wood and Asphalt Pavements.

27 February, 1884.

IN accordance with the memoranda of the Minister for Works on the Colonial Secretary's minute of the 21st ultimo, instructing me to report on the relative merits of wood and asphalt pavements, and also to direct my attention to the foundation on which the blocks were laid, so as to form an opinion as to whether the failure in George-street was due to the blocks or the foundations, I now submit report.

I have endeavoured to obtain all possible information, and have inspected the works in progress at relaying the asphalt pavement and also the timber pavements, but have not had any of the wood blocks removed, nor any average weights taken of the asphalt blocks.

During a stay of thirty days in London in 1881 I had an opportunity of seeing both timber and sheet asphalt pavements being laid; there were then no asphalt blocks in use in England.

The sheet asphalt pavement seemed to be more in use in the city, the timber in the metropolitan area. They were then laying the greater part of Piccadilly with timber pavement of the same character as that now in use in Sydney, the only difference being in the character of the wood.

With the exception of the disposal of sewerage there is no engineering question on which opinions at present are so divided and the conflict of evidence so great; the assertions and positive examples on either side are almost equally convincing, as the case may be, of the value of one and the worthlessness of the other; but as is usual each has its peculiar fitness for some special purpose, as is evident from the adoption of sheet asphalt for the heavy and comparatively slow traffic of the city, and of timber pavement for the light quick traffic of the west end of London.

The absence of complete local experience of either under the conditions of traffic, special material, cost, and duration here, is a great hindrance to an accurate comparison.

There is no example of the duration of a timber hardwood pavement under the climatic conditions of Sydney. Though some has been down three years and seven months it has not yet experienced the full range of the Sydney climate as there has been no really wet season since it was laid.

The foundations of the asphalt blocks I found to consist of a layer of tarred blue metal, varying in thickness from 5 to 9 inches, on an unconsolidated substrata of loose sand and soil, with a thin binding of 2 inches of sand over the metal on which the blocks were laid. This foundation was subsequently disturbed to lay pipes and repair sewers, and the sand which was relied on to level the inequalities of the blue-stone having, from the vibration, shifted down into the interstices of the metal, the blocks practically rested on the points of a number of stones, free to move, subside or consolidate in any direction, and as the salient points were worn off or the substrata yielded each asphalt block bearing on an unequal number of uneven points as the metal beneath was coarse or fine, subsided or tilted and exposed itself and the adjacent blocks to an uneven wear, impact, and jar, calculated to disintegrate and destroy even granite blocks. The subsidences were at first restored with asphalt blocks cut in some cases to suit the irregularities, but no attempt having been made to consolidate the foundation on completion of the first repair, further depressions took place and to such an extent ultimately as to compel the use of blue metal to keep the street passable. I can therefore report positively that the failure was due to the foundations and not to the asphalt blocks.

Mr. Mountain, the City Surveyor, in his report of 22nd October, 1880, expresses his "regret that the foundation asked for by the representatives of the Company was not of sufficient thickness to give a satisfactory test." Where the blocks had anything approaching a firm bed the surface of road was smooth and pleasant, and in such places, even in the centre

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centre of road, the wear of block was from three quarters to one inch, part of which was no doubt due to compression of the block itself. The actual loss by wear could only be ascertained by averaging weights of blocks before laying and after removal.

The tarred metal under blocks was found on their removal to be quite clean and bright, giving conclusive evidence of the impermeable and antiseptic nature of the pavement.

The oldest wood pavement in Sydney—that in King-street—has been down three years and seven months. It shows depressions and considerable signs of wear, though it has not had such heavy traffic over it as that in Pitt-street, two years and eight months down, which also shows depressions, widening, and irregularity of the joints, and wear if not alteration of material of block even though the seasons have been dry and favourable for such pavements; it therefore still remains to be tested whether the result of alternations of heat and saturation will be the same as at New York. Sydney, though in all other respects similarly situated, is not liable to the frost and snow of North America, and the timber used here is superior to the American timber, but my experience of Australian timber generally in such positions does not lead me to anticipate any better result as to duration. The life of the pavement will, of course, be in proportion to the care taken in selecting the timber, but if all but the timbers of proved durability in such positions, such as red or slaty gum, were excluded, it would doubtless enhance the cost considerably.

Soft woods were experimentally used in King-street, which may to some extent account for the wear.

A leading article in the *Engineer* of October last, though summing up with the expression of their own opinion that wood pavement is not, from a sanitary point of view, worse in the English climate than stone or macadam, asks for information on that point, and adds that experience in England is on the whole favourable to its use, though, as stated elsewhere in the article, in the more trying climate and soil of New York and other American cities it was rejected because, in addition to being unhealthy, it soon became rotten and dangerous to life and limb. The climate and conditions here, notwithstanding the absence of frost, are more like those of New York than London; but on the other hand it is stated that there were inherent defects in the American wood pavements which would have ensured their failure in any climate.

As to first cost I am informed by Mr. Mountain that wood pavement is being laid down at from 20s. 10d. per superficial yard. That lately laid in George-street, opposite the Post-office, by the Corporation, cost 26s. per superficial yard. The Patent Asphalt Block Company of New South Wales, in reply to an inquiry, state that they are prepared to lay down the pavement at from 20s. to 27s. per square yard, according to cost of excavation, strength of foundation, haulage of material, and quantity to be executed, so that there is practically no difference in first cost, and the asphalt blocks are stated to be worth 40 per cent. of their first cost when taken up; this would be about 6s. a superficial yard.

The cost of maintenance and duration of either pavement remain to be considered. I know of no reason to anticipate that the life of the wood pavement in Sydney is likely to exceed the five or six years allotted to it in England.

The asphalt blocks now removed have been down four years, with a wear of from three quarters of an inch to 1 inch, but under favourable conditions I do not think 12 years, with proper attention to maintenance, an excessive estimate for their duration; indeed it might be considered a minimum, so that with equal first cost the asphalt will have more than double the life of the wood.

With respect to smoothness, noiselessness, and foothold, the advantage is with the asphalt blocks; they have the disadvantage of giving off more dust when not watered, but on the other hand constant watering tends to increase their durability by keeping down temperature and disintegration, while it has the contrary effect on wood, tending, with the heat and foul street damp, to promote decomposition, &c.

The sanitary objection to timber pavement in this climate is the most serious of all, and safety on that point should be made certain before further extension.

Large sums are being expended on drainage and other means of securing health and freedom from epidemics, and the loss of the whole amount proposed to be borrowed would be trifling compared to the injury likely to result from an outbreak of disease such as the yellow fever at Memphis, U.S., in 1878, stated to have been caused by the decomposition of timber pavement.

On hygienic grounds alone there can be no doubt whatever about the superiority of the asphalt block. It is patent they are not liable to decomposition or saturation by foul street water; on the contrary, they are antiseptic and impermeable. The condition of the foundation under the blocks just taken up is conclusive on that point.

I would therefore suggest that no wholesale extension of the wood pavement be made until that laid down already has had two years more trial, by which time the statement as to its sanitary unsuitness can be verified or disproved; and I would also suggest that an opportunity be afforded to the Asphalt Pavement Company to show what really can be done with their blocks, care being taken that the test is at some place where the traffic and all other conditions are equal. I do not commit myself to an unreserved approval of either. There is not sufficient experience of the wood to determine its sanitary qualities; and the determination of the durability and cost of maintenance of both must be the result of further trial, more particularly of the asphalt, the new blocks, as made here, not having yet had a trial. But I think, with the experience gained by the old blocks, the two years suggested for the wood would enable a final decision to be arrived at as to whether most asphalt blocks should be used, and where. Sheet asphalt might also be tried at a suitable place, and, as suggested by Mr. Mountain, compound pavement on the steep inclines to Darling harbour, the traffic to which might be so regulated as to use one street from descent, the other for ascent, each being paved with the most suitable material.

It might be also advisable to employ the interval in obtaining reports from well-known residents of New York, Chicago, Washington, Memphis, and New Orleans, and as to how far and under what conditions timber pavements were used in those cities, and if taken up, why and by what they have been replaced, special inquiry being made as to the sanitary defects.

I should add that in London the Metropolitan Board of Works only sanction loans on condition of annual repayments, to cover principal and interest on a certain number of years, graduated according to the character of the pavement, seven years for wood and twenty years for granite being the extremes.

Hon. F. A. Wright, M.P., Minister for Public Works.

WILLIAM C. BENNETT.

151. *Mr. Dixon.*] You mention something about the faulty pavement in George-street;—to what part of George-street do you refer? To the part between King-street and Market-street, where the asphalt blocks were laid down. The wood pavement had not been laid down at that time.

152. *Dr. Ashburton Thompson.*] Have you any information as to the suitability of asphalt blocks for high grades of streets? No.

153. Or of its history in any way. Asphalt blocks were laid in Queen Victoria-street, London, in August, 1881;—do you know anything of the result of that? No; I was in London in August, 1881, and I was often through Victoria-street, but I do not recollect seeing what you speak of. They must have just commenced laying the asphalt blocks then.

154. *Mr. Dixon.*] Do you think wood pavement can be made waterproof by using asphalt or any other material between the blocks? You may make it water-proof at one temperature, but the temperature is continually changing, and you cannot make it water-proof for all temperatures. You cannot get anything elastic enough. You know that better than I do. If you use cement it will crack.

155. And asphalt is not elastic enough? No.

156. And the information you have given in your report, do you consider it to be trustworthy—is it derived from sufficient observation? It is derived from the parties who have laid the pavement down, or are prepared to lay it down. Mr. Mountain as to wood, and Mr. McClure as to asphalt. In fact Mr. McClure tendered, and I sent his letter in with my original report. I would suggest that the Board apply to the Colonial Secretary for my original report. That which you have there is simply a press copy I made as a memorandum for my own information.

157. Can you tell us anything as to the effect of creasoting wood? Creasote has been used for that purpose a great many years, but it cannot be made to penetrate into our hard woods. It has been used at home in the Bethell process, but it could not be made to go very far into the wood. They exhaust the air and then put in the creasote. It is an old-fashioned plan.

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Bennett, Esq.
15 Aug., 1884.

158. *Mr. Barnett.*] Are you aware that they are taking up the asphalt in Paris and laying down wood? It is possible. The asphalt may have been down a great many years.

159. And they are laying large quantities of wood in London? Yes, out of 2,000 miles of streets in London fifty-three are now of wood.

160. *Chairman.*] Can you tell us whether wood is replacing asphalt in Cheapside? Yes, I think there is wood pavement in Cheapside.

161. Sixteen years ago I remember it was laid with Val de Travers asphalt? Yes, the new street from the Mansion-house was laid with Val de Travers asphalt.

162. *Chairman.*] We have been informed that after wood pavement has been down some time one-third of the whole surface area is taken up by the spaces between the blocks, and it is alleged that the interstices become filled with organic filth which it is impossible to remove? It depends on the joints. In Parramatta-street they have made the joints an inch wide, which I think is too much by a great deal. I think a good deal of the failure there is attributable to that. It is very curious to see how some of the lines of blocks have assumed curves. Mr. Cowdery, who laid them, said they were originally laid straight, and the only way in which I can account for the curving is by attributing it to the cross joints, which are very tight. The street itself being very wide there is considerable expansion, and the blocks having no way to move but sideways or upwards, they have in some cases buckled up, and in others formed lateral curves.

163. *Mr. Dixon.*] Does the water accumulate in the hollow part of the street so as to saturate the wooden blocks? I do not think so. There are sewers, I think, in Parramatta-street, which carry off the water.

WEDNESDAY, 20 AUGUST, 1884.

Present:—

The Medical Adviser to the Government (CHAS. K. MACKELLAR, Esq., M.B., C.M.), Chairman.
A. LIVERSIDGE, Esq., F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney.
WM. MORRIS, Esq., F.F.P. and S., Glas., Fellow Royal Microscopical Society, London.
W. A. DIXON, Esq., F.C.S. and F.I.C., Instructor in Chemistry, Sydney Technical College.
J. ASHBURTON THOMPSON, Esq., M.D. (Brux.), San. Sci. Cert. (Camb.)

Walter Andrew Harper, Esq., called in and examined:—

164. *Chairman.*] You are a civil engineer? Yes.

165. And you are acquainted with the subject of wood paving? Yes; I have lately been studying it very closely.

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166. This Board has been constituted in order to inquire into some alleged defects in wood-paving, especially in regard to its insanitary conditions when long used, and when saturated with organic moisture. Can you give us any information on the subject? I think I can.

167. We shall be glad to hear what you have to say? I have noticed that the grouting in the blocks is very porous. It is made of rather large metal, and it is not sufficiently dense to keep out the water or any other fluid on the roadway. The same trouble occurred in London. I see that Mr. Clark in his book on wooden pavements condemns wide joints on account of their not being impervious to water. When this discovery was made some pavement was laid on a different principle. Henson's, in Leadenhall-street, is a specimen of this; the joints are only a quarter of an inch, and are caulked with saturated felt. It is said that this pavement is quite impervious to water. In Cannon-street there is another kind. Concrete was laid down first 9 inches thick; then there was a coating of asphalt about five-eighths of an inch in thickness.

168. *Dr. Ashburton Thompson.*] That is known as Copland's pavement? Yes.

169. *Chairman.*] Have you any experience of the damage done to wooden blocks by heavy traffic—that is, as to their being rendered more liable to absorb filthy matter? I think that any one examining the Sydney wood pavements must be convinced that the water can and does penetrate. I have seen some of the pavement taken up, and I have noticed that the grouting is quite porous. There is nothing to keep out the water.

170. By the grouting you mean the composition that fills the interstices between the blocks? Yes.

171. *Mr. Dixon.*] Even if the grouting were of an impervious character, would not the water get down between the blocks in the joints across the street? That difficulty might be got over if the ends were painted with hot asphalt as they are laid.

172. *Chairman.*] I take it then that your objection to the wood pavements is rather on the ground of the porous nature of the grouting than on account of any defects in the blocks themselves? I see no defect in the blocks; I consider the principle good enough if it be properly carried out.

173. You think, in fact, that if asphaltum or some impermeable material were used to fill up the interstices, wood paving would be perfect? Yes; the gaps are too wide. I was in Parramatta-street this morning, and I noticed that in some places they have become wider and wider until they have reached an inch and a quarter. In some cases in London there is only a quarter of an inch.

174. *Dr. Ashburton Thompson.*] You are speaking of the courses? Yes.

175. The joints should be quite close? Yes.

176. *Mr. Dixon.*] I noticed that in George-street the joints are widening in some cases; could they not be made perfectly tight? I am quite sure that they could, and that they could be kept tight with Val de Travers asphalt, or some equally dense bituminous substance. If some kind of liquid asphalt were poured between the blocks they would not separate.

177. *Dr. Morris.*] If the joints were made perfectly tight would not the porosity of the wood permit of its absorbing water? To some extent, unless creasoted.

178. *Chairman.*] We have been told that the pounding action of horses' feet makes the blocks more porous than they naturally are, and that a large amount of horses' urine and other organic liquids are consequently absorbed by the blocks? I believe that that would be the case.

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179. And that fermentation is engendered, and that disease is liable to be spread by this means;—do you think that is likely? That would apply to the surface of the wood. The blocks widen out, and in some cases fill the spaces, the portion of the blocks which spreads presents the appearance of a brush. It looks as though it had been hammered.

180. *Dr. Morris.*] And the wood being rendered more porous would absorb a large quantity of water? Exactly.

181. *Dr. Ashburton Thompson.*] Would not that kind of injury be avoided if the courses were set sufficiently close? The wood would not spread so much if the blocks were kept closer, but that does not get over the difficulty as regards the wood itself. Some woods would absorb water sufficient to increase their weight by 30 per cent. The remedy is to saturate it with creasote.

182. *Dr. Morris.*] Do you think that creasoting prevents the absorption of water? I think it must do so; wood will absorb only a certain quantity of liquid.

183. But suppose the wood already contains a certain amount of moisture—suppose it is green wood? It is a part of the creasoting process to take out that moisture. Before the wood is creasoted it is dried, and all the moisture is driven out. One of the causes of the failure of creasoting is that the process has not been properly carried out in this particular.

184. *Dr. Ashburton Thompson.*] One of the witnesses examined by the Board was asked whether creasoting prevented the absorption of water, and he expressed the opinion that it did not do so; the Board have been led to believe that, in addition to the formation of the upper surface of the block into brush under the influence of heavy traffic, the fibres throughout the block become separated, presenting the appearance of columns of fibres;—have you ever seen a block injured in that way? I do not think so; I have noticed that the cellular tissue is destroyed for about half an inch down, but not further.

185. *Dr. Morris.*] Have you ever seen timber creasoted under pressure? I have not seen the process, but I have seen the timber which has been treated in that way.

186. *Professor Liversidge.*] Have you seen any wooden blocks which have been treated in that way? No; only railway sleepers.

187. *Dr. Ashburton Thompson.*] How far does the creasote penetrate the wood? It goes through the whole mass. I am informed that oven-dried hardwood absorbs 34 per cent. of its mass of creasote.

188. A witness told us that the creasote penetrated only a short distance? That is not the case.

189. *Dr. Morris.*] The whole of the moisture is taken out of the wood? Yes; it takes about three or four hours to dry it.

190. Is it done by exhaustion? It is done by drying in a heated chamber.

191. *Mr. Dixon.*] Can you tell us whether the wood was exhausted of air after it had been dried? I cannot say, but I understand exhaustion is a necessary part of the process.

192. You have not seen the process? I have seen the timber afterwards; but I have made no experiments. I believe the vacuum pressure employed for exhausting is 5 lbs. to the square inch. I think the wood is always exhausted, but I do not know it as a fact.

193. *Chairman.*] Are we to conclude that you would deem a wood pavement, the interstices of which had been filled with impermeable cement, a perfect pavement? Yes; I think so.

194. And not liable to admit of any dangerous absorption? I believe it would be perfect if the joints were closer.

195. *Dr. Morris.*] You do not think the joints would admit water? They could not do so if the material with which they were filled were impervious to water.

196. *Mr. Dixon.*] But is there not a possibility of the blocks becoming loose and separating from the grouting? Close joints would render the pavement more stable, and the blocks would not be likely to be separated.

197. *Chairman.*] Have you had any experience of the description of pavement of which you speak? I have not. I have seen only the Sydney pavements.

198. Have you seen any portion of those pavements taken up? Yes; in Parramatta-street. The pavement was quite mildewed underneath in several places.

199. Did you observe any moisture on the concrete? In the lower parts of the street. On the hill of course there could be none, because there being so much fall it would run away. There can be no doubt that water had passed under the pavement.

200. *Mr. Dixon.*] Have you seen any blocks taken up in King-street, or in George-street? Yes, but I noticed no water under them.

201. *Dr. Ashburton Thompson.*] Still, in those portions of Parramatta-street, in which the water could collect, it did collect? Yes. (*Witness handed in samples of material.*) Val de Travers taken up from Cheapside, &c. I think this material would be the most suitable for the grouting. I have endeavoured to imitate the Val de Travers asphalt.

202. *Chairman.*] You think the Val de Travers most suitable for grouting? I think it is most suitable. The smaller of the two samples I produce is composed of bitumen and limestone.

203. *Dr. Morris.*] Is it done with pressure? Yes.

204. *Professor Liversidge.*] What bitumen is it? American.

205. It is not ordinary pitch? No.

PRELIMINARY REPORT.

WOOD PAVEMENT BLOCKS.

Chemical Analysis by PROFESSOR LIVERSIDGE, F.R.S.

FOUR blocks of wood which had been used for pavements were received from the Chairman of the Board appointed to inquire into the alleged deleterious effects of wooden pavements.

The blocks were numbered 3, 5, 9, and 10, the numbers being formed by saw cuts at the ends of the blocks; one-half of each block had been cut longitudinally into strips of about $\frac{3}{8}$ inch thickness.

On receipt of the blocks (about 15th September) they, together with the strips, were stamped with steel punches with the original number of the blocks, and with distinguishing letters, *e.g.*, the outer strip of 3 was marked 3A, the next 3B, the third strip 3C, &c., and so on with the others.

The weights of the half blocks and of the accompanying strips were carefully ascertained in the first instance, in case the exact original weight of any portion might be required in the subsequent experiments, after which they were dried in a hot-air oven at 105° C. to 110° C., and the loss undergone by each noted.

Block No. 3, known as "Hardwood," taken from King-street.

This block, in common with the others, showed the effects of wear and tear, a burr or brush of frayed-out fibres, due to the pounding effects of traffic, of nearly $\frac{1}{4}$ inch overhung the top portions of the block.

This block was only slightly cracked. The stains which permeated it did not follow the cracks. The stains about the base were wider and more marked than those about the sides and top, as if the block had stood and soaked in fluid.

The strips or sections showed various stains, which gradually decreased in size towards the centre, *i.e.*, the stains on 3C were smaller in area than on 3B, and smaller on 3D than on 3C.

The strips of this block, A B C D E and F, on drying at 105° to 110° C., lost on the average about 26% in weight.

Block No. 5, known as "Spotted Gum," taken from Pitt-street after thirty-seven months use:—

This block was slightly cracked. The stains did not appear to follow the cracks. Strongly marked stains were present all round the edges of the block.

The strips from this block, A B C D E and F, on drying between 105° and 110° C., lost on the average about 20% in weight.

Block No. 9, known as "Black Butt," taken from Parramatta-street after twenty-four months use:—

All the inner strips were much stained, the outer strips A and B being very much stained, especially along the lower edge, as if the block had long stood in liquid.

The stains also followed the principal cracks; hence the staining could not have been merely due to the coating of tar or creosote.

On the average, the strips from this block lost about 24 per cent. on drying between 105° and 110° C.

Block No. 10, known as "Turpentine or Black Butt," taken from Parramatta-street, near Buckland-street, after twenty-four months use:—

This block was much fissured before drying and deeply stained, especially at lower edge; the stains were large and deeply marked, even in the central strip or section; the stains also followed fissures.

Preliminary Chemical examination of the Blocks.

No attempt was made to determine the amounts of nitrogen or nitrogenous matters in the blocks, partly on account of their having been embedded in tar and painted either with it, with creosote, or other substance from which, it might be alleged, the nitrogenous matters had been derived.

Nitrites were tested for and found to be abundantly present in the aqueous extract of strips 3B, 5B, 9B, 9C, and 10B, but as these strips still retained their outer edges so much importance need not be attached to the presence of nitrites since they may have been present merely in the superficial portions of the blocks; the nitrites, however, show that there is attached nitrogenous organic matter undergoing decomposition, which if not already deleterious is liable to become so at any moment.

Nitrites were also tested for in the inner portions, shavings were turned out by a lathe from the central parts of the blocks, so as to avoid as far as possible superficial contamination; in this case only blocks Nos. 5 and 9 gave indications of traces of nitrites, showing the central portions of 3 and 10 to be free from and those of 5 and 9 to have much less decomposing nitrogenous matter.

The aqueous solutions of the turnings from the central portions of the blocks known as 3G, 5F, 9F, and 10G, were also tested for the presence of chlorine; all four of them yielded precipitates, the most copious being obtained from blocks 5 and 9.

As a confirmatory experiment the innermost strips (*i.e.*, 3E, 5E, 9E, and 10E) were taken and the edges cut off to a depth of $1\frac{1}{2}$ inch all round, and the central portions (which were distant about $1\frac{1}{2}$ inch on all sides from the outer surfaces of the blocks) were also tested for chlorine in the same way, similar precipitates were yielded, those of 5 and 9 being the largest, thus proving that absorption of chlorides had taken place to a depth of $1\frac{1}{2}$ inch.

These last solutions were also tested for phosphoric acid by the ammonium molybdate test in the presence of nitric acid, with the following result:—No. 3 contained but traces of phosphoric acid, perhaps wholly naturally present in the wood. No. 5 contained somewhat more and part of it was probably due to extraneous sources. Nos. 9 and 10 contained comparatively large quantities, especially the last, and they must I think have undoubtedly absorbed the greater part from extraneous sources.

Urea

Urea and
hippuric acid.Decomposition
and growths.

Urea and hippuric acid were also carefully tested for but not found; such compounds are, of course, liable to decompose and thus escape detection.

Fungoid growths rapidly formed in all the aqueous solutions.

Residues left on evaporation of aqueous extracts.

The aqueous extracts of the central portions of the blocks, viz.:—3G, 5F, 9F, and 10G, and of 3E, 5E, 9E, and 10E were, after dialysing, evaporated down to dryness in glass dishes over a water-bath, and examined. The extracts from both sets gave similar results.

Block 3 left a brown residue, with slight "extractive" smell, saline taste; crystals of sodium chloride were abundant and easily recognisable with the unassisted eye; on ignition a well-marked nitrogenous odour was given off.

Block 5 left a gummy residue, darker and more copious than from block 3, with "extractive" smell, saline and astringent taste, sodium chloride crystals abundant; on ignition it fused, intumescend, gave off an odour somewhat aromatic at first, which afterwards became urinous and nitrogenous.

Block 9 left about the same amount of residue as the last, but darker; somewhat urinous smell, saline taste; sodium chloride crystals present; on ignition gave slight aromatic odour which changed to a nitrogenous one.

Block 10 left a hard resinous residue of a brown colour, rather aromatic odour, and strong saline taste; salt crystals present. On ignition it fused, swelled up, gave off white fumes with aromatic odour, which afterwards became a strong nitrogenous one.

The aromatic odour noticed was probably due to resinous matter in the wood, but this could not be verified as new unused blocks were not at hand. It is just possible that it may have been due to benzoic acid derived from horses' urine.

As will be seen from the foregoing, the principal impurities found were such as are likely to be taken up by wood from sea-water and urine, and the soluble portions of horse-droppings.

Sodium chloride, an abundant constituent of the sea-water used for watering the roads, and of animal urine, was found within the substance of the wood in comparatively large quantities, the amount being greater in the outer than in the inner portions of the blocks.

Phosphates were also found in greater quantity than would be expected to occur naturally in wood.

The residues left by the aqueous extracts of the blocks also in some cases indicated the presence of organic impurities in addition to the salts and inorganic foreign matter.

I considered it unnecessary to make quantitative determinations of the various contaminating substances, or substances indicating contamination, found to be present, because the qualitative results unmistakably proved that the blocks had absorbed various impurities; quantitative analyses would necessarily occupy considerable time without, perhaps, affording much more additional information, unless new unused blocks of the same kind of wood were also examined and the results compared side by side with those from the old ones.

Application was made for such new blocks; six were forwarded to me (October 10), but I could not ascertain whether they were of the same kind as the old ones known as 3, 5, 9, and 10; they were marked as follows:—

Black butt, 3 blocks
Mahogany
Turpentine
Spotted gum.

They were qualitatively tested for chlorine, sulphuric, and phosphoric acids.

The black butt was practically free from chlorides, phosphates, and sulphates, only minute traces of chlorine and sulphuric acids being met with, and no phosphoric acid.

The mahogany, turpentine, and spotted gum contained small quantities of chlorine, and yielded traces of phosphoric acid. The differences in the precipitates from the same quantities of extract from the old and new blocks was very great. The same quantity of material and of the reagents was used in all cases for the qualitative tests, so that by comparing the bulks of the precipitates very good comparative results were obtained.

At the request of the Board the six new blocks were weighed, dried, and soaked in water to ascertain their absorptive power.

The blocks weighed as follows:—

TABLE I.

(A strip one-half inch thick had been taken off Nos. 22, 23, 24, and 25 for testing purposes.)

| No. | | October 10. | | October 14. | |
|-----|-------------------|-------------|------|-------------|------|
| | | lbs. | ozs. | lbs. | ozs. |
| 20 | Black butt | 6 | 13 | 6 | 12 |
| 21 | " " | 6 | 10 | 6 | 9½ |
| 22 | " " | 6 | 3 | 6 | 1½ |
| 23 | Mahogany | 5 | 12 | 5 | 10½ |
| 24 | Turpentine | 6 | 5 | 6 | 3½ |
| 25 | Spotted gum | 4 | 15 | 4 | 14½ |

The above shows a loss of moisture in each case on drying at the ordinary temperature of the laboratory. To ensure uniformity of conditions the blocks were next dried in a water oven for eight hours at a temperature of about 98° C. This was sufficient to drive off any accidental extraneous moisture, but not enough to thoroughly dry the wood. It would probably take several days to expel the whole of the natural moisture of the wood.

TABLE

TABLE II.

Numbers 20, 21, 24, and 25 were soaked in water for forty-four hours, wiped, and again weighed.

| | Original weight, Oct. 14th. | | Weight at 98°. | | After soaking 44 hours. | | Diff. on original weight. | | Increase in weight dried at 98° C. | |
|----------------------|--------------------------------|------|----------------|------|----------------------------|------|------------------------------|------|---------------------------------------|------|
| | lbs. | ozs. | lbs. | ozs. | lbs. | ozs. | | ozs. | | ozs. |
| 20. Black butt..... | 6 | 12 | 6 | 7½ | 6 | 14 | Gain, | 2 | | 6½ |
| 21. " "..... | 6 | 9½ | 6 | 5 | 6 | 8½ | Loss, | 1½ | | 3½ |
| 24. Turpentine..... | 6 | 3½ | 5 | 12½ | 6 | 1½ | Loss, | 1½ | | 5½ |
| 25. Spotted gum..... | 4 | 14½ | 4 | 12¾ | 5 | 0¾ | Gain, | 2¼ | | 4 |

Afterwards these blocks were placed in a trough of water, not quite submerged. About ½ an inch of the block was allowed to project above the surface of the water, as it was thought that capillary absorption would be favoured by the evaporation going on from the exposed surface. After soaking in this way for 140 hours, they were found to weigh as follows:—

TABLE III.

| | Original weight. | | Weight at 98°. | | After soaking 140 hours. | | Increase on original weight. | | Increase in weight dried at 98° C. | |
|----------------------|------------------|------|----------------|------|-----------------------------|------|---------------------------------|------|---------------------------------------|------|
| | lbs. | ozs. | lbs. | ozs. | lbs. | ozs. | | ozs. | | ozs. |
| 20. Black butt..... | 6 | 12 | 6 | 7½ | 6 | 15 | | 3 | | 7½ |
| 21. " "..... | 6 | 9½ | 6 | 5 | 6 | 12½ | | 2¾ | | 7½ |
| 22. " "..... | 6 | 1¾ | 5 | 11¾ | 6 | 3 | | 1¼ | | 7½ |
| 23. Mahogany..... | 5 | 10½ | 5 | 8½ | 5 | 13½ | | 2½ | | 4½ |
| 24. Turpentine..... | 6 | 3½ | 5 | 12½ | 6 | 7½ | | 4½ | | 11 |
| 25. Spotted gum..... | 4 | 14½ | 4 | 12¾ | 5 | 3 | | 4½ | | 6½ |

The blocks, even after soaking for the above time (22 and 23 for 140 hours, and 20, 21, 24 and 25 for 184 hours), had not absorbed all that they were capable of taking up; for every time they were weighed they showed an increase in weight. It would probably take a very long time to fully saturate hard woods of the kind. The above results show most plainly that such hard woods are capable of absorbing a large quantity of liquid in a comparatively short time, even when in the form of solid blocks. The results showing the increase in weight of the blocks after immersion, on their weights taken at 98°, as shown in the sixth column of the last table, are of more value for comparison since they were taken under uniform conditions; the blocks when received were manifestly damp, the time would not allow of their being fully and completely air-dried at ordinary temperatures, a very long exposure would doubtless be necessary as is found in drying and seasoning timber for building and other purposes, hence it was deemed advisable to partially dry them artificially under known conditions.

As far as this preliminary investigation goes it proves that the wood blocks are absorbent, as of course was well known, and that they have taken up impurities of various kinds; no great amount of decomposition was found in the particular blocks examined, but the necessary conditions might be set up at any time; decomposing animal matter diffused through a mass of porous wood must, sooner or later (under ordinary conditions), set up fermentation and decay throughout the whole mass, when we may naturally expect the usual bad effects of large quantities (many thousands of tons) of decaying matter upon the public health.

The present condition of the blocks need not give rise to any immediate alarm, but the pavements should be very carefully watched and examined from time to time, and I am of opinion that additional wood pavements should not be laid down until these have had a further trial. Under any circumstances the blocks should not be laid in such a way as to allow of the accumulation of offensive smelling fluids underneath them, as the Board found to be the case in certain instances.

November 4th, 1884.

A. LIVERSIDGE.

November 20th, 1884.

P.S.—Since the above report was written, further experiments have been made to ascertain the time taken by the blocks to dry after soaking in water. Although the results are by no means complete, they may be of some interest, and are given accordingly.

In the following table the first column gives the weights of blocks 20, 21, 24, and 25 after soaking for 140 hours, and of 22 and 23 after soaking for 184 hours, as previously described (Table III). They were then allowed to dry at the ordinary temperature of the laboratory, and weighed at intervals to ascertain the approximate rate at which they gave off moisture. They were supported in such a way that air had free access on all sides, so that the blocks dried at a much quicker rate than they would if closely packed together, as they are in a pavement with only the tops exposed as an evaporative surface.

TABLE IV.

| No. | Name. | Weight after soaking. | | October 28th. Air-dried 11¼ hours. | | October 31st. Air-dried 191 hours. | | November 4th. Air-dried 289 hours. | | November 8th. Air-dried 383 hours. | | Loss. |
|-----|------------------|--------------------------|------|---------------------------------------|------|---------------------------------------|------|---------------------------------------|------|---------------------------------------|------|-------|
| | | lbs. | ozs. | lbs. | ozs. | lbs. | ozs. | lbs. | ozs. | lbs. | ozs. | |
| 20 | Black butt..... | 6 | 15 | 6 | 9¾ | 6 | 8½ | 6 | 6 | 6 | 4½ | 10½ |
| 21 | " "..... | 6 | 12½ | 6 | 7¾ | 6 | 7 | 6 | 4¾ | 6 | 3 | 9½ |
| 22 | " "..... | 6 | 3 | 5 | 14¾ | 5 | 13¼ | 5 | 12 | 5 | 10½ | 8½ |
| 23 | Mahogany..... | 5 | 13¼ | 5 | 10¾ | 5 | 10½ | 5 | 9¾ | 5 | 8¾ | 4½ |
| 24 | Turpentine..... | 6 | 7½ | 6 | 2 | 6 | 0¼ | 5 | 13½ | 5 | 11¾ | 11¾ |
| 25 | Spotted gum..... | 5 | 3 | 5 | 0¾ | 5 | 0 | 4 | 15½ | 4 | 15 | 4 |

The

The blocks were again immersed in water as before, and weighed twice at intervals of six days, as follows:—

TABLE V.

| No. | Name. | November 8th. Air-dried weight. | | November 14th. Soaked 6 days. | | November 20th. Soaked 12 days. | | Increase. |
|-----|-------------------|------------------------------------|------------------|----------------------------------|------------------|-----------------------------------|------------------|------------------|
| | | lbs. | ozs. | lbs. | ozs. | lbs. | ozs. | |
| 20 | Black butt | 6 | 4 $\frac{1}{2}$ | 6 | 9 $\frac{1}{2}$ | 6 | 12 | 7 $\frac{1}{2}$ |
| 21 | " " | 6 | 3 | 6 | 7 $\frac{1}{2}$ | 6 | 9 $\frac{1}{2}$ | 6 $\frac{1}{2}$ |
| 22 | " " | 5 | 10 $\frac{1}{2}$ | 5 | 15 $\frac{1}{2}$ | 6 | 1 $\frac{1}{2}$ | 7 $\frac{1}{2}$ |
| 23 | Mahogany | 5 | 8 $\frac{1}{2}$ | 5 | 11 $\frac{1}{2}$ | 5 | 12 $\frac{1}{2}$ | 3 $\frac{1}{2}$ |
| 24 | Turpentine | 5 | 11 $\frac{1}{2}$ | 6 | 4 | 6 | 6 $\frac{1}{2}$ | 10 $\frac{1}{2}$ |
| 25 | Spotted gum | 4 | 15 | 5 | 2 $\frac{1}{2}$ | 5 | 4 $\frac{1}{2}$ | 5 $\frac{1}{2}$ |

It will be noticed that the blocks weighed less after soaking for twelve days (except No. 25) than they did after the first soaking of 140 hours. This is due to the loss of soluble constituents. The water in which they stood became very much discoloured every time it was changed, and much soluble matter was evidently lost.

From the foregoing tables it will be seen that the rates of absorption and of evaporation are not very dissimilar.

A.L.

CHEMICAL ANALYSES, BY MR. DIXON, F.C.S., F.I.C., INSTRUCTOR IN CHEMISTRY.

Technical College, Laboratory, Sydney, 27 September, 1884.

RESULT of examination of three wood blocks taken from Sydney streets, and numbered 1, 2, and 8. One-half the thickness of each block had been sawn into six sections from $\frac{1}{4}$ to $\frac{1}{8}$ of an inch thick. The outside section of each was rejected, the others numbered A, B, C, D, and E.

No 1. Block of Cedar—The sections showed that the upper surface was slightly cracked, but the wood was not stained; but all the sections became damp when the air was moist. The distance of the outer surface of each section from the outer surface of the block (including saw reef) was measured and laid off in the section. The sections were then cut in two, and the marked outside edges were removed from one-half of each section, so as to obtain pieces of wood taken at equal distances from the surface. Each piece was soaked for sixteen hours in 300 cc. of water, at 80°c., the brown solutions were evaporated to 25 cc., and dialized for sixteen hours to get rid of colouring matter, and the dializate tested for chlorides and nitrites. The former were present in large proportion in each case, whilst the latter were absent. Section E was not examined.

No. 2. Block of Cedar—Was much worn down, but otherwise similar to the last. One half of section A was treated as above without removing the edges. As before, chlorides were abundant and nitrites were absent.

No. 8. Hardwood (Blue Gum)—Showed cracks on its upper surface, which had opened out by drying to a depth of from $\frac{1}{2}$ inch to 1 inch. There were eighteen of these cracks. From the bottom of the blocks incipient cracks could be traced upwards, some of them to a height of 2 inches.

The sections showed that the upper surface of the block was stained dark brown to a depth of $\frac{1}{2}$ inch, and this stain passed down the end of the block, running off to nothing at the bottom. The stain also extended down the sides of the cracks, though not so dark, and in most cases passed in the direction of their continuation to a distance of from four to five times the length of the visible crack.

The sections of the block were treated as those of block No. 1, and each portion was found to contain nitrites and chlorides; but the former evidently decreasing from the outside towards the centre.

The second half of section A was treated without removing the edges, and was found to contain both nitrites and chlorides in larger proportion than the corresponding section with the edges removed.

From the above results it appears that neither the tannin in the hardwood nor the tar with which it had been coated had prevented the decomposition and nitrification of the organic filth which had penetrated the wood.

On the other hand, the natural oil of the cedar wood had apparently entirely prevented nitrification, and therefore most probably putrefaction. I use the word oil for a substance, so far as I know not hitherto examined, which is present in cedar and prevents white ants or dry rot from attacking this wood (heart wood), and which also prevents the rusting of nails driven into it.

W. A. DIXON.

MICROSCOPICAL EXAMINATION, BY DR. MORRIS, FELLOW OF THE ROYAL MICROSCOPICAL SOCIETY, LONDON.

No. 4 Block.—Outside saturated with tar; wood sound.

No. 7 Block.—Stained very much with dirty water; strong odour; wood sound.

Cedar Block.—Consisted of a very thin section from outer surface, saturated with tar; wood sound.

Having filled two half-ounce vials with sterilised distilled water, I then cut a few shavings from No. 4 and No. 7 blocks and put the shavings in the vials, labelled and well corked.

No. 7 Solution.—Within six hours the fluid had become slightly hazy, and on examining a drop of it under the microscope, minute organisms were visible, having the oscillatory movement.

No. 4 Solution.—Still bright and clear the tarry element evidently acting as an anti-putrescent. In twenty-four hours this solution had become quite hazy. Under examination the oscillatory movements were vigorous.

I then evaporated several specimens of the two solutions on glass covers; stained and mounted them in liquid amber for further examination with higher objections, viz., Spencer's 1/10 and a Powell & Lealand 1/20 oil lense.

The micro-examination brought out the various organisms showing Micrococcus, Bacteria Bacillus, and Torulæ Uræ, with other minute Monads.

In

In all my investigations for Bacteria, &c., I have never seen such a variety, and I can only attribute this to the fact of salt water being used for watering the streets, the decomposition of salt water with sewage water producing new forms of life which I have not seen in any single liquid before; and this may play a very important part in the propagation of disease when the wooden blocks commence to decay.

Having prepared some Cohn's fluid, and sterilised it in the usual way in a glass flask, I then dropped twenty drops of No. 7 fluid into the flask, plugged the mouth of flask with cotton wool and set it aside for twenty-four hours.

On examining it at the expiration of the twenty-four hours a whitish deposit had formed at the bottom of the flask, and on placing a small portion of it under the microscope I found it to consist of spherical globules in a state of budding. This Torulaceous growth grew rapidly, and in a few days spots of blue mould (*Penicillium*) had commenced growing on the surface of the liquid—the product of ammoniacal fermentation. The flask with contents I left at the office of Health Board.

The cedar block was sent to me by Mr. Dixon after I had examined the former two blocks (as his chemical researches failed to find nitrites), and on subjecting it to the same process as Nos. 4 and 7 the solution behaved in the same manner as No. 4.

From my point of view, I have no hesitation in saying that the solution obtained from No. 7 block is as potent as any common sewage water, and that if any accumulation of water lies under the wooden blocks on the surface of the concrete those portions of the street holding such water will be converted into elongated cesspits for the time being.

WM. MORRIS.

6th November, 1884.

APPENDIX A.

The Town Clerk to The Secretary Board of Health.

Sir, Town Clerk's Office, Sydney, 15 August, 1884.
In reply to your letter of the 12th instant, I have the honor, by direction of the Right Worshipful the Mayor, to state that his Worship is not at present aware of any information which can be furnished to the Board appointed to inquire into the alleged deleterious effects of wood-paving, beyond that which has already been given by the City Surveyor during his examination.

I have to add that the Surveyor has been instructed to open such portions of the wood pavements as may be required by the Board, and that every facility will be afforded for full inquiry into the matter with which they are entrusted.

I have, &c.,
CHAS. H. WOOLCOTT,
Town Clerk.

A. C. Mountain, Esq., to Chairman, Wood Pavements Board.

Dear Sir, City Surveyor's Office, Sydney, 16 August, 1884.
Since giving my evidence on Monday last I thought that the enclosed copies of reports made by me to the Council should be handed in as additions to my other papers, as bearing on the wear of both wood blocks and asphalt blocks under heavy traffic.

I therefore enclose you,—

- (1.) Copy of report on wear of wood blocks in King-street.
- (2.) Copy of report on wear of asphalt blocks in George-street.
- (3.) Tracing showing extent of wear of asphalt blocks in George-street, and hope you will add them to the record of my statement.

En passant, I may state that in the proof-copy of my evidence, as reported, no reference is made to my remarks re Dr. Raymond's report, wherein I drew attention to the garbled extract read by Mr. M'Clure.

I would suggest that your Board call Mr. J. G. Griffin, Associate Member Institute C. E., for evidence as to wear of the asphalt blocks, as I am under the belief that the "asphaltum" advocates engaged him professionally to give a report on same; and—as I have heard nothing of said report—I imagine it cannot have been as favourable as they anticipated.

You will be good enough to treat this suggestion as a private one.

Yours, &c.,
A. C. MOUNTAIN.

[Enclosures.]

The City Surveyor to The Mayor.

Asphalte Blocks, George-street.

Sir, August 1, 1881.
I have the honor to report that I have made an examination of the roadway in George-street, between King and Market Streets (laid down with the experimental asphalt blocks of the American International Paving Company), the same having now been subject to traffic for twelve months, the period I had selected as that most suitable for obtaining a fair test.

In my report (written in October, 1880, and submitted to Council March 9, 1881), I stated (page 7)—"Provided these blocks possess the elements of durability, a matter that time alone will determine, they will certainly prove a most desirable material for streets with suitable gradients." Also, "up to the present time I have been very favourably impressed with their power of durability," &c. This favourable opinion was not disturbed until about Easter, when unmistakable signs of severe abrasion were apparent; since when the process of disintegration has been very rapid, and at present portions of the roadways may be said to be absolutely worn out. At the Market-street end I have been obliged to replace the worn-out blocks with stone cubes; and in other places similar repairs will soon be necessary. I submit sample of the worn blocks, showing the amount of wear.

When the roadway was laid I had three rows carefully weighed. These I caused to be taken up and re-weighed yesterday, with the result that they had lost in weight quite 12 per cent. in one year. Seeing that these rows ran from kerb to kerb, thus including the sides of the roadway, where the least traffic occurs, and where, consequently, there is less wear on the blocks, it follows that a much larger per centage than that abovenamed has occurred where the principal traffic runs. I also remark that the roadway is now becoming very noisy, owing to the irregularities on the surface.

I do not think the pavement likely to last longer than the end of the year. I would therefore suggest that, before then, some determination be arrived at as to the material to be used to replace it.

I have, &c.,
A. C. MOUNTAIN,
City Surveyor.

The City Surveyor to The Town Clerk.

Minute re wood-paving.

28 March, 1882.
In consequence of rumours in circulation that have reached my ears, to the effect that the wood paving laid down in the city was already shewing signs of decay, I have caused a block to be removed from King-street, from each section of timber laid in that street, with a view to ascertain the degree of wear apparent on them. These I now submit to the notice of the Council, and may remark that the blocks were taken from the centre of the road without any selection whatever, and that they have now been subjected to constant heavy and varied traffic for about fourteen months. It will be seen from the table below that the greatest amount of wear on any of the hardwood blocks is inappreciable, and may be absolutely caused by a little inequality originally in the sawing. Of the soft wood, the Baltic has worn most, though only to the extent of $\frac{3}{8}$ ths of an inch in the centre. It may be mentioned that in all cases the measurement of the wear has been taken at the portion of the block most worn, and also pre-supposes that the blocks were sawn the full depth of 6 inches exactly.

The sound character of the timber is apparent by inspection of the blocks, which are in excellent condition, and cause me to express entire satisfaction with the result.

With regard to Pitt-street, about forty-three (43) blocks were replaced by the contractor with new ones (when carrying out his maintenance of the street) in consequence of his cauldrons having burnt the same to a depth of about 1 inch. The whole of this work is in excellent order.

I have, &c.,
A. C. MOUNTAIN,
City Surveyor.

Table shewing wear on blocks in King-street:—

| No. | Material | Wear | of an inch. |
|-----|-------------------|----------|---------------|
| 1 | Red gum (N.S.W.) | has worn | $\frac{1}{8}$ |
| 2 | Black butt | " " | $\frac{1}{8}$ |
| 3 | Ash | " " | $\frac{1}{8}$ |
| 4 | Box | " " | $\frac{1}{8}$ |
| 5 | Baltic (European) | " " | $\frac{3}{8}$ |
| 6 | Blue gum (N.S.W.) | " " | $\frac{1}{8}$ |
| 7 | Brown pine | " " | $\frac{3}{8}$ |
| 8 | Cedar | " " | $\frac{1}{8}$ |

A.C.M., C.S.
W.

W. B. M'Clure, Esq. to The Chairman Health Commission.

Sir,

Normanby House, Wynyard-square, 30 August, 1884.

The object of this communication is to invite the attention of yourself and the gentlemen composing the Commission to the following facts:—

1st. In my letter of 3rd June, addressed to Mr. Burton Bradley, the following words were used, "If they (wood blocks) do or do not show signs of contamination by animal matter, if such contamination is found to exist even in the smallest degree (for the pavements are new), the people of Sydney should be warned."

I said this because if a trace of contamination exists now, what inevitably must be the case in a few years hence, and how vast the menace to public health if the area of such pavements are extended. It is easy to foresee that what has happened to other cities with wood pavements in warm climates will occur here, destroy the wood pavements to save the lives of our people.

2nd. The gentlemen of the Commission have no doubt noted that the investigation by lifting a few wood blocks was done during a period of dry warm weather; thus solar evaporation has changed the conditions existing two months ago. I am induced to mention this from the fact, that in the latter part of June small portions of King and Pitt streets were opened to attend to pipes, and these small openings then disclosed a more offensive state of affairs than shown you in Parramatta-street; within the last six weeks a portion of George-street, near the Police Court, was opened to effect repairs: a considerable quantity of offensive water, worse than usual sewerage, was found below and around the wood blocks. These matters I know from my own inspection.

Therefore, because of the foregoing facts, I have to ask that your Commission will again inspect the same streets within twenty-four hours after a period of continued rain. Possibly results then obtainable may surprise you.

Mr. Thomas Rowe, architect, of Sydney, is now in London investigating street pavements. Since the late cholera scare in London the subject of wood pavements has had extra attention, and by means of a letter just received I learn wood pavements are being much condemned, and that as soon as the official papers on the question are out, copies will be sent to me.

It is often supposed that the City Surveyor and myself differ much in our views, but a careful reading of Mr. Mountain's last paper (Mar., 384) on the powers of absorption of Colonial hardwoods, will show the approximate agreement in that.

After having the benefit of several years with experience wood blocks, Mr. Mountain, in the month of Month, 1884, issued a pamphlet on paving, on page 16 of which it is stated, "The wood blocks composing the first two or three streets were subjected to a rough creosoting process by boiling in crude oil, an extract from the Kerosene Works; this was discontinued and the blocks painted with tar, on Mr. Mountain finding the density of the wood would not allow the oil to penetrate the wood, and it was evident that an outside coating of oil might injure rather than benefit the wood by imprisoning moisture in the heart of the wood, and causing dry rot." This form of reasoning is puzzling; certainly the eventual action of covering wood blocks with any kind of water resisting substance will aid in its decay because worn away by travel from the upper surface but retained on sides and bottom will tend to retain moisture in the block, but why is the coating of oil (kerosene tar) is bad and a coating of coal tar is good I don't know.

On page 15 of Mr. Mountain's treatise he states that by a number of careful tests he finds that wood blocks will shrink $\frac{1}{8}$ of an inch in length, and in same proportion in thickness. This at 40 blocks to the yard of surface affords sound reasons why wood pavements must in due time become filthy. Mr. Mountain also found new blocks with structure uninjured would absorb one pound of water. This is equivalent to one-sixth of their weight, and is reasonable proof of the ability of Colonial hardwoods laid in roads to absorb filth and when down long enough to become a nuisance and source of disease.

At close of page 15, Mr. Mountain states that the expansion and contraction of wood is a puzzle and the only serious objection to its use.

But the reply to that is, the expansion and contraction insures the absorption of street filth, and passing downwards of the same, to be afterwards evolved in noxious vapours, and therefore such pavements in warm climates must become injurious.

Yours, &c.,

W. B. M'CLURE.

The Commissioner for Railways to The Secretary Board of Health.

Sir,

Department of Public Works, Railway Branch, Sydney, 23 September, 1884.

I have the honor to acknowledge the receipt of your letter of the 12th ultimo, asking to be furnished with any information which this Department may have on the subject of the deleterious effect of wood paving in streets (presumably on the health of the people), and to state that the Department possesses no information on the subject.

I have, &c.,

C. A. GOODCHAP,

Per G.B., Commissioner for Railways.

W. B. M'Clure, Esq., to Chairman of Commission on Wood Pavements.

Dear Sir,

"Normanby House," Wynyard Square, 3 October, 1884.

The extracts enclosed herewith have been shown in their original state to yourself, Dr. Morris, and Mr. W. A. Dixon, and therefore you are able in the main to satisfy yourselves as to the truth of the extracts, so far as their being extracts.

Dr. Tarrant proposes this afternoon to ask the attention of the Government and of Parliament to the unwisdom of the Sydney Municipal Council extending the area of wooden roadways prior to the report of the Sanitary Commission.

I have the honor to submit to you extracts, numbered from 1 to 4, and to ask that they be read in their sequence, and allow them to form a part of my evidence.

Yours, &c.,

W. B. M'CLURE.

[Enclosures.]

(No. 1.)

Extract from *Home News*, London, 25th April, 1884.

It is affirmed that the asphalt tile pavement introduced into London and Berlin is superior to any wood pavement. The latter is liable to absorb organic products of decomposition like a sponge, and thus forming a hot-bed of disease, while the tile pavement is free from those drawbacks.

(No. 2.)

Extract from *St. James's Gazette*, London, 5th July, 1884.

THE atmosphere of the House of Commons on Wednesday was not in good condition, and was made the subject of observation by Mr. J. Lowther. It was admitted by the Speaker that he had noticed offensive odours in the House, and he promised at once to call the attention of the First Commissioner of Works to the matter. Unless, however, the House can be removed from its present position it will not be easy to find a remedy for the evil complained of. The noble river that runs beneath the noses of the nation's representatives would be untrue to its traditions if, during such hot weather, it failed to impregnate the atmosphere in its neighbourhood with smells of a most unpleasant character. That some of these smells should find their way into the Houses of Parliament may be expected. Members of Parliament may console themselves bad smells are not confined to St. Stephen's. The dirty state of the wood pavements affects unfavourably whole districts in London, and a pressing need of the moment is the cleansing of the wooden roads by disinfectants.

(No. 3.)

(No. 3.)

Extract from *New York Times*, 12th December, 1878.

THE Sanitary Superintendent of Brooklyn, who attended the meeting of the American Health Society in Richmond, Virginia, has submitted an elaborate report to the Board of Health on the late yellow fever epidemic. He says that the plague attacked 125,000 people, caused 12,000 deaths, and cost the country 200,000,000 dollars. He adds, "On May 22 New Orleans was in its usual sanitary condition, but on that day the fever was introduced by the steamer 'E. P. Souder,' from Havannah, whose purser clerk, having reported himself sick of neuralgia, was allowed to escape quarantine."

In concluding his report, Dr. Raymond asks the attention of the Board to the filthy condition of Southern cities visited by yellow fever, and states that there are miles of wooden pavements that are saturated with all kinds of filth stretched through the heart of the city, whose sick and dead can be numbered by thousands, and should the coming winter be mild the germs of disease will not be destroyed.

(No. 4.)

EXTRACT from report of the Commission appointed to investigate the wood pavements of Boston, U.S., 1878.

THIS Commission consisted of two chemists, two practical mechanics, and one engineer.

On page 5 of their report this Commission states there is no wooden pavement down long enough to give proper test which does not show vast deterioration, owing either to defective treatment or to defects in construction, and they have not been able to find a preservative process cheap enough to be recommended to the city without qualification.

On page 13 of this report the Commission states: The decay of wood may be traced to one of three causes—slow oxidation, the ravages of certain minute animals, or to action induced by contact of fibre with decomposing albumenoid substances of the sap. Where wood is exposed to changes of alternate conditions of dryness or wet wood decays quickly, and in the conditions as of wood pavements with the particles of fermenting animal matter like horse manure getting in between the wood blocks makes the difficulty greater.

APPENDIX B.

REPORT to the Right Worshipful the Mayor and Aldermen of Sydney, on Paved Roadways: By
A. C. Mountain, City Surveyor.

To the Right Worshipful the Mayor and Aldermen of Sydney,—
Gentlemen,

City Surveyor's Office, Sydney, October 22, 1880.

I have the honor to submit herewith the attached letter from the Secretary and Manager of the Val de Travers Asphalt Paving Company, London, which I have thought of sufficient importance to bring under the consideration of the Council. As the compressed asphalt has not been tried hitherto in this Colony, I have taken pains to collect the opinions of the most eminent municipal and sanitary engineers in England as to the merits of this material, and its suitability for road pavement, from which it would seem that it holds a foremost position amongst the many systems that the exigencies of increasing traffic have called forth. (*Vide* Appendix C.)

These extracts are derived from "A Debate on Street Carriageway Pavements," amongst the Members of the Institute of Civil Engineers (September, 1879).

Report of Lieutenant-Colonel Hayward, M. Inst., C.E., Engineer to the Commission of Streets and Sewers, London, upon Granite and Asphalt Pavements.

Papers by Ellice Clark and George W. Willcocks, Associate Members of Institute, C.E., 1879.

Report of Gerald Cobb to the Commissioners of the town of Cambridge (1873), and a Report of the Society of Arts (1878) on the application of science and art to street paving and street cleaning.

From the testimony of these gentlemen it appears that the compressed Val de Travers Asphalt fulfils the following conditions of a first-class road pavement:—It is durable, convenient, clean, and costs little to maintain; and though its first cost is undoubtedly heavy, it is undeniably an economical pavement in the long run, on account of requiring so little annual outlay for maintenance.

The question of suitability to such a city as Sydney is one not so easily settled, for the majority of our streets exceed in gradient the limit that appears to have been assigned as the steepest incline at which asphalt should be laid, viz., 1 in 60, or 1 in 50.

With reference to the question of safety, it would seem that save on rare occasions asphalt is not more slippery than granite, if proper care be exercised in cleansing it; and also provided it be laid in areas of sufficient extent to prevent a large proportion of its surface become fouled by dirt and detritus from the surrounding macadamized roads.

The question of durability is also that of cost. From the data to hand, I estimate that the 2-inch compressed asphalt, with 6 inches of concrete foundation, could be laid for about 18s. per square yard; and (taking the experience of London during the past ten years) the annual maintenance should not exceed 1s. 6d. per square yard for 15 years, which is equal to a cost of 2s. 7½d. per annum during that period. [These figures are a considerable advance on the highest prices paid for construction and maintenance in London, and I believe are high rather than the reverse.]

During the last twelve months I have been endeavouring to obtain data to enable me to ascertain (approximately) the annual cost of maintenance of our streets. This I have obtained as nearly as practicable; but it is impossible to obtain the exact amount, as they have been hitherto patched and repaired from time to time by day labour, and not under a regular system of appropriation.

An examination of the expenses incurred for labour and material for maintenance annually in our streets of heaviest traffic, such as George, Pitt, King, York, Sussex, and Oxford streets, &c., shows that on an average the probable annual expenditure amounts to 15d. per square yard. The cost of cleansing amounts to 4d. per square yard, whilst the cost of watering (paid as a rate by the residents of these streets), will amount to 6½d. per square yard. This gives a total of 2s. 1½d., which may be fairly set down as the minimum annual sum that is devoted yearly to maintaining the principal macadamized thoroughfares in this city, exclusive of supervision and establishment expenses. Now, it is apparent that this bears an unduly large proportion to the original cost of making, ballasting, and metalling the road, which is equal to about 6s. 4d. per square yard; therefore by obtaining a material that costs much less to maintain, the amount saved annually in maintenance will go to pay the capital costs of a pavement that is in the first instance much more expensive.

In the foregoing statement the cost at the end of fifteen years would have stood thus for original outlay and annual maintenance:—

| | | |
|---------|--------|---------------------------|
| Asphalt | ... .. | 39s. 0d. per square yard. |
| Macadam | ... .. | 38s. 6d. " " " |

the asphalt roadway in that period costing only 6d. more than the present indifferent macadamized road.

In dealing with the problem of the best material to use as a carriageway pavement for a city, there are many things to consider, the first of which must be the adaptability of the material to the natural condition of the place, which may be summed up under the following heads:—

- (a.) Climate: Affecting the sanitary condition of streets where porous or pervious paving is used.
- (b.) Gradients: Affecting the question of traction, foothold, and slipperiness.
- (c.) Natural productions: Affecting the question of economy in selecting a material that can be obtained near at hand.

Fortunately Sydney stands in as favourable a position as most cities in respect to climate. Although the rainfall is at periods heavy, it is limited to a small proportion of the year; and the condition of the streets known in England as "greasy" (when the most accidents occur on paved roadways) is seldom experienced here. Neither are we liable to snow, sleet, and heavy frosts, all of which tend to render all descriptions of paved streets very slippery. The objections to asphalt, wood, or stone on account of slipperiness would therefore have rather less force here than in England, so far as the climate is concerned; but here we come to the second consideration—that of gradient—where the same superiority cannot be claimed for our city. The natural formation of Sydney is too well known to be dwelt on here; but the following table, prepared by me, shows the steepness and length of some of the steep gradients in the city streets:—

| Name. | From | To | List of Grades. | |
|------------------------|-----------------------|-------------------|-----------------|--------------------------|
| | | | Inches. 1 in. | Length in feet of grade. |
| Bent-street | Spring-street | Macquarie-street | 10 | — |
| Bathurst-street | George-street | Darling Harbour | 22 | 1624 |
| Bourke-street | Woolloomooloo-street | Oxford-street | 20 | 2921 |
| Cleveland-street | Abercrombie-street | George-street | 22 | 1217 |
| Castlereagh-street | Alfred-street | O'Connell-street | 19 (av.) | 896 |
| Castlereagh-street | Goulburn-street | Campbell-street | 17 | 500 |
| Charlotte-place | Kent-street | Clarence-street | 11 | 180 |
| Essex-street | George-street | Gloucester-street | 9 (av.) | 445 |
| Elizabeth-street | Alfred-street | Bridge-street | 14 | 514 |
| Elizabeth-street South | — | — | 18 | 1029 |
| Erskine-street | Darling Harbour | Clarence-street | 18 | 944 |
| Forbes-street | Woolloomooloo-street | William-street | 10 | 700 |
| Forbes-street | William-street | Liverpool-street | 13 | 1023 |
| George-street North | Daves' Point | Fort-street | 9 | 380 |
| Hunter-street | Pitt-street | Macquarie-street | 15 | 1178 |
| King-street | Pitt-street | Elizabeth-street | 17 | 396 |
| Margaret-place | York-street | Sussex-street | 9 | 670 |
| Macquarie-street South | Goulburn-st., towards | Campbell-street | 10 | 186 |
| Wyuyard-street | George-street | York-street | 19 | 397 |

These are a few out of a numerous list of steep streets in the city.

It

It will be seen that all the above gradients are far in excess of the maximum inclination deemed advisable by engineers for asphalt roads. In such situations therefore the employment of that material would be inadvisable, unless a suggestion of Mr. F. Leneve (in report of Society of Arts, 1879) were applied to steep streets leading down to the harbour, wharves, &c. Mr. Leneve proposed (with the view of improving the traction on main roads without great cost) to lay down an asphalt tramway, *i.e.*, instead of paving the whole width of the roadway with asphalt, to lay down one or two lines, consisting each of a pair of tracks, 1 foot 6 inches in width, and 4 feet apart, formed of asphalt. On these tracks the wheels would run smoothly, whilst the horses' feet would have the better foothold of the ordinary road. This would be well worthy of trial in the steep roadways leading to the water's edge, or along a street of constant slow traffic such as Harris-street, where the great loads go generally in one direction.

The third consideration, that of natural productions, being the practical one of cost, somewhat restricts the list of materials. As everyone is aware the immediate neighbourhood of Sydney does not possess stone suitable for dressing into cube sets. In the Colony, however, there are large deposits of granite and blue-stone that should answer admirably for such purposes. The well-known blue-stone of Victoria possesses a tough nature that renders it peculiarly adapted for paving. Hitherto, the cube sets obtained from Kiama and neighbourhood have been, though harder, more brittle and less easily dressed than the best of the Victorian cubes. But further development may improve the suitability for this purpose of what is undoubtedly an excellent stone in every other respect. The present value of blue-stone cubes is about 24s. per ton, being equivalent to about 6s. per superficial yard.

The suitability of the many valuable woods of the Colony for paving has not yet been settled by experience. The soft woods are not likely to prove as durable as the resinous "Baltic deals" almost universally employed in London; but some of the harder timbers (not the hardest and closest grained), with suitable joints between rows to give foothold, should last well, and, with the foregoing proviso, would in all probability not be objectionable on the score of slipperiness. A smooth and impervious concrete foundation, and joints thoroughly run in with asphalt or tar, will be requisite to prevent the soakage and absorption of foul moisture from the street. The approximate cost of the wooden blocks would be about 23s. per hundred, or equal to about 8s. per superficial yard.

Hitherto no natural asphalt has been discovered in Australia, but the International Paving Company, whose representatives in Sydney have laid down the experimental asphalt block pavement in George-street, state in their offer to the Council their ability and willingness to manufacture in the Colony their patented material, should the same be approved at moderate rates. Provided that these blocks possess the element of durability, a matter that time alone will determine, they will certainly prove a most desirable material for streets with suitable gradients. Where they are at present laid down I have not found that there are complaints as to the slipperiness; and they form a pavement that is easily cleaned, smooth and regular, but not so noiseless as wood. Up to the present time I have been very favourably impressed by their power of durability, and regret that the foundation asked for by the representatives of the company was not of sufficient thickness to give them a perfectly satisfactory test. If these blocks can be equally well manufactured in Australia at a cost to compete with that of cube sets or wood, I have no hesitation in saying that they will be found superior to either of these materials; they will be smoother, easier of traction, and less noisy than stone, whilst they would not absorb moisture, decay under its influence, or expand and contract under variable temperature, as wood is liable to do.

The application of some of these materials to our streets would have the additional effect of lessening the expense of cleaning these streets that were paved, and of minimising the cost of watering, as the hydrants (at present objected to as being injurious to "macadam") would be much preferable to water-carts on a paved roadway, which would be both cleaned and moistened by a jet from a hydrant with a good water pressure.

As a matter of fact at the present time the cleansing of the streets is costing more than is expended on the labour of repairs and renewals, whilst in many cases they have originally been so constructed that no partial repair or patching will ever convert them into good roads; although the amount of traffic in our main thoroughfares demands that they should possess both durability and cleanliness.

Though the courtesy of the Metropolitan Transit Commissioners, I am enabled to present a table shewing the traffic through two streets of Sydney. This information is compiled from returns prepared by Ed. Oram, Esq., Superintendent to the Commissioners, whose cordial co-operation and whose zeal in securing accurate returns, I have much pleasure in acknowledging. I regret that through unforeseen circumstances, Mr. Oram was only enabled to obtain accurate returns of the traffic in two parts of George-street: 1st, near Post Office, and 2nd, near Town Hall; and also of Oxford-street, near College-street. The average of several days' traffic has been taken, and in calculating the probable annual traffic no allowance is made for Sunday or for more than twelve hours per day, so that actually I think the returns are low rather than otherwise. Care has been exercised in obtaining the number and weight of the different descriptions of vehicles, and the weight of loads and number of passengers carried, in order to ensure accuracy:—

| | Average of vehicles passing every day of 12 hours. | Weight per ton daily passing over road. | Tons annually over road. | Tons annually per yard in width of street. |
|--|--|---|--------------------------|--|
| George-street, near Post Office | 7,333 | 6,000 | 1,872,000 | 156,000 |
| George-street, near Town Hall | 7,053 | 6,389.5 | 1,993,524 | 142,304 |
| Oxford-street, near College-street | 1,983 | 2,123 | 562,376 | 40,170 |

From inquiries and personal observation, I believe that Sussex, Pitt, York, and King Streets, have heavier traffic, per yard in width, than Oxford-street; and that several other streets, such as Harris, Regent, William, Market, and Hunter Streets, have nearly, if not quite, as much.

This is sufficient to give an idea of the actual wear and tear on our main streets, when it is remembered that in the streets of heaviest traffic in Liverpool the figures vary from 216,000 to 316,000 tons per yard in width per annum, which, according to Mr. Deacon, is probably not equalled in the world.

I may here draw attention to the fact that Mr. Lovegrove, an authority on road making, states as his opinion, that "when the average cost of a macadamised road reaches 2s. per square yard he thought that as a matter of economy the surface ought to be paved." This view was adopted by the Vestry of Paddington, in 1878 (*vide* pages 12 and 13).

Mr. Deacon and other engineers have fixed the standard at which a paved roadway will be cheaper than macadam in the long run at a traffic of 40,000 tons per annum per yard in width of street.

In regard to both these conditions there are several of the main streets of Sydney that would actually cost less to pave than to macadamise during a term of years, as has been above illustrated.

I shall now collect and summarise whatever data is obtainable from the experience of older countries, where the necessities of heavy traffic, comfort, convenience, and cost have been and are still being fought out.

An examination of the various materials that are employed in the large cities of Europe and America shows that the roadways are constructed of one or other of the following materials:—

- (1.) Macadam.
- (2.) Cubed stone in the shape of whin-stone or other durable stone "sets."
- (3.) Asphalt.
- (4.) Wood.

With the first of these, macadam, we are all familiar. That is the material that has been universally used hitherto in and about Sydney, at large cost, and (in the case of the streets of heavy traffic) without a proportionate result. A modification of the usual system of laying macadam has been tried by me some months since in three streets of this city, with markedly satisfactory results.

This consists in having the metal tarred, and the interstices filled in with screenings of blue metal (also tarred), and rolling the whole to a smooth surface. In the case of one of these streets (Forbes-street, north of William-street, which has the severe gradient of 1 in 10), where hitherto all attempts to keep macadam in its place until consolidated had failed, I find that the tarred metal has made a good roadway, although (owing to the steepness of the incline) it was not rolled. The additional cost of tarring the stone and screenings I believe to be more than counterbalanced by the rapid consolidation of the road, its increased cleanliness and durability, and the diminution of noise. There is also an appreciable saving of metal, none of which is wasted by being ground into pebbles before settlement or kicked into the water channels, as is frequently

frequently the case with newly spread macadam. This method of tarring macadamised stone will be admirably adapted for all streets except those of the heaviest traffic, referred to elsewhere. I recommend that appliances be provided by the Council for having the tar and stone mixed on a large scale by machinery.

To do this it will be necessary to erect a crushing plant and appliances for heating and mixing the screenings and tar by mechanical means. At the Melbourne Corporation Quarries at Merri Merri Creek this is now being done with satisfactory results. The staff employed in the quarries and crushing and mixing sheds consists of eighty-five men, and the appliances consist of seven stone-breaking machines, traveller and elevator to bins, and two patent mixing machines, each capable of heating and mixing 50 cubic yards of screening per diem. The whole is driven by a 35-h-p. horizontal engine. In addition to this, a small engine with drum and wire rope, hauls the loaded trucks of spawls from the bed of the quarry and delivers them at the stone-breakers. The quarry is kept free of water by a pump, worked when required, by waste steam from the large engine.

By means of this machinery the city of Melbourne is supplied with 2½-inch stone at 5s. 3d.; and screenings, heated and mixed with tar, at 8s. per cubic yard.

For want of similar appliances a limited quantity of tarred screenings, imperfectly mixed, is all that we are able to obtain in Sydney at an extravagant cost of from 13s. to 14s. per cubic yard. An additional argument in favour of the application of machinery to this purpose is the increasing demand of the finer stone obtained from the crushing for the tar pavements now used on our footways.

The chief difficulty seems to be in the fact that the Council is not at present in possession of a suitable site on which to erect these appliances, as their only quarry (Pennant Hills) is already nearly worked out; but I think that obstacle can be surmounted, and a suitable site procured.

Mr. G. F. Deacon, M. Inst. C.E., and City Surveyor to Liverpool (Eng.), speaks thus of macadamised carriage-ways:—The cost of maintaining macadamised carriage-ways, where the traffic is great, is so much in excess of the cost of maintaining set pavements, the dirt in wet weather, and the dust in dry weather are so objectionable, and the quantity of detritus washed from them into the sewers is so large, that for many years they have been abandoned, except for a few leading carriage thoroughfares to the outskirts. Difference of opinion exists as to the best mode of blinding the surface. Under a 15-ton roller, preceded by a water-cart, 1,200 yards of trap rock macadam, without blinding, can only be moderately consolidated by 27 hours' continuous rolling. If blinded with hard rock chippings from a stone-breaker, the same area may be moderately consolidated by the same roller in 18 hours. If blinded with silicious gravel from ½-inch to the size of a pin's head, mixed with about ¼ part of macadam sweepings obtained in wet weather, the area may be thoroughly consolidated in 9 hours. Macadam laid by the last method wears better than that laid by the second, and that laid by the second much better than that laid by the first.

Mr. Lovegrove found as the result of some few calculations that the maintenance of paved surfaces was reduced to a very small figure. In round figures it was 1d. per yard per annum. In one case where maintenance of macadam roadway had reached 2s. 6d. per yard, the road was partly paved, and the cost had been reduced to 1s. 8d. per yard. When the average cost of maintenance of a macadamised roadway reached 2s. he thought that as a matter of economy the surface ought to be paved.

Mr. Stayton, surveyor, of parish of Chelsea, states:—“The average of cost per yard for maintaining the macadamised roads, King's Road, and Sloan-street, including cleansing, amounted to no less than 2s. 11d. per annum, but on one portion of that which was narrow it was no less than 6s. Of course the cost varied with width and traffic. On the Chelsea embankment, where the roadway had been newly laid upon a bed of concrete 12 inches thick, the cost was about 1s. 4d. per yard per annum, and in the side streets it varied from 9d. to about 1s. 6d. The cost of maintaining the macadamised road in Parliament-street was for 1877, 2s. 9d. per yard, and for 1878, 3s. 1d. In Great George-street the cost in 1877 was 3s., and in 1878, 1s. 0½d. Victoria-street cost in 1877, 2s. 3d., and last year 1s. 8d. per yard. That was without cleansing, which amounted to 10d. or 11d. per yard per annum in addition. The Vestry of Paddington in May, 1878, issued a valuable report upon the question, arriving at the conclusion that where a macadamised roadway cost 2s. per yard per annum, it was desirable that some other pavement should be substituted; and they further went on to say that that pavement should be wood. The question of wood paving had also been considered in the adjoining parish of St. George's, Hanover-square, and most successfully adopted. It had been adopted in Piccadilly and Knightsbridge, and was about to be laid in Bond-street and St. James-street. There was another question with regard to cost. He was commencing 2 miles of wood pavement in King's Road, Sloane-street, and Sloane-square, representing an area of more than 30,000 square yards, and costing nearly £18,000. Before going into that he made exhaustive inquiries, and inspected the whole of the pavements laid in various parts of London. The conclusion arrived at that it was desirable to have a simple but substantial kind of pavement, and one that should be placed upon a bed of Portland cement concrete, 6 inches thick. The most satisfactory and simplest pavement that he had seen was a piece of laid in the Fulham Road, by the Cancer Hospital, and another in High-street, Kensington, laid by Messrs. Mowlem Burt & Co. It consisted in simply laying ordinary deal blocks upon a concrete bed and grouting them with a lime grout. Another piece, between Oxford Circus and Tottenham Court Road, was also done on the plain system, blocks being put upon the concrete and grouted in with Portland cement. That was laid very economically, but the joint was a little too wide. It was essential that the joint should be narrow, and that it should be carefully made, with a view of keeping it parallel and tight. The system he was adopting was similar to this, with plain blocks on a concrete bed; only instead of using the ordinary strip between the blocks, he was fixing three little iron studs to each block, which would give the pavement a firmness before there was any grout upon it. The cost would be about 11s. 3d. per yard; and he estimated that if the blocks of that pavement had to be renewed every six years—not the concrete, because that was supposed to last for many years—the cost at the end of fifteen years, including the cleansing, would only amount to 1s. 11d. per yard, whereas the cost of macadam at that part was no less than 2s. 10d. It was not proposed to retain the existing blocks, but to renew them every six or seven years, according to requirement.

Cubed stone is the material that has been used hitherto principally in the streets of heavy traffic in the large cities of Europe, and forms a durable, economical, and tolerably clean roadway, the great objection being that it is so noisy. In London I find that the class of stone pavement most used in main thoroughfares is Aberdeen granite cubes, 3 inches wide and 9 inches deep, generally grouted with stone lime, and costing on an average 16s. per square yard, exclusive of foundations, as shown in the annexed table, taken from Colonel Haywood's Report of 24th July, 1871:—

ABSTRACT showing estimated cost per annum of Granite Pavements in some of the principal thoroughfares in the City of London.

| Situation. | Description of pavement. | Estimated duration of pavement. | First cost per square yard. | Total cost, including first cost and maintenance per square yard. | Average cost for square yard per annum. |
|------------------------|--------------------------|---------------------------------|-----------------------------|---|---|
| | Aberdeen granite | | s. d. | £ s. d. | s. d. |
| Cheapside | 3 in. by 9 in. | 15 years. | 16 0 | 1 4 4½ | 1 7½ |
| Poultry | do. | 8 do. | 16 0 | 1 2 4 | 2 9½ |
| Old Broad-street | do. | 20 do. | 16 0 | 1 0 11½ | 1 0½ |
| Moorgate-street | do. | 15 do. | 16 0 | 1 0 7 | 1 4½ |
| Lombard-street | do. | 20 do. | 16 0 | 1 1 4½ | 1 0½ |

No foundations are included in these estimates.

Mr. David C. Proudfoot, speaking of Edinburgh, says:—“In the construction of carriageways for heavy traffic, whether paved with stone or wood, it was absolutely necessary to have a strong concrete bed or foundation from 6 to 9 inches deep. For durability and economy there was no mode of constructing a city carriageway for heavy traffic that could excel the following:—

(1.) Foundation of cement concrete, 9 inches thick.

(2.) Granite sets, 3 inches thick by 7 inches deep, built into a bed of fine concrete about 2 inches thick, laid over the concrete foundation.

(3.) The whole of the joints grouted with Portland cement grout.

The

"The cost of this work in Edinburgh would be about £1 per superficial yard, and the road would require no repair for about ten years. The noise caused by the traffic passing over a carriageway so constructed was not distressing, the close grouting of the joints tending greatly to lessen it. The surface was easily cleansed, and as a sound and substantial carriageway for bearing heavy city traffic it could not be excelled."

Mr. John Mowlem Burt, the well-known paving contractor, stated with regard to 3-inch sets:—"In 1840, Blackfriars Bridge was first paved with setts 3 inches wide and 9 inches deep. Thirteen years afterwards one of the arches gave way, and the stones had to be taken up, some being Guernsey and some Aberdeen. The Guernsey stones were only worn down $\frac{1}{2}$ inch, while the Aberdeen stones were worn down $1\frac{1}{2}$ inch. When the old bridge was removed, about ten years ago, he was in charge of the men pulling up the stones, and found that many of the Guernsey stones were $8\frac{1}{2}$ inches thick, while the Aberdeen were only 7 inches.

"The Edgware Road was laid twenty-six years ago, with a 6-inch concrete foundation, and 6-inch granite cubes grouted with lime. That road was relaid the year before last at a cost, he supposed, of about 2s. a yard, so that in twenty-five years the road had only cost the parish about 1d. per yard per annum. The west end of Oxford-street lasted something like twenty-eight years, showing that the cost of stone paving was considerably less than that mentioned for wood paving. Six or seven wood paving companies were trying which could get ruined the fastest. He thought the simpler the wood paving the better. Let 6 or 9 inches of Portland cement be laid down, and the blocks put on the cement and grouted in with lia lime."

Mr. G. F. Deacon (in the paper already quoted) strongly approves of stone cubes not more than $7\frac{1}{2}$ inches deep, laid on either cement, concrete, or bituminous concrete foundations, which costs 11s. 5d. and 15s. 5d. per square yard respectively. He then proceeds to say:—"About 300,000 square yards of stone pavement have been laid within the last six years in streets of varying traffic in Liverpool, up to 360,000 tons per yard width per annum, and an average of 0.923 of a ton per wheel including empties—two figures which taken together are probably not equalled in the world. The old pavements in streets of such traffic were generally of the hardest and most durable stone, and the foundations of hand pitching; nevertheless the pavements cost about 3d. per square yard per annum to maintain, and they were never in good condition. The hard stone sets B and C, paved on concrete, and with impervious joints, remain in excellent condition. The oldest of these pavements, constructed in 1872, though subjected to a traffic of 218,000 tons per annum per yard of width, and a mean load of 0.679 ton per wheel, including empties, have hitherto cost nothing to maintain beyond the occasional filling up of joints with asphalt and the restoring of a few sets, not worn but split and crushed by loads of 60 tons on four wheels. The rate of wear under the greatest traffic has not exceeded 0.02 of an inch of solid stone per annum, except at junctions of streets and some other places, where very hard stones were avoided in order to prevent slipperiness. Under a smaller traffic the macadam opposite the hospital in Great Howard-street cost 3s. 6d. per yard per annum to maintain and would now cost 4s. 8d.; and in the same place wood costs the Corporation, including gravelling, 1s. 11d. per annum to maintain. The greater part of this is however paid to the Company for maintenance, and really therefore includes a sinking fund. These figures serve to show generally the great divergence in the cost of maintenance, but they do not include cleansing, the figures relating to which are still more favourable to the asphalt jointed pavements. If the standard of traffic be taken at 40,000 instead of 100,000 tons per annum for every yard in width of carriageway, the figures for the last three pavements are as follows:—

| Description of Pavement. | Original cost per square yard at present prices. | Deductions from first cost to determine cost of renewal. | | Interest on original cost at 4½ per cent. per square yard per annum. | Sinking fund, invested at 3 per cent. compound interest. | Maintenance per square yard per annum. | Scavenging per square yard per annum. | Gravelling per square yard per annum. | Total annual cost per square yard. |
|---|--|--|---|--|--|--|---------------------------------------|---------------------------------------|------------------------------------|
| | | Cost of foundation not requiring renewal. | Allowance for old materials at date of renewal. | | | | | | |
| No. 6.—Bituminous concrete pavement | s. d. 3 9 | s. d. Nil. | s. d. Nil. | s. d. 0 2 | s. d. Nil. | s. d. 0 9 | s. d. 0 2.4 | s. d. Nil. | s. d. 1 1.4 |
| No. 7.—Wood pavement ... | 15 1.5 | 2 0 | Nil. | 0 7.5 | 0 4.3 | 0 1.0 | 0 2.7 | 0 5 | 1 8.5 |
| No. 8.—Macadam pavement. | 6 9 | Nil. | Nil. | 0 3.4 | Nil. | 1 0 | 0 8.0 | Nil. | 1 11.4 |

While discussing the other comparative advantages of various classes of pavements the total annual cost as shown by the foregoing table should be borne in mind.

But a much more correct idea of the total difference of cost may be gathered from the following table, in which the first cost, renewal, and maintenance are all considered:—

| Description of Pavement. | Original cost per square yard at present prices. | Cost of foundations not requiring renewal. | Allowance for old Material at date of renewal. | Interest upon original cost at 4½ per cent. per square yard per annum. | Sinking Fund invested at 3 per cent. compound interest. | Maintenance per square yard per annum. | Scavenging per square yard per annum. | Gravelling per square yard per annum. | Total annual cost per square yard. | Remarks |
|--|--|--|--|--|---|--|---------------------------------------|---------------------------------------|------------------------------------|---|
| | | | | | | | | | | |
| No. 1.—Sets $7\frac{1}{2}$ in. deep. Class of Stone, A, B, Gravel joints, hand-pitched foundations. | 12 1 | 1 6 | 3 0 | 0 6.5 | 0 1.8 | 0 1.0 | 0 4.2 | Nil. | 1 1.5 | Old Liverpool pavements. |
| No. 2.—Sets $7\frac{1}{2}$ in. deep. Class of stone, B, C, D, E, F. Asphalt joints. Portland cement, concrete foundation. | 15 1 | 3 9 | 3 0 | 0 8.2 | 0 0.6 | 0 0.25 | 0 2.4 | Nil. | 0 11.45 | Pavement for heavy traffic. |
| No. 3.—Sets $7\frac{1}{2}$ in. deep. Class of stone B, C, D, E, F. Asphalt joints. Bituminous concrete foundation. | 14 10 | 3 6 | 3 0 | 0 8.0 | 0 0.6 | 0 0.25 | 0 2.4 | Nil. | 0 11.25 | Pavement for heavy traffic. |
| No. 4.—Sets $7\frac{1}{2}$ in. deep. Class of stone, G, H, I, K, L, M, N. Asphalt joints. Portland cement, concrete foundations. | 15 1 | 3 9 | 3 0 | 0 8.2 | 0 3.7 | 0 0.5 | 0 2.4 | Nil. | 1 2.8 | For light traffic or steep gradients & junction of streets. |
| No. 5.—Sets $7\frac{1}{2}$ in. deep. Class of stone, G, H, I, K, L, M, N. Asphalt joints. Bituminous concrete foundations. | 14 10 | 3 6 | 3 0 | 0 8.0 | 0 3.7 | 0 0.3 | 0 2.4 | Nil. | 1 2.6 | Do do |
| No. 6.—Bituminous concrete pavement. | 3 9 | Nil. | Nil. | 0 2.0 | Nil. | 1 6.0 | 0 2.4 | Nil. | 1 10.4 | For back streets & light traffic. |
| No. 7.—Wood pavement. Blocks 6 in. deep. Bituminous concrete foundations. | 15 1.5 | 2 0 | Nil. | 0 7.5 | 0 10.1 | 0 1.0 | 0 2.7 | 0 5.0 | 2 2.3 | Creosoted wood pavement, if constructed by Corporation. |
| No. 8.—Macadam pavement, hand-pitched foundations. | 6 9 | Nil. | Nil. | 0 3.4 | Nil. | 2 0.0 | 0 8.0 | Nil. | 2 11.4 | Only employed in Liverpool for suburban roads. |

In this table the cost of Maintenance and Scavenging are reduced to a standard traffic of 100,000 tons per annum for every yard in width of the carriage-way. It is assumed that the work is done by the Corporation, and 3 per cent. of the cost of both labour and materials is included for establishment expenses.

ASPHALT

ASPHALT PAVEMENT.

Asphalt has been fully described in Mr. Harrison's letter, and I content myself with attaching what opinions I have been able to collect in reference to its applicability as a roadway.

The chief disadvantages to its use in Sydney will be :—

1st. It must be imported.

2nd. The necessity of using skilled labour to lay it.

3rd. In effecting openings and repairs it will be necessary to have competent workmen and a stock of material at hand, to renew the roadway.

These appear to be the only serious difficulties attendant on the introduction of this material; as the question of slipperiness with regard to asphalt—or indeed any other pavement—during moist weather, can be overcome by sprinkling the road with sand, for which a machine which answers admirably was devised last year for the streets of London.

In making his report to the Streets Committee of the City of London (1871), Col. Haywood speaks exhaustively on this subject, and extracts from his report, together with the opinions of other experienced engineers on the subject, will be found attached. (*Vide Appendix A.*)

WOOD PAVEMENT.

Referred to in Appendix 2.

Probably no material that has been introduced for the purposes of road making has been subjected to more discussion or given rise to greater differences of opinion than has wood.

The disastrous results of the wholesale experiments made in New York tended to establish the conviction that wood was an expensive failure under such conditions.

In the Report of the Department of Public Works, New York, for the quarter ending the 30th June, 1876, the following remarks occur :—

"It will be seen that there are 21 miles of wooden pavement in the city, nearly all of which is in a wretched state of dilapidation and decay. At least three quarters of it should be replaced by substantial stone block pavement during the year 1877; the remainder may last, with temporary repair, for another year."

"It is hardly necessary for me to state what must be apparent to the most casual observer, that a wooden pavement in this city has proved a total failure. In addition to the evil of a rough and rugged surface, after comparatively few years service, it is unquestionably true that the decaying matter of which it is composed is detrimental to health. It is unfortunate that the experiment of its usefulness and durability had not been tried upon a smaller scale than an aggregate length of more than 20 miles, distributed over sixty streets. Valuable experience would thus have been acquired at much less cost to the city. It is useless, however, to deplore the errors of the past, doubtless attributable in this case, as in many others, to the combined influences of jobbery and ignorance. What is now to be done is to remedy the evil with the least possible delay, and in the most perfect and economical manner."

In considering this sweeping condemnation it must be borne in mind that by bad construction these pavements rotted before they had been down five years, and thus proved a prolific source of disease. The wood pavements in America in nearly all instances had the radical defect of a bad foundation, and, being laid with porous joints, became sodden with water underneath, and in addition to perishing prematurely, emitted most offensive smells from the impure accumulations with which they were saturated.

The last few years has seen a great change in the construction of wood pavements, and at the present time some of the most important and best paved streets in London are laid down with wood; notably King William and Gracechurch Streets. It is also in contemplation to lay wood pavement in Regent-street and Piccadilly.

The very interesting opinions expressed by the English authorities at the meeting of the Institute of Civil Engineers, contain so many valuable ideas that I have thought it advisable to quote them for general information.

The result of the contemplated wood pavement in King-street, ordered by your Worshipful Council (where several of our Colonial timbers will be used, with a view to determine their relative suitability for this work) will be of great utility in settling the question of the advantages of this description of pavement.

In this work I have endeavoured to select woods that—whilst possessing closer grain, and in consequence, greater durability and less tendency to absorb putrescent moisture—will not be too slippery on the face, which is one of the evils attendant on the use of hard woods. By having all the blocks well soaked in tar I hope still further to minimise the sanitary defects attributable to wood paving.

Should the Council decide to carry out the wood pavement on a large scale, I would recommend that the contracts include the maintenance of the roadway for a term of years, and also that stringent provision be made to prevent a continuance of the present careless system of breaking open streets on any excuse by plumbers and drainers. This would ensure a more excellent description of work than could be procured under the ordinary contract system, and would be more economical to the Corporation, and more convenient to the public.

An examination of the various opinions on the question of wood-paving shows that there still exists great diversity of opinion amongst the authorities. All agree as to the necessity of a thoroughly good foundation, and as to the necessity of rendering the joints impervious to water. This latter can best be effected by means of asphalt; as a substitute, boiled tar forms a good grout mixed with gravel or coarse sand.

The difficulty with regard to expansion and contraction of the wood is one not easily to be dealt with. It will be seen that Mr. Reader Harris records an instance where the kerbing stones and lamp-posts were burst out of position by the action of rain followed by sudden heat on a wooden pavement. The method adopted by the Asphalt-Wood Company (referred to in Mr. Willcock's paper) appears to be most suitable for preserving the wood from absorption of water and permitting a certain amount of expansion and contraction without injury to the street.

It will be seen that the sanitary authorities of London and Paris are both adverse to the general application of wood on hygienic considerations. From Mr. Gerard Cobb's paper we find that gentleman unfavourable to wood-pavement as compared with other materials on the score of cost and want of durability, the average life he gives to wood being three years. It must however be remembered that he refers exclusively to the soft Baltic deals used in London. Mr. Cobb also dwells on the sanitary objections; but, as I previously stated, I believe these objections would have less force in our drier climate, and where timbers of denser fibre were employed.

I think a consideration of the valuable scientific evidence as to the comparative merits of the various road-making materials herein quoted must lead to the conclusion that it will be desirable to adopt one or other of them in the main streets of Sydney.

The comparative cheapness, combined with the durability of stone cubes, give them a decided claim to favourable consideration; but the noisy thoroughfare that they make is likely to prevent their being employed in streets where offices and houses of business are numerous. In the case of streets of heavy traffic, where the question of noise will not be all important, it will be advisable to use the cubes. This has now been commenced, as the Council has sanctioned the paving of the north end of Sussex-street.

The wooden pavement, though more expensive and less durable, possesses the advantage of comparative noiselessness, and is also adapted for moderately steep gradients; whilst the asphalt, in regard of cleanliness, durability, resistance to traction, and absence of noise, approaches the condition of a perfect roadway on easy gradients more nearly than does any other material. In the case of both wood and asphalt, special care in laying the foundation and surface is necessary.

The asphalt blocks which have been already used in George-street bid fair (if they can be manufactured in the Colony at reasonable rates) to successfully rival all the other materials, as up to the present time they appear to be standing the test of durability, which was the uncertain element in the experiment, whilst they have not the roughness of surface generally found on stone cubes, nor the liability to expansion and contraction with changes of weather, that the wood is subject to.

For the less important streets the tarred stone pavement will answer admirably, as it lessens the noise of the ordinary macadam, consolidates more speedily and closely, and does away with the necessity for blinding; it should be extended in application to the gradual exclusion of the ordinary macadam, provided it be done on a large scale by machinery, and the material allowed to be stacked at least a month before use, to allow of proper absorption of tar.

I have endeavoured in this report, and by attaching extracts from the opinions of experienced engineers, to place the advantages and disadvantages of each material fairly and fully before your worshipful body, not with a view of specially advocating the use of any particular material (which will be a matter for yourselves to decide), but more with the idea of impressing the necessity that exists for effecting an improvement in the street construction of the city, and more especially

in

in the main thoroughfares. The original formation of the older streets has been bad, the ballast in many cases being now absolutely decayed; the convexity practically reduces the breadth of roads already narrow, and the traffic over the leading thoroughfares is probably not exceeded by any city in the Southern Hemisphere, as may be gathered by the table above supplied. Under these circumstances there is every reason why a more permanent material should be used in the future, by which not only would their durability and appearance be enhanced, but an opportunity would also be afforded of reforming them to a more suitable cross-section.

Whilst referring to the peculiar disadvantages of our streets, it may not be inappropriate to allude to another defect that tends to render their proper maintenance a matter of difficulty. This is the absence of any provision to regulate the breadth of the wheel-tires according to the loads drawn. At present little if any difference is to be seen in the width of tires, whether the same sustain a light or an excessively heavy load; the result of which is the "cutting-up" of the street, which is increased by the narrowness of many of our roads of heavy traffic, causing the tracks taken by vehicles to work into "grooves."

The adoption of a scale defining the size of tires in accordance with the weight to be drawn (as is customary in large English towns) would distribute the pressure, and rather tend to compress the materials of which the road is formed; whereas an opposite result is produced at the present time, as just stated.

So little carriageway-paving has yet been executed in the city that it is difficult to form a precise estimate of what the probable cost of laying the different materials herein referred to would be; but approximately the difference would be (in each case for similarly good foundations) as represented by the following amounts:—

Asphalt (Val de Travers)—18s. per square yard.

Cube sets (blue stone)—16s. per square yard.

Wood (varying according to value of timber)—From 18s. to 20s. per square yard.

I think, in all cases, these prices would be reduced considerably if large areas were paved.

It must be said in favour of the cube sets that they alone of the three materials are not entirely dependent on a perfectly smooth and firm foundation. When laid on a bed of tarred metal they form a good road, and in some instances they have even stood very fairly when merely laid on old macadam thrown in the trench to a thickness of 2 or 3 inches. The probable cost of laying cubes on tarred foundations 6 inches thick, per square yard, would be about 12s. 6d.; whilst they could be laid for about 9s. per square yard if merely bedded on old blue metal as above described.

The importance of the subject must be my apology for entering upon it at such length; and the fact that I have had to await the particulars from the Transit Commissioner's Office with regard to the traffic has been the cause of my delay in presenting a report that had been prepared some months since.

I have, &c.,

ADRIEN C. MOUNTAIN,

City Surveyor.

APPENDIX I.

ASPHALT.—From Report of WM. HAYWOOD, M. Inst. C.E., F.R.I.B.A., to the Streets Committee of the City of London (1871).

Two causes alone occur to me which may render carriageways unfitted for asphalt. The first is the gradient; the second is the nature of the traffic or business carried on in the street.

The question of gradient must be considered both in respect of ascent and descent. Upon ascending an incline the draught, as compared with a level surface, being greater, a vehicle has a tendency to roll backwards; a horse has to exert a greater force to draw the same load, and requires better foothold to avoid slipping, and in descending requires a better foothold to withstand the tendency the load has to roll downwards upon it. This tendency to roll increases with the gradient of the street, and with the smoothness of the surface.

Asphalt being perfectly smooth, the angle at which a body would descend upon it by its own gravity is very slight; and as it affords much less foothold than granite, it causes, even upon steep gradients, more strain to a horse, and can only be used with safety on a less inclination than other pavements.

The exact value of asphalt in this respect, as compared with other road surfaces, could only be established by dynamometrical observations, which have not, I believe, been made; and in their absence, opinion must be formed from general experience and consideration of known results on street surfaces of other kinds.

The streets in the City paved with compressed asphalt, which have the steepest gradients, are—Old Bailey, with a gradient of 1 in 71; Queen-street, with a mean gradient of 1 in 66, a small part of it being 1 in 57; and the western end of Broad-street, which is 1 in 46. No inconvenience to the traffic has been noticed in these streets, but the pavements have been laid so recently that conclusions cannot be safely drawn from them.

One in thirty is the steepest gradient permitted to Railway Companies and others in the formation of turnpike roads, and 1 in 20 in other public carriage roads of less traffic; but neither of these is a good gradient for a paved town road. A horse can trot up a gradient of 1 in 45, unless heavily laden, provided there be reasonably good foothold; but upon such a gradient a vehicle on asphalt would run down rapidly by its own gravity. A gradient of 1 in 60, on a well made granite pavement is, as regards traction, not much inferior to a level surface, and although I incline to the opinion that asphalt can be safely laid at a steeper gradient, I think that, until further experience is gained, it is expedient not to exceed 1 in 60, excepting under special circumstances. Speaking from general observation only, I should say that no street at Paris paved with this material has a greater gradient than 1 in 60, and that most of the streets have much better gradients.

Asphalt is fitted for all streets of suitable gradient, unless there is chance of such substances being spilled upon them as decompose or injure the materials; but I am not aware of any streets in the City where such an extent of business of that kind is carried on as to render injury to the pavements from such a cause probable.

Where there is much heavy cartage, or horses have to start with heavy loads, it may be better to use granite until more experience is gained, and especially in those streets where it will be difficult to maintain a high state of cleanliness.

The streets in which the advantages from asphalt will be most fully experienced are those of the greatest traffic, where the comfort afforded by it will be felt by all, whether in carriages or on foot, or in the neighbouring houses; the other streets are those in which the premises are used as offices, and where transactions of great commercial importance are carried on of which Throgmorton-street, Lothbury, Old Broad-street, Mincing-lane, Mark-lane, and streets of similar character are examples.

General Conclusions.

My general conclusions upon the subject matter of this Report are:—

Firstly.—That asphalt carriageway pavements afford much convenience and comfort to the traffic, and to the inhabitants of the streets in which they are laid, and that they lessen the labour of horses and the wear of carriages.

Secondly.—That with great cleanliness and reasonable care during frost, asphalt pavements are, for the general traffic, as safe as granite; but that shortly after slight rain, and just before dryness ensues, in streets of much traffic, or when not kept clean, they are more slippery than granite, but that the duration of these periods of slipperiness is but short.

Thirdly.—That great cleanliness is essential to them; that they can be kept cleaner than any other class of pavement; that the cost of doing so is not much more than that of cleaning other streets; and that with proper cleanliness street watering is unnecessary.

Fourthly.—That an asphalt surface can be laid and repaired as quickly as granite, but requires finer weather for its proper execution; that when done, the work causes less inconvenience than granite; that less surface need be taken up for repairs over openings, but that the cost of the repairs will be greater than that of granite.

Fifthly.—That the durability of asphalt will be less than granite, but in what degree there is no experience in this country to show.

Sixthly.—That the first cost of asphalt is about the same as granite, but that the maintenance will be more expensive in streets of large traffic, and will vary according to the character of the road and the traffic over it; and that generally, therefore, asphalt will be more expensive than granite pavements.

Seventhly.—That asphalt will be less expensive than macadamized roads where there is much traffic, and is free from the inconvenience of macadamized surfaces.

Eighthly.—That with present experience it is not advisable generally to lay down asphalt in carriageways having steeper gradients than 1 in 60.

Ninthly.—That asphalt is adapted to all streets having suitable gradients, excepting those in which special or exceptional trade or business is carried on, and where it may be difficult to maintain a high state of cleanliness.

To avoid misapprehension I must again state that I have referred mainly to the compressed asphalt of the Val de Travers.

From

From Report of Mr. Ellice Clark, Assoc. M. Inst., C.E.

In December, 1877, the Val de Travers Company had laid 85,000 square roads on the Metropolitan roadways, while in Vienna, Berlin, and other Continental cities many thousands of yards have been put down.

In 1838, inquiries were set on foot by engineers, and analysis made showing the composition of asphalt to be bitumen and limestone. As these substances could be obtained in abundance and at moderate cost, attempts to combine them artificially were made, and have continued from that time, in the author's opinion, with little success; where toughness is required, or great pressure exercised, or heavy wear by attrition, no artificial composition of carbonate of lime and bitumen has proved equal to the natural rock.

Durability and Cost of Compressed Roadways.

M. Chabrier states that the effect produced by wear and tear on asphalt is so trivial that it may almost be said to be imperishable, so long as no other cause than friction of wheels occur to alter its working conditions. It is hardly possible to accept such a statement without challenge, and the wear is unquestionably so slight that exaggeration is not necessary, even by partisans. The most lengthened experience in England is in the piece of road laid by the Val de Travers Company, in Threadneedle-street, in May, 1869. In February, 1877, the City Engineer reported this piece of paving as having had few repairs, and being in good condition. The author examined it a few weeks ago, and with the exception of those places cut out for experiments and gas or water repairs, the surface was in good condition. It has been subjected to a traffic of 200,000 tons. [These weights are approximate, and probably considerably under the actual weights. Each vehicle is taken to weigh 1½ ton; probably 50 per cent. might be added to them, but there are no means of ascertaining the weights exactly. Colonel Haywood has never given weights in his reports, so that in comparing these figures with those given by other writers, the vehicles must be reduced to the standard of 1½ ton weight each, and the traffic is for twelve hours only each day per annum per yard of width.] Unfortunately for the statement just quoted from M. Chabrier, the pavements of all cities are subject to many other incidents tending to destroy them than mere friction of wheels. The constant removal of the surface to repair gas and water mains and drainage is such, that in many streets 50 per cent. of the whole surface will be removed during the life of a pavement.

Rock asphalt is compressed without appreciable wear under traffic such as the above. On the table is a specimen taken from Cheapside. It was laid in December, 1870, 2¼ inches in thickness. After having been subject to a traffic of upwards of 500,000 tons per annum per yard of width, the bulk is reduced 5·18ths, while it has lost 2·7ths in weight. The difference in the percentage of loss of bulk and weight is accounted for by the compression of the material. This is apparent to the depth of half an inch. Under a magnifying glass the compression can be seen to the depth of more than 1 inch. After fifteen years wear in the Rue Bergère, the loss by weight was 5 per cent. In Gracechurch-street, where the traffic is 603,000 tons per annum per yard of width, the material has lost, so far as can be ascertained, about the same during a period of eight years. These results are all obtained from the compressed rock of the Val de Travers. When other materials in mastic have been laid in streets of much less traffic, they have been replaced either with compressed asphalt or wood; and without making invidious distinctions it may be here stated that experience in London has demonstrated the fact that no class of asphalt has stood equally well with that of the Val de Travers compressed.

With regard to the absence of foothold for horses, the observations made in London prove that asphalt is not so slippery as granite cubes. It is now well known that when the atmosphere is humid the fine dust and dirt ever present in a city street, are spread over the surface of the asphalt by the traffic, forming a pellicle which renders foothold difficult. In dry weather the road is also covered with the detritus incidental to great traffic, apart from wear. When asphalt is swept as a method of cleansing, this adheres to the surface, and becomes greasy mud with a very slight shower of rain. In Paris grit is thrown down on such occasions; but the proper method of cleansing asphalt is by hydraulic and not mechanical means. With fire hydrants on each side of the roadway this could be effected at slight cost. Hitherto this has not been done in London, as there were no hydrants, but in cities where hydrants are in use, the difficulty would be solved. Asphalt, either wet or dry, affords an excellent foothold. Trials of asphalt on a small scale are not to be relied upon. No trial can give a fair result, unless a considerable area is paved. It was abandoned in Manchester, where only 968 super. yards, were laid; but has remained in Southampton where 1,587 yards were laid in 1873. In no case should a length of less than 440 yards be laid. Horses do not become used to the surface in short lengths, and unless the adjoining road is paved and kept clean, asphalt will be not only dangerous but costly. The maximum foothold for horses will not be attained unless every street in a town is paved with the same material.

Convenience—Sanitary.

One of the greatest conveniences for a crowded city is the fact that an asphalt roadway once down, so far as the road-making goes, there is an end of it—the street need never be blocked a day. Cheapside has now been laid nine years: the traffic has never been interrupted one hour for making repairs to the pavement, where formerly every few years it was necessary to stop the roadway for many days. Any short-lived pavement like wood must offer very great advantages to compete with this advantage alone.

The advantages of paving streets with a smooth impervious surface are so great that no one can contest the point. As to cleanliness the results from actual observation give—

| Material. | Superficial yards for each load of mud. | Traffic in tons per annum per yard of width. |
|---------------|---|--|
| Macadam | 344 | 25,000 |
| Granite | 500 | 50,000 |
| Wood | 1,666 | 25,000 |
| Asphalt | 4,000 | 500,000 |

As dirt means mud in wet weather, and dust in dry weather, the same proportions hold good when considering the question of dust. The asphalted streets of London are never watered; streams of water are sent down the channels where dust collects.

Absorption of Filth.

No positive statements founded on facts have ever been placed on record as to the actual amount of filth absorbed by different classes of pavement. The only fact recorded is patent to the eye, and is disputed by none, that whether other materials do or do not absorb filth and moisture, asphalt does not. Opinions only founded simply on general observation, and to be taken for what they are worth, place the materials in this position as to absorption:—

| | | | |
|---------------|---|---------------|---|
| Macadam | 1 | Wood | 2 |
| Granite | 3 | Asphalt | 4 |

Freedom from Noise.

This desideratum has led, no doubt, to the application of new materials for roads in large towns. As there are no means of measuring noise, opinion must be relied upon. When wood is new, close laid, and the pavement is perfectly level, it may be characterised as noiseless. In consequence of the density of the asphalt, the horses' hoofs can always be heard upon it; but as the surface wears away in undulations, which are not defined by such sudden vertical depressions as all pavements composed of blocks, the comparative quietude of wood and asphalt depends entirely upon the state of repair. Seeing that none of the wood pavements in London have lasted many years without being relaid in streets of great traffic (see Colonel Hayward's Report, 1877, as to their existing condition), it appears to the author that they cannot be maintained with that evenness of surface which places them at the head of the list for noiselessness; and that on the average state of the two materials, asphalt is equal, if not superior, in this respect to any other kind of material, but it and wood being preferable to macadam, as that is to granite.

The only point now remaining is the gradients at which the material can be laid with safety. It would be unwise to lay asphalt on any gradient much steeper than 1 in 50, although a portion of Broad-street, London, is 1 in 46, and no inconvenience has been felt.

Extract from Report of Mr. G. W. Willcocks, Assoc. M. Inst., C.E.

Some time ago the author had, in common with many others, a prejudice against the use of asphalt for street surfaces, but having thoroughly examined the subject, he has had occasion to considerably alter his opinions. We find that the Val de Travers Asphalt Paving Company (whose material is the best in the market, and who have led the van and fought the battles in favour of asphalt) are still laying down their asphalt extensively in the city of London.

By the term asphalt is here specially meant the Val de Travers rock asphalt.

Asphalt has long been the favourite covering for the roadways in Paris, but in London it seems to have met with less encouragement.

This system was first tried in Threadneedle-street, in 1869, and was laid with the Val de Travers compressed asphalt; since then it has never been relaid, is still in good condition, and has had but few repairs.

Asphalt becomes harder after having been laid a short time, owing to the weight brought to bear on the surface compressing the component parts of the substance.

The actual wear of the surface is comparatively slight, and is so regular and uniform that hollows and holes rarely occur if supported on a good foundation.

Asphalt is the only road surface which most nearly approximates the ideal road of Dr. Lardner, and there is no doubt that in a flat street it is theoretically the most perfect of roadways, as the friction to carriages is very slight. It certainly has the disadvantage of not always affording secure foothold to horses during dirty and damp weather; but in dry weather, and especially where the traffic is slow, as in most populous towns, this drawback is reduced to a minimum.

When, however, horses do fall, there is less fear of injury than on stone pitching or macadam, and a horsecloth will enable a horse to rise without trouble.

However excellent asphalt may be for a level street it cannot be recommended for steep gradients. Colonel Haywood gives 1 in 60 as the limit.

Of all pavements asphalt is the most easily cleansed, and the cleaner the safer it is.

Freedom from dust is another of its advantages, and this alone is a great boon to tradesmen.

The noise on asphalt is less than on stone, but is more than that on wood, on account of the clatter of the horses' feet.

Asphalt makes, without exception, the best of footways; it is smooth, clean, and pleasant to walk on. For this purpose it has no rival.

Asphalt cannot be laid, in wet weather, but it is ready for traffic a few hours after being laid down.

In opening trenches for gas or water mains in an asphalt roadway, a smaller amount of surface is disturbed than in any other system of pavement.

Asphalt being impervious, no water can accumulate and cause unhealthy dampness.

From Report of Mr. G. F. Cobb, C.E.

In speaking of asphalt, I mean the best Swiss Asphalt of the Val de Travers Company.

A reference to the preliminary enumeration of the required conditions for a good road material will show at a glance that asphalt satisfies fully all the (a) sanitary requirements: (1) It creates no dust; (2) presents the most continuous surface, and (3) dries most quickly. Passing on to (b) the mercantile requirements, we find (1) that it creates least dust and mud, and (2) causes least vibration, (3) minimises tractive force, and (4) is most noiseless.

In considering the (c) ratepayers' interest, the most important point to examine is the durability of asphalt and its comparative expense in the long run. The great difficulty here is that whilst the experience of many years enables us to fix the "life" of a granite pavement with tolerable accuracy, no asphalt pavement (of the best sort) has yet met its death, and we have therefore no data for estimating its maximum longevity. We can only bring forward facts to serve as a basis of inferential calculation.

One noticeable feature is, that whereas granite wears away, asphalt only wears down; wear in one case means loss, in the other compression of substance. On a granite tramway in the Commercial Road, it was discovered that in four years 12 inches thick Aberdeen stone was reduced to 8 inches. A block of asphalt in Cheapside, after a similar period, had been reduced in size from 2½ to 1½ inches, but had not lost perceptibly in weight, although the traffic in the latter case was more than five times as great as that in the Commercial Road. The friction too, on a granite tramway, is as nothing compared with that on an ordinary granite street paving. Similarly some asphalt taken up in one of the busiest streets in Paris was found, after fifteen years, to have lost one-eighth in bulk, but only one-twentieth in weight.

The average "life" of a granite pavement in a heavy traffic street in London is seven years, and it requires constant relaying.

The oldest bit of asphalt in London, that in Threadneedle-street, was reported (in 1877) by Mr. Haywood, after nearly eight years service, as in "good" condition, and as having had but "few repairs" since it was laid. In 1871 Mr. Haywood wrote of this same piece of asphalt that it "showed but slight signs of wear," whereas a contemporary granite pavement in continuity with it already required repair, being much cut and worn. The granite pavement in the Poultry had to be entirely removed within six years; its asphalt successor, after 6½ years wear, is reported as in "fair condition," and having had but "few repairs." In this particular case Mr. Haywood considers that the asphalt is a saving on the granite by an annual sum of 1½d. per square yard, initial cost and repairs included in both instances.

This economy will be further increased by the reduction in the cost of scavenging, watering, &c., asphalt being, even as compared with granite, the material which creates least dirt and dust of itself, and which can be the most readily and cheaply cleansed from such dirt as is brought on to it.

It has, however, been urged that asphalt is a greater source of accidents to horses than any other material, and this point requires careful consideration.

The popular impression on this subject is easy to account for, and is largely due to temporary conditions attending the first gradual introduction of the material, and not to any permanent cause inseparable from the material itself. The shyness and timidity of horses at a new material, increased as it was by the sudden cessation of all accustomed noises in passing on to it from the granite, was a first source of accident. This self-same novelty of the material, too, drew the attention of the public unduly to it, and made them take more special notice of the accidents occurring on it than they used to do of those which were constantly occurring on the old familiar granite.

But the main cause of accident has been the too partial introduction of asphalt, the slipperiness being due to adventitious matter introduced from other roadways on to its surface. No state or condition of weather will make asphalt in itself slippery as it will make worn granite or wood; the cause of the slipping is the presence of some substance upon it which there is just sufficient wet to moisten, and yet not sufficient to liquidate and detach from the surface. This peculiar condition of moisture lasts, it is true, for only a very short time, "seldom more than a quarter of an hour" (Haywood, 1871, p. 37), and is mainly confined to those portions of the asphalt which are nearest to other pavings (*ibid.*). But this very limitation of space and time caused a peculiar concentration of accidents which, occurring as it did in some of the most crowded thoroughfares of the city, and inviting special attention from the novelty of the material, produced an exaggerated impression on the public mind amply sufficient to account for the popular prejudice against asphalt, which still lingers in the minds of horse owners.

As regards openings there is no doubt that as they involve the employment of new material, and not the mere relaying of old, they are more expensive than granite (though not than wood), and as the concrete has to set before the asphalt is laid above it they cannot be closed up so soon. On the other hand, an asphalt opening can be cut as with a knife to the exact size necessary for reaching the pipe, whereas in other material a far greater area has to be disturbed. No asphalt opening, therefore, need ever cause such obstruction to traffic as other openings.

The use of asphalt, too, has this in its favour, that it materially diminishes the occasions for such openings; for mains will retain a sound condition for a far longer time under asphalt than under roadways of granite and uneven macadam, where the resultant joltings of heavy weights are the principal cause of wear and tear in the pipes below.

Another point deserves consideration, viz., that when an asphalt opening is filled up, the surface is at once as good as new; this is never the case with granite, the openings in which do not heal rapidly, but are one main cause why a granite street so soon gets out of condition.

To those who have been by any reason misled into a current notion that "asphalt has been tried in London and failed," it will be a sufficient answer to state that during the six years that intervened between the publication of Mr.

Haywood's

Haywood's report in 1871, and his report of February, 1877, no less than 60,000 superficial yards of roadway were laid with asphalt within the limits of the city alone. In other words the civic authorities are so convinced of its superiority to other material that they have continued to lay it at the rate of 10,000 yards annually.

During the last year over 17,000 additional yards were laid by the Val de Travers Company, and four more streets have been ordered to be laid with it since the beginning of this current year. The authorities, too, have been selling off their stock of granite to the extent of 7,318 tons, and have largely reduced the number of men employed by them for stone dressing. These facts ought to speak for themselves.

APPENDIX 2.

Wood Pavements.

Mr. Woulf Bronan, at meeting of the Institution of Civil Engineers, says:—

"Having been engaged for some years as manager of the Ligno-Mineral Paving Company, I desire to direct attention to the life of wood pavement. In the papers nothing had been said on that important subject. Wood pavement has now been in use for seven years, and there was ample time to collect facts upon this point. Almost every kind of wood had been tried by the Company he represented, including beech, elm, oak, pitch-pine, and Baltic fir, and the result of his experience was that the wood must be treated merely as a surface. The concrete foundation was the great basis of the pavement, and the shallower the block, consistently with its bearing the pressure laid upon it, the better. The pavements of late years had become improved in their form, and people did not care much about seeing an uneven pavement. Wood pavements would not wear evenly for more than four or five years at the outside; therefore he believed that the shallower the blocks, and the smaller the cost at which they could be produced (so that there might be a new surface after four or five years) the better. The form of contract generally carried out by the Corporation of the City of London and the various vestries provided for the prime cost of the work done, and maintenance, which in the City of London was for seventeen years. It must be well known that no wood pavement could last for that period. A fixed amount was paid annually for maintenance, and it was supposed that after a certain number of years the pavement would be relaid. It was doubtful whether that would prove a satisfactory form of contract for the paviors, because the maintenance money was always subject to be retained if the pavement was not satisfactory. The conclusion which he therefore had arrived at was, that the prime cost being a small one, after five years' provision should be made for a complete new surface on the road."

Dr. Paget Higgs said "It had been pointed out that the chief characteristic of the difference in the various systems of wood pavement consisted in the foundation; only concrete foundations had been referred to, but there was a system of wood pavement in which the wood was laid upon a bed of clean sharp sand 6 inches deep; upon the sand were laid wooden blocks or cubes, and between the blocks wedges were driven in sufficient numbers to hold upon the sand firmly; they were driven below the surface of the roadway to a depth of 3 or 4 inches below the level of the bed of sand; the general effect was to compress the sand to something like the hardness of sandstone. The system was used, he believed, in the Chalk Farm Road and Argyll Square. The road has been subject to two years' traffic and was now perfect. The traffic of St. Pancras was very heavy, especially the coal traffic. With reference to the concrete foundation, it seemed difficult, in fact almost impossible, to maintain a watertight surface. The constant shrinking and swelling of the wood would always create spaces through which water could percolate into the lower part, and he could not conceive how in the case of concrete or asphalt it could get away. It could only be from intermittent evaporation, the effect of which upon wood was well known. With sand the bottom of the wood might remain moist but a free circulation was allowed to the water; it was never swamp to the extent he had noticed with asphalt and concrete foundations. The difficulty that might seem to occur with sand would be in the shifting of the blocks; but that was overcome by the method of wedging which he had described. After the wedges were driven below the surface of the wood and the interstices filled in with bituminous concrete, the wood was covered with sand and heated coal tar. It was difficult in the case of asphalt and concrete to get below the surface for the purpose of repairs, but it was not so in the case of sand."

Mr. Elwes had been engaged during the last two years in paving some of the streets of London with wood. When he first looked into the subject he was much struck by the difference between the durability of wood pavements as they had been generally laid, and the durability that might be expected from what was known of the properties of wood fibre. Referring to the durability of lignum vitæ bearings to the heads of the steps on the Metropolitan Railway, made of hard-wood, with the fibres on end, and to a case mentioned a week or two ago, in which a beech-wood cog had been under pressure twenty-six years, and had made 13,000,000 revolutions, transmitting 100 h.p., it was somewhat striking that wood pavement had lasted so short a time. His experience led him to believe that it was not so much the want of durability in the material as in the way in which it had been applied. It appeared that two reasons contributed to early failure of wood pavements. The first reason was the want of a proper substratum, and the wood pavement itself being treated as a road instead as merely as a wearing surface to the road; the other was the wide joints, causing the abrasion of the edges of the blocks; and the giving way of the fibre, not by fair wear and tear, but for want of lateral support. Experience of Henson's system of wood paving showed that wood, properly applied, had considerable durability. He scarcely went so far as estimating the wear as only 1 inch in twenty-five years, but he thought that under ordinary circumstances it would not exceed $\frac{1}{2}$ inch in a year. He considered that asphalt supplied what was required, a wearing surface to the road underneath, which was perfect in every respect except two, namely, the cost and slipperiness. There could not be a better material for the real road than 6 inches of good Portland cement concrete. What was wanted was some wearing surface at the top which should not cost too much, which should last, which should be impervious to water, and which, without causing too great traction, should give a fair foothold to the horses. He agreed that if, with one section or slab of pine wood laid across the road, the effects of expansion and contraction could be got rid of, they then would have what was required. Unfortunately they could not have that, and were therefore obliged to use wood in blocks. He also agreed in thinking that the shallower the blocks the better, provided there was sufficient stability. The objection to deep blocks was this: For a wear of eight or ten years, only 1 inch or $1\frac{1}{2}$ inch of wood was required, and by giving 6 inches thickness, so much capital was locked up during that time. When the wood was taken up, the blocks could not be used again, and there was accordingly a dead loss. What was really wanted was some mode of putting down a surface of wood fibre, set on end, about 2 inches or 2 inches in thickness, in such a way as to provide for expansion, and with sufficient connection between the parts to prevent their being picked up by the wheels or disturbed, as they would be if they were laid in blocks only 2 inches or 3 inches in depth.

Mr. H. S. Copeland had had considerable experience in wood pavements, having been the inventor of the asphaltic wood pavement, so largely used in London. It was specially designed to obviate the objections that had been taken to paved surfaces, particularly wood surfaces, namely, that they were subject to unequal subsidence, unequal wear, and that they afforded an insufficient foothold to horses. Granite pavement was no doubt excellent for heavy traffic, but a great objection to it was that water percolated through the surface. If there were any irregularities in the quality of the concrete, the water quickly discovered them, caused disintegration, a subsidence took place over the immediate part and the road was soon destroyed. That effect was often seen in London. An excellent piece of paving was laid eight or nine years ago by Messrs. Mowlem Burt and Co. in Oxford-street, upon a foundation of concrete. A better foundation could not be made, but there was no mode of preventing the surface water from reaching it; the result was seen in irregular subsidences, and the road had to be relaid within six years. He agreed in the advisability of using shallower blocks for wood pavement than were at present employed. If the surface-water was prevented from reaching the foundation it remained tolerably intact. With that object he had placed an impervious layer of asphalt beneath the wood blocks, through which it was impossible for the water to reach the concrete; the concrete therefore was undisturbed, and the surface remained perfect. No other substance would keep out the moisture so well as asphalt. If the blocks were laid upon that surface and intimately connected, in order to secure the stability of the blocks and prevent their rocking on their beds (as they did in most systems of wood pavements), very shallow blocks might be used, and the original cost might in that way be reduced. The blocks which he had used were from 5 in. to 6 in. in depth, because there was a prejudice in favour of deep blocks, not because he approved of them himself. He thought that 3-in. blocks, properly keyed with asphalt joints, were sufficient for all practical purposes. The road consisted in the foundation, and not in the surface. The surface was to prevent the wear of the traffic from destroying the road underneath, and the wear and tear of the attrition of the traffic was the only wear that should really exist in a road. The life of a wood pavement had been stated at about four years. His pavement had been down in Cannon-street nearly five years, under perhaps as heavy a traffic as existed

existed in any city in Europe. It was still, practically speaking, perfect on its surface; there had been no subsidence of the foundation; the surface attrition had merely worn the blocks about $\frac{1}{4}$ in., and they ought to remain another four years before they required to be removed. The result was, that having laid $5\frac{1}{2}$ -in. blocks in that position, he looked upon $2\frac{1}{2}$ -ins. of that depth as representing so much extra capital sunk unnecessarily in the cost of that pavement. The blocks would wear for a depth of from 1-in. to $1\frac{1}{2}$ -in. without requiring to be replaced. If the wood was properly selected in the first instance—all sappy wood being rejected, and only that of a tenacious character retained—it would wear with a comparatively uniform surface down to $2\frac{1}{2}$ ins., or even 3 ins. He agreed that the macadamised roads had been very ill used. Macadam perfected his system by the use of only small stones. He rarely went through any of the London streets under repair without feeling regret at seeing a good road for moderately light traffic abused by having immense stones put upon it. Instead of stones $2\frac{1}{2}$ ozs. or 3 ozs., according to Macadam's recommendation, some stones were used nearly 1 lb. in weight. The idea seemed to be to lay those stones in order to cover a given surface with as little labour as possible. Sand foundations had been tried in San Francisco and in several other American cities; and although they had done tolerable fair service for a time, it had generally been found that the blocks had not been sufficiently united at the base, and that they soon shifted. The great thing was to key the blocks down, to prevent them from shifting. If wooden blocks were keyed to one another, and firmly cemented over an impervious surface, a monolithic slab was formed over the road which could not subside, and the more firmly the blocks were connected in that way the shallower were the blocks that could be used.

Mr. S. Haddam said "He had travelled over Turkish highways, where round boulders embedded in mud formed first-class carriage roads; and Russian tramways, where pine logs were used to fill in the ruts; and faults quite as striking were committed in the formation of English pavements. The improved wooden pavements abandoned a water-tight surface, and insured destruction to its materials by the employment of a hermetical substratum which had no possible drainage outlet, while its surface was not cambered enough to afford drainage. Why should not the fact be accepted at once, that with the increased width of streets, the corresponding camber for obtaining proper surface drainage was impossible, and should therefore be eschewed. A system of perfectly level pavement might be adopted with free down drainage between all the joints to an impervious substratum cambered to any extent necessary to ensure perfect drainage. Tramways were not suitable on properly cambered roads, and for this reason alone camber should be dispensed with in towns. Wood pavement had always been attractive; it afforded a solution of the tramway difficulty, for horse traction thereon, with the average London inclines, was no greater than on the grooved rails; while, by incorporating the wooden tram-rail in a wood pavement, the perfect homogeneity of the surface, a *sine qua non* in roadmaking, was obtained. Hitherto efforts had been made to overcome the roughness of the road, but asphalt under certain conditions, proved that the road surfaces might be made too smooth to enable the wheel to overcome the axle friction; he himself had seen the hind wheels of omnibuses slide laterally on the camber of such roads owing to the lack of sufficient bite to proceed forwards. He quite endorsed the opinion as to the use of sand as an intermediary between the surface and the foundations, if confined as explained. It was used almost universally in Paris."

Mr. Reader Harris "wished to know whether the wood pavements were intended to be watertight, and if not what means were proposed for dealing with the sub-drainage. The question of watertightness was brought before him rather forcibly some years ago in a tropical country, where wood pavement was put down for the first time. It was not well constructed, the foundation was indifferent although not so bad as some that had been described. However, the wood was laid, and shortly afterwards heavy rain fell, and a hot sun came upon it; the wood began to expand; it removed the kerbing stone, and before very long it had succeeded in demolishing the lamp posts. The success of wood pavement greatly depended upon the superstructure being impervious to moisture; and the division between the blocks should be filled in with some material which, while it gave scope for the expansion of the wood, would be as hard, or nearly as hard, as the wood itself. When that was once done, what would be required would be to keep the roadway clean, for cleanliness was quite as important to pavements, and was essential to the maintenance of the roadway itself, as it was to the health and safety of those who travelled over it."

Mr. Stayton was commencing 2 miles of wood pavement in King's Road, Sloane-street, and Sloane-square, representing an area of more than 30,000 square yards, and costing nearly £18,000. Before going into that he made exhaustive inquiries and inspected the whole of the pavements laid in various parts of London. The conclusion arrived at was, that it was desirable to have a simple but substantial kind of pavement, and one that should be placed on a bed of Portland cement concrete, 6 inches thick. The most satisfactory and simple pavement that he had seen was a piece laid in the Fulham Road by the Cancer Hospital, and another in High-street, Kensington, laid by Messrs. Mowlem Burt and Co. It consisted simply in laying ordinary deal blocks upon a concrete bed and grouting them in with a lime grout. Another piece between Oxford Circus and Tottenham Court Road was also done on the plain system, blocks being put upon the concrete and grouted in with Portland cement. That was laid very economically, but the joint was a little too wide. It was essential that the joint should be narrow, and that it should be carefully made, with a view of keeping it parallel and tight. The system he was adopting was similar to this with plain blocks on a concrete bed, only instead of using the ordinary strip between the blocks, he was fixing three little iron studs to each block, which would give the pavement a firmness before there was any grout upon it. The cost would be about 11s. 3d. per yard, and he estimated that if the blocks of that pavement had to be renewed every six years (not the concrete because that was supposed to last for many years) the cost at the end of fifteen years, including cleansing, would only amount to 1s. 11d. per yard, whereas the cost of macadam at that part was no less than 2s. 10d. It was not proposed to retain the existing blocks, but to renew them every six or seven years, according to requirement.

Mr. L. H. Isaacs said stress had been laid upon one of the forms of wood pavements, viz., Henson's; he had taken notice of all the various pavements used along a piece of road he often travelled, and his opinion was that Henson's was not the best. It had already begun to show signs of wear much earlier than the pavement on each side of it; he did not like to appear to advocate any particular system, but he thought that of the Asphaltic Wood Pavement Company had in it the elements which would ensure its wearing better and longer than any other, and as regarded ease of draught and security for horses, it left little to be desired. On the score of foothold, in his opinion each course of blocks should be separated from the other by a joint, certainly not less than $\frac{1}{2}$ in. in width, because it was painful to see valuable horses sometimes struggling with a load a little heavier than they could conveniently move, missing their foothold and falling down.

Mr. Joseph Mitchell said wood paving had been laid in Lombard-street thirty years ago in hexagons, and had been taken up about twenty years afterwards. It had also been a failure in New York, and had to be taken up. Although pleasant to travel over, wood pavement was objectionable on sanitary grounds, and by reason of its cost. In his opinion the best pavement consisted of a foundation of 6 ins. to 8 ins. concrete, supporting granite sets, $2\frac{1}{2}$ ins. or 3 ins. wide, 7 ins. or 8 ins. long, and 7 ins. to 8 ins. deep, the joints being run with cement grout. He had laid a specimen on George IV bridge sixteen years ago, and it was now perfect, never having been repaired. The centre of George-street had been similarly treated, and Princess-street, the chief thoroughfare in Edinburgh was now being paved after the same fashion. He was convinced that for secondary streets, concrete alone, if properly laid would make a perfect and durable road, but with the cement hardening so quickly it required careful manipulation. It might be crushed into shape by the steam roller, or be cast in squares of 3 ft. allowed time to harden and consolidate, and then be carefully laid. But of course further experiment would be needed to work out the problem satisfactorily. A concrete road was almost as quiet as wood.

Mr. David C. Froudford said carriageways, when formed of wood should have, as already stated, a strong concrete foundation, finished and floated smooth on the surface for the wood blocks to rest upon. All the timber should be carefully selected and of the first quality of Wyborg or St. Petersburg red deals. The blocks should be laid about $\frac{3}{4}$ in. apart between the courses, and the joints filled to the surface with boiling asphalt, composed of pitch, ground chalk, and heavy creosote oil, without using any other mixture. The work and material should be closely superintended, with the view of having the work finished in a sound and substantial way, as there was a great tendency now-a-days to hurry over and scamp the work. The blocks used for wood paving should be from 5 ins. to 6 ins. deep, with the view of reducing first cost, as they would require renewal (under the same conditions of traffic and atmospheric influence) oftener than granite.

Mr. Hugh Shearer remarked that all the speakers seemed practically to agree that the first essentials of a good street was a solid, uniform foundation. The further desiderata were a smooth surface, with as little noise as possible; the material should be easy to keep clean, it must not be slippery, and it should be durable without being costly. Asphalt, wood, and granite sets, were the only rival materials which seemed available. Asphalt was smooth, clean, and comparatively noiseless, but was fatally slippery, and was therefore practically out of competition as a material for street paving. Wood was smooth, at least for a time, and was comparatively noiseless, and on the whole it gave a good foothold, but it was liable to absorb the foul liquids which accumulated in the streets, and so could not be kept clean and healthy. It was, however, costly, requiring frequent repairs and renewal, and could not therefore be used on any large scale as a paving material on the busy thoroughfares of great cities. Mr.

Mr. Percival Walter St. George, speaking of the wood pavements in Montreal, Canada, says:—"In Canada the traffic in winter is practically *nil* as to wear, the snow lying to a depth of 2 feet or more for at least three or four months continuously; but then the injury done by the frost would compensate in some measure for the lack of traffic. In 1842, square pine or Tamarac wood block pavements was adopted. The blocks varied in size from 6 inches to 11 inches square, and 9 inches high; they rested at an angle of 70° on a bed of gravel and sand 9 inches deep, the blocks being laid in their natural state. The cost of the material was 4s. 3d. per superficial yard; the cost of laying is unknown. The average yearly maintenance was about 1s. 2d. per superficial yard. In 1849, after six years it was almost entirely renewed. In 1852, and until replaced in 1854, the paving was in a very bad condition, the blocks being much decayed underneath. This method was tried in three streets, extending over an area of 35,250 superficial yards for a period of twelve years."

Nicholson Wood Pavement was laid in 1865 in Jaques Cartier Square. It is formed of pine blocks, 6 inches long, 3 inches wide, and 6 inches high, resting on a double flooring of 1-inch boards. The usual method of laying such a pavement was adhered to. After six years it was necessary to renew a great portion of it; the blocks being much decayed, although the plank flooring was in good order. Two years afterwards it was nearly impassable. The first cost was 6s. 11½d., and the cost of relaying, after six years' wear, is taken at about 5s. per superficial yard, as per average tenders. The area laid was 4,360 superficial yards."

Ballard Wood Pavement was laid in 1872 in Saint Jaques-street, over an area of 7,527 superficial yards. It is formed of wedge-shaped pine blocks, 10 inches long, 4 inches wide, and 6 inches high, resting upon a bed of sand upon gravel. Over the blocks was laid a similar composition to that used in the Nicholson Wood Pavement. The first cost was 11s. 8½d. per superficial yard. After five years it was much worn, and had to be taken up. The cost of relaying is estimated at 10s. 6d. per superficial yard, and the life is estimated at six years, being similar to the Nicholson, and giving it all the advantage possible. The maintenance was calculated from the cost of relaying, over a period of six years, the same as the Nicholson. The advantages claimed by the Ballard over the Nicholson are:—

1st.—Absence of flooring boards.

2nd.—The locking of the blocks to give greater homogeneity.

3rd.—As no nails are used, a row of blocks can be slipped out by taking out the first row at the water-course, thus affording facilities for laying gas and water pipes, &c.

FROM A PAPER read before the Civil and Mechanical Engineers' Society, by George Walter Willcocks.

Wood Paving.

In countries where timber is abundant, wood has long been in vogue for carriageways, as in Canada, the United States, and the north of Europe. It was adopted first in London, in the Old Bailey, in 1839; but not being approved of by the public, remained in abeyance till 1872, since which time wood has been laid in many of the chief thoroughfares of the metropolis.

Mr. G. M. Van Nort, Commissioner of Public Works, New York, in answer to a request of the Commissioners of Sewers of the City of London, says, in a letter dated 10th February, 1873:—"My experience is, that in thoroughfares subjected to heavy traffic, the best of wooden pavements is useless," and further, he condemns the use of it altogether. He also states that the life is not above five years. Now we can prove that since this was written, the life of a wood pavement has considerably lengthened, due to the improvement in the formation of the foundation, the seizing of the blocks, and the system of laying.

Wood paving should be laid in a street with a moderate traffic and plenty of sun and air. In confined spaces, such as courts, it soon rots and becomes a source of much unhealthiness. The blocks should be laid on a firm foundation, such as cement or lias lime concrete, from 6 in. to 12 in. deep; and as far as possible the surface should be rendered impervious to water. When the substratum is wet the pavement is subject to rapid decay.

Most of the patentees of wood pavements claim elasticity as a great advantage, but this is a questionable quality. The wood should present a perfectly solid and rigid surface.

Fir is the wood chiefly employed for paving, as the harder woods become dangerous on being worn smooth. Colonel Haywood, in one of his reports, attributed the numerous accidents to horses on the Ligno-Mineral Pavements to the use of beech mineralised.

The best dimensions for blocks are 3 in. wide, 9 in. long, and from 5 in. to 7 in. deep, and care should be taken that they are cut from the parts nearest the heart of the tree.

Mr. Croskey, in a letter dated 21st March, 1874, to Mr. J. Lemon, surveyor, for the Borough of Southampton, said with regard to the sizes of the blocks: When wood pavements (necessarily of pine, because of its cheapness) were first introduced into this country for the paving of streets, large blocks—as large as the diameter of the tree from which they were sawn would permit—were laid down and bedded in sand. The softer, or outside portion of each block, came into more or less proximity to the softer portion of the adjacent block or blocks. These softer portions were the first to wear away, and long before the core or inner and harder portion was affected. Thus the surface soon presented a succession of hillocks with intervening valleys, growing deeper and deeper, until traffic thereon became unsupportable.

Although wood absorbs water it does not affect the travelling if the wood be kept clean. Wood in itself is not slippery, but is only rendered so by the accumulation of dirt.

Wood (next to macadam) is the safest of all pavements. Should a horse slip, it has a chance of immediately recovering itself.

Some alarmists have asked what will be the effect on wood pavements in case of fire? Will wood pavements be the cause of spreading fire? To such a question we can give an emphatic negative.

Much of the wood paving hitherto laid down possesses the objectionable feature of having a space left between the butt ends of each block, and between the rows of blocks extending in some instances to as much as 1 inch in width. The edges of each block are thus exposed to the pressing and concussive action of the traffic, the latter action constantly increasing in its violence as the edges become more and more worn, until the whole structure is weakened in its compactness, and each individual block requires renewal. By reason chiefly of this wear and tear of the edges, and the vibration thus produced, the life of a wood pavement, even when the best quality of wood is used, is considerably shortened, and during its short life requiring frequent expensive and obstructive repairs.

Another great objection to these spaces between the blocks is that they harbour to a great degree the droppings of horses, the slime from which, acted upon by rain or waterings, tends to produce more slipperiness than the spaces to decrease it.

The component parts of such a wood pavement are bound together either by a process of what may be termed caulking, with a naturally disintegrating compound of washed gravel and pitch, or by sand grouting, or by cement run in between the joints.

By reason of the vibration caused by these joints not being close, the binding substances are worked up to the surface, and being mixed up with mud, re-enter the seams. The water from the street is thus permitted to find its way to the foundation, to the detriment of the sanitary condition of the locality.

These observations do not apply to those systems of wood pavement where the interstices are filled with a substance of equal hardness and durability with the wood, as for instance in Shields' composite wood pavement, a detailed description of which will be given later.

It has been found necessary to overcome the slipperiness of many wood pavements, frequently to strew sand or gravel over the surface, thereby increasing the dust and mud, involving expense, and the grinding away of the surface of the pavement itself.

The question has been raised whether wood pavement is injurious to health. By some it has been maintained that, considering this climate, if all London roadways were made of wood, marsh fever or ague would become prevalent. We must admit that a certain amount of dampness is retained by wood, but such a result is extremely improbable. Wood should be well cleansed, for otherwise it retains all sorts of organic filth.

This point is referred to in Colonel Haywood's report (1874), when speaking of cab-stands paved with wood. We need, however, entertain no fear on this score, if the subsoil is rendered dry by an impervious coating.

Improved

Improved Wood Paving.

The Improved Wood Paving Co. were the first to introduce wood pavement on scientific principles; but their original system of foundation being faulty, has now been abandoned.

The original method was to lay on the ground as a foundation two layers of planks, 1 inch thick transversely and longitudinally, packed up if necessary with sand or other dry material. On this wooden foundation were placed the blocks of wood, the spaces transversely between the wooden blocks being kept open $\frac{1}{2}$ of an inch by means of a small piece of wood or fillet, nailed to the planking. The joints were then filled with ballast and liquid tar rammed tight. The error in this system was soon apparent, as the surface not being watertight (for although the joints were caulked, yet the ends were open), the floored foundation soon became shaky and rotten by encouraging a wet subsoil.

Various improvements by this and other companies have considerably extended the wearing power of wooden pavements, but it has yet to be seen to what perfection they can be brought. The failure of the "Improved Wood Pavement" has occurred from the defective foundation, and not from fair wear and tear on the blocks.

This Company have now again improved their system, so that they might be styled *The Improved Improved Wood Pavement Company*.

They have now substituted for the plank foundation a bed of concrete about 6 inches deep. The blocks are placed in rows across the streets, having a space of $\frac{3}{8}$ ths of an inch between each row, filled up half-way with asphalt, and the remaining half grouted with cement. About a quarter of the distance down the blocks, studs are placed, which tend to steady the blocks.

Croskey's close-jointed Wood Pavement.

The author's first attention was drawn to the subject of street paving some years ago, when he was asked by Mr. Croskey to prepare drawings and report upon his patent wood pavement.

The author should here state that Mr. Croskey can claim to be the first to advocate the close-jointed wood pavement, and the abolition of caulking the joints.

This pavement consists of blocks of wood notched about half-way down, for the block to receive a stringer or lath of wood (a saw cut with hoop iron inserted might be substituted), which runs from one side of the street to the other, thus making a row of blocks an artificial plank, tending thereby to prevent the uneven settlement of any individual block.

The rows of blocks, or the artificial planks, are then squeezed together by mechanical pressure, so that the surface of the street would resemble the floor of a house, with the grain of the wood vertical. This system has, unfortunately, not been laid down, but (although the author may be accused of prejudice in saying so) it promises to make a good road.

Mr. Croskey claimed as advantages—

- (1.) Little noise and vibration.
- (2.) Freedom from dust, and a greater degree of cleanliness, there being no interstices for the accumulation of dirt.
- (3.) The wear and tear on the surface being uniform, the durability of the pavement would be greatly increased.
- (4.) Security for horses.

Shiel's Composite Block Paving.

Mr. Shiel took out a patent for a composite paving—a mixture of wood and stone.

The pavement is constructed of composite blocks, 12 in. by 15 in., cast in iron moulds, and consisting of two rows of wood, placed at a like distance from either side and each other, the vacant spaces being filled with broken granite, such as is used for metalling, and over all is poured a composition of pitch, chalk, sand, and tar-oil, in a boiling state. This operation is carried out in premises for the purpose, and not in the street. The blocks are then taken to the site of the work, and laid on a foundation of concrete, and grouted with Portland cement. The advantages claimed for this roadway are:—

- (1.) It is the best wood pavement for steep inclines, securing easy traction and a good foothold for horses.
- (2.) It is even and smooth, and can be as easily cleaned as asphalt.
- (3.) It is quickly laid, thereby avoiding long obstruction in a busy thoroughfare.
- (4.) It is impervious to water.
- (5.) It wears well.
- (6.) No boiling pans are required in the street.

A specimen piece of pavement on this method was laid at the entrance to Victoria Station, Pimlico (leading from Victoria-street) in 1875, and was not repaired till last month. It has been severely tested, as all the traffic takes the same line on entering the station. In the case of a wide road the traffic is spread over the surface. It is also estimated that upwards of 1,180 omnibuses pass over it daily, together with a great number of other vehicles.

Messrs. David Laing & Co., of Parliament-street, S.W., are the agents and contractors for the patentee.

The price for the concrete and wooden surface (without excavation) is about 13s. 6d. per square yard. They undertake to keep it in repair for a number of years, but the price varies with the traffic.

Asphalt Wood Pavement.

The asphaltic wood pavement is constructed thus: A concrete foundation, 6 in. thick, is first laid on the prepared ground, the surface being parallel to the upper surface of the proposed roadway. On this concrete a bed of mastic asphalt, $\frac{1}{2}$ in. thick, is spread, on which blocks, consisting of red or yellow Baltic pine, are placed in transverse courses with the grain of the wood upwards, a space of $\frac{1}{2}$ in. or more being left between each course, into which heated asphalt is poured to a depth of 2 in. or 2 $\frac{1}{2}$ in. up the block. This asphalt adheres firmly to the asphalt foundation and to the blocks—thus the whole becomes a solid mass. The remainder of the spaces are filled in with a grouting of sand and hydraulic lime.

Some of the advantages claimed for this system are—

- (1.) Safety, noiselessness, durability, protection of pipes from frost, and less destruction of horses' shoes and carriage wheels.
- (2.) It can be easily laid, and repairs to gas and water pipes effected with facility.
- (3.) It is completely impervious.

The first piece put down on this system in London was in Cannon-street, during 1874, and since then it has never been touched, and is now in a good condition. The Strand is also paved with this system. It has lately been laid in the Brompton Road, from Tattersall's to Montpelier-street.

The company do their work at an average price (the price varies with area and position) of 14s. per square yard, without excavation, but including concrete, and will undertake to keep the pavement in repair for two years free of charge, and for the next ten years at 1s. per square yard per annum.

Messrs. J. Mowlem & Co.'s Pavement.

Another wood pavement—that of Messrs. John Mowlem and Co., of Millbank, the well-known paviours—is constructed thus: A foundation of Portland cement concrete, 6 in. to 9 in. thick, according to circumstances, finished to the proper conformation, is first spread on the ground. The concrete is covered by wooden blocks 3 in. wide and 6 in. deep, cut from sound yellow deal, the joints being kept open about $\frac{1}{2}$ in. The whole is well grouted with a mixture of hot lias lime and sand.

The advantages claimed for this system are simplicity and durability.

The first piece put down on this method was in Millbank-street, Westminster, in October, 1872. While laying mains in October, 1877 (five years later), it was found that the blocks were reduced $\frac{1}{2}$ in. in depth, which was to be expected by fair wear and tear; otherwise the pavement was good.

It has lately been laid in the Fulham Road, near Brompton Hospital (July, 1878).

The charge for paving is—wood surface, 11s. 6d. per yard; concrete, 2s. 6d. per yard; or 14s. per square yard with paving and concrete, but without excavation. Messrs. Mowlem will undertake to maintain the roadway free of cost for three years, and afterwards leave it to the authorities.

Prosser's Wood Pavement.

Prosser's wood pavement is composed of blocks sawn at an angle of 60 degrees, the grain of the wood running in the same direction. Each block rests on the other; transversely to the street, between the rows of blocks, a plank, the same depth as the blocks, but with the grain of the wood horizontal, is placed. The blocks, which on one side of the plank lean in an opposite direction to those on the other, are secured or dowelled together by wooden pins running through the plank and piercing the blocks about 1 inch. The pavement is prepared in panels before it is brought on the ground, and they are of such a size that they can be easily handled by a man. The

The advantages claimed by Mr. Prosser for his pavement are—

- (1.) The prevention of the sinking of a single block, and irregular superficial wear.
- (2.) The panels being reversible, repairs can be readily effected.
- (3.) The angle at which the grain of the wood lies prevents the surface being crushed or frayed.

The pavement has been laid down for about twelve months at London Bridge Station of the L.B. and S.C. Railway, and is now as good as new, and has been well reported on by eminent engineers.

The price charged is 15s. per square yard for wood surface and concrete (but without excavation), and 13s. for wood surface alone. Mr. Prosser undertakes to keep it in repair for three years free, and for eleven years for 1s. per square yard per annum.

The timber used is Baltic.

Henson's Patent Wood Pavement.

Henson's patent wood pavement deserves notice, as it has proved itself to be satisfactory in many respects.

It consists of a foundation of concrete, covered with tarred felt. The blocks of wood laid on the felt are ranged in rows across the street. Between each row tarred felt is also placed, after which the blocks are squeezed tightly together so as to render the joints as small as possible. This system has been tested in Oxford-street for over three years, and this paving company can certainly boast that they possess the most noiseless of all wood pavements, and one not inferior in many other respects to its rivals. The evil effects of the expansion and contraction of the blocks are considerably reduced by the use of the felt. This paving has also lately been laid in Fleet-street and on the Fulham road.

From Report of the Society of Arts.

Sanitary objections to Wood as a material for Pavements.

The General Board of Health set aside wood as an ineligible material for this, amongst other reasons, that street surfaces ought to be impermeable, and for roads of light traffic and cheap construction they looked to modification of macadam, with bituminous binders of mineral tar. Since then wood has been reproduced for the purpose, and strongly pressed in improved forms for trial. It certainly offers the advantage of a great gain in noiselessness over granite, more especially from the horses' feet, though with some disadvantage from a dead rumble and vibration; and further, it has the advantage of being more available than smooth pavements for inclines. But hygienists object to its use on grounds which, in the absence of sanitary science, are overlooked, but which it is important to particularise as showing the dangerous state of ignorance and incompetency of the authorities by whom they are entertained, or are disregarded.

Impregnation of the wood with mineral matters to preserve it from decay may diminish these evils, but nothing as yet tried prevents the fibres being separated, and the absorption of dung and putrescent matter by the wood being continued. The condition of absorbing mere moisture is of itself bad, but when the surface absorbs and retains putrescent matter, such as horse-dung and urine, it is highly noxious. The blocks of pavement with this material are separated by concussion, and are thus rendered permeable to the surface moisture.

Mr. Sharp, who examined some blocks taken up for repavement, states that he found them perfectly stained and saturated with wet and urine at the lower portions, while the upper portions were dry.

Mr. Elliott, a member of the Society, and for many years a deputy of the Common Council of the City of London, has carefully observed the trials of new modes of paving there, objects to the wood—that it is continually wet or damp. Wood is porous; it is composed of bundles of fibres. It absorbs and retains wet—foul wet especially. The fibres of the wood are placed vertically, the upper ends whereof fray out, are abraded, and become like painters' brush stumps, and are almost as permanently dirty, or they break like the handle of a chisel which has been struck with an iron hammer or wooden mallet. This fact is beyond all question. Wood is wet or damp, more or less, except during continued very dry weather. Its structure is admirably adapted to receive and hold, and then give off in evaporation very foul matters which taint the atmosphere, and so far injure health.

Sir Joseph Whitworth, in his evidence before the Health Towns Commissioners, stated that the wood most generally used for paving purposes being very porous, and the fibre vertical or nearly so, the manure when pulverised by the action of the wheels becomes so embedded in the fibre, and adheres with such tenacity, that it is impossible to remove it, except when either very wet or dry.

The power required for cleansing it is also much greater than for stone, and we consequently find that a horse cannot cleanse an equal number of yards per day on wood pavement.

Monsieur Fonsagrives, the Professor of Hygiene in France, gives the following account of it:—

"The wood pavement has been frequently tried. The Russians seem to have been the first to do so, and have used blocks of wood with six sides for the paving of several streets in St. Petersburg. The English have also tried this system, and we see specimens in various streets of Paris, notably in the Rues Croix des Petit Champs and Richelieu, which have been partially paved with blocks of wood, laid on a bed of sand and lime; and only last year a small portion of the Boulevard Saint Michael was paved in this manner. This pavement is certainly very even, and by its elasticity it yields to the pressure of the horses' feet, and thus it affords a foothold; but it has the double drawback that it wears off in fibres, and it deadens the noise to a degree that is dangerous to foot passengers. Moreover, the swelling of the fibres when wet dislocated the pavements, and the expansion of the wood by the action of heat produces a pressure which displaces the foot pavement.

The hygienist cannot, moreover, look favourably on a street covering consisting of a porous substance capable of absorbing organic matter, and by its own decomposition giving rise to noxious miasma, which, proceeding from so large a surface, cannot be regarded as insignificant. I am convinced that a city with a damp climate, paved entirely with wood, would become a city of marsh fevers. Happily, all the attempts have failed, and the method has been apparently finally condemned.

Wood is therefore reserved for those rough pavements which, as in Russia and Wallachia, consist in covering marshy roads with hewn trunks of trees, over which the carriages pass; but this cannot be compared with a regular covering of all the streets with wood pavement."—('Hygiene et Assainissement des Villes,' by J. B. Fonsagrives, Paris, 1874).

The account given of it by the Commissioners of Public Works in New York is unfavourable to it on economical grounds. As to the great expense of repairs, they state that "since decay has taken place in the wooden pavements, many complaints have been made of the offensive and unhealthy effluvia emitted from it. This department has used its best endeavours, and all the means at its command, to remedy the evils; but it had only been able to do so to a limited extent."

The sanitary evidence on the subject will be found clear, consistent, and decidedly against it.

From a Paper by Gerard F. Cobb.

Wood Pavement.

Wood has many advantages over ordinary road materials. It is, comparatively speaking, noiseless, demands less tractile power, and creates but little dust. A closer investigation, however, of the subject, discovers many serious drawbacks, whilst in those points in which it compares favourably with other materials, it still compares unfavourably with asphalt.

As regards initial expense it is the most costly of all materials, and though it may retain a fairly even surface longer perhaps than macadam or granite, its subsequent stages of decay are more rapid and require more radical and costly treatment.

From Mr. Haywood's reports I find that the following wood paved streets have had to be entirely relaid, and for the most part with new material. (The figure attached in each case indicate the period from their first construction, in which it has been found necessary:—Gracechurch-street, 1½ year; Great Tower-street, 3½ years; King William-street, 3½ years; Bishopsgate-street, 2½ years; Aldersgate-street, 3 years; Angel-street, 3 years; Ludgate Hill, 3½ years.)

It seems, therefore, that the average life of wood paving in London is only three years.)

In New York, Mr. Van Nort, the Commissioner of Public Works, found that the wooden pavements became worn out and useless at the rate of 25 per cent. per annum, i.e., they required entire renewal every four years.

In Paris they have never been tried on any appreciable scale. There can be no question as to their being more costly than any other material hitherto employed.

But the most serious objections to wood pavements are of a sanitary kind, and these it is important to urge in the case of streets which are continually inhabited, and not, as in many parts of the city, merely occupied for the few business hours of the day.

Wood

Wood being a jointed and not a continuous surface, has this defect in common with granite, that however well it be laid, it presents interstices (imperceptible to the eye at first, but widening with wear) into which impure dust is either swept or blown, and allowed to accumulate; and the persistence with which wood retains damp intensifies the resultant evil. In itself, too, it is a very difficult surface to keep really clean, and though it may not be so slippery as granite or asphalt (though many question this), it retains its slippery condition for many hours after other surfaces are dry.

APPENDIX 3.

Copy of letter from the Secretary of the Val de Travers Company.

A. C. Mountain, Esq., City Surveyor, Sydney,—

Dear Sir,

London, 7th May, 1880.

At the suggestion of Mr. Richard Cox, C.C., late Chairman of the Commissioners of Sewers of the Corporation of London, who has recently returned from Australia, I beg to send you some particulars of the paving as laid by this Company in London and elsewhere, and which we believe could be easily and as economically adopted in Australia. I address you per parcels post a packet containing printed details, and a small sample of our compressed rock, lately taken from the roadway of Cheapside, where it has stood for ten years the heaviest and most concentrated and destructive traffic in the world, exceeding 16,000 vehicles per twenty-four hours, or more than 500,000 tons per annum per yard of width. The printed papers will show the advantage possessed by our system, and I would specially call your attention to the pamphlet by Mr. Ellice Clark, a well-known authority in this country.

Our Asphalt is laid both as "mastic" and "compressed;" the former is so universally known that I think it unnecessary to dilate upon it; but a printed circular in the packet gives instructions for laying the "compressed," which is our speciality as in every way a superior paving, being cheaper, more durable, easier to lay and to repair, and much handsomer. It would be the more suitable for your climate, as it does not, like mastic, suffer under hot sun. A very good description of the method of laying compressed is given in Mr. Ellice Clark's book, pp. 8-11; but should you adopt it, it would be desirable to have a practical foreman from England to superintend the heating and laying of the powdered rock.

A foundation of concrete six (6) inches thick for roads, and 3 inches for footways, has always to be put down. It should be carefully laid to the contour desired and brought to a true and even face to receive the asphalt. We recommend a thickness of 2 inches of asphalt for roads, and $\frac{3}{4}$ inch or 1 inch, according to traffic for footways.

For compressed work we could supply either rock or powdered rock, but would recommend the latter as avoiding the necessity of sending out grinding machinery, which would be costly in the first instance.

We could execute your orders, given through the Agent-General, at the following rates, f.o.b. in London, viz.:

| | | |
|-------------------------|--------|------------------|
| V.D.T. Rock, in Powder | ... .. | £4 10 0 per ton. |
| V.D.T. Mastic, in Block | ... .. | 5 10 0 " |
| Refined Bitumen | ... .. | 9 9 0 " |
| Exclusive of packages. | | |

You can reckon approximately that 1 ton of asphalt will cover 11 square yards 2 inches thick; and so on in proportion. Powder would require packing in bags or casks; mastic blocks want no package. Bitumen (of which about 5 per cent. in weight of the mastic is necessary) should be packed in metal drums, like paint drums. For laying compressed, the following special machinery is required, viz.:-Two heating machines, each weighing about $3\frac{1}{2}$ tons, and costing, exclusive of packages, f.o.b. London, about £140, and tools, consisting of brazier, rammers, smoothers, and jointers, costing together about £20.

The ordinary gang of workmen is as follows, London wages:

| | | | |
|---|-------------------|--------|---------|
| 1 foreman (skilled man) to superintend heating and spread powder, | at per diem, 10s. | ... .. | £0 10 0 |
| 6 rammers, 5s. | ... .. | ... .. | 1 10 0 |
| 2 jointers, 5s. | ... .. | ... .. | 0 10 0 |
| 1 smoother, 5s. | ... .. | ... .. | 0 5 0 |
| 3 powder wheelers, 6s. | ... .. | ... .. | 0 18 0 |
| 5 powder heaters, 7s. | ... .. | ... .. | 1 15 0 |

Or together, per diem £5 8 0

Such a gang would lay in a day 200 yards 2-inch roadway, or 350 yards $\frac{3}{4}$ -inch footway. They would do more if a third heater were in use, as with only two they would sometimes be waiting for hot powder.

We could engage to find a suitable foreman to send out. He would require his passage paid, and such wages as are given to a good paving or building foreman in the colony. All the rest of the work could be done by ordinary labourers, whom he would instruct. Frenchmen and Italians make the best compressed layers.

The oldest Val de Travers compressed road in Paris, the Rue Bergerè, was laid in 1854, and is still in good condition. The oldest in London, Threadneedle-street, laid in 1869, has not since cost £5 for repairs. Cheapside, laid in 1870, is in good condition; and has never been closed for repairs, though granite there had always to be relaid in three or four years. We laid a portion of High-street, Southampton, in 1873, and it has never been touched since. Should a repair be required, it is usual to cut out the faulty asphalt, down to the concrete and relay the exact size cut. The old material can be melted and used again as mastic. The repairs stand as well as the original.

I am writing hurriedly to catch mail, but should I have omitted any information you would desire, I shall be happy at any time to forward it, on hearing from you. I may add, in conclusion, that I have just shipped a considerable order, both mastic and compressed, for the South Australian Government.

Yours faithfully,

E. J. HARRISON,
Secretary and Manager.

APPENDIX C.

ROAD PAYMENTS IN SYDNEY, BY A. C. MOUNTAIN, CITY SURVEYOR.

Paper read before the Engineering Association of N.S.W., March 13th, 1884.

IN compliance with a request from the Council of the Engineering Association I have prepared the following notes descriptive of the work already done in this City in the way of improved carriageways, and may state at the outset that I will largely quote from a report written 22nd October, 1880, and presented to the City Council March 9th, 1881, as in that report I have placed in a concrete form most of the information available from the best acknowledged home authorities. In addition to that I intend to briefly sketch the progress of Road Pavement in Sydney to the present time, together with any facts that have become apparent in the course of the work of construction since the date of abovenamed report.

As numberless works are extant descriptive of the method of making macadamised roadways it would only needlessly lengthen this paper were I to attempt to dwell on this portion of my subject at length. Suffice it to say that—in 1879—on entering upon the duties of the office I now hold I found that Sydney was suddenly developing and increasing in a surprising degree, that, in fact, the old city was being rebuilt, whilst the traffic had increased amazingly. On all sides were signs of prosperity and progress, save in the thoroughfares, nearly all of which were behind the times and inadequate to the requirements of the altered condition of events.

To give some reason for the bad condition into which the city streets had drifted, it will be necessary to make a brief digression and explain the causes leading to this result, which will partly be a plea of extenuating circumstances.

On inspection I found that whatever ballast had originally been used in forming the oldest streets had practically disappeared, but little, if any, remaining; the metal was consequently left without foundation, thus causing a "bumpy" and irregular surface. As an illustration of the extent to which the old sandstone ballast had decayed, I may instance the fact that in excavating several of the main streets recently for the purpose of reconstruction, in not one of them was a dozen loads of useful ballast obtained from the cutting, and I am satisfied that a similar state of things will be found to exist in George-street and many of the other old thoroughfares.

The

The metal, which at that time was very irregular in its supply, and the cost of which varied from 11s. to 12s. per ton, was too costly to permit anything like a bountiful use of it, which might have helped the foundation, but the roads were often worn bare before being repaired.

In addition to this the streets were originally constructed with an excessive convexity—thus practically reducing their available width for traffic and increasing the wear and tear on the surface—and they were also unusually narrow, and in the majority of cases as unusually steep, whilst, at the same time, an abnormal traffic was received by them owing to the peculiar position in which Sydney is placed with regard to railway arrangements for heavy goods.

A consideration of all these circumstances will, I think, afford a tolerably good reason why the Sydney streets were not in good order or repute.

Realizing very soon the costly and unsatisfactory maintenance of these old streets (especially those enduring the heaviest traffic) I prepared the abovenamed report for the Mayor of Sydney, the following extracts from which will explain the view I then took of the matter:—

“During the last twelve months I have been endeavouring to obtain *data* to enable me to ascertain (approximately) the annual cost of maintenance of our streets. This I have obtained as nearly as practicable; but it is impossible to obtain the exact amount, as they have been hitherto patched and repaired from time to time by day labour, and not under a regular system of appropriation.

An examination of the expenses incurred for labour and material for maintenance annually in our streets of heaviest traffic, such as George, Pitt, King, York, Sussex, and Oxford Streets, &c., shows that on an average the probable annual expenditure amounts to 1s. 3d. per square yard; the cost of cleansing amounts to 4d. per square yard; whilst the cost of watering (paid as a rate by the residents of these streets) will amount to 6½d. per square yard. This gives a total of 2s. 1½d., which may be fairly set down as the minimum annual sum that is devoted yearly to maintaining the principal macadamised thoroughfares in this city, exclusive of supervision and establishment expenses. Now, it is apparent that this bears an unduly large proportion to the original cost of making, ballasting, and metalling the road, which is equal to about 6s. 4d. per square yard; therefore, by obtaining a material that costs much less to maintain, the amount saved annually in maintenance will go to pay the capital cost of a pavement that is in the first instance much more expensive.”

“Through the courtesy of the Metropolitan Transit Commissioners, I am enabled to present a table showing the traffic through two streets of Sydney. This information is compiled from returns prepared by Ed. Oram, Esq., Superintendent to the Commissioners, whose cordial co-operation, and whose zeal in securing accurate returns, I have much pleasure in acknowledging. I regret that through unforeseen circumstances Mr. Oram was only enabled to obtain accurate returns of the traffic in two parts of George-street: (1st) near Post Office, and (2nd) near Town Hall; and also of Oxford-street, near College-street. The average of several days' traffic has been taken, and in calculating the probable annual traffic no allowance is made for Sunday or for more than twelve hours per day, so that actually I think the returns are low rather than otherwise. Care has been exercised in obtaining the number and weight of the different descriptions of vehicles, and the weights of loads and number of passengers carried, in order to ensure accuracy:—

| | Average of vehicles passing every day of 12 hours. | Weight in tons daily passing over road. | Tons annually over road. | Tons annually per yard in width of street. |
|--|--|---|--------------------------|--|
| George-street, near Post Office | 7,333 | 6,000 | 1,372,000 | 156,000 |
| George-street, near Town Hall | 7,053 | 6,389'5 | 1,993,524 | 142,394 |
| Oxford-street, near College-street | 1,033 | 2,123 | 562,370 | 40,170 |

From inquiries and personal observation I believe that Sussex, Pitt, York, and King Streets have heavier traffic per yard in width than Oxford-street; and that several other streets, such as Harris, Regent, William, Market, and Hunter streets, have nearly if not quite as much.

This is sufficient to give an idea of the actual wear and tear on our main streets when it is remembered that in the streets of heaviest traffic in Liverpool the figures vary from 216,000 to 316,000 tons per yard in width per annum, which, according to Mr. Deacon, is probably not equalled in the world.

I may here draw attention to the fact that Mr. Lovegrove, an authority on road-making, states as his opinion, that “when the average cost of a macadamised road reaches 2s. per square yard he thought that as a matter of economy the surface ought to be paved.” This view was adopted by the vestry of Paddington (*vide* pages 12 and 13.)

Mr. Deakin and other Engineers have fixed the standard at which a paved roadway will be cheaper than macadam in the long run at a traffic of 40,000 tons per annum per yard in width of street.

In regard to both these conditions there are several of the main streets of Sydney that would actually cost less to pave than to macadamise during a term of years, as has been above illustrated.”

Before writing the above remarks, however, I had recommended that the convex streets should—as they gradually needed repair—be cut down to a flatter cross-section (*viz.*, to a cross fall of about 1 in 36). I then advised the use of a sandstone ballast in roughly-dressed pitchers or blocks in lieu of the “spawls” hitherto in vogue, owing to the latter form being so liable to pulverize. I suggested that by accepting a contract for the supply of road metal for a term of years it would be reduced in price; and I also saw that in order to consolidate and preserve the blue metal—especially on streets with steep grades—it would be wise to introduce where practicable the use of the now well-known tarred metal.

The City Council was pleased to approve of these suggestions, the result being that all the newly made roads are being formed to a convexity that is both more sightly, more economical, and more practically available than was the old form; that, as whole, the new work has been substantially and solidly founded; that the blue metal is now obtained at a reduction of a least 30 per cent. on the rates that were ruling four years ago; and that several streets, representing a total of about 21,000 superficial yards, have been laid with tarred metal with satisfactory results.

Before leaving the subject of the macadamised streets I believe I am justified in alluding to the frequent injustice that is done them through attributing to inherent defects in their construction flaws that are caused by outside circumstances. I have already drawn attention (in the abovenamed report) to the fact that many of the existing streets “have originally been so constructed that no partial repair or patching will ever convert them into good roads,” the most that can be done being to make them tolerably passable; whilst with reference to the new roads that have been constructed under my directions, which are both numerous and (I will venture to say) on the whole creditable in their execution, the unfortunate fate of all city streets appears to await them, for no sooner are they completed and consolidated than they are at once torn to pieces for water, gas, or drainage connections, and the once excellent road is spoiled and its constructor abused.

I cannot give a more practical illustration of this than to direct your attention to the more newly made streets in the district of Ultimo, where the defects or inequalities of the road-surface are unmistakably due to the cause above named.

I observe the same complaint is being made by nearly all the Borough Engineers in England.

Another disastrous (though unavoidable) torture to which macadamised roads in city streets are especially subjected is the shaking and disruption of their surface in the necessary work of cleansing by means chiefly of the scraping machine, which tear up the metal in patches where repairs that have not had time to consolidate, have been made.

A consideration of the abovenamed facts speedily directed my attention to the different materials employed in England and Europe for road-paving, and I took great pains to collate the opinions of the most eminent road engineers both for and against each particular material. This information was attached in the form of an appendix to the above quoted report. About this time the Council had decided to pave some of the streets with cube sets and with wood, the introduction of which has been such an unequivocal advance on the former condition of affairs that I shall describe what has been done in that direction up to the present time, merely explaining that what has been done has been carried out (as funds were available) from the annual revenue of the city; the Council not possessing power to raise a loan for such work.

The largest piece of cube set paving is that in Sussex-street, between Margaret and Bathurst Streets. This is laid with cubes 7" deep, 4" to 4½" wide and from 9" to 14" long, bedded in 2 inches of sand on a layer of Portland cement concrete 6 inches thick, the joints being “racked” with dry screenings or coarse sand and pea gravel, flushed up with boiled tar. The average cost of this work is about 18s. 6d. per superficial yard, and it appears to answer well. There are several other public ways laid with cube sets, and also between seventy and eighty crossings, but as they are not laid on concrete foundations they are less costly. The street-crossings were laid first of all temporarily, as a necessary improvement on the muddy metal roadway.

The

The wood paving already amounts to an area of 52,452 superficial yards and has cost on an average about 25s. per yard. As the method of laying this pavement has been severely criticised I have thought it well to devote the greater portion of this paper to a clear statement of the considerations that induced me to recommend its adoption, and to a description of the manner in which it is laid.

In the report above quoted, I said :—

“Probably no material that has been introduced for the purposes of road making has been subjected to more discussion, or given rise to greater differences of opinion, than has wood.

The disastrous results of the wholesale experiments made in New York, tended to establish the conviction that wood was an expensive failure under such conditions.”

In the report of the Department of Public Works, New York, for the quarter ending 30th June, 1876, the following remarks occur :—

It will be seen that there are 21 miles of wooden pavement in the city, nearly all in a wretched state of dilapidation and decay. At least three quarters of it should be replaced by substantial stone block pavement during the year 1877; the remainder may last, with temporary repair, for another year.

It is hardly necessary for me to state what must be apparent to the most casual observer, that a wooden pavement in this city has proved a total failure. In addition to the evil of a rough and rugged surface after comparatively few years service, it is unquestionably true that the decaying matter of which it is composed is detrimental to health. It is unfortunate that the experiment of its usefulness and durability had not been tried upon a smaller scale than an aggregate length of more than 20 miles, distributed over sixty streets. Valuable experience would thus have been acquired at much less cost to the city. It is useless, however, to deplore the errors of the past, doubtless attributable in this case, as in many others to the combined influence of jobbery and ignorance. What is now to be done is to remedy the evil with the least possible delay, and in the most perfect and economical manner.

In considering the sweeping condemnation, it must be borne in mind that by bad construction these pavements rotted before they had been down five years, and thus proved a prolific source of disease. The wood pavements in America in nearly all instances had the radical defect of a bad foundation, and, being laid with porous joints, became sodden with water underneath, and in addition to perishing prematurely, emitted most offensive smells from the impure accumulations with which they were saturated.

The last few years has seen a great change in the construction of wood pavements, and at the present time some of the most important and best paved streets in London are laid down with wood; notably King William and Gracechurch Streets. It is also contemplated to lay wood pavement in Regent-street and Piccadilly.

The very interesting opinions expressed by the English authorities at the meeting of the Institute of Civil Engineers, contain so many valuable ideas that I have thought it advisable to quote them for general information.

The result of the contemplated wood pavement in King-street, ordered by your Worshipful Council (where several of our Colonial timbers will be used, with a view to determine their relative suitability for this work) will be of great utility in settling the question of the advantages of this description of pavement.

In this work I have endeavoured to select woods that—whilst possessing closer grain, and in consequence, greater durability and less tendency to absorb putrescent moisture—will not be too slippery on the face, which is one of the evils attendant on the use of hard woods. By having all the blocks well soaked in tar, I hope still further to minimise the sanitary defects attributable to wood paving.

Should the Council decide to carry out the wood pavement on a large scale, I would recommend that the contracts include the maintenance of the roadway for a term of years, and also that stringent provision be made to prevent a continuance of the present careless system of breaking open streets on any excuse by plumbers and drainers. This would ensure a more excellent description of work than could be procured under the ordinary contract system, and would be more economical to the Corporation, and convenient to the public.

An examination of the various opinions on the question of wood paving shows that there still exists great diversity of opinion amongst the authorities. All agree as to the necessity of a thoroughly good foundation, and as to the necessity of rendering the joints impervious to water. This latter can best be effected by means of asphalt; as a substitute, boiled tar forms a good grout mixed with gravel or coarse sand.

The difficulty with regard to expansion and contraction of the wood is one not easily to be dealt with. It will be seen that Mr. Reader Harris records an instance where the kerbing stones and lamp-posts were burst out of position by the action of rain followed by sudden heat on a wooden pavement. The method adopted by the Asphalt-Wood Company (referred to in Mr. Wilcock's paper) appears to be the most suitable for preserving the wood from absorption of water and permitting a certain amount of expansion and contraction without injury to the street.

It will be seen that the sanitary authorities of London and Paris are both adverse to the general application of wood on hygienic considerations. From Mr. Gerard Cobb's paper we find that gentleman unfavourable to wood pavement as compared with other materials on the score of cost and want of durability, the average life he gives to wood being three years. It must, however, be remembered that he refers exclusively to the soft Baltic deals used in London. Mr. Cobb also dwells on the sanitary objections; but, as I previously stated, I believe these objections would have less force in our drier climate, and where timbers of denser fibre were employed.”

The above remarks will, I think, be sufficient to show that I had fully considered the sanitary objections that were made to the wooden roads. But when it is attempted to institute a comparison between a foundation of concrete and one of pine boards laid on the natural soil, or between our Australian hardwood and Baltic or American deal, argument is impossible as no analogy exists between the two; and it would be as reasonable to condemn granite because some soft lime or sand stones had proved to be materials deficient in durability! The better to illustrate the difference in density (and consequently in absorbing power) I have brought with me this evening a small block of each of the above-named woods.

These are sawn off samples, of equal bulk, sent by me to the Government Analyst with a view to having their relative absorbing power determined. They were accompanied by a wood block taken from King-street, after more than three years of the traffic, and a similar block that had been treated in the same way by boiling in crude “creosote,” but which had never been laid in the street—in order to arrive, by comparison, at the total amount of foreign matter that the former had received whilst in the road. The result of these investigations I have only received this day and think it of sufficient importance to read in *extenso*.

The City Surveyor,—

Sir,

Having examined, at your request, certain blocks of wood forwarded by you with a view to a comparison as to their relative absorbing powers, and, also, in the case of one block which has been for three years part of the wood pavement of King-street as to its possible contamination by street refuse, I now forward you my report on the same.

First—The block of wood stated to have formed part of the wood pavement in King-street, laid three years ago, shews practically no more contamination, as judged by the presence in it of ammonia, than a fresh block prepared by you in an exactly similar manner. It should be stated, however, that the mere absence of ammonia is not in itself satisfactory proof of the absence of organic contamination, though it is evidence in favour of the view that the contamination has not been great. It might, perhaps, be possible by a search for other substances, and a careful comparison of the results, to reach more definite conclusions but it is scarcely probable, as the differences would, in all likelihood, be extremely small. As a matter of fact there is no reason to suspect any appreciable contamination.

Second—Three small blocks of wood forwarded by you, and consisting of respectively American red wood, Baltic deal, Australian hardwood (tallow wood), shewed the following relative amounts of absorption (for equal bulks) on standing for several hours in water under exactly similar conditions :—

| | |
|----------------------------|-----|
| American red wood | 140 |
| Baltic deal | 66 |
| Australian hardwood | 13 |

This shews, as might have been anticipated, that the absorption of the Australian hardwood, of which, as I understand, the Sydney wood pavements are or are to be made, is very greatly less than that of the other woods submitted, being, in fact, less than one-tenth of the absorption of the American red wood.

I am, &c.,
CHAS. WATT,
Government Analyst.

This

This satisfactory report has, I venture to say, more than realized my anticipations of the fitness of our hardwoods for the purpose to which they are now being applied.

King-street, between George and Pitt Streets, was the first street in Australia laid down with wood; this work was completed in August, 1880, and is still in excellent order. It would be tedious to particularize each work done at length, so I attach a tabular statement shewing the extent of paving—both of wood and stone—at present existing in the city, with cost of each; and will then proceed to describe the mode of construction:—

City of Sydney.—Return of Paved Roadways (Wood and Stone), existing March, 1884.

| Date of construction. | Where laid. | From | To | Area in super. yards. | Cost per super. yard. | Remarks. |
|-----------------------|-----------------|-----------------|------------------|-----------------------|-----------------------|--|
| August, 1880 ... | King-st. | George-st. ... | Pitt-st. | 1,565 | s. d. 20 2 | Wood—Experimental section with 8 kinds of wood, hard and soft. |
| July, 1881 | Pitt-st. | King-st. | Market-st. ... | 3,290 | 26 5 | Concrete 8-inch thick, hardwood. |
| July, 1882 | George-st. | Market-st. ... | Park-st. | 5,170 | 26 0 | Concrete 6-inch thick, hardwood. |
| August, 1882 ... | George-st. W. | Harris-st. ... | Newtown Rd. | 14,790 | 28 2 | laid by Tramway Department. |
| October, 1883 ... | George-st. ... | Park-st. ... | Bathurst-st. ... | 4,884 | 20 10 | laid by Tramway Department. |
| December, 1883. | George-st. ... | King-st. ... | Hunter-st. ... | 6,320 | 24 0 | laid by Tramway Department. |
| January, 1884 ... | Oxford-st. ... | College-st. ... | Dowling-st ... | 13,143 | a | laid by Tramway Department. |
| February, 1884.. | George-st. ... | King-st. ... | Market-st. ... | 3,290 | 27 2 | Cube-sets. Laid by Tramway Department. |
| 1882.. | Devonshire-st. | George-st. ... | Castlereagh-st. | 4,900 | 21 0 | on 6-inch concrete. |
| April, 1881 | Sussex-st. ... | King-st. ... | Margaret-st ... | 4,880 | 17 0 | Without concrete foundation; day-labour. |
| December, 1883. | Sussex-st. ... | King-st. ... | Bathurst-st ... | 8,091 | 18 6½ | by contract. |
| May, 1883 | Alger's Road | Lower Fort-st. | Parbury's whf. | 275 | 15 6 | by contract. |
| December, 1883. | Harrison-lane | Mort's-lane ... | Phillip-lane ... | 410 | 14 8 | by contract. |
| January, 1884... | Pottinger-st... | Windmill-st. | Water's edge | 800 | 16 6 | by contract. |
| Total ... | | | | 71,817 | | |

a Returns not yet to hand.

In addition to this list York-street, from King to Erskine-street, is now commenced and the following streets are ordered to be done:—

| | Area. |
|---|-----------------|
| Macquarie-street, Hunter to King street ... | 4,928 |
| George-street, Hay-street to police station ... | 8,772 |
| William-street, Yurong to Dowling street ... | 11,911 |
| George-street, Hunter to Argyle street ... | 9,054 |
| Regent-street, George-street to Mortuary ... | 5,120 |
| York-street, King to Druitt street ... | 7,860 |
| York-street, Erskine to Market street ... | 2,345 |
| Market-street, George to Pitt street ... | 1,330 |
| Total ... | 51,320 sq. yds. |

The following streets are ordered to be laid with cube sets:

| | |
|---|--------|
| Lime-street (contract now let) ... | 1,330 |
| Sussex-street, north of Margaret-street ... | 1,425 |
| Sussex-street, south of Bathurst-street ... | 8,805 |
| Harris-street, George-street to ... | 10,208 |
| Total ... | 21,818 |

The above return shows that there are between 14 and 15 acres of paved roads already in the city, and about 15 acres additional to be carried out as soon as funds are available.

FOUNDATION AND CONCRETE.

In preparing the foundation for the wood-paving I have uniformly adhered to the convexity of 1 in 40 and excavated so as to leave the finished roadway 6 inches below the top of the kerb.

The desirability of securing a close-grained and compact concrete without waste of material induced me to adopt a thickness of 6 inches only—save in the case of Pitt-street, where 8 inches was the thickness used—but to exercise great care in the selection of the cement. I observed that it had hitherto been the practice to describe the quality of the cement required by the very vague statement that it was to be “of approved brand of the best quality,” sometimes one especial brand was stipulated for. This is now altered as I provide for all cement, regardless of the brand, to undergo a moderate test with the sieve and by tensile strain.

The sieve test exacts that not more than 12 per cent. residue shall be left after passing the cement through a sieve of 50 meshes to the inch lineal (or 2,500 meshes to the square inch). This test is a very moderate one for good cement, as the art of “fine grinding,” so essential to excellence in that material, has enabled manufacturers—notably the German makers—to go far in excess of that result. In fact I am informed that the universal standard throughout Europe is that the greatest residue permitted through a sieve, with 5,806 meshes to the square inch, shall be 20 per cent.; and one well-esteemed cement is so beautifully fine that its manufacturers warrant it to pass through the incredibly small mesh of 32,000 to the square inch with a residue of not more than 10 per cent.

As some of the cements imported into the Colonial market are too coarse to satisfy the reasonable test demanded, I deemed it useless at the present time to demand a severe ordeal, but I hope that more explicit and more stringent specifications may gradually have the effect of causing a higher class article—as regards fineness of grinding—to be introduced here.

The tensile strain stipulated for is also a reasonable one; it requires that a briquette of cement mixed neat, after seven days (six of which are to be in water) shall withstand a strain of not less than 400lbs. to the square inch in section. Many of the cements in Sydney will far exceed this limit. I have tested some that have stood a strain of 650lbs. to the square inch; in fact, some will stand the 400lbs. tensile test that are too coarse to pass the sieve satisfactorily, and I find that J. Grant, M. Inst. C.E., the acknowledged authority on this subject, after long experiment, does not place implicit reliance on the neat cement tests, as he has found that it is possible to manufacture cement that will stand a severe strain in that condition that, when mixed with sand and kept for a longer time, would not give satisfactory results. In addition to the above tests, therefore, I was careful to ascertain that the cement used for concrete was able to sustain satisfactorily a “sand” test (2 of sand to 1 of cement) after 20 to 30 days.

The concrete was generally composed of Nepean River gravel and sand, in the proportions of one cask of cement to 24 cubic feet of the gravel and sand, or about 6 to 1 by bulk; and, as it was found by experiment, that about 50 per cent. of sand (or half the bulk of the aggregate) filled up the interstitial spaces in a heap of 2-inch stone or pebbles, that proportion was used. The concrete was mixed twice dry and twice wet, before barrowing, with about 20 gallons of water to the cubic yard and was punned to proper solidity and form, when the floating course, averaging about ½ inch in thickness and composed

composed of clean, sharp, river sand and cement mixed in the proportion of 2 to 1, was rendered over the surface of the concrete with screeds to the required convexity and smoothness. An interval of seven days to enable the concrete to set was stipulated for before the blocks were to be laid.

I have here a specimen of the concrete and also a piece from Sussex-street, which is only 8 to 1, taken from under the stone cubes.

Wood Blocks.

Equal care was bestowed in determining the most suitable timbers for the purpose. In King-street eight different kinds of wood were laid down—both hard and soft—as an experiment of the relative durability of the various timbers, and also as to the adaptability of the close-grained hard-woods to the requirements of street traffic. These latter were laid with the unusually wide joint of 1 inch (which in practice frequently expanded to $1\frac{1}{4}$ inch), as it was feared the road would otherwise be too slippery. As regards the durability the hard-woods have shown their undoubted superiority, as the wear of over $3\frac{1}{2}$ years has had but little effect on them, the “wear” being chiefly on the edges of the blocks, owing to their being exposed (through the width of the joints above mentioned) to exceptionally severe action of the traffic.

The soft woods used, viz., brown pine, cedar, and Baltic deal, were laid with only $\frac{1}{2}$ -inch joints (customary width in London), they are now showing signs of wear, being a little uneven on the surface, but will last a long time yet.

I have a block here for your inspection just taken, by chance from the road, which will enable you to judge of the wear that it shows after $3\frac{1}{2}$ years of the steady traffic of King-street. It will be seen that the actual difference in depth in the body of the block is absolutely inappreciable, the wear on the edges of the block—largely due to the above-stated cause—only amounting to about $3\text{--}16\text{th}$ inch.

I have also brought with me samples of wood blocks of the timbers preferred and principally used for paving, viz. :—

| | |
|----------------------------------|------------------------|
| Tallow wood | Eucalyptus Microcorys. |
| Spotted gum | „ Maculata. |
| Blue gum (forest mahogany) | „ Robusta. |
| Black butt | „ Pilularis. |

All these timbers are excellent in point of durability. Other woods have also been used (such as red gum, grey gum, brush box, turpentine, &c.) but the above-named have been selected as being “all round” the most suitable timbers, as they are not extremely slippery across the grain nor are they quite so liable to warp or “buckle” under different climatic conditions as some of the other descriptions of timber.

To ascertain the extent of this latter weakness, common to all our hard-woods, I have recently had various samples severely tested, under dry and moist conditions, and found tallow wood shewed the least alteration in form, a 9" block, only shrinking about $\frac{1}{8}$ ", whilst the other descriptions shewed shrinkage varying from $\frac{1}{4}$ " to $\frac{3}{8}$ " or an average of $\frac{1}{4}$ ". The cross-shrinking (across the 3-inch thickness of the block) was relatively similar, the Tallow Wood shewing hardly any perceptible difference whilst the other woods “pinched” up in some cases nearly $\frac{1}{4}$ of an inch. This was after two or three months of seasoning, the blocks being exposed to dry sun-heat, under galvanized iron roof, and kept free from all moisture. A week's soaking in water will restore them to their former bulk, and will, on an average, increase their weight 1 lb. The wood known as “brush box” has been found to warp and twist most of any of the different timbers experimented on, shrinking as much as $\frac{1}{2}$ " in 9" block, and has now been excluded from the list of approved timbers.

The blocks as you are all doubtless aware, are 3 inches thick, 6 inches in depth, and vary in length from 6 to 9 inches. In those cases where the contractor found all the materials it was next to impossible to ascertain with precision the degree of seasoning the blocks had undergone when brought on the work; in the last two contracts for George-street, where the timber was all supplied by the Council, it was so arranged that the blocks were stacked in the Corporation Depot so that the sap evaporated somewhat, without the blocks becoming absolutely dry or thoroughly seasoned, the stacks being exposed to the weather and retaining any rain or moisture that fell. Thus only the outside layer of blocks was affected by the sun. These blocks have not shrunk at the end joints, in the works, more than was unavoidable; nor, on the other hand, were they so dry as to be liable, after wet weather, to swell when placed in the street, and thus imperil its stability.

The difficulty in dealing with the expansion and contraction of the blocks is indeed the only serious one that can be termed an objection to their use in wood-paving. It is undeniably a puzzle, and if some of my detractors, who can point out the faults, will be kind enough to suggest the remedy, I shall be only too happy to thank them for the solution.

The blocks were submitted—in the first two or three streets that were constructed—to a rough creosoting process, by being steeped for some hours in a crude oil—an extract from the kerosene works—which was boiled. This was discontinued, and the blocks simply painted with boiling tar, on my ascertaining that the density of the wood was such that the blocks were not appreciably penetrated by the oil. As the durability of the hard-wood was unquestionable, and seeing that the timber was only partially seasoned, it was evident that an outside coating of this oil might absolutely injure, rather than benefit, the wood by imprisoning the moisture in the heart of the wood and causing dry rot.

Of course this could not occur if the creosoting was done under hydraulic pressure, or by the exhaust process, but the apparatus was not available in Sydney and the additional cost and delay would have been considerable. I believe, however, that by a proper chemical process (unnecessary though it may be for preserving the life of such durable timber as is the majority of our hard-wood) the constituents of the wood might be so changed—by expelling the air and sap and substituting some mineral solution which would destroy the albumen—as to render it less subject to alter its form; but I have not been able to investigate this subject so far and merely mention it as an idea unsupported by any information or experience.

The 1" joint which was first adopted was reduced to $\frac{3}{4}$ ", the present gauge (save on steep gradients where the inch joint is still retained). This modification was rendered necessary owing to the noise and the severe wear on the edges of the blocks consequent on the grout wearing more rapidly than the wood. It was also found that the $\frac{3}{4}$ " joint was not more dangerous than the wider one.

GROUTING.

In the first works the grouting was composed of tar and screenings, the tar being boiled, according to its density, from 3 to 7 hours, and the screenings of bluestone, screened through a $\frac{1}{8}$ " screen, with the fine stuff left in and heated before mixing with the tar. The importation of a large supply of English pitch—distilled from coal-tar—by the City Council (on the suggestion of Mr. Alderman John Young) saved the time consumed in reducing the tar and formed a superior substitute. The pitch, in itself too brittle, is tempered by adding a suitable quantity of boiled tar until it assumes the condition of the piece here exhibited, which you will perceive is perfectly ductile. In the last contract, just completed, the lower inch of the joint was run in with the pitch alone, thus fixing the blocks firmly in position and enabling the regularity of the joints to be better maintained, whilst effectually making a water-tight joint. (This was suggested to me by Mr. Young and is certainly a successful improvement.)

On this the grout of pitch and screening is crammed, and caulked at least twice to ensure its being thoroughly compacted, and the last half-inch is flushed up with fine screenings and pitch run over with hot smoothing-irons, the surface of the road being then sprinkled with fine dry screenings. To show how well this grout adheres to the blocks I have brought a sample of both the tar and the pitch mixture. As under heat it softens, whilst the wood is shrinking the grouting goes with it, thus preventing a crack, the grout merely sinking a little below its former level. This property is one that makes it preferable to cement-grout which has no great affinity to wood and which, once it receives a shock, never re-unites. Probably the property of the pitch-grout could be taken advantage of to prevent the opening of the butt-joints already referred to, if the blocks were spaced with the same interval at the ends as at the sides, provided such an arrangement would not in other respects affect the street. I hope shortly to have an opportunity of making the experiment.

The above is a description of the wood-paving as now carried on in Sydney; and before concluding, I will endeavour to reply to some objections that have, from time to time, been urged against the method. The principal charges are—want of durability, and absorption of street filth, thereby promoting disease; incidentally, slipperiness and noise are also complained of.

In my former remarks I was careful to go minutely into the method of laying the wood-paving, to enable you to judge as to the value of these statements. With reference to the first question—that of durability—I may be permitted to interpolate the following little experience I have had of wood:

When the King-street paving was being laid, I had a gateway entrance—about 10 or 11 feet wide—paved with some spare blocks. This gateway led to the Corporation Stone Wharf at the foot of Market-street. The blocks were not prepared with tar in any way; they were laid with inch joints between the rows, and grouted between with only tar and ashes. The foundation

foundation was simply a 6-inch layer of tarred metal. Since August, 1880, the stone carts have been daily drawing in and out of this gateway over the same track, and at the present time the only apparent wear is at the edges, owing to the wide joints. I have ascertained that, on an average, quite 70 tons of stone go daily through the gateway, or 30,000 tons per annum, to say nothing of the carts drawing other materials.

But leaving this instance on one side; the wood-paving in King, Pitt, and George Streets is, I venture to assert, not showing any intention to "give out," just yet at all events. I have already explained how, in the two first-named streets, the joints were made unnecessarily wide, which (owing to the great wearing more rapidly than the tougher wood) has occasioned an undue wear on the edges of the blocks, and caused those roads to become rougher on the surface than is the work more recently done. I have also pointed out that, in some cases, the blocks have opened at the butt-joints under the influence of dry weather, but (whilst freely admitting this) I still claim that there is no evidence of either sinkage or decay in the hardwood roads. I have noticed in the case where the blocks have become loose—which is after all an exceptional occurrence—that it has chiefly taken place with one particular timber (the brush box before alluded to), and that it has been caused by the heat of the sun acting in dry weather on the surface of the block, the bottom of which is in its normal state of only partial dryness. The heat on the top shrinking the surface causes the block to curl so that the upper face becomes slightly concave, and the bed convex, thus disturbing its fair bearing on the concrete and allowing it to rock. As I have before explained this has been noticed principally with one kind of timber, and in those contracts where the material was not supplied by the Council, and was consequently not so closely under supervision as if it had been stacked in the Corporation yard.

As regards the danger of absorption and accumulation of filth I think that can be shown to be, to say the least, an exaggerated fear. The blocks are, for all practical purposes, non-absorbent in themselves, in addition to which their bed and sides are tarred; the grouting is of pitch and tar—selected in preference to cement, among other reasons before mentioned because it is an admirable disinfectant—and is so closely caulked that it will not allow much water, still less filth, to penetrate it. The only place, therefore, in which street refuse can, by any chance, lodge is in the open spaces between the butt-joints when they are shrunk by the dry weather, and that joint, as before explained, is in reality V shaped, being wider at top than at bottom. Now, assuming (which is absurd) that every block shrinks to the extreme extent that I have shown it can be made to do under such exceptional circumstances as I have described, and allowing the maximum shrinkage of $\frac{3}{8}$ " to each 9" block to take place; even then we have only one twenty-fourth of the street area exposed, and that only at the surface and in times of hot dry weather. This is clearly an extravagant allowance, the half of that, or one fiftieth, representing fully the proportion that may be said, at times, to be liable to be open to receive street refuse, and this at the surface level only, for the bottoms of the blocks still remain practically close. It must be remembered that, although a certain shrinkage across the thickness of the block certainly occurs, I have not observed any perceptible crack between the grout and the wood; on the contrary they cling well together, and are not easily parted, as the samples clearly show.

This is different to a statement that appeared, some time since, in one of the papers from a contributor who gravely asserted that one-third of the entire area of the wood-paving was a receptacle for street filth that would give rise to all sorts of fearful disease and decimate our population!

As regards *slipperiness* and *noise*, the fact is, that in providing a permanent pavement of any description to withstand constant and heavy traffic, one is certain, at the same time, to produce one or other of these defects; and as you strive to lessen the one the other is aggravated. The danger of wood becoming too slippery necessitates the spacing of the blocks with intervening joints, which gives rise to a certain rumbling sound that—though not pleasant—is much preferable to that caused by a granite or blue-stone pavement.

I have read a description of a new *asphalt* pavement (American, of course), which is said to possess all the advantages—without the one great drawback, *slipperiness*—of the famous European asphalts. The reason given is that the new material is free from "a minutely diffused soap-stone, which under certain conditions makes asphalt pavements slippery." Now, this is all well enough until one considers that streets laid with the best European asphalts are safe to travel on when quite dry, or quite wet; it is the "greasy" period that causes its slippery condition, and it must be remembered that this state is chiefly caused by the street mud being converted into slime by slight rain, or dampness in the atmosphere. The "diffused soap-stone" does not seem to come into operation once a heavy shower of rain has thoroughly cleaned the street! I wonder whether its absence in the American material will prevent the formation of this "greasy" mud?

The fact of the matter is, as I have already stated, that the idea of a smooth durable pavement that will also be safe in foothold under all conditions, and at the same time noiseless, would be perfection, but it has not yet been attained. To minimize the danger of horses slipping, the *joint* is introduced, which necessarily causes noise; seeing that the horse's shoe grips it, and compresses or wears it to a certain extent, thus causing a slight irregularity on the street surface. But as the toe of a horse's shoe cannot enter very far into a $\frac{3}{8}$ -inch joint, the grout does not wear beyond that depth, so that the fact of the joints not being "flush" with the blocks does not imply that they are in any way affected below the top inch or so; and, when necessary, they can be filled up at trifling cost.

I fear these remarks have already gone beyond reasonable limits, although I have carefully endeavoured to condense them as far as was consistent with a lucid explanation of the subject matter; but, before closing, I cannot refrain from remarking that a certain feeling of regret must occur to any man, who, labouring under difficulties, with an honest and zealous desire to effect improvements, meets with such misrepresentation as that to which I have from time to time been subjected since the initiation of street paving in this city.

No man, far less a public official, can expect to escape criticism, and even censure; but an impartial and temperate correction is more effectual in its object than any lengthened, may I add, laboured statements founded on inaccurate knowledge of the subject. Such condemnation defeats its own end, and can only properly be treated with contempt.

This is the only reference I have made to this subject, which might naturally have caused me considerable pain were I not conscious that the real verdict lay with the public, to whose judgment I felt I could with confidence leave the question without entering into outside controversy.

I am far from asserting that we have nothing yet to learn in the art of constructing wood-pavements, but I am satisfied that such a street as—say—George-street, from Hunter to Bathurst-street, is a stretch of roadway that no city need be ashamed of, and one that—whatever its faults—casts no discredit on those who are responsible for its existence.

APPENDIX D.

The City Engineer, Memphis, Tenn., U.S.A., to The City Surveyor, Sydney.

Dear Sir,

Memphis, Tenn. U.S.A., 11 March, 1884.

Your esteemed favour of January 9th, 1884, is at hand. In reply thereto I have the honor to submit the following statement:—

In the year 1866 this city laid its first wooden pavements, known and patented as the "Nicholson pavement," which pavement was received in the United States with great favour, and extensively laid down in many of the large cities, both north and south. Briefly, it was laid in the following manner:—

The street was first very nicely and evenly graded to a depth admitting of the following superstructure:—

1. A layer of clean, sharp, river sand of about 5 or 6 inches, which was brought to an exact surface by means of a smoothing-board.
2. Upon this foundation cypress planks or boards 1 inch x 12 inch — 16 feet were laid in close contact longitudinally, their ends and middle being supported by a cross-plank 1 inch by 12 inches.
3. The top surface of this plank foundation was then covered with boiling coal-tar or pitch, smoothed over with brooms.
4. The paving blocks 4 inches x 6 inches — 8 inches to 10 inches length, dipped in boiling coal-tar pitch, were then set upon and in parallel rows, with an intervening space of $\frac{1}{8}$ inch—which space was maintained by means of a strip $\frac{1}{8}$ inch x 3 inches — 4 feet tacked at the bottoms of the upright blocks. This space ($\frac{1}{8}$ inch) was then filled in with hot pea-gravel, and the whole run full with boiling pitch, the top surface being finished with a thin coating of hot pitch and coarse sharp sand, which constituted the finished pavement. The timber used in some cases was entirely of oak. On the greater parts, however, of the streets so paved was used cypress timber, both for blocks and foundation.

As before said, this kind of pavement was begun in 1866, and continued through 1867, 1868, and part of 1869, making an aggregate about 11 miles.

For

For several years it was a most delightful pavement for driving and traffic, and seemed to please a large majority of the people. (Just here it is proper to say, it being a sort of job, the cost to the city was from \$3 87c. to \$4 per square yard.) Soon, however, the work of destruction was begun. First, by cutting it to lay gas and water mains and surface pipes as the city commenced to improve. The foundation being once broken and partially destroyed, and the city being deeply in debt and without means for sufficient repairs, it rapidly went to destruction. At the end of five or six years the greater part of the pavement became extremely rough and disagreeable, and was very soon universally condemned, and its projectors and advocates cursed right and left. After the epidemics (yellow fever) in 1878 and 1879 a great many people, and the majority of the medical profession, united in a wholesale condemnation of this pavement and of wooden pavements in general, charging all of our woes to this cause. I doubt, however, if any sufficient proof can be shown to establish this fact. In the years 1880, 1881, and 1882, about 4 miles of this pavement was taken up and replaced with block-stone and Macadam pavements, and it was found that in many instances the plank foundations were perfectly sound and also many of the blocks. In some respects the public opinion is undergoing a change in regard to the wooden pavements, a great many being in favour of again laying such, and we have laid about 2,000 lineal feet of cedar block pavements on a similar foundation to the one above described, which is doing good service and giving entire satisfaction. These sample pavements, I think, will last from twelve to fifteen years without repairs. With such foundations, and laid in the manner described in your letter, I should have no hesitation whatever in recommending the adoption of wood as a paving surface, especially wood treated after the best known methods (creosoting, &c.) The wood to be used in this section of the United States is known here as red gum, and grows in vast forests throughout the Mississippi Valley and its tributaries. It is a hard and dense wood, and laid in pavements will wear equal to the best granite.

In St. Louis, Missouri, Colonel Henry Flad, City Engineer and President of the Board of Public Improvements, has recently been making some experiments with this wood chemically treated, and reports upon it with great favour for its comfort and wearing qualities. I may add, also, that he has laid a good deal of granite block and some asphaltum pavement, all first-class work. Here we have nothing but limestone block pavements, rubble rock, Telford and McAdam pavements, giving a moderate degree of satisfaction. In this connection, however, it is proper to say that our means are so very limited, that as yet we have never been able to give the question of paving with the materials at our command what would be regarded a proper test. In Kansas City, Mo., very recently a large contract for paving with wood (cedar) was let, the work to be done very much in the manner described in your letter.

Very truly,
NILES MERIWETHER,
City Engineer.

APPENDIX E.

Captain Greene, U.S.A., to The City Surveyor, Sydney.

Sir,
Office of the Engineer Commissioner, Washington, D.C., 6 March, 1884.
Your communication of January 5th, 1884, relative to the subject of wood paving, and our experience therein, is at hand, and I am directed by the Engineer Commissioner to inform you that this city has probably had a larger experience of wood pavements than any other city in the world, and it was of the most disastrous character. Between 1871 and 1874 about 1,200,000 square yards of it were laid, extending over a length of more than 50 miles, and costing 4,003,744 dollars. It was, without exception, worthless, and since the reorganization of the District Government, in 1878, the principal part of our work on the streets has been the replacement of these remnants of rotten wood.

The pavement was of twelve different varieties, all patented. Some were round blocks and some rectangular, and some of various shapes, designed to interlock and form a single mass. Some were laid on planks, some on a foundation of tar concrete, and some on gravel and sand. The joints were usually filled with hot tar and small gravel. The material was soft wood—pine, hemlock, spruce, &c.; some of it treated with "burnettizing," creosoting, or other preserving processes, and some not treated.

All these various pavements went to pieces by rotting and wear in from one to four years. The only variety which gave any durable results was the round cedar blocks, 6 inches deep and of various diameters, laid on a thin foundation of tar concrete. This was in fair order at the end of three or four years, but then went rapidly to pieces, not so much from rot as from wear and tear of wheels and sharp horse-shoes.

We now lay nothing here but pavements of imperishable materials—either granite blocks or a mixture of sand and asphalt. My reports for 1880 and 1883 (sent by this mail) will give you full particulars as to these pavements.

I am, of course, aware that a pavement of hardwood (I suppose properly seasoned) laid on a foundation of 8 inches of Portland cement concrete, is a very different affair from those which were laid here; and it is also a fact that in London and Paris they are now introducing wooden pavements quite extensively. But our experience and that of other American cities will absolutely preclude the idea of their being laid here again, except in a few cases like the cities of the north-west, where the proximity to unlimited forests enables them to lay wood pavements at about \$5 to 90 cents a yard, and to replace them every two or three years. From what I can learn of the London wood pavements, it appears that the first cost is 17s., and that the contractor is paid 1s. each year for maintaining them up to fifteen years; and during this time he estimates to entirely replace them twice—or, in other words, that their life is about five years, and their cost as follows:—

| | |
|--|-------------------------|
| First cost..... | \$4.25 |
| Fifteen years' maintenance, at 25 cents. | 3.75 |
| Total for fifteen years | \$8.00 per square yard. |
| The asphalt pavements cost as follows:— | |
| First cost (including repairs for five years) .. | \$2.25 |
| Ten years' repairs, @ 1½ cent | .15 |
| Total for fifteen years | \$2.40 per square yard. |

I have no doubt that we could maintain an excellent wooden pavement at the London prices (if the above information is correct), but it would be ruinous to our finances. The cost of maintenance for asphalt, 1½ cent. per yard per year, appears small, but it is the result of actual experience, extending over about eight years, with this class of pavement. With the repairs that have been made these pavements are now in perfect order. The coal-tar pavements formerly laid have given us more trouble, as you will see by my reports; but these have only cost 8½ cents per year, including extensive resurfacing. We maintain over 1,400,000 yards of smooth pavements (about half asphalt and half tar) in the best order for 50,000 dollars per annum. I do not think any other pavement, having so many advantages as asphalt, can be kept in order at this price.

I should be greatly obliged if you would send me your reports and keep me advised as to the result of your experiment with the wood.

Very respectfully,
F. V. GREENE,
Capt. of Engineers, U.S.A.

APPENDIX F.

The Commissioner of Public Works, New York, to The City Surveyor, Sydney.

Sir,
Department of Public Works, Commissioner's Office, 31 Chamber-street, New York, March 10, 1884.
In answer to your inquiries of January 8th, ultimo, in reference to wood pavement in this City, I beg to say, during the year 1866 to 1872, inclusive, about 400,000 square yards of wood pavement were laid in this City, covering 18½ miles of streets.

They were undoubtedly of inferior quality, and were not laid on proper foundation. They proved utterly worthless, both in sanitary respects and in respect to street traffic, and have gradually been replaced with trap block (hard gneiss) and granite block pavements—the last of them being removed in 1879. It is probable that a wood pavement such as described in your letter would prove serviceable and durable in certain streets in this City, but our experience with wood pavements has raised such a prejudice against them that they are not likely to be again used or experimented upon.

Very respectfully,
HUBERT THOMPSON,
Commissioner of Public Works.

APPENDIX G.

EXTRACT from the Report of the Department of Public Works, Chicago, for 1883.

Street Pavements.

The character of the work executed during the past year under this head is fully equal to any heretofore done in this city. The contractors have fulfilled the conditions imposed by the specifications to the satisfaction of the city, therefore the relations existing between these gentlemen and the officers of the Department have been harmonious and pleasant.

The quantity of pavement laid during the year, as before stated, is 22½ miles; of this there was laid a little over 2½ miles of granite and Medina stone blocks, nearly 2½ miles of asphalt blocks and sheet asphalt, about 1 mile of macadam, ¼ mile plank, and nearly 16 miles of cedar blocks.

The granite block pavement is meeting with general favour by our citizens, and bids fair to supersede all other kinds on the streets subject to heavy traffic. Thus far this class of pavement has been laid with great care and under constant and rigid supervision. The specifications require the road bed to be properly graded to form, and puddled with water or rolled, and all foreign substances removed, after which a bed of clean broken stone of uniform size is laid from 6 to 8 inches thick; upon this is spread a bed of fine bank gravel, which possesses peculiar serviceable qualities sufficient in quantity to fill the interstices of the foundation stone, and leave at least 1 inch on the surface; after being flooded with water the mass is then rolled with a steam roller of 15 tons weight, until it becomes solid and unyielding; a bed of fine lake shore sand is then spread over the surface, from 1½ to 2 inches deep, upon which the granite blocks are laid to grade lines. The blocks are 6 to 10 inches long, 3½ to 4½ inches wide, and 6 to 7 inches deep, so quarried that they have fair faces, and that the joints will not exceed from ⅜ to ¾ of an inch opening when the stones are in place. All stones not conforming to these dimensions are rejected. When the blocks are thus laid the surface is covered with clean, screened, dry roofing gravel, filling the joints, after which each stone is rammed with a 75-pound iron rammer, causing the filling gravel to sink in joints from ⅜ to 1 inch below surface; the spaces thus formed are carefully filled with hot asphaltic composition, flush with the upper surface. The entire surface is then covered with a coating of fine, dry, screened gravel, when the street is ready for public use. It is believed this character of pavement is far more durable, and therefore in the long run cheaper, than any other kind of pavement that can be laid in our business streets, and when the sanitary advantages are considered stone pavement is vastly superior for such localities, to wood or macadam, no matter of what kind, how prepared or how well laid the latter may be.

For the purpose of avoiding the necessity of tearing up the street pavements, all water service and drain pipes are put in at every 25 feet, on both sides of the roadway, before the improvement is commenced. The same rule applies to gas service pipes, so far as this department has authority to enforce it, on streets which are to be paved with granite. Corporations having underground privileges are also called upon to put in their conduits or other work, before the work of paving is commenced, for after the street is completed the department declines to issue a permit to disturb the pavement, except in rare cases for purposes which cannot be anticipated. Where pavement of any kind is to be taken up for any purpose, a sufficient amount of money is deposited in advance with the department, to cover the cost of replacing the pavement in good condition.

Of the 198½ miles of improved streets in the city, only 2½ per cent. is of stone, 2 per cent. asphalt, 10½ per cent. macadam, 8½ per cent. cinders and plank, and 76½ per cent. wood blocks. More than three-fourths of all our pavement is wood. It appears, therefore, that in the matter of street pavement, Chicago is an exception to the rule governing this class of improvement in most of the large cities of this country.

A recent report from New York says, "health and comfort of the city demand that all wooden pavement at present remaining should be replaced with stone blocks as early as possible."

In Brooklyn, N. Y., the authorities report that the dilapidated wooden pavements are rapidly being replaced with granite block pavement.

In Washington the wooden pavement is being replaced by stone and asphalt.

In St. Louis the street commissioner recommends that "owing to the short life and consequent great cost of repairs of ordinary wooden pavement, the principal thoroughfares be paved with granite, a material whose fitness and economy for such streets are no longer an experiment."

In Buffalo and Cleveland wooden pavements have been abandoned, and stone substituted in their place.

New Haven, Conn., authorities recommend granite pavement for all business streets.

Cincinnati considers that no material has thus far been found equal to granite for pavement in streets subject to heavy traffic.

Milwaukee has many miles of wood pavement in a decayed condition, and the city authorities declare that the idea of paving streets with wood blocks should be abandoned, and in streets of heavy traffic stone block pavement should be laid.

In Paris, France, there are 557 miles of streets; of these—

| | | | | | |
|------|-------|-----|-------|------|----------|
| 329½ | miles | are | paved | with | stone. |
| 144½ | " | " | " | " | macadam. |
| 19½ | " | " | " | " | asphalt. |

Many other instances might be given, to show that the long and varied experience of most of the leading cities is in favour of a properly constructed stone pavement, as being not only suited to the needs of commerce of a great city, but satisfying the most exacting sanitary requirements.

It is believed that we have, within a reasonable distance, quarries that will furnish an excellent granite for our streets, and as the demand increases, experience will suggest better facilities for the production of its block, thus decreasing their cost to a figure that will make granite the standard, the cheapest and most desirable pavement for our principal streets.

The only objection to granite block pavement is the noise produced by traffic over it; this is perhaps a serious matter, but a quiet and noiseless pavement, possessing lasting and substantial qualities, is hardly within the range of probability at present. The line is to be drawn, therefore, between economy and sanitary considerations on the one hand, and the health, expense and inconvenience of the public on the other.

Granite pavement, as laid in our city, it is believed, obviates all sanitary objections, and with joints of the blocks carefully filled with asphaltic composition, the noise is greatly decreased, whilst its lasting qualities make it cheaper than wood, therefore meeting the former demands. While wood block pavement has some temporary merits for instance, when it is new it is smooth, noiseless, pleasant to drive on, and when covered with gravel affords a good footing for horses; but these conditions continue in this city an average of only three or four years on our principal thoroughfares, and while the street may not be repaved in seven or eight years, yet in from four to six years the pavement is generally so far gone as to be shunned by the public. The objectionable sanitary features of wood block pavement have been carefully considered by men of eminence in this country and Europe.

A distinguished professor of hygiene at Montpellier, France, says:—"The hygienist cannot look favourably upon a street covering consisting of a porous substance capable of absorbing organic matter, and by its own decomposition giving rise to noxious miasma, which proceeding from so large a surface cannot be regarded as insignificant. I am convinced that a city with a damp climate, paved entirely with wood, would become a city of marsh fevers."

A London report says:—"Impregnation of the wood with mineral matters, to preserve it from decay, may diminish these evils; but nothing as yet tried prevents the fibres being separated, and the absorption of dung and putrescent matter by the wood being continued. The condition of absorbing mere moisture is of itself bad, but when the surface absorbs and retains putrescent matter, such as horse-dung and urine, it is highly noxious."

A city official of London says:—"Wood is porous; it is composed of bundles of fibres; it absorbs and retains wet, foul wet especially. The fibres of the wood are placed vertically, the upper ends whereof fray out, are abraded, and become like painters' brush stumps, and are almost perpetually dirty."

General Gilmore says:—"The joints of block pavement constitute fully one-third of its entire area, and under the average care the surface of filth exposed to evaporation covers three-fourths of the entire street. The foul organic matter, composed largely of urine and excrement of different animals, is held in the joints, ruts and gutters, where it undergoes putrefactive fermentation in warm damp weather, and becomes a fruitful source of noxious effluvia, or it floats in the atmosphere and penetrates the dwelling, in the form of unwholesome dust, irritating to the eyes and poisonous to the organs of respiration."

Dr. Fordyce Barker, of New York, upon the subject of pavement says:—"Crevices will always afford lodgments for comminuted decaying organic matter, furnishing a fertile soil for fungoid development. Especially is this the case where

where pavements have become broken or sunken, forming receptacles which collect and conserve those rejected elements of life which at the same express time invoke death. It is unnecessary to say of the wooden pavements that they are open to all those objections and they must be given up."

Health Officer Wight, of Detroit, says: "On sanitary grounds I must earnestly protest against the use of wooden block pavements. Such blocks, laid endwise, not only absorb water which dissolves out the albuminoid matter that acts as a putrefactive leaven, but also absorbs an infusion of horse-manure, and a great quantity of urine dropped in the street. The lower ends of the blocks resting on boards, clay or sand, soon become covered with an abundant fungoid growth, thoroughly saturated with albuminous extract and the excreta of animals in a liquid putrescible form; these wooden block pavements undergo a decomposition in the warm season and add to the unwholesomeness of the city. Moreover, the interstices between the blocks and the perforations of decay, allow the foul liquids of the surface to flow through, supersaturating the earth beneath, and, consequently, adding to the putrefying mass."

Only 25 per cent. of our streets are now paved, over three-fourths of which are improved with wood blocks. During the past twenty-two years we have spent for paving and repaving alone about fifteen millions of dollars. Most of this amount has been spent for the kind of wood pavement to the peculiar features of which we have called attention, many millions of dollars more will be spent before even half our streets are paved. In many of the business portions of the city the streets are lined on either side with magnificent buildings, constructed of the most durable and lasting material. The sidewalks, too, are lined with solid, heavy flag-stone, while the roadways, subject to the heaviest traffic of vehicles, are paved with wood. During the next decade all the wood pavement now in our city will have passed away under rot and wear, to be replaced with, what? The question is an important one for those, who, in the future will be charged with this important branch of public improvements.

APPENDIX H.

Dear Sir,

City Surveyor's Office, Sydney, 24th November, 1884.

I attach the information desired as to the description of blocks, and time they have been laid in the street, as numbered by you, and remain,

Yours faithfully,

A. C. MOUNTAIN,

City Surveyor.

The Secretary, Board of Health.

| No. | Kind of wood. | Date when laid and subjected to traffic. |
|-----|--|--|
| 4 | Black butt | August, 1880. |
| 5 | Spotted gum | July, 1881. |
| 7 | Red gum | August, 1882. |
| 9 | Black butt | Do. |
| 10 | Turpentine or black butt (both woods are mixed here) | Do. |

1884.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

THE AUSTRALASIAN SANITARY CONFERENCE
OF SYDNEY, N.S.W., 1884.

REPORT,

MINUTES OF PROCEEDINGS,

AND

APPENDIX.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
26 November, 1884.

SYDNEY: THOMAS RICHARDS, GOVERNMENT PRINTER.

1884.

THE AUSTRALASIAN SANITARY CONFERENCE OF SYDNEY, N.S.W., 1884.

THE Delegates to the Australasian Sanitary Conference, in presenting the Minutes of their Proceedings, desire also to offer the following explanation of the course pursued by them in conducting their deliberations, and of the results which will follow when practical effect has been given to their recommendations.

2. The sixty-seven Resolutions, which are the recommendations of this Conference (page 52), were, with one or two exceptions, adopted unanimously; and, for the most part, they were adopted unanimously not as the result of argument at the time of meeting, but as the result of knowledge and experience of special kinds previously acquired by the Delegates. These had already led each Delegate to adopt, and as far as had been possible to him in his individual capacity to act upon, certain principles which were in all cases identical.

3. It will be seen that, although this Conference was invited to meet by the Government of New South Wales to consider the subject of Quarantine, its deliberations in many important particulars outstep all that is popularly understood by that term. It is necessary to point out, therefore, that the Delegates have not overlooked the instructions received by them from their respective Governments. Quarantine is a means only to the end sought; which last is the preservation of the Public Health in Australasia. It is a means of small power, and therefore of small importance if it be regarded as a principal means; it is of great power and of great importance as an auxiliary means. Quarantine can be, and is, of value commensurate with its cost only to countries whose internal sanitation is good; it cannot be considered, therefore, except as a part of the general subject of State Medicine.

4. The title by which, on motion of the Delegate of Tasmania, this Conference decided to be known, has a practical signification. The countries which together constitute Australasia are separated from the rest of the world by a barrier of time-distance which at present is of some practical value to them as against contagious disease. But, between themselves, no such barrier exists; intercommunication is easy, rapid, and constant; and although at present it may be possible occasionally for them to institute a kind of quarantine against each other, it is obvious that even now only very imperfect measures of that sort can be taken, while in the near future, increase of traffic will render even those impossible. Hence it appears absolutely essential that Australasia should for this purpose be regarded as one country. The fifth resolution, by an amendment of the Delegate of South Australia, gives full expression to this view, which takes effect under the resolutions 15—23. Hence, too, these countries, if they would take full advantage of the barrier existing between them and the rest of the world, must act in concert, and examine all incomers at the greatest possible distance from any populous centre; for, under the conditions described, disease introduced into one part is in reality introduced into the whole, and the combination advised under the special head of Federal Quarantine Outports as against the world must therefore extend to all measures of internal sanitation.

5. This Conference acted throughout its deliberations under the influence of the motive expressed by the Delegate of Victoria in the third resolution, namely, a determination to check disease and by measures which should obstruct commercial intercourse in the smallest degree. A nation's health is a nation's wealth. It would be easy to show that imported epidemics are more disastrous and more costly than armed invasions. Yet commerce is the very life of nations. A scheme of Quarantine, therefore, which, while it keeps foreign epidemics at bay, paralyses commerce, is indeed a remedy worse than the ill; and it must be understood that a scheme could be planned without difficulty which should certainly have the former effect. But it would also quite certainly destroy the country's commerce; and the nation adopting it would, therefore, as a nation, cease to exist. Examination of the manner in which this motive acted, so that in practice the prevention of disease is provided for without any considerable interference with commerce, involves the explanation of the work done by the Conference; and for this purpose it is convenient to disregard its duality and to state it under separate heads: the prevention of disease, and the easing of communication.

6. THE PREVENTION OF DISEASE.—It is with contagious disease that Quarantine is chiefly concerned. Two things contribute to cause contagious disease: the contagion or seed, which is the external or exciting cause; and such a state of body as renders it a fit ground for that seed to grow in, which is the predisposing or internal cause. Under ordinary circumstances of contagion both of these causes must co-operate, just as they must co-operate in agriculture. Wheat cannot be grown except from wheat; but even from good seed wheat cannot be grown except in chosen soil. Now, what Quarantine can do, and what it cannot do, must be understood clearly. The organization so-called searches foreign ships to detect the causes of contagious diseases, and either destroys them or takes persons infected by them into custody until their power to spread the disease is exhausted; and it differs from a measure of criminal police in this respect, that it assumes every person to be capable of spreading disease until he has proved his incapacity, whereas the law assumes moral innocence until guilt is proved. This difference is due to the fact that during what is called the incubation period of the contagious diseases the characteristic symptoms of the illness, which will certainly be developed later, are entirely absent. To all appearance, a person about to fall ill of cholera, or of small-pox is, for several days before the symptoms of these diseases show themselves, at once apparently quite well and yet certainly about to be ill; so that lapse of time can alone show whether he is incubating disease or not. Thus Quarantine does not pretend in any sense to *prevent* disease, but only to *check* disease; it attacks only one of the causes of disease, and that only when it is already in action. And, further, experience has conclusively proved that no scheme of Quarantine can ever be perfectly carried out in practice so as to certainly and always exclude every source of contagion; either attached to articles which have escaped disinfection or of which the disinfection has not been thorough, or in a person suffering from what is called the ambulatory form of disease—a form in which the symptoms are so slight as either to be easily concealed or not easily detected, but which is essentially the same as the severer forms and may therefore cause the latter in other people—or in a case in which the incubation period is unusually prolonged, contagion always has occasionally passed the barrier raised by Quarantine and has reached the people within it. This fact, which requires frank recognition, does not show the uselessness of Quarantine, without which measles and scarlet fever would long since have become permanent in Western
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Australia and small-pox in other parts of Australasia ; it shows only that Quarantine which deals, and can deal, with the external cause of contagious disease alone, must be supplemented by other measures, which shall deal with that other cause, the condition of personal and local susceptibility; namely, by Internal Sanitation. But do even those two measures of Internal Sanitation, and of Intermediate Sanitation, or Quarantine, do all that may be done to prevent these diseases? No, because after all the object is to safeguard the prosperity of the country adopting them. The interests of a foreign vessel are not the interests of her country alone; in a very high degree they are directly the interests of the importing country too. This is true, even in the ordinary case of cargo vessels; for, if they come in foul, the delivery of their goods will be delayed and the cost increased to the purchaser, and the communication between countries will *pro tanto* cease to be rapid and easy. Passenger vessels bear people who are returning to their native country, as well as people who in coming to transact their own business, enlarge her commerce; the sanitation of these vessels is at least as much the concern of the importing country as of that which sends them. And then Australasia has a still more direct interest, if possible, in the immigrant vessels which yearly land thousands on her shores. In this case the freight itself is human; and every life lost upon the voyage and every person landed with a constitution damaged by disease entails a loss upon the community not easily appraised. It is not enough, then, that a scheme of Quarantine should render detention as short and as little expensive and irksome as possible; by perfecting her internal sanitation Australasia will avail herself of an inner line of defence against disease; and if in addition she take such measures to prevent the embarkation of disease in vessels approaching her coasts from abroad as are possible, in the future all detention of ships, and of any person except the sick themselves in Quarantine, may be dispensed with. Nor has Australasia in reality any choice in this matter. Her action in regard to Internal Sanitation must not be undertaken merely with a view of shortening Quarantine; but it must be recognized to be an absolute necessity that this, which is not only her innermost line of defence but the true defence of all nations against disease—the real guarantee of national prosperity—must be perfected, because as her commerce increases the possibility of continuing Quarantine will become less and less. For these reasons this Conference considered the prevention of disease under three sub-heads: Sanitation at home, Sanitation on ships, and Sanitation abroad.

7. *Sanitation at Home.*—This is by far the most important subject, and a proportionately large number of resolutions have reference to it. The conditions of the spread of contagion are many, but two are of principal importance, namely that there shall be a specific contagion, and that persons and places shall be in a condition to favour its development. Two proceedings therefore are necessary to check it; the destruction of the contagion, and the rendering of places and people unfit grounds for the growth of the latter. In order to find out the best means of doing this, observation and experience must be consulted. The twelfth resolution therefore is framed, for reasons which sufficiently appear in the Proceedings, with the object of placing at the command of every Central Board of Health all those documents relating to sanitation which are now from time to time published by every civilized country. These documents are very numerous, and consist mainly of three kinds—routine Reports of Health Departments and Vital Statistics; special Reports upon selected subjects; and the Reports of Government Commissions. These last are very valuable, for they are usually the results of inquiry into the effects of what are either special sanitary measures,

measures, or of what may be called the unplanned experiments which the social conditions under which nations live are always supplying. These and the Vital Statistics constitute the world's practical experience, and it is upon them that all practical Hygiene is based. It is therefore essential to the sanitation of any one country that it should have the experience of all other countries at its command. This Conference therefore, keenly feeling the necessity of acquiring the documents referred to, and having considered the causes of the difficulty which at present exists in the way of procuring them, framed this Resolution which provides that one Government shall be charged with the duty of collecting a sufficient number of copies for distribution among all the others; and, upon motion of the Delegate of Victoria, New South Wales was ultimately named as the centre to undertake this duty. It is sincerely hoped that this earnest attempt of the various Medical Advisers in Australasia to make available here the knowledge which at present is more accessible in almost any other part of the world, will be forwarded by the Health Departments of all Foreign Nations; nor is it doubtful that this will be done.

8. In order to destroy contagion, it is evidently necessary to have the means of learning its existence, and of learning it early; and this principle is affirmed under the second part of Resolution 10. The 31st resolution, introduced by the Special Delegate of New South Wales, provides the means of doing this in the same way as is provided by the Public Health Amendment Statute of Victoria, 1883. All persons are agreed that such a measure is desirable, but the manner in which the report that contagious disease exists should be made to the authorities has given rise to some controversy. Experience elsewhere gained shows that the course here recommended is better calculated to effect the intended purpose than the law at present in force in New South Wales with regard to small-pox. But all difference of opinion upon the point whether the report should be made by the physician or by the householder, or by both acting in concert, arises chiefly in the mistake made by persons who are not well acquainted with this subject in regarding it as one of a perfectly simple kind. For this reason the Appendix E is inserted, which gives a full history of the progress of the movement to procure notification and registration of cases of infectious disease in England, and of the results of the different plans adopted in several cities.

9. As has already been shown under section 4, it is not enough, however, that each Health Department should be accurately informed of the state of the Public Health within its own territory; for the immediate purpose of preventing the spread of contagious disease, it is necessary that its existence in one part of Australasia should be at once made known in every other part. This at present is not habitually done; and the communication between the Governments of this information, when it is transmitted, is through the Colonial Secretary's Department. It was unanimously agreed, under Resolution 9, that all information of this kind should be systematically collected by the various Governments; and in order that it might be communicated with the promptitude which alone can render it of practical value, under Resolution 11 it was resolved that the Chief Medical Advisers to the Governments ought to have power for this purpose to communicate with each other directly. The information to be exchanged will consist of all Acts of Parliament, Orders in Council, By-laws, Regulations, Reports of Commissions and Boards of Inquiry, and Statistics of all kinds.

10. Under this head of Contagion, attention may be conveniently called to the special Resolutions 50 and 51 concerning Leprosy and Rabies or Hydrophobia. Both of these subjects for special consideration were introduced to the notice of the Conference by the Delegate of Queensland. He pointed out that Leprosy is a contagious disease, known in several parts of the world to attack white men living among leprous races, or to whom contact with lepers is made possible by importation of the latter. Fortunately this disease appears to be contagious only after prolonged and continuous contiguity of the sick to the healthy; but it is at present an incurable disease, and hereditary. Its attack is slow, and so insidious that persons already in the early stage of leprosy are not always distinguishable, it is said, from healthy persons. The only way in which it could certainly be kept out of this country would be by forbidding certain races of men to enter; but this would be manifestly unjust, and only possible indeed because those races are distinguished by their colour from the whites. It would moreover lead to the exclusion of several races on account of the possible illness of a few individuals, who, in many other parts of the world are serviceable in humble capacities. All that can fairly and scientifically be done in this matter seems to be provided for by the 50th resolution. Under it all that is needful to ensure the absolute exclusion of this disease is improved methods of diagnosis; and to discovering them the attention of physicians who are qualified by their experience for this task is already directed. The 51st resolution almost speaks for itself; it is only necessary to say, in addition, that the contagion of Rabies is not known to exist outside the animal body, and that it spreads, not aërially or by contact, but only by inoculation. The dog is the animal usually affected with it; but man is not the only animal to whom it is communicable.

11. Having thus provided the means necessary to give the Health Authority the opportunity of preventing the spread of contagious disease on shore, the Delegates proceeded to make the recommendation under the first part of Resolution 10 unanimously. And here it is necessary to break off for a moment in order to point out that this Conference, in making recommendations which should be adopted by all the Governments, of necessity has confined those recommendations to essential points. Thus, it is essential, in order to arrest an epidemic, to know where the cases of disease are, and in order to guard against its spread, that even the more distant Territories should be at once made aware of the existence of the disease; but the measures which should be taken upon receiving this information are left to the care of the several Governments. So also, when that part of this subject was reached which deals with the rendering of places and people insusceptible of disease, it was not felt possible to do more on this occasion than affirm, under the Resolution named, that measures should be taken by each Government to secure the health of the people. In this place, however, the intention and meaning of this phrase may be advantageously set forth. There are three things which Governments can provide for their people, and which if they were provided would go far to abolish not contagious disease alone but in the long run all disease: they are pure air, pure water, and pure food. For, whereas, of the two conditions which are at the least necessary to contagious disease, one is specific—always the same essentially and under similar conditions always giving rise to the same train of phenomena—the other, the condition of individual susceptibility, is practically general* and not specific. For example, all
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* Immunity from further attacks of several of the contagious diseases which is conferred by them upon survivors from a first attack, and the same immunity, exactly similar in degree, which vaccination confers from small-pox; show that the condition of personal susceptibility is, in exact language, as specific in its nature as contagion. But as the nature of this susceptibility is only inferred, not known,—and as persons who undoubtedly possess it do, nevertheless, constantly resist contagion in virtue of their general good health, as proved by their illness on some later occasion, and their subsequent insusceptibility to the same disease even under conditions most favourable to a second attack,—its essentially specific nature may be neglected.

doctors do not catch all diseases to which they are susceptible, although they are by no means habituated to them by constant exposure, but are exposed intermittently. So all persons know of individual cases in which illness was not caused by the most complete exposure to contagion. And this immunity from illness under circumstances in the one matter of contagion favourable to illness must be attributed to the general good health or power of resistance, as it is sometimes called, of the individual, to which the intelligent use of pure air, pure water, and pure food are, of mere physical conditions, the most important. But more even than this: it is not people alone who may be rendered insusceptible but places too. For the knowledge of the intimate nature of the causes of disease which, under the guidance of that illustrious Frenchman, Pasteur, the world is just beginning to acquire, thus far has shown two things clearly: that they are vegetable organisms, and that they will live and grow only under very special conditions. Now as to the first, much is known of the power of these disease germs as they are sometimes narrowly called to cause disease in the animal body, but comparatively little of their true sphere in creation. One thing seems certain, *a priori*, that their use is not to destroy human life, their power to do so is accidental; so that their destruction, if that were possible, might or might not be beneficial. As to the second, therefore, it is well that the conditions under which these organisms will flourish are such that an almost infinitely minute alteration in those conditions is fatal at least to their active existence. Above all, it seems plain that measures which in the eye of the sanitarian appear to be measures of only ordinary cleanliness of roads, and courts, and drains, are sufficient to remove these microbes to such a distance from man as renders him for the most part safe from their invasion; entirely safe, in all probability, if with usual remoteness from these specific causes of disease, be combined the power of resistance which accompanies average good health. How true this is, the history of sanitation in England and a thousand unplanned experiments lately watched, perhaps for the first time, show; but in the case of special diseases many examples almost suggest themselves. It is not by any means too much to say that a moderately perfect scheme of drainage—which, be it observed implies, as far as this disease is concerned, pure air and water—would abolish typhoid fever from cities, and would ensure the limitation of the disease to accidentally imported cases. Under the same conditions of good drainage and good scavenging, cholera, as has been seen again and again, does not spread; and the same may be said of yellow fever. So that, in order to remove these microbes from the neighbourhood of man, this knowledge of their demand for special conditions of life which for the most part are obvious enough to the senses and easily removed by such gross methods as drainage and scavenging, is sufficient, and avoids the embarrassment which but for this knowledge their infinite smallness would cause. For they are so small that as one observer says two million would find room and to spare on the head of a pin; yet from their minuteness, if their size alone were known, their insignificance could not be argued. For another observer shows that if the sea over the whole earth be supposed to have a uniform depth of 1 mile, and if one or other of several microbes were able to continue the rate of increase which it shows under favourable circumstances unrestrained, its issue would entirely fill the immense space thus imagined, equal to about 928,000,000 cubic miles, in five days (Cohn). By what has now been said, the assertion made under section 3 that Quarantine or the destruction of contagion in particular cases can be and is of value commensurate with its cost only to countries whose internal sanitation is good, is supported.

12. Lastly, upon this topic, in the case of one disease a special means of procuring personal insusceptibility to it in a direct way is known. Vaccination confers personal insusceptibility to small-pox; and therefore the Resolution 30 was, upon motion of the Delegate of Victoria, unanimously adopted by this Conference. Upon this subject there is absolute unanimity among all persons in all parts of the world who are qualified to express an opinion. But, for some reason which is not very clear, persons—and occasionally even persons of average education—who are entirely ignorant of the history, aims, powers, and results of vaccination, and who are absolutely without knowledge of the comparative history of small-pox among vaccinated and unvaccinated communities, do from time to time take upon themselves to express the opinion either that small-pox is not a very contagious or very fatal disease, or that vaccination does not protect from it, or that vaccination is the real reason of the epidemics of small-pox which from time to time break out, or that whether it protect from small-pox or not it is a means of spreading other and disastrous diseases. So that these persons who would shrink from expressing any opinion upon so simple a matter as the amputation of a leg for instance—persons who in the face of the direst emergency would not venture to guess at an antidote in a case of poisoning, for fear they should do more harm than good—these same persons do not hesitate, but rather eagerly press forward, to express an opinion upon this subject of vaccination, although they conspicuously lack all those qualifications which are indispensable in order to fit them to do so; namely, a philosophic mind, a scientific education, a knowledge of medicine, very wide and laborious reading upon this special subject, and familiarity with statistical methods. Vaccination confers insusceptibility to small-pox, but it does so only within certain limits. In the first place vaccination is an art—not a rite; it is of no use to go through the form of vaccinating merely. The object of performing the operation is to produce the mild and harmless disease known as vaccinia; and if this disease be not produced—if it do not run through the specific course proper to it—vaccination is not performed, and immunity from small-pox therefore is not conferred. And then, although the object of vaccinating is to produce the constitutional fever vaccinia, it is known that a direct proportion exists between the size of the local effect or vesicle or, later, the scar, and the degree of immunity conferred; so that such a vaccination as produces a scar of the size of a split-pea does not confer either the same degree of immunity, nor will the protection which it does afford last so long as when the scar left covers an area of half a square inch at least, although the smaller vesicle has been accompanied by the specific fever. Thirdly, the protective effect of the first vaccination does not last through life; but, chiefly, it is liable to disappear more or less completely at the time of puberty, so that it is absolutely necessary that re-vaccination should be performed between the ages of ten and twelve years. As a rule, re-vaccination at this age is all that is necessary; yet when persons who have been thus re-vaccinated are especially exposed to the contagion, as in nursing or otherwise, at an advanced period of life, it is only a measure of ordinary precaution if they are again re-vaccinated then. The protection afforded by the successful vaccination and re-vaccination here described in almost all cases amounts to perfect immunity. But it does not amount to perfect immunity in literally all cases; and it is not reasonable to expect, perhaps, that vaccinia should confer a greater immunity from small-pox than an attack of small-pox confers against itself. Second attacks of small-pox are as well known to occur as are second attacks of all other eruptive

eruptive fevers, although the rule is that the first attack effectually protects from others. But comparatively few people are thus carefully vaccinated; a primary vaccination alone is generally trusted to. In these cases the protective power, which during the first years of life was effectual, gradually becomes less and less, and sometimes entirely disappears. But in general some protection remains; and this is seen, not so much in immunity from disease, as in a death-rate vastly below the death-rate of primary (or unmodified) small-pox. Upon all these points and some others information is afforded in the essay (Appendix C) which is appended hereto. It is so written that the lay-reader will find no difficulty in comprehending it; and it is a model of lucidity and logical conciseness of statement on a very complicated and difficult subject. The communication of syphilis by vaccination is possible when a deliberate intention to communicate this disease is entertained, or, what is nearly the same thing, when the operation is performed by uninstructed or by recklessly careless persons; but it is not possible when the most ordinary care is used in selecting the vaccifer. This has always been known; but the point has lately been the subject of direct experiment, and by this means has been demonstrated clearly. The experiment was performed by a devoted officer of the Local Government Board (England) upon himself; and he found that even when he selected children who were obviously suffering from acute symptoms of hereditary syphilis—children with rashes and sores of a characteristic kind and in a state of health which would preclude the idea of vaccinating them (except for this special purpose of experiment) and which would much more therefore preclude any idea of vaccinating from them—that it was not easy to communicate the disease, but that his carefully planned and skilfully carried out attempts failed three times before, on the fourth occasion, he succeeded in infecting himself. These experiments, then, which were supervised by those distinguished physicians Drs. Humphrey, Ballard, Seaton, and Jonathan Hutchinson, prove that the instructions under which at least all English-speaking practitioners conduct vaccination are much more than sufficient to avoid the remotest risk of communicating syphilis accidentally (Appendix D). Here it may be pointed out again that, by producing personal insusceptibility of the people at large by vaccination, by providing for the early detection of such cases as would nevertheless occasionally occur, and by providing the means of promptly and effectually isolating them, the necessity for a Quarantine against small-pox and for the detention of persons not actually sick would be removed. Indeed Quarantine against small-pox is, at this date, an anachronism; yet it is absolutely necessary that it should be maintained with great strictness in all parts of Australasia as long as the population in any part remains imperfectly vaccinated.

13. *Sanitation on Shipboard.*—This subject includes the regulations for Quarantine, which for practical purposes may be regarded as a continuation of life on shipboard. The chief recommendations made by the Conference dealt upon motion of the Delegate of New South Wales with the establishment of outports at or near the first port at which vessels making Australasia from the Northward and the Westward respectively, at present call. There, such vessels as bear cases of infectious disease may leave their sick, and may undergo such cleansing as will permit the rest of the voyage in Australasian waters to count as time spent in Quarantine. At present owners reserve to themselves the right of landing a person suffering from infectious disease at the first suitable place reached, the voyage to be completed in a later vessel as soon as his convalescence shall have been established.

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This power, which is not always exercised, no doubt conduces under favourable circumstances to limit the spread of the illness. But for purposes of Quarantine the vessel herself must be regarded as infected, and as being capable of spreading the disease until she has been thoroughly cleaned and disinfected. No attempt is at present made to do this until the terminal port is reached; and therefore, the period to be spent in Quarantine by the vessel and the persons on board her respectively, dates from the time at which she finishes her voyage, notwithstanding that she may have got rid of the sick themselves as long as a fortnight previously. Thus, in the case of small-pox for example, the passengers and crews have to spend three weeks in seclusion at the Quarantine ground, and the vessel as long as may be necessary to thoroughly cleanse and purify her before her cargo can be broken; and then unloading must be conducted otherwise than by the crew, or she must be delayed until the latter too have passed the same period of three weeks in Quarantine. The expense of this proceeding, both to owners and to the country, is very much greater than may be generally supposed; the loss of time entailed upon the passengers themselves involves also expense which cannot easily be calculated, depending as it does upon the nature of their private business arrangements. But the mere detention of a steam-vessel costs from £120 to £300 per diem, without taking into account any of the losses occasioned to persons other than the owners interested in her freight. The scheme indicated under the Resolutions 14 and 15, introduced by the Delegate of New South Wales, and provided for in detail by the Resolutions 52 to 67, which were drawn up by a Committee of the Whole Conference and unanimously adopted, is intended to lighten the expense and inconveniences of the present plan. It provides for the establishment at two convenient points of Quarantine Grounds, which shall have all the conveniences which are necessary to thoroughly cleanse and disinfect vessels and the clothes and effects of all persons on board; and such amount of hospital accommodation as will be sufficient for the largest number of sick persons which, under any ordinary circumstances, it will be necessary to remove from any vessel. The effect of this plan will be as follows:—A vessel approaching Australasia from the westward with infectious disease on board will go out of her course if necessary, and will enter King George's Sound in order to touch at the Federal Quarantine Outport to be there established. She will land her sick and their immediate attendants, with their clothes, bedding, and so forth. Then the whole ship will be thoroughly disinfected and scrubbed down, in order to do which it may be necessary to land all passengers for one or two days, for which provision is made. In the meantime the washing and disinfecting of the clothing of passengers will be going on at the Quarantine laundry; and with the staff and appliances to be provided the vessel should be cleansed and ready to proceed upon her voyage in not more than thirty-six hours. The sources of infection having been thus got rid of, together with those persons most likely to have taken it, and therefore, although apparently well, to be incubating the disease in question, the vessel may be regarded as being in Quarantine. The rest of the time occupied in her voyage, therefore, will be at once spent in Quarantine, and spent in her usual work, provided, as would almost always happen, no fresh outbreak occurs. Passengers for Adelaide, for instance, would not, of course, save much by this proceeding; passengers for Melbourne or for Hobart would save a good deal; while both passengers and ships would save most whose port of destination lay furthest from the Federal Outport. Thus, the time to be spent in Quarantine by steam-vessels after arrival at the port of destination would, in the case of small-pox, be upon the South Coast, and for vessels bound for Sydney only eight or nine days; and upon the East Coast, for vessels bound to Brisbane, probably about the same.

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But in the case of almost all other diseases the period of Quarantine would have entirely run out before the voyage was finished ; and in the case of sailing-vessels this would happen generally, whatever the disease might be.

14. The Quarantine Laws at present in force in Australasia vary somewhat in different parts, and sufficiently so to cause some confusion, masters having been known to plead their inability to bear in mind the differences in the law in force in different but neighbouring Territories in excuse for neglect to observe the regulations of a particular port. This Conference has proposed therefore that the Part VI of the Public Health Statute of Victoria, 1865, should be accepted as the basis of a Federal Quarantine Act, after careful examination and comparison of all the Acts in force in different parts of Australasia ; and, by the Resolutions 15 to 23, has recommended certain modifications to be made in that Statute. Of these the chief is that the Federal Act should be drawn in accordance with the recommendations in general of this Conference, in so far as they touch upon subjects proper to be dealt with in a Federal Quarantine Act of Parliament. The 20th Resolution provides that all incoming vessels should hoist the yellow flag until they have been inspected and admitted to pratique. At present this flag is ordered to be hoisted only by vessels liable to quarantine ; that is to say vessels which have touched at an infected port, or which have, or have had during the voyage a case of infectious disease on board. But it was considered by the Delegates that the question of liability to Quarantine is one to be settled, not by the officers of the ship but by the Health Officer of the Port. In practice this is at present recognized, and until the flag known as the visiting flag is hauled down by order of the Health Officer every ship flying it is regarded as being in Quarantine. The alteration proposed will have the effect of substituting a signal understood all over the world for one which is of merely local import ; and of actually placing all vessels legally under Quarantine law until they shall have been examined and declared clean. In this way communication with the shore previous to examination will be rendered less likely.

15. The Resolutions 24 to 26 deal with the Bill of Health. Disease is communicable otherwise than by persons actually ill ; it is therefore necessary not merely to examine persons on board ship but the cargo and hull too. The state of the latter should be ascertained before loading and certified to ; the cargo is judged by inference from the state of the public health in the countries from which it is brought. Upon both of these points the Bill of Health should afford information ; and every vessel receives a Bill at her port of origin and other Bills at intermediate ports before she is admitted to clearance, in order that the delay, and consequent hindrance to commerce, which would follow at ulterior ports if she arrived there without a Bill, may be avoided. But there is no Bill of Health in use which even professes to afford this necessary information ; nor, in many countries, is the signature to it more than a mere matter of routine, which is constantly continued long after dangerous epidemics have established themselves among the inhabitants of the port declared to be clean. The International Sanitary Conference of Washington, D.C., 1881, was invited to meet by the Government of the United States in order to consider this matter among others ; and that Conference recommended that a Bill of Health, planned by the Delegates of the United States, should be adopted. This form is appended (Appendix G), and it will be seen to contain spaces for such information as, if they were filled by an authority at once competent and trustworthy, would doubtless eventually prevent the dispatch of ships under other than healthy conditions as to construction, repair, victualling, and the like. This form is also
drawn

drawn up so as to carry particulars of the Public Health in the shape of facts, as distinguished from inferences. Given certain facts, it may be assumed that the exporting country will always interpret them to warrant a clean Bill of Health long after the importing country would have interpreted them to oblige a foul Bill. In fact this constantly happens; and the only way to avoid it is to obtain the bare facts of the state of the Public Health in the exporting country and judge of their bearing for ourselves. Bills of Health are liable to be misleading sometimes for other reasons than their careless or fraudulent signature. Thus the Port of London always grants clean Bills unless either cholera or yellow fever or plague is present there—that is to say, practically, unless cholera is there; so that the fiercest epidemic of small-pox is not there considered to render that port foul. This is due to two reasons; one of which is that England holds a well-vaccinated community, with excellent provision for the isolation of cases of small-pox, and therefore the disease very properly is not feared, because it is thus brought under control; and the other is that to give foul Bills of Health for small-pox would cause an almost constant interference with her commerce. The former is a very excellent reason to justify England in disregarding the chance of importing small-pox; but it will be observed that by a singular inversion, it is made to justify disregard of the chance of exporting it. Were Australasia brought within three weeks of England, this point would be of more practical importance to us on this side of the world than perhaps is the case at present. It is noticed at this time partly in order to point the necessity for obtaining facts, and not opinions, from the exporting country, which the International Bill of Health is calculated to furnish; but also in order to repeat the remark already made, that all nations are interested in the prevention of disease all over the world, and in an equal degree; so that it is no less to the profit of nations to take every reasonable precaution to prevent the spread of diseases abroad from which they have the misfortune to suffer, than it is their duty to prevent that spread among them themselves.

16. Much remains to be done on board all ships in the matter of hospital accommodation and ventilation. As to the former, this Conference declined to admit that at present any effectual isolation of contagious disease is possible on board ship. As to the latter, no recommendation was made. It may be pointed out here, however, that it is much to be wished that one or other of several designs for the better ventilation of vessels should be adopted, to supersede ventilation as at present attempted by the primitive means of open ports and skylights and windsails. These are not only insufficient, or rather unfitted for their purpose, but are a source of discomforting draughts while they are in use, and in frequent states of weather have to be closed entirely. There is the greater necessity for alteration in this matter, that on board ship there is always overcrowding; this being only a relative term, and as appropriate to the condition produced by confining one person in a space too small for one, as it is to that produced by lodging a dozen persons in a space too small for twelve. Space on board ship is allotted on the assumption that every person is in good health, and that at least two-thirds of each day will be spent on deck; so that the calculation is upset as soon as foul weather confines the majority of persons below, or when individuals are kept constantly below by illness. The result is not marked except in the latter case. But when, for example, the illness in question is typhoid fever developing in a person who contracted the disease before embarking, the result is not only marked but disastrous. For this fever, which, under circumstances of ordinary ventilation such as obtain in most sick rooms and in hospital wards, is safely regarded as not contagious in the

the sense that scarlet fever and measles are contagious, is on board ship constantly seen to spread in a way which can only be explained upon the supposition that when ventilation is imperfect it acquires a power of communicating itself similar to that which is possessed by the other fevers named. So also both measles and scarlet fever, when they occur on board ship, seem to be attended with a higher rate of mortality than is usual on shore; although in view of the fluctuation which is observed in the death-rate of the latter disease in different epidemics it is not easy to speak upon this point very positively. The subject, however, is so important, that a Memorandum on The Mortality on board Immigrant Ships, addressed by the Delegate of New South Wales to his Government about a year ago, is here reprinted as a contribution to it (Appendix F).

17. The special Resolutions which deal with particular diseases and their treatment in Quarantine do not require much comment. But, as to the periods which are fixed as those during which persons suspected of incubating certain diseases shall be detained, it may be well to point out that they are not to be regarded as attempts to define the incubation periods of those diseases. It is believed that they cover the incubation periods which have been observed in a majority of cases. Thus, of all such processes none perhaps has been better observed than the incubation of small-pox, and no fact of the kind is more certainly known than that it lasts during thirteen times twenty-four hours. But incubation is a natural process, and all natural processes are variable within the limits of their essentials; so that although in the majority of cases it is quite true that a detention during this period of thirteen days suffices to the development of almost every case of small-pox, yet now and then, and perhaps not very infrequently, cases occur in which the period is prolonged. This Conference therefore decided (Resolution 37) that the period of observation should be not fourteen, but twenty-one days; a precautionary measure which the imperfect vaccination of the people renders necessary, and which may be fearlessly relinquished when they are better protected. The same remarks, *mutatis mutandis*, apply to the periods of detention fixed for cholera and for yellow fever. They are periods of detention, and not periods of incubation in any exact sense.

18. The 49th Resolution, introduced by the Delegate of Victoria and unani- mously adopted, which deals with typhoid fever, scarlet fever, measles, and other such diseases, requires explanation. It declares that although it is desirable to eradicate these diseases, no measure of Federal Quarantine could, in the opinion of this Con- ference, be framed likely to be generally successful. The measures recommended to be taken with regard to immigrant ships (Resolutions 27-29) are of course measures of Federal Quarantine in a broad sense, and the recommendation which is made under this Resolution is strictly a measure of Federal Quarantine; and the two together will do very much to abate the present prevalence of the diseases named, by preventing the introduction of fresh centres of contagion. But this is all that it is considered possible, for the present, to do by Federal action, because most parts of Australasia are already infected by those diseases. Where this is the case, to detain all persons coming in an infected ship would involve expense quite out of proportion to the advantage likely to accrue. But measles and scarlet fever are not endemic in the Crown Colony of Western Australia, for instance, and it is not unreasonable, therefore, that there these two diseases should be treated with the same severity with which small-pox or cholera is treated everywhere; and this is in that part the more necessary that it holds a large aboriginal population especially

especially susceptible to measles at least. This Resolution, therefore, was framed in order that at every port incoming cases of the endemic diseases might be secured and isolated, just as it is hoped that the same diseases occurring on shore may, under Resolution 31, be isolated; and at the same time so as to leave the Crown Colonies of Fiji and Western Australia free to take such additional measures as their especial circumstances may seem to them to warrant.

19. *Sanitation abroad.*—It will now, it is hoped, be clear that the health of any nation is dependent not only upon its own efforts, but that the obligation to carry on the work of sanitation is in the nature of things an international obligation. This, however, is not the point with reference to which the phrase Sanitation abroad is used. A very large proportion of the persons who are brought to Australasia are immigrants who are collected and transported either entirely or chiefly at the expense of the various Governments; and it is almost rare for one of these vessels, which are supposed to start with none but healthy persons on board, to deliver in port the whole number who embarked in her. The deficiency is due in almost every case to deaths which are caused by contagious disease; and the opinion was very strongly held by this Conference not only that contagious disease ought not to break out upon ships sailing with healthy people, but that this source of suffering, misery, and pecuniary loss might be prevented in most cases by certain precautions, other than those at present observed, to be taken in the exporting country. In order to ensure the embarkation of only healthy persons two things are necessary; to ascertain that they are not ill themselves, and to ascertain that they do not carry in their clothes the causes of illness. The former point, as has already been observed under section 6, can be established surely only by detaining persons during a period which covers the incubation period of all the contagious diseases. But perhaps this course is neither possible nor advisable, for all immigrants do not lie under equal suspicion of contagion. So far as English immigrants are concerned, therefore, it is proposed for the future to take advantage of the sanitary organization of Great Britain to ascertain before they are allowed to embark which are the persons who, having come from infected neighbourhoods, are most likely to carry infection about them. Resolution 27 sufficiently indicates the plan by which this may be done, and Resolutions 28 and 29 show what steps should be taken when it appears that small-pox or other contagious disease exists in the locality—not be it observed merely in the house—from which any immigrant comes. With this precaution taken before starting, and with improved hospital accommodation and general ventilation on board, and, what is not less important, with such alteration in the existing arrangements as will allow a real inquiry to be made into the state of health of each individual instead of the merely formal inquiry (Appendix F) which is at present possible, there seems no reason to doubt that the arrival of infected immigrant ships may in the future be as rare as now is the arrival of clean ships. It must be understood, however, that this scheme cannot be carried out without considerable alteration in the regulations at present in force and of the accommodation at present available at the Depôt in England. Very probably it might be necessary and economical to appoint a special Medical Officer, acquainted with Australasia and with the conditions of life on shipboard, to carry out this scheme on behalf of all the Governments.

20. *THE EASING OF COMMUNICATIONS.*—Under this head it does not now seem necessary to say more than that all measures which tend to prevent disease on shipboard on the one hand, and on the other to render the population reasonably independent

independent of contagion when it is imported, tend as certainly to free the inter-communication of nations from the hindrance imposed by Quarantine as do any of the special measures which have with this particular object been recommended. This has already been sufficiently dwelt upon. It remains only to add that, whereas the advantages which the more general measures of Sanitation will yield can be secured only by long-continued watchful care, those which the special measures will afford may be enjoyed as soon as means can be taken to give the latter practical effect.

21. It is hoped that this imperfect exposition of the principles by which this Conference was governed may serve to show that they are those upon which alone an effective scheme of Australasian Quarantine can be based. They involve the unity of Australasia as against disease, and to secure this unity each of the Delegates freely made some sacrifice of individual opinion upon points of detail; for all had in view but one aim—to ensure to Australasia in the future that full measure of prosperity which experience shows is ensured to nations only when the preservation of the Public Health is made the first care of Governments.

J. ASHBURTON THOMPSON,
Secretary of the Conference.

With the approval of the Conference,
CHARLES K. MACKELLAR, President.

THE AUSTRALASIAN SANITARY CONFERENCE OF SYDNEY, N.S.W., 1884.

FIRST SESSION.

WEDNESDAY, 17 SEPTEMBER, 1884.

The Delegates, assembled in Sydney at the invitation of the Government of New South Wales, met in the Executive Council Chamber, on the seventeenth day of September, 1884.

Were present:—

- On behalf of New South Wales: DR. CHARLES K. MACKELLAR, the Medical Adviser to the Government; DR. J. ASHBURTON THOMPSON, Special Delegate.
- On behalf of Queensland: DR. JOSEPH BANCROFT, Chairman of the Medical Board.
- On behalf of South Australia: DR. A. S. PATERSON, Colonial Surgeon.
- On behalf of Tasmania: DR. G. W. TURNLEY, Quarantine Health Officer.
- On behalf of Victoria: DR. MCCREA, late Chief Medical Officer.
- On behalf of the Crown Colony of Western Australia: DR. CECIL ROGERS, Quarantine Health Officer.

Was absent:—

- On behalf of the Crown Colony of Fiji: DR. B. G. CORNEY, Second Medical Officer.

The Session opened at 10 a.m., in the Executive Council Chamber.

The Conference was called to order by the Honourable the Colonial Treasurer (Mr. G. R. Dibbs), who spoke as follows:—

"I appear before you, gentlemen, simply for the purpose of welcoming you to Sydney in my capacity of political head of the Health Department of this Government; and at the same time to wish you every success in the labours in which you are to engage, and which have for their aim to secure the health of the people of Australasia. This Conference has been convened at the suggestion of our Principal Medical Adviser, Dr. Mackellar, and we feel much gratified at the prompt response made by the respective Governments to our invitation. We are in some degree outside the old world in these matters of Quarantine, and it seems expedient to deal with the special circumstances which affect the Australasian Colonies, for there is no doubt that sickness and contagious diseases will creep in where there are large centres of population and constant communication with the outside world. It is within the province of each Government to make provision, upon the advice of its medical officers, to ensure the health of the people and to reduce the risks of contagious diseases to a minimum; but united action is desirable. We have unfortunately suffered more than the other Colonies from the ravages of small-pox. In 1881-2 a considerable number of persons lost their lives, and the country was put to a great expense in its efforts, which fortunately were successful, to stamp out the disease. At the present time an attack of small-pox exists in two of the Colonies, but owing to the prompt action that has been taken the authorities will probably be successful in stamping it out. It is quite possible that small-pox may reappear, or that other infectious diseases, probably cholera, might be brought here from abroad, and even if these dreaded visitations could not be kept out, the result of the labours of this Conference, if adopted by the respective Governments, will go a long way to improve the sanitary conditions of the Colonies, and to minimize the effects of the introduction of disease. I presume no power of legislation has been committed to you, but that your Commission merely extends to the discussion of matters relating to the public health, and the recommendation of remedial and protective measures; but there is no doubt your united expressions of opinion will induce the respective Governments to legislate for the public health. I feel, however, as a layman, that I should not trench too much upon your duties, and that I should say little beyond welcoming you to this city. I anticipate large results from your gathering together, and have no doubt that the suggestions you will make will enable the Colonies to deal most effectively with any diseases that may be brought here, and largely prevent the spread of sickness."

The Honourable the Colonial Treasurer shook hands with each member of the Conference, and withdrew.

The Delegate of Victoria (Dr. McCrea) moved the appointment of Dr. Mackellar, the Delegate of New South Wales, as President, and said: The trouble Dr. Mackellar has taken in initiating this movement and in influencing his Government to communicate with the Governments of the other Colonies, shows clearly that he is the fittest person we can select. I do not wish to speak at length, but merely add that I consider the Government of New South Wales fortunate in having such an able and energetic officer to conduct its Department of Health.

The Delegate of Queensland (Dr. Bancroft) said: I have pleasure in seconding the proposal, and think it is most satisfactory to all concerned.

The Delegate of New South Wales (Dr. Mackellar) was thereupon unanimously elected President. Upon taking the Chair, the President addressed the Conference, as follows:—"I feel highly the honour you have conferred upon me, especially for the terms in which I have been referred to by Dr. McCrea, who is not only my senior and superior in his knowledge of the subjects we have to discuss, but who has had absolutely more practical experience than any other physician in Australasia. You are aware that this Conference has been convened by the Government of New South Wales, in deference to the expressed resolution of the New South Wales Branch of the British Medical Association, and to some extent in deference to the unanimous desire expressed by a deputation of gentlemen representative of all the great ocean steamship Companies trading between the Australasian Colonies and the ports of the old—and in some respects, especially with regard to the prevalence of infectious diseases, less favoured—world than our own. It will be the duty of the Conference to consider the means by which the introduction of infectious disease into these Colonies is most likely to be effectually hindered. In the resolutions of the local branch of the British Medical Association it is affirmed that this end is most likely to be brought about by "an efficient system of quarantine." It will be for you to examine this proposition and to consider the advisability of carrying out in the interests of the whole of the Australasian Colonies a Federal system of Quarantine, to be accomplished by the establishment of quarantine outposts, at which facilities would be given for vessels approaching our shores to leave those persons who were ill, or those who, in the opinion of the officers of the vessels, were likely to become ill immediately, in consequence of their having been in contact with those who were ill. For the most part it has been small-pox with which Australia has been chiefly concerned hitherto, but we can hardly expect that that should be the only disease in the future against which we shall have to struggle. At the present time an epidemic of Asiatic cholera is devastating Southern Europe; countries which are, by no means fancifully, said to be very analogous to our own, both in regard to climate and to the want of sanitary precautions observed. Most of the towns of Southern Europe have been notorious for periodical outbreaks of typhoid fever; and we must confess that in all our principal towns—notably Adelaide, Melbourne, Sydney, and Brisbane—we have practically an annual epidemic to a greater or less extent of typhoid fever. In regard to the term Quarantine, perhaps it is unfortunate it has been used, because the method adopted in Australasia for many years bears little or no resemblance to the unscientific procedure which, under the same title, has been carried out in the Mediterranean and Red Sea ports. What we have been accustomed to regard as Quarantine is rather a system of sanitary inspection, with certainly a scientific method following: that of isolating the sick and for a time detaining the persons who, having been in immediate contact with them, may reasonably be supposed to be infected, and the subsequent purification of their luggage and effects, and of the vessel itself. There has been no ridiculous detention for a fixed period without any particular object, or a huddling of the sick and healthy together, as has been the case in the Mediterranean, and has been so justly denounced by all sanitarians.

The Delegate of the Crown Colony of Western Australia (Dr. Cecil Rogers) proposed that the Special Delegate of New South Wales (Dr. Ashburton Thompson) should be appointed Secretary.

The Delegate of Victoria (Dr. McCrea) seconded the proposal.

Dr. Ashburton Thompson was thereupon unanimously elected Secretary of the Conference.

Inquiry being made whether any scheme of proceeding had been prepared, it appeared that the Delegates of New South Wales had drawn up an entirely informal note of subjects for discussion. The Delegates expressed a wish that it should be submitted to them. The following document was therefore distributed among the members of the Conference, after being printed:—

INFORMAL NOTE OF SUBJECTS FOR DISCUSSION, PREPARED BY THE DELEGATES OF NEW SOUTH WALES.

1. Since Australasia consists of adjoining territories and of adjacent islands, which are in daily communication with each other by railways and steam-vessels, it is desirable that the several Governments should agree in their laws and practice of Quarantine.
2. The laws at present in force under the various Governments of Australasia having been compared, such alterations may be recommended in any of them as this Conference may agree to in order to render them uniform and efficient.
3. What is intended when the word Quarantine is used by this Conference, and what is its true position in State Medicine?
4. Special measures should be taken to ensure the departure of immigrant vessels under conditions which shall ensure freedom from infectious sickness during the voyage.
5. It is desirable to have accurate information of the state of the public health of the exporting country, and of ports touched at upon the voyage.
6. It is desirable that the various Governments should be accurately informed of the state of the public health of the Colonies respectively under their control.
7. Matters affecting the public health should be made known by each Colony to every other, and this should be done by direct communication between the Medical Advisers to the Governments.
8. Measures should be taken by each Colony to secure the health of the people, and to obtain the earliest information of the presence and prevalence of infectious disease among them.
9. Each vessel should bear but one Bill of Health, which should be endorsed at each port of call.
10. The Bill of Health should be of a prescribed form, namely, that known as the International Bill of Health.
11. The fact of any vessel bearing a clean Bill of Health shall not avoid thorough sanitary inspection of that vessel.
12. Vessels approaching Australasian ports from Foreign ports shall be considered to be in quarantine until they have been inspected, and shall be required to fly a signal having this meaning.

13. All inspections of incoming Foreign vessels should be conducted by daylight.
14. It is expedient to establish outports for purposes of quarantine, to which vessels approaching Australasian ports with virulent infectious disease on board may repair before proceeding to their first port of call in Australasia, at such points as may be deemed most convenient for the intended purpose.
15. Vessels repairing to such ports, and there discharging the sick and such persons as may be considered to have run most risk of infection, and having undergone such purification as may be ordered, may proceed upon their voyage in quarantine.
16. The quarantine of vessels neglecting to repair to the outport shall, in view of the increased danger so caused to the public health, be of a proportionately rigorous description.
17. When virulent infectious disease exists in any Colony, vessels leaving her ports shall undergo a sanitary inspection before clearance is granted.
18. What diseases are here intended under the term "virulent infectious diseases"?
19. When a port is declared infected it should be gazetted by all the Colonies simultaneously.
20. What shall be the effect of gazetting a port infected upon incoming vessels hailing therefrom?
21. How may information of the health of Foreign ports be best obtained by the Australasian Colonies; how may important information of Foreign ports, and of each other, be best diffused among them; and what arrangement can be made whereby Australasia shall benefit by an interchange of current observations in State Medicine with the other countries of the world?

SPECIAL SUBJECTS.

22. Emigrants from Great Britain should be required to present a certificate at the Depot in that Kingdom, signed by the Medical Officer of Health of the district from which they come, declaring the state of the public health in that district as to infectious disease.
23. If small-pox exist in the district from which any emigrant comes, every such emigrant shall be vaccinated or re-vaccinated as the case may be before he shall be allowed to embark.
24. If any other infectious disease exist in the district from which any emigrant comes, all his clothes and effects shall be disinfected before he is allowed to embark.

* * * * *

SMALL-POX.

25. A vessel infected with small-pox is one which has carried a case of that disease during the voyage.
26. Persons able to show a certificate of re-vaccination at any date being not more than previous to their arrival in an infected ship, shall not be detained longer than may be necessary to cleanse and disinfect their clothing on shore.
27. Persons arriving in an infected ship, not being themselves affected, shall be re-vaccinated.
28. Those whose vaccination runs a normal course may be released on the _____ day.
29. Those whose vaccination fails or runs an abnormal course, or who refuse vaccination or re-vaccination, shall be detained until _____ days have elapsed.

* * * * *

CHOLERA.

30. Any vessel having on board any case of cholera, whether Asiatic or sporadic, or any case which may reasonably be suspected to be cholera in either of these or any other form, shall be quarantined.
31. All hands, except such as are actually necessary to cleanse the ship expeditiously and thoroughly, shall be landed at the Quarantine Ground, where they shall be detained for the space of _____ clear days.
32. In order to facilitate cleansing operations, cargo shall be discharged into lighters, and may be thence passed out of quarantine.
33. Cleansing having been completed, the hands employed thereat shall be quarantined for the space of _____ clear days.
34. A crew may be supplied to the vessel from the hands first quarantined, if the prescribed period of detention has elapsed, or otherwise as may be convenient.

* * * * *

YELLOW FEVER.

35. Any vessel arriving from a country declared to be infected with yellow fever, if the disease prevail in the port of departure, shall be required to discharge cargo into lighters, and to remain at the Quarantine Ground, and in quarantine, until she shall have been cleansed and purified.
36. Her cargo shall be landed at quarantine wharves, and shall there lie freely exposed to the air for the space of _____ days.
37. The vessel shall be thoroughly cleansed as may be specially ordered in the case of yellow fever.
38. If no case of yellow fever or of other disease has occurred on board during the voyage, being more than _____ days from the date of leaving the infected port, her passengers may be admitted to pratique.
39. But if any case has occurred on board, the passengers and crew shall be detained for _____ clear days on shore at the Quarantine Ground, and their effects as long as may be necessary to thoroughly disinfect them to the satisfaction of the Port Sanitary Officer.

* * * * *

40. The special measures necessary to disinfect ships infected with yellow fever, or vessels bearing cases of remittent or typho-malarial fever which are sometimes not easily distinguishable from yellow fever.

* * * * *

41. To what treatment shall the persons arriving in vessels infected with typhus, relapsing, typhoid, or scarlet fever, morbilli or whooping-cough be subjected, and what are the measures to be taken to disinfect the vessels?

* * * * *

QUARANTINE

QUARANTINE OUTPORTS.

42. What are the details of the purpose to be fulfilled by the quarantine outports?
 43. What officers and equipment are necessary for this purpose?
 44. Of the advantages to commercial intercourse which will flow from their establishment (here also should be shown the disadvantages under which such ships will lie as may have neglected to repair to them).

* * * * *

DISINFECTION AND CLEANSING.

45. Of the general measures to be taken.

* * * * *

LAWS.

46. Of the alterations or amendments proposed therein.

FORM of International Bill of Health proposed by the Delegates of the United States at the International Sanitary Conference of Washington, D.C., 1881.

I, _____ (Consul, Consular Agent, or other officer empowered by law to sign), at this port of _____ do hereby state that the vessel hereinafter named clears from this Port under the following circumstances:—

| | |
|---|-------------------------------------|
| Name of Vessel— | Nature (man-of-war, schooner, &c.)— |
| Tonnage— | Guns, No.— |
| Apartments for Passengers, No.— | Where last from— |
| Destination— | Name of Captain— |
| Name of Medical Officer— | Total number of crew— |
| Total number of passengers—1st class, _____ ; | Cargo— |
| 2nd class, _____ ; steerage, _____ | |

VESSEL.

- Sanitary history of vessel—
- Sanitary condition of vessel (before and after reception of cargo, with note of any decayed wood). Note disinfection of vessel—
- Sanitary condition of cargo—
- Sanitary condition of crew—
- Sanitary condition of passengers—
- Sanitary condition of clothing, food, water, air space, and ventilation—

PORT.

- Sanitary condition of port and adjacent country.
 - Prevailing disease (if any).
 - No. of cases of, and deaths from, yellow fever, Asiatic cholera, plague, small-pox, or typhus fever, during the week preceding.

| | |
|---------------------|------------------------|
| Number of cases of— | Number of deaths from— |
| Yellow fever | Yellow fever |
| Asiatic cholera | Asiatic cholera |
| Plague | Plague |
| Small-pox | Small-pox |
| Typhus fever | Typhus fever |

- Population according to last Census.
- Total deaths from all causes during the preceding month.

- Any circumstance affecting the public health existing in the port of departure to be here stated.

I certify that the foregoing statements are made by who has personally inspected said vessel; that I am satisfied that the said statements are correct; and I do further certify that the said vessel leaves this port bound for in the United States.

In witness whereof, I have hereunto set my hand and seal of office, at the Port of _____ this _____ day of _____ 188 _____, o'clock.

(L.S.)

Consul.

The President: A communication has been received by my Government from His Excellency the Governor of the Crown Colony of Fiji, which I will now read:—

The Colonial Secretary, Fiji, to The Colonial Secretary, New South Wales.

Sir,

Colonial Secretary's Office, Fiji, 27 August, 1874.

I am directed by His Excellency the Governor to acknowledge the receipt of your letter dated 26th July, notifying the 1st September as the date at which it is proposed to hold the Intercolonial Medical Conference in Sydney.

Owing to the necessity of placing in quarantine the steamer which brought your letter, it will be impossible for a representative of Fiji to reach Sydney by the date mentioned. His Excellency, moreover, requests that, in view of the probable necessity of maintaining quarantine against all the other Australasian Colonies on account of the presence of small-pox there, and owing to the fact that Dr. M'Gregor, the Chief Medical Officer, is the only one here with practical experience of arrangements for effective quarantine, he will be unable, as he intended, to appoint that officer as a representative of Fiji at the Conference.

His Excellency has therefore appointed Dr. Corney, the Second Medical Officer, who is on his way from England, and is expected to arrive in Sydney by the Messageries steamer which left Marseilles on the 31st July; and His Excellency would be much obliged if, until Dr. Corney's arrival, you would appoint Dr. Mackellar to represent Fiji.

As His Excellency believes that Dr. Mackellar, the Chief Medical Officer of New South Wales, is especially desirous of having before the Conference the views of Dr. M'Gregor, whose experience in connection with quarantine is second to none, His Excellency has requested Dr. M'Gregor to write a memorandum on the subject, which it may be hoped will arrive in time to be of service.

With

With a view to preclude the possibility of Dr. Corney delaying at any of the ports at which the Messageries steamers touch, His Excellency would be much obliged if you would telegraph to him the fact of his appointment, together with His Excellency's request that he should attend as soon as possible.

I have &c.,

JOHN B. THURSTON.

Submitted, 13/9/84. The Medical Adviser to Government.—A.S., 18/9/84. Urgent. The Medical Adviser to the Government.—C.W., B.C., 16 September, 1884.

I have to inform you that I have accordingly been appointed by my Government to act for the Delegate of the Crown Colony of Fiji until he shall have presented his credentials. I propose that we should now proceed to consider the list of subjects for discussion which, at your request, has been laid before you. Without any intention of obtruding upon you our own view of this subject, I may say that the clauses have been arranged by myself and by my colleague, Dr. Ashburton Thompson, in what seemed to us a logical sequence as nearly as possible.

The President read the first clause of the informal memorandum of subjects as follows:—

1. Since Australasia consists of adjoining territories and of adjacent islands, which are in daily communication with each other by railways and steam-vessels, it is desirable that the several Governments should agree in their laws and practice of Quarantine.

The Delegate of South Australia (Dr. Paterson): It seems to me that this conveys two distinct ideas in regard to Quarantine. It states Australasia consists of adjoining territories and islands in daily communication with each other; but at the same time Australasia is separated from the rest of the world by a large intervening tract of sea, and it is against disease sea-borne from Europe and ports beyond seas that we institute our main Quarantine. There might be an Intercolonial Quarantine of one Colony against another, as, for example, South Australia and Queensland have instituted a form of Quarantine against vessels arriving from New South Wales and Victoria. I should prefer that some expression should appear with regard to the risk of disease being introduced from foreign ports.

The Delegate of the Crown Colony of Western Australia (Dr. Cecil Rogers): Regarding the remarks made by the Delegate of South Australia, you all know that, with the exception of Western Australia, there exists some method of Intercolonial Quarantine in all the Colonies. When vessels arrive with sickness you take the sick, whether for your own or other ports, but Western Australia does not. She wishes to come in now, provided there is to be an absolute federal system of Quarantine. Vessels arriving there can discharge the sick, no matter for what port they may be travelling, while the expenses will be borne proportionately by the Colonies. This seems to me the object now: that there being no epidemic diseases existing in our midst it was competent to provide a barrier to prevent their introduction from abroad; and this could best be done by the establishment of a general or Federal Quarantine. I need not enter into the question whether diseases of a contagious nature—small-pox, cholera, typhoid, measles, and fevers—will travel in our direction. Cholera has already travelled from Alexandria to Marseilles, and there was only a few days difference between those ports and from the former to our own. Moreover, the P. & O. steamers could pick up disease at Ceylon or Indian ports. Once cholera was introduced it would follow the line of coast as it had done in other ports, and rapidly spread unless energetic measures were adopted. No doubt we are somewhat better situated than some of the places now being devastated, and physically we are superior; but this continent should be a typical one, such as Richardson's typical City of Hygeia. We are, however, very far from that, and were it not for the energetic measures taken by the Government, through their Medical Advisers, thousands would have been swept off by the diseases that have already been introduced. The working of the proposal I have submitted is a matter of detail, and what is now required is an acknowledgment of the principles.

The President: I think your proposal refers rather to a matter which will be taken at another time. The first clause is proposed to be amended by adding words which will express the Delegate of South Australia's view, viz.:—

That since Australasia consists of adjoining territories and adjacent islands, which are remote from the rest of the world, but are in daily communication with each other by railways and steam-vessels, it is desirable that the several Governments should agree in their laws and practice of Quarantine.

The clause as altered was then carried unanimously.

Clause 2 read as follows:—

2. The laws at present in force under the various Governments of Australasia having been compared, such alterations may be recommended in any of them as this Conference may agree to, in order to render them uniform and efficient.

The President: I think it would be advisable that two of our number should inquire into the laws at present existing in the various Colonies in regard to sanitary matters, and submit a comparative statement to the Conference.

The Delegate of South Australia (Dr. Paterson): I think the laws of the various Colonies should be assimilated in this matter. I have a copy of the New South Wales Act, and in many respects it resembles the South Australian Act, but as far as I can see it provides for nothing beyond small-pox.

The Delegate of Victoria (Dr. McCrea): I think it would be better to simply affirm the clause, and amendment could be made afterwards. As to the assimilation of the various laws, I think the subject should be inquired into by the whole Conference.

The 2nd clause was then read and adopted.

Clause 3 read as follows:—

3. What is intended when the word Quarantine is used by this Conference, and what is its true position in State Medicine?

The President: It is unfortunate, as I before stated, that the term Quarantine should be confounded with the ridiculous system which has been carried out under that name in the Mediterranean and Red Sea ports. It will be necessary therefore to show what is our meaning exactly.

The

The Delegate of Victoria (Dr. McCrea) submitted the following resolution, which was agreed to:—

That by Quarantine this Conference understands such measures taken in regard to vessels coming to the various Australasian ports as will effectually protect the Australasian Colonies from the invasion of contagious or infectious disease, consistent with the least possible interference with the liberty of individuals, and with the least possible restriction of commerce.

The President : Dr. Ashburton Thompson has intimated that he has something to say in regard to Quarantine. He has embodied his views in a paper which, with your permission, he will now read.

The Special Delegate of New South Wales (Dr. Ashburton Thompson) said:—It seems desirable that this Conference should declare what is meant when the word Quarantine is used; and in order to do this it will perhaps be well if the Delegates broadly lay down the general principle by which they feel themselves governed. With this object in view, I beg leave to respectfully offer the following remarks for your indulgent consideration:—

Doubtless all present agree that by "Quarantine" the scheme indicated by the technical meaning of the word is not meant. That scheme, as defined by the late Dr. Leach, Medical Officer of Health for the port of London, is the enforced isolation of persons and things coming from countries in which dangerous communicable disease is known or may reasonably be presumed to exist, with the view of limiting the spread of that disease. It takes no cognizance of the actual state of vessels; it has regard only to the state of the exporting country, and imposes a quite arbitrary period of detention upon all vessels alike hailing therefrom, if only it be the seat of contagious sickness. Evidently this plan is now-a-days impossible; and it is needless to show exactly how and why it failed of the purpose it was intended to fulfil.

For Quarantine, English sanitarians long ago substituted "Medical Inspection." Medical Inspection consists, as you are aware, in the cleansing of foul vessels, in removal and isolation of the sick, and in detention of the healthy for such length of time only as may be necessary to determine their state of health by medical examination. This is the course lately followed at this port in the case of the s.s. "Abergeldie," which arrived with several cases of morbilli on board. The Americans, too, adopt Medical Inspection; but they understand it in a sense distinctly different to that in which the English intend it. As defined by the National Board of Health of the United States, Medical Inspection is "the organization employed to determine the presence or absence of the causes of infectious disease, and to secure the removal and destruction of such causes if present; and it does not imply detention for any specified time, nor for more time than is necessary for the above purposes." You will note that a person incubating infectious disease cannot by medical examination be found to be otherwise than healthy; yet in a few days he will become a cause of infectious disease. The Americans therefore reserve to themselves the right, which the English forgo, of detaining the apparently healthy until lapse of time has proved that they are not incubating disease. To what is this difference between the plans followed by the two countries owing?

Before I venture to offer what appears to me to be the answer to this question, I will inquire into the true position of Quarantine among the allied measures which collectively constitute Preventive Medicine. Perhaps the first suggestion which arises from consideration of this subject is, that although all nations have the right which in all international agreements they reserve for themselves, to protect themselves from the importation of contagious diseases from neighbouring countries, they are, in reality, all equally interested in the prevention of disease over the whole world; that, in fact, the prevention of the importation of disease, or Quarantine, is secondary to the prevention of disease in the broadest sense. It is subsidiary to the measures, as yet imperfect, which are taken by every civilized country within its borders to preserve the health of its people. It is the interest of Governments to prevent the spread of contagious diseases, by destroying sources of infection wherever found; hence, on the one hand, the institution of Quarantine to prevent the importation of such sources by sea. On the other hand, if the freedom of populations from infectious disease were perfect, the *raison d'être* of Quarantine would disappear, for there would be no possibility of importing that which did not exist. The term Quarantine, then, does not indicate a distinct measure of preventive medicine; it owes its distinctive name to the accident that measures commonly taken on shore have sometimes to be taken in circumstances apparently, and only apparently, different; that is to say, on board ship. The recognition of this position of Quarantine as merely intermediary between the sanitation of countries separated by sea leads to the admission that three things are essential to it. These are, firstly, that vessels shall pursue the voyage under the circumstances which are best calculated to avoid the presence of infectious disease on board. This would be ensured if the state of the public health in those places from which persons and things came to embark were known, and if their neighbourhood to sources of infection were a bar to their embarkation until they had been purified; if all vessels underwent a sanitary inspection of the hull before loading, and of the provisions for the voyage before sailing; and if all vessels avoided communication with infected ports upon the passage. These conditions are not, and indeed cannot be, fulfilled; but every useful Bill of Health must afford full and precise information upon the points thus indicated for the guidance of the importing country. Secondly,—It must be made as certain as is possible that no communication takes place between the vessel and the shore until her sanitary condition has been learned by inspection. Thirdly,—Measures for the prevention of disease must be habitually taken within the importing country itself; for it is not only illogical to impose upon strangers restrictions of this kind under which the importing country does not lie, but it is true that while the most perfect measures of the sort must occasionally fail of their purpose, this accident will have the least ill effect upon places and people who are rendered as nearly as possible unsusceptible of disease. But it leads also to the admission that as different diseases require different steps to be taken for their prevention, so in each scheme of Quarantine, although all may be framed under one guiding principle, different rules must be applied to the several diseases to be dealt with, and to the conditions of the several countries and populations seeking protection.

Having thus indicated what, in my humble opinion, is the principle upon which a scheme of Quarantine should be founded, I pass on to consider briefly the causes of the different senses in which the English and the Americans understand Medical Inspection. It must be observed first of all that the etiology of the diseases which these two nations respectively most fear is very different. The English chiefly fear cholera, the Americans small-pox and yellow fever. The English practice is described in the following instance:

instance: H.M. troop-ship "Crocodile" cleared outwards from Bombay on April 3, 1884, with 1,558 persons on board. She arrived at Spithead on April 29, flying the yellow flag, having on board two convalescent cholera patients. The first case of cholera had occurred on April 6, the last on April 20; but the last death of six which happened, occurred on April 24. The course pursued was to isolate the two convalescents on shore; to cleanse and disinfect the ship and effects; to ascertain by examination the state of health of all the persons on board; and then, this having been found to be good at the time of examination, the remaining 1,550 were allowed to disperse within a day or two of the ship's arrival. This instance of England's practical adoption of measures long since, and originally recommended by her, but often adversely criticised by other nations, was the occasion of some pardonable pride in that country. It will not escape you, however, that the circumstances were exceptionally favourable to the success of the course pursued. A troop-ship, especially designed to carry very large numbers of people, has special and excellent hospital accommodation: she is in the charge of the experienced officers of the Army Medical Department, or of the Indian Medical Service, of whom there were probably several on board of this particular troop-ship; and the disease to be combated was cholera, a disease deemed to be communicable only through the evacuations of the sick. The conditions then were exceptionally favourable (1) for the early detection of fresh cases, (2) for the effective isolation of existing cases, (3) for the scrupulously careful collection and destruction of all discharges from the sick, and (4), for maintaining the most perfect state of cleanliness in all parts of the vessel. I express my own opinion only when I say that, had the "Crocodile" arrived at this port, I should have been prepared to follow the course indicated by the English term "Medical Inspection"; but I venture to suppose it likely that you will agree with me in regarding that course as unjustifiable in the case of any ordinary vessel, whether a man-of-war or a merchant vessel, which should arrive at any Australasian port with two persons convalescent from cholera on board. The Americans would take this last view; they would detain the apparently healthy at a quarantine of observation for a few days before allowing them to disperse. But suppose the course pursued by the English in the case of the "Crocodile" to be indubitably the best course to take for the exclusion of cholera; would it be the best course to pursue in the case of all other diseases, as in their writings English sanitarians leave it to be believed? Would it be likely to exclude yellow fever? Yellow fever is contracted exclusively from the surroundings of man; it is not contagious from person to person, either immediately or through the discharges of the sick. A vessel therefore may be infected by it, or a locality; but a crew or a population cannot be said to be infected by it, although many persons may be suffering the disease at the same time. Is Medical Inspection in its classical sense applicable to a disease having this etiology? The answer evidently is "yes" if the sickness on board can be shown to have been contracted on shore; but as clearly "no" if the sickness on board has been contracted on the vessel itself. In the latter case, all those who on arrival are apparently healthy have been continuously exposed to the source of infection up to the moment at which they leave the vessel. Hence the Americans take care that all such persons shall leave the vessel for the Quarantine Ground, where they are detained during the incubation period fixed by them for this disease. Similar, but not the same reasoning (for its etiology is different) applies to the disease which we all fear—small-pox. If it would be on the face of it absurd to land a case of small-pox among unvaccinated and imperfectly vaccinated communities, so I submit it would be absurd to land persons without precaution who have been exposed to the contagion of small-pox on board the vessel which has borne that disease. You will thus perceive that Medical Inspection understood in the sense here indicated—that is to say, in the sense in which the Americans define it—is not only essentially different from the English plan, but would indeed be more properly referred to as Quarantine; for it is indeed a Quarantine which differs from ancient Quarantine in detail, as modern knowledge differs from ancient knowledge, but which differs in principle in its mode of application only. That difference, it is true, is an all-important difference, for instead of applying to all ships indifferently, it applies only to infected ships.

But this "Limited Quarantine," as I venture to call it, has one of the most important drawbacks of ancient Quarantines nevertheless, namely, that if a case of sickness arise at the observation ground, the period of detention for the whole number must begin afresh; and this may happen not once only but again and again. It happened again and again, for instance, in the case of the "Crown of Aragon"—the Delegate of Queensland will correct me if I am wrong—which recently arrived in Moreton Bay with scarlet fever on board. Her passengers were delayed at the quarantine of observation for seven weeks, because from time to time a fresh case arose among the apparently healthy. This is a difficulty which the English alone, so far as I know, have boldly recognized. They escape from it, as it seems to me, by cutting the Gordian knot. They refer the observation of suspects to the country at large; in other words, they fall back upon the innermost line of defence—the perfect sanitation of the kingdom. This indubitably is what all countries must aspire to do, but it is a course which seems to me to be far in advance of the state of England with regard to internal sanitation—far in advance of that degree of perfection which alone can warrant its adoption generally as a principle of action. Much more is it in advance of the sanitary state of Australasia. The Americans do not, so far as I can ascertain, face this difficulty at all, but pass it over. Its formal recognition by them would lead to the abolition of all practical difference between their practice and that of the English; but while professing to maintain a practical difference, they leave it to be observed that circumstances compel them to adopt a course of action which is nearly identical. Thus, the detention of immigrants arriving from Europe in vessels infected with small-pox, even for the completion of a period of incubation dated back to the day of sailing, would, as I learn from the Second Annual Report of the State Board of Health for the State of New York, have resulted during 1880-1 in the accumulation of the unmanageable number of no less than 10,000 persons at the quarantine of observation; and for this same reason the result of revaccination cannot be ascertained. This last, of course, is of no consequence when the operation is performed at what may be the eighth or ninth day of incubation; literally, only the sick are detained; the apparently healthy disperse at once; and the fact remains that, in the case of small-pox, Medical Inspection pure and simple is practised, and not Medical Inspection in the sense in which they define it. The same difficulty, leading to the same result, would doubtless arise in the case of yellow fever, at certain seasons of the year, were detention for any but a very short period considered necessary. For this disease, however, detention is practised, and that is not Medical Inspection pure and simple: yet, even in this case, it must not be forgotten that the period of five days which is fixed as the incubation period of yellow fever, although, as I understand, based upon the practical experience gained at the port

of New York, is as arbitrary as is that of four or five days which is fixed at the same port as the incubation period of cholera. The briefness of these periods in part enables the Americans to believe that they avoid the dilemma in which they stand between their definition of Medical Inspection on the one hand and their overwhelming passenger traffic on the other. The truth seems to be, however, that they use neither Medical Inspection nor Limited Quarantine. But, I repeat, I cannot ascertain that the reality of this failure in their scheme of Medical Inspection has ever been frankly recognized by them.

In the meantime this dilemma, for more than one reason, but owing partly to the arrival on our shores of only manageable numbers of people after a comparatively prolonged voyage, does not exist for us. We are not at present liable to be driven by circumstances to adopt a middle course between Medical Inspection and Limited Quarantine, which, while it cannot confer in full measure the commercial advantages of the former, cannot confer the full measure of rational security of which the latter is capable, either. We may therefore declare—if we are of this opinion—with a sense of full power to give our resolution practical and, I believe, beneficial effect, that by Quarantine we do mean ancient Quarantine modified by modern knowledge, but with this important limitation, that it shall apply only to infected vessels; we may refer to our Australasian plan as Limited Quarantine; and we might add that we trust that, by the time our passenger traffic shall have assimilated more closely to that of the United States, and this principle of action be therefore no longer practically available, we shall have a system of internal sanitation so complete that we shall be justified in relinquishing Limited Quarantine for Medical Inspection in the English, that is to say, in the classical sense. And I conclude by offering for your consideration this definition:—By Limited Quarantine is intended “The examination conducted to ascertain the presence or absence of the causes of infectious disease, without detention for more time than may be necessary for the discovery and the removal or destruction of such causes.”

The President: I have here a memorandum prepared by Dr. M'Gregor, the Chief Medical Officer by request of His Excellency the Governor of the Crown Colony of Fiji, who has communicated it to my Government. I have pleasure in placing it before you. (*Appendix B.*)

Clause 4 was read as follows:—

4. Special measures should be taken to ensure the departure of immigrant vessels under conditions which shall ensure freedom from infectious sickness during the voyage.

The President: This clause is considered necessary in view of the dangers which continually arise through the probable introduction of disease by immigrant vessels. An examination is now made in regard to immigrants coming to the Colonies, but in my opinion special measures should be taken to ensure safety from infection by means of immigrants.

The Delegate of South Australia (Dr. Paterson): I think prominence should be given not only to passengers but also to the crews of such vessels. An instance occurred in South Australia some years ago, when an immigrant vessel, the “British Empire,” arrived with small-pox on board, the disease being due in the first instance to a Kanaka seaman. I would amend the clause by adding the words “both as regards passengers and crews.”

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I quite agree with the Delegate of South Australia, but I am uncertain whether the title “immigrant ships” is wide enough, as it would hardly include the persons, coolies and others, arriving by labour vessels. It was a strange circumstance that small-pox was introduced almost invariably in the winter-time, but it was attributable to the fact that in China and Japan the natives had need for few clothes and the surplus was put in pawn, where thousands of garments would be lying. When the cold weather set in the garments would be taken out, and the spread of disease was the result. Some of the men would serve on shipboard, and tend to spread the disease far and wide.

It was decided, after discussion, that the words “immigrant vessel” were sufficient; and the clause, as amended, was then adopted.

Clause 5 was read as follows:—

5. It is desirable to have accurate information of the state of the public health of the exporting country, and of ports touched at upon the voyage,
- and agreed to unanimously.

Clauses 6, 7, and 8 were read as follows:—

6. It is desirable that the various Governments should be accurately informed of the state of the public health of the Colonies respectively under their control.
 7. Matters affecting the public health should be made known by each Colony to every other, and this should be done by direct communication between the Medical Advisers to the Governments.
 8. Measures should be taken by each Colony to secure the health of the people, and to obtain the earliest information of the presence and prevalence of infectious disease amongst them.
- and they were agreed to unanimously.

Clauses 9, 10, and 11 were read as follows:—

9. Each vessel should bear but one Bill of Health, which should be endorsed at each port of call.
10. The Bill of Health should be of a prescribed form, namely, that known as the International Bill of Health.
11. The fact of any vessel bearing a clean Bill of Health shall not avoid thorough sanitary inspection of that vessel.

The President: The conditions here laid down are essential, and have been affirmed previously. I do not think we can do more than acquiesce in the opinions given.

The Delegate of South Australia (Dr. Paterson): In regard to the sanitary inspection of vessels in South Australia, if a vessel has a medical officer who affirms the ship is free from disease, that is taken as sufficient, and the vessel is passed.

The

The President: That is open to the objection that you make the medical officer your officer for the time, a position which is not accepted by the other Colonies.

The clauses as read were then agreed to unanimously.

Clause 12 was read as follows:—

12. Vessels approaching Australasian ports from Foreign ports shall be considered to be in quarantine until they have been inspected, and shall be required to fly a signal having this meaning.

The President: Vessels arriving here are required to fly a flag for the Health Officer, and practically they are in quarantine until the Health Officer proclaims them free from disease. Any person boarding them in the meantime is liable to a heavy penalty.

The Delegate of Victoria (Dr. McCrea): That is our practice also.

With regard to intercolonial vessels, we allow them to come in without any examination whatever, as we trust that the other Colonies are as free from disease, as a rule, as we are. In Queensland and South Australia I believe vessels arriving there from this port are at present subject to a medical examination on account of the presence of small-pox here.

The Delegate of South Australia (Dr. Paterson): The word "Foreign" seems to me to require alteration. It would be better I think to make the clause read "Extra-Australasian" ports.

The clause, as amended, was then agreed to.

Clause 13 was read as follows:—

13. All inspections of incoming foreign vessels should be conducted by daylight.

The Delegate of South Australia (Dr. Paterson): We adopt a medical examination of persons arriving at Adelaide. All on board an incoming ship are mustered and pass under the doctor's hands. The examination of a passenger steamer takes two hours, and it is done while the vessel is on its way up to the port, otherwise there would be a detention of two hours under steam. Of course this system involves a great amount of labour; and on the morning I left, the Health Officer had to commence his examination at 6 in the morning, as there were three steamers to inspect.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): The adoption of the clause would cause some inconvenience to the large Companies trading here; and it would be a good plan if we could devise some means of recognizing at intermediate ports the certificate of the first port touched at. For instance, the P. & O. steamers are travelling for about fourteen days after leaving Colombo before they reach these shores, and in that time any disease on board would develop. If the vessels arrived with all well on board, and there was a surgeon prepared to give a certificate to that effect, then such vessel might be admitted at the first port, and the certificate given there recognized at intermediate ports.

The Special Delegate of New South Wales (Dr. Ashburton Thompson): The principle has been affirmed by other nations that inspections of suspected vessels should be held by day. With regard to the acceptance of certificates offered by the officers of a ship, those are not always trustworthy; and I think it would not be altogether safe to omit or modify the full inspection of vessels by the Government Health Officer, which full inspection is impracticable at night-time.

The Delegate of Queensland (Dr. Bancroft): The clause is open to much difference of opinion, and I think it would be wise to postpone the adoption of the clause.

Postponement of the clause was agreed to.

The Conference adjourned at 1 o'clock p.m. until 10 o'clock a.m. of Thursday, September 18.

SECOND SESSION.

THURSDAY, 18 SEPTEMBER, 1884.

The Conference met in the Executive Council Chamber, pursuant on adjournment.

Were present:—

The Delegate of New South Wales, acting for the Crown Colony of Fiji, the President, in the Chair.

The Special Delegate of New South Wales.

The Delegate of Queensland.

The Delegate of South Australia.

The Delegate of Tasmania.

The Delegate of Victoria.

The Delegate of the Crown Colony of Western Australia.

Was absent:—

The Delegate of the Crown Colony of Fiji.

The Conference was called to order by the President at 10 o'clock a.m.

The minutes of the first session were read.

The Delegate of South Australia (Dr. Paterson): Before the minutes are confirmed, I wish to call attention to clause 11, which reads "The fact of any vessel bearing a clean bill of health shall not avoid thorough sanitary inspection of that vessel." I spoke on this clause yesterday, and defined what this medical inspection is in South Australia. I then pointed out that South Australia differs from New South Wales in being a port of call only, and that vessels which do not carry a surgeon are invariably subjected to a medical inspection, which means the mustering of all on board, both crew and passengers, and their passage in review before the Medical Health Officer. In vessels, however, which do carry a surgeon, that officer has to certify, in answer to the usual questions, that there is no contagious or infectious disease on board, and that none has occurred during the voyage. This certificate is countersigned and certified to by the commander; and then no medical inspection as we understand it was insisted upon. In many cases, such as most of the large steamers with 200, 300, or 400 souls on board, such an inspection would occupy a good deal of time, and as these vessels visit Adelaide merely as a port of call their stay is limited, and the detention and obstruction would be very considerable. For many years

past we have acted on the principle that it is better to hold the commander and surgeon responsible for the truth of the statement—subject of course to heavy penalties in cases of untrue or unfaithful reports—than to throw the responsibility on an examination, which must of necessity, in many cases, be very cursory. While I believe that in some of the adjacent Colonies it has been found that incorrect answers have been given, in South Australia we have had no reason to find any fault with the system. Our medical officers and the Government are, as far as I know, perfectly satisfied with it. Of course in cases where the answers are unsatisfactory or there are suspicious circumstances, the ship is treated as a suspected vessel, and is subjected to a medical inspection. I see great difficulties in the way of subjecting all vessels, especially these large steamers, to such an inspection as is insisted upon in this 11th clause, and in these cases I do not see that there can be any reason to doubt the truthfulness of the masters and surgeons on board. He would therefore propose that the clause should be altered to read as follows:—

The fact of any vessel bearing a clean bill of health shall not necessarily exempt her from a thorough medical inspection.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) seconded the motion.

The President: I may point out that the clause is not compulsory, as it leaves the matter open to each Health Officer. With regard to the faith that the Delegate of South Australia seems to place in the answers of the officers, I have no hesitation in saying that in this Colony we have always placed reliance upon the replies given by the officers of such ships as those of the P. & O. and Orient lines which come here regularly; but this port is frequently visited by mere birds of passage, which might without the knowledge of the authorities deposit disease here, and then proceed upon their voyage and place themselves beyond the cognisance of our laws. This has happened in Sydney, cases of disease of various kinds having been brought in; in fact, a person suffering from small-pox has been stowed away, and only discovered some days after the vessel had been lying at the wharf. It is to catch such cases as these that we have to frame our laws.

Amendment agreed to unanimously. Minutes as amended confirmed.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) moved:—

That in the course of these proceedings the word "vessel," whenever used, shall include the vessel or ship and every person and thing on board.

The Delegate of Tasmania (Dr. Turnley) supported the motion.

Agreed to unanimously.

Clauses 14 and 15 were read as follows:—

14. It is expedient to establish out-ports for purposes of quarantine, to which vessels approaching Australasian ports with virulent infectious disease on board may repair before proceeding to their first port of call in Australasia, at such points as may be deemed most convenient for the intended purpose.

15. Vessels repairing to such ports, and there discharging the sick and such persons as may be considered to have run most risk of infection, and having undergone such purification as may be ordered, may proceed upon their voyage in Quarantine.

The President: The establishment of these out-ports for quarantine forced itself on my attention nearly two years ago, when one or more vessels came along the whole length of Australian coast having disease on board, landing passengers at various points and finally depositing the sick. On arrival at the first port of call there may be only one case of disease on board, but if that case is not removed it may infect many others before the vessel reaches her destination. In one case I know of, five, and in another nine, persons were thus infected subsequently to the arrival of the vessel at the first port of call. Now, if on arrival at Sydney that vessel had to be put into quarantine for twenty-one days, it would have been a manifest advantage to have deposited the first patient at Albany, as the passage between that port and Sydney might have been made in quarantine. When a large vessel, such as the "Rome," the "Orient," or the "Austral," is put into quarantine, it costs the owners more than £200 per diem; and if such a vessel, instead of landing a small-pox patient at King George's Sound, is compelled to bring him on to Sydney, she is forced to undergo a twenty-one days' quarantine after her arrival; whereas, if the patient had been left at King George's Sound, the period of quarantine would have dated from the time of the patient being deposited on shore and the vessel disinfected, which would have saved ten days at least. This would mean a saving of £2,000, which is a very serious consideration in a voyage which only lasts some six weeks. As a consequence, the leading steamship lines, such as the P. & O. and the Orient Companies, have taken up this matter with spirit. But this is not all: we have to consider the passengers, to whom detention in quarantine may mean something very serious—more serious, indeed, than the mere monetary loss sustained by the Companies. Many persons come here to whom a detention of this nature may mean the loss of large fortunes; and there are visitors from India on leave who have perhaps a month to spend in the Colonies, and a detention of twenty-one days out of that is an inconvenient and, it may be, a very serious thing. Still it is necessary; and for the safety of the general public of the Colony, as long as I have the direction of matters here, our regulations shall be rigorously enforced. Now, speaking as to the character of these out-port quarantine stations, I do not propose to land the whole of the passengers there when disease has broken out on board a ship, but simply the patients and their attendants. This of course will not secure absolute immunity from danger, but it will give those remaining on board a comparative amount of security. It would be very expensive and inconvenient to land everybody, and as it is impossible to get rid of all risk, I think this is the best plan, for even if disease does make its appearance subsequently the ship and people on board will be in no worse position than they are now. As to isolation on shipboard I do not deem it practicable, as it is my experience that, although at the first appearance of a contagious or infectious disease people on shipboard are ridiculously and stupidly alarmed, that feeling soon goes off and gives place to an equally foolish contempt, and they cannot resist the temptation of going near the patients, so that it is practically impossible to have a thorough isolation. I would therefore not accept the assurance of any official on board a ship that nobody had come into contact with a patient, for the most that can be done in any case is to have the patient placed in a boat on the davits at the stern, and to have a sheet saturated with disinfectants hung between the boat and the ship; and this is a poor preventive. With regard to the equipment of these out-port stations, there should be accommodation provided for the patient and attendants—say twelve persons—at such ports on the continent as might be agreed upon; and with regard to King George's Sound, which I judge to be one of the best places, there should be temporary buildings erected for such few passengers as it might be thought desirable to land. In Northern Queensland it might be sufficient to erect some kind of hospital, and to put up platforms for such tents as might be required; this would cost a mere trifle. This equipment should be presided over by a

first-

first-class officer, who can be depended upon to give accurate information of the sanitary condition of the ship and passengers on arrival. This officer should, in the case of King George's Sound, be under the immediate control of the Government of Western Australia, but should also be in the pay of the whole of the Colonies in consideration of the services he would render to them all; and it should be a part of his duty to communicate with each Government without the intervention of the head of the Government of the Colony. This is very necessary, because hitherto we have found that it was quite impossible for us to obtain accurate information as to disease ship-borne to the Colonies. We have depended upon newspaper reports, which are often inaccurate. In a large number of cases the information is supplied by interested persons, who either exaggerate the danger or do not scruple to try and cast ridicule upon the efforts made by the authorities to avoid it.

The Delegate for the Crown Colony of Western Australia (Dr. Rogers): As you have referred particularly to King George's Sound as the principal, and I may add, the most suitable point for quarantining vessels coming from India or through the Canal, it would be just as well for you to know exactly what has been done there in the past, and what the Government are prepared to do in connection with this subject as a federal matter. But I must impress upon you and this Conference that our Government will take no isolated action whatever, but as long as it is treated as a federal question we are prepared to undertake the responsibility of isolating infected persons and those who may become sources of infection to any of the Colonies, and also to bear our share of the expense in proportion to population. The position of King George's Sound is very suitable for such an outer quarantine station as you have indicated. There is an inner and outer harbour; and in the outer harbour there is an island between which and the mainland a small channel, at the most 100 yards wide, exists. This island is easily accessible from the sea, from the inner harbour, and also by land by a small boat, which would be drawn across by a rope from the inner harbour. There is a plentiful supply of wood for a moderate consumption, but it will be advisable to leave it to protect the houses from the cold blasts which are experienced. The long axis of the island measures about a mile and a half, and the soil is good—granite, with a strange mixture of limestone: so that in every way the position is adapted for isolation. In the inner harbour there is a quarantine station formed, originally intended for persons coming to Western Australian ports, and quite sufficient for the purpose. There are two buildings—one for the purpose of receiving the absolute sick, and one for receiving those who might have been in contact with them. In my opinion these could be made available for persons off a ship, who might become future sources of infection, and the sick could be accommodated at the outer harbour, which would give the residents of the Sound the greatest possible immunity from danger. Both positions are accessible in all weathers, and for all these reasons I would suggest the disposal of the possible accommodation in the way I have indicated. The practice at the Sound, in the case of a vessel's coming in with sickness on board, especially a P. & O. boat, is this: if there are any passengers for Western Australia they are taken off, but any patients for the other Colonies are sent on, thereby disseminating the disease for a certainty, and also increasing the risk of those on board. On the P. & O. boats the process of isolation has always been most efficient, and not altogether incapable of preventing the spread of infection. The "post office" on the deck is used as a hospital, and sentries are placed around to secure isolation; a sheet, thoroughly saturated with carbolic acid, being hung about the place, and the nurses' food and other necessaries passed underneath. With these precautions there has never been any spread of disease on board any of the ships; but still the infection might be imparted on board and not appear because sufficient time has not elapsed for incubation before the infected persons are landed at their destination; so that eventually they may prove absolute sources of infection. The Quarantine Station as proposed at King George's Sound would go a long way to prevent this sort of thing, and therefore it has my warm support. Any officer appointed to the station by the Colonies at large—for though he would have to be a servant of the Western Australian Government, the other Colonies would surely be willing to contribute to his salary—should report direct to the Health Departments of each Colony, without any intervention; and as I have stated before, provided the scheme was adopted on a federal basis, my Government is willing to do all it can to make it work successfully. Neither the Government nor the people of Western Australia are desirous of the Sound being made a depository of disease, but out of respect to the welfare of the whole of the Colonies they are ready to sink this objection and allow any form of disease to be landed. Our Government is also prepared to enter into consideration of a scheme for the maintenance of another station at Lizard Island, or somewhere else in the north, upon the same federal basis. They will be willing to do all they can for the Colonies as a whole, but I must repeat that they will have no isolated action.

The Delegate of Tasmania (Dr. Turnley): Although it would be a wise precaution to land cases of small-pox, I think it would be highly dangerous to grant a vessel pratique afterwards, even though at the time of arrival there may be no appearance of disease on board. We do not know how or when small-pox may be propagated, but I certainly think the vessel should in all cases undergo the usual term of quarantine.

The President: It is not intended to act with any less rigour with these vessels. So far as the New South Wales Government is concerned, they will have to undergo twenty-one days quarantine, but if this proposal is adopted this might date from the time of the last contact of the patient with the vessel. That will secure just as much immunity as we now get from quarantine.

The Delegate of Tasmania (Dr. Turnley): Then the ship will be disinfected at the out-port?

The President: Certainly.

The Delegate of Queensland (Dr. Bancroft): I do not think that the Queensland Government would object in any way to these outport stations under a federal scheme, but would endeavour to make them successful in every way. In the north the first port of call is Thursday Island, in Torres Straits, and there are several islands near where a small station could be established; but the situation would be quite unfit for landing a large number of passengers, because of the climate, the latitude being as high as 11 degrees. To do so would be cruelty; but as the chance of a number of infected persons requiring to be landed there is very remote, I do not see why some provision should not be made for (say) twelve patients with their attendants. At present there is no telegraph to Thursday Island, but I believe it is contemplated to put a cable down, so that speedy notice of disease can be given to the Colonies. There are hundreds of islands along the northern coast of Queensland where additional quarantine stations could be established, and from which information could be forwarded to the proper authorities. With regard to the law of the matter, however, I doubt if sick passengers for one Colony can be compelled to land in another unless some

some federal power is granted to the Colonies by the Imperial Government; but, at any rate, the ship has the power to land the sick at convenient places, provided proper quarters are provided for their reception.

Dr. McCrea: The sick.

Dr. Rogers: The law states the ships can only land sick passengers, but it can be altered.

The Delegate of Queensland (Dr. Bancroft): I doubt if we can compel suspected persons to land at these out-stations against their wish. In Moreton Bay, when an important ship comes in and it is not in a satisfactory condition, although there may be no actual sickness on board, the passengers are landed on Peel Island, a pleasant place a few hours' steaming from Brisbane, where they undergo a species of cleansing and a good blow, being taken up to town in a few days' time. I believe that in the neighbourhood of Brisbane some little island, in addition, will be secured for isolating small-pox cases.

The Delegate of South Australia (Dr. Paterson): I have, Mr. President, listened to your address with very considerable satisfaction, as it has put the matter in a somewhat different aspect from any that I have previously viewed it in. I draw the inference that the scheme is not so much for the establishment of what is generally understood as a quarantine station as of a quarantine hospital; that is, it would provide only for the removal of the sick and attendants, without making provision for the detention of the ship and the rest of the people on board. A scheme of this nature, if it can be carried out, will prove extremely beneficial to all the Colonies. It will shorten the whole period of quarantine, provided no fresh cases occur, and the removal of the actual living focus of disease will reduce their occurrence to a minimum. As the Delegate of Queensland has indicated, another station to intercept the Eastern traffic will be necessary, and I do not anticipate at either place any difficulty in discharging sick passengers. In the P. and O. Company's Handbook there is a special provision to meet the case, which reads as follows:—"If by reason of disease, bodily or mental, any passenger is pronounced on the written certificate of the ship's surgeon to be unfit to proceed, or likely to endanger the general health or safety on board, the Company shall have the absolute right to reland such passenger or to disembark him at any intermediate port at his sole cost, the Company engaging to convey him to his destination after convalescence." What the law on the subject is I do not know, but the Government Law Officers can easily determine that. Landing persons exposed to contagion on the mere suspicion of their having disease is quite another matter from landing the actually sick, and I am not aware the captain of a vessel has any power to do so—federal legislation will in my opinion be required to allow it. Then, remote quarantine stations are not the most desirable. When the Adelaide Quarantine Station was appointed in the first instance the question of the site was carefully considered. Kangaroo Island, some 90 miles from the city, and Wooraltie Island; on the other side of Yorke's Peninsula, together with situations closer to town were suggested, and the very feasible objection of their remoteness was urged against these islands. The telegraph overcomes the objection to some extent, but there is still the inconvenience attaching to the transit of stores and so forth. The mechanical distance is nothing, however, to the question of remoteness viewed on social grounds, for there is nothing calculated to maintain a healthy tone in quarantine, especially among several hundreds of people, more than the daily felt control of public opinion. It is almost impossible for abuses to spring up under these circumstances, and if they do they can be checked at once. Then, again, the feelings of the passengers have to be considered. Of course the individual must yield to the community; but when first and second class passengers come to be landed, they have considerable objections to be landed at any but a properly equipped quarantine station. I speak from experience, for the present efficiently equipped station at Port Adelaide is the result of representations made to the Government by Lord Kimberley, to whom complaints were made about the former accommodation. Lord Kimberley put it clearly that, if the Colonies made stringent quarantine laws, they must provide humane machinery for carrying them out; but provision of the kind indicated can scarcely be expected in a far-away outpost. As to Lizard Island, I think that nothing more than a hospital should be provided there, because of the heat; and so long as no further provision than I have indicated is made at the outpost stations, I will gladly support their establishment. As to the propriety of one Colony quarantining passengers going to another, when its port happened to be the first place called at, I think all the Colonies, with proper equipments, will do their duty to each other in that respect, provided the cost of maintenance does not fall on the receiving Colony. South Australia has for many years made a practice of doing this. As the scope of the proposal is limited entirely to the establishment of a quarantine hospital, I think I may conclude by saying that I believe the South Australian Government will give it their support.

The President: Of course no resolution of ours can compel the people to land, but they may do so.

The Delegate of Victoria (Dr. McCrea): I have been profoundly struck with the wisdom and thoughtfulness displayed by the President in the suggestions he has made, which I think will be most useful, and if carried out properly will tend to diminish the detention that ships are liable to at present; but I do not agree with him as to the size of the establishments proposed, as circumstances might arise in which it would be desirable to land the whole of the passengers, which would tend to a very considerable shortening of the quarantine. In Victoria the passengers are all landed, the first, second, and third class passengers being isolated from each other; if no cases break out within fourteen days in any one class, those belonging to it are released, while the others are released fourteen days after the appearance of the last case. Now, to provide for this class of station, the increased cost will only be at first, and I have no hesitation in saying that I think it would be well to incur this first cost, and provide accommodation for six or eight hundred people. Then I am strongly of opinion that the word "may" in the clause should be "shall." Of course, with regard to the great lines of steamers, they will see that it is to their interest to go to these places; but the masters of other vessels will in many cases make their calculations in such a way as to come to the conclusion that it will be to their advantage to come on and risk the detention at their port of destination. I really think the value of this resolution will be very materially lessened if it is not made compulsory. If we are to have a Federal Quarantine Act, it will be just as easy to make it compulsory, as not. I feel sure that all the Colonies would agree to pay their fair share of the expense. I will move the substitution of the word "shall" for "may."

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) seconded the amendment.

The amended motions were agreed to unanimously.

The Conference then adjourned until 2.30 o'clock p.m.

The Conference reassembled, pursuant to adjournment, at 2.30 o'clock p.m.

Clauses 16, 17, and 18 were read as follows:—

16. The quarantine of vessels neglecting to repair to the outport shall, in view of the increased danger so caused to the public health, be of a proportionately rigorous description.
17. When virulent Infectious Disease exists in any Colony, vessels leaving her ports shall undergo a sanitary inspection before clearance is granted.
18. What diseases are here intended under the term "virulent Infectious Diseases"?

After discussion, it was agreed that these three clauses should be withdrawn.

Clause 19 was read as follows:—

19. When a port is declared infected, it should be gazetted by all the Colonies simultaneously.

The President: This is a rather important clause. That united action is necessary is evident by the action taken with regard to the Seychelles. Some of our Colonies have declared these islands to be infected with small-pox; but this has not been done by all. Fortunately, only one line of steamers calls there, but that may not be the case with the next port, whose insanitary condition it may be necessary to proclaim; so it is, I think, important that we should have united action.

The clause was agreed to unanimously.

Clause 20 was read as follows:—

20. What shall be the effect of gazetting a port infected?

The President: I think this is a very important matter. In the Mediterranean the effect of gazetting a port infected would at one time have been that all vessels from that port would be subjected to forty days' quarantine, quite irrespective of disease on board; and the persons coming by the vessel would have to remain on board, or would be put on shore at a lazarette. The practice in New South Wales, however, has simply been that the vessel has been subjected to a more rigorous examination than usual, conducted at the Quarantine Station by daylight. Our geographical position is such that the time occupied in coming here from any port which is liable to be declared infected is usually greater than the period of incubation of any of these virulent diseases, although of course it might happen that this will not always be the case in the future. I therefore think it is desirable that some principle should be affirmed, or, if you like it better, it may be left to the discretion of the various Governments.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): According to the usual practice, wherever we know that disease exists there is a special arrangement by which the persons on board have to answer certain questions, and if these replies are not satisfactory there is quarantine established, even though no disease may be on board. Now, in relation to cholera, which has been prevalent on the Continent, we must remember that nowadays it does not take long to come here from Alexandria; and so we have issued special instructions to our officers to watch for suspicious cases of diarrhoea, and if any such are found on board the ship then goes into quarantine. If there have been cases of cholera on board, the people are subjected to a quarantine of seven days, the cargo, mails, and luggage being submitted to a high temperature; but if we got intercolonial cholera we should be very much more strict. The only difficulty is, that unless there can be some communication amongst the different Colonial Governments we are sure to fail.

After some further discussion, it was decided to leave the question unanswered, the matter being left to the discretion of the various Governments.

Clause 21 was read as follows:—

21. How may information of the health of Foreign ports be best obtained by the Australasian Colonies; how may important information of Foreign ports, and of each other, be best diffused among them; and what arrangement can be made whereby Australasia shall benefit by an interchange of current observations in State Medicine with the other countries of the world?

The President: I think there is perhaps no clause of our proposals of such great importance as this one. Hitherto we have depended entirely for our information as to the prevalence of disease upon the Press, and I may state that they have occasionally been wrong. For instance, recently in the case of Fiji, a Coolie ship arrived from India, the passengers on board had suffered from cholera, small-pox, and measles during the voyage. With the great care that is almost invariably exercised in the conveyance of Coolies from India, these diseases did not spread very much. The passengers were put into quarantine immediately, and were kept there for a month. In this Colony, and in all the other Colonies I believe, no notice was received from the Government of Fiji; but private individuals who were interested sent letters to the Press in Sydney to the effect that measles, small-pox, and cholera were prevalent at Suva. Naturally we came to the conclusion that cholera and the other diseases named had actually broken out amongst the natives of the islands, and we all proclaimed the Fijis infected, whereas there was not one single case on shore. It was most unfortunate for Fiji, because it annoyed the Government and materially damaged the commerce of the country. I think it desirable, therefore, that information regarding the health of these ports should be disseminated in the best possible way, and it will be for the Conference to say what is the best way. At present we have no information whatever from Europe or the United States, and although we cannot expect them to send seven cable messages, that is one to each Colony, I think we may fairly ask them to cable to one place in Australasia, saying that terrible diseases are actually prevalent. If this were done, it would be very reasonable that that one Colony should disseminate the information amongst the rest.

The Delegate of Victoria (Dr. McCrea): I think the President has stated the matter very clearly, and that there is little to add to his remarks.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): We all thoroughly endorse your remarks, and I think it would be well if you would take upon yourself the responsibility of placing yourself in communication with certain defined areas of the globe through official channels, so as to make more certain of getting the information. Each Colony should try and take up some particular area, and interchange the communications received, so as to keep up a system of intercolonial communication. Individually I am willing to take up any particular area that may be submitted to me, and the only Colony not represented here is New Zealand; but I feel certain that any official there would take the matter up.

The Delegate of Queensland (Dr. Bancroft): I fancy you will find that the only good source of information will be found the British Government, for if we undertake to search over the world for ourselves I am afraid we shall fail. There is no doubt that information reaches London from all parts of the world.

Dr.

Dr. Rogers: All the information we have received in Western Australia on the subject of cholera has come from the Crown.

The President: My experience is that "what is everybody's business is nobody's business." If there is one source from which information is to be obtained, and one person is appointed to obtain it, that person will do it without doubt. I think the ordinary official channel would be a bad channel, as the information would be likely to come a great deal too slowly, owing to the manner in which it is passed from one official to another, though possibly the best way to get it would be from the Colonial Office in England; still it is questionable whether as much care is taken by the Colonial Office to get this information as its importance deserves.

The Special Delegate of New South Wales (Dr. Ashburton Thompson): It seems to me that we in Australasia are to a great extent out of the scientific world, and that this is only in part due to our remote position. I think that it is chiefly due to the multiplicity of States with which a Foreign Government feels that it must communicate if it communicate with any one of the countries in Australasia. It is a fact that our respective Governments do not all of them receive such papers as the Reports of the Local Government Board, with their numerous Appendices, Reports of Commissions or of Select Committees of the Parliament of Great Britain; Reports of the National Board of Health of America or of the various State Boards of Health; nor the special Reports of the various Governments of the world upon matters of hygiene—together constituting the material upon which scientific hygiene is based. We do not, as a matter of fact, get these Reports, and they are the very things we most want. But I think that, if some one person could be appointed on behalf of the whole eight Governments to maintain communication with the bodies publishing such Reports, he could easily obtain regularly a sufficient number of copies for distribution.

Dr. Rogers: I will then withdraw my previous suggestion, and would ask whether it would not be possible to have a Minister for Health, who need hold no seat in the Cabinet, but who would hold a somewhat analogous position to that of an Under Secretary. He would be a permanent Minister of Health, and would be in official communication with all British dependencies, and be able to command much valuable information. This is not a new idea with me—I have discussed it with a good many people who have agreed with me on the matter.

The Delegate of Victoria (Dr. McCrea): At the present moment London is the centre of the universe, and all the information necessary could be best obtained from there. I think we might recommend the respective Governments of the Colonies to request the Agents-General to transmit any intelligence of disease in any part of the world that would be likely to affect us.

The Delegate of South Australia (Dr. Paterson): I agree with the Delegate of Victoria that the Agents-General should be asked to forward such information as may seem desirable. So far as South Australia is concerned, Sir Arthur Blyth has kept the Health Board in Adelaide fully supplied with the Reports of the Local Government Board.

At 4:30 o'clock p.m. the Conference adjourned, until 10 o'clock a.m. of Friday, 19th September.

THIRD SESSION.

FRIDAY, 19 SEPTEMBER, 1884.

The Conference met in the Executive Council Chamber, pursuant on adjournment.

Were present:—

The Delegate of New South Wales, acting for the Crown Colony of Fiji, the President, in the Chair.
 The Special Delegate of New South Wales.
 The Delegate of Queensland.
 The Delegate of South Australia.
 The Delegate of Tasmania.
 The Delegate of Victoria.
 The Delegate of the Crown Colony of Western Australia.

Was absent:—

The Delegate of the Crown Colony of Fiji.

The Conference was called to order by the President at 10 o'clock a.m.

The minutes of the second session were read and confirmed.

The consideration of clause 21 was resumed, when, on the motion of *The Delegate of Victoria* (Dr. McCrea) seconded by *The Delegate of South Australia* (Dr. Paterson) it was resolved:—

That it be suggested to the Governments of the various Colonies that they do instruct their several Agents-General in London to obtain all the information possible relating to the outbreak of contagious and infectious disease in various parts of the world and communicate the same to one central Colony,* which shall disseminate the information among the other Colonies.

The Delegate of Tasmania (Dr. Turnley) moved:—"That this Conference be named 'The Australasian Sanitary Conference of Sydney, New South Wales, 1884.'"

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) seconded the motion. On being put to the vote it was carried unanimously.

Clause 22. Emigrants from Great Britain should be required to present a certificate at the Depot in that kingdom, signed by the Medical Officer of Health of the district from which they come, declaring the state of the public health in that district as to Infectious Disease.

* Finally amended "to the Colony of New South Wales."

The President: This a most desirable measure, and the necessity for it has been clearly shown in the case of vessels which have arrived from Great Britain in this Colony. In my experience, the great difficulty has been in dealing with vessels infected with measles and scarlet fever, diseases which are often prevalent on board emigrant vessels. Emigrants should be dealt with much more rigorously than other ordinary passengers, because the Government have the power, and because they come out at the Government expense, and with a sort of official certificate of health are sent away to various parts of the interior. It is not at all uncommon for local outbreaks of disease to occur 50 or 100 miles away from any town, and these have often been traced to infected vessels of this kind, the death rate in some cases being as high as 25 per cent. at the outset.

Dr. Bancroft: What diseases do you refer to particularly?

Principally measles and scarlet fever. In this connection I may say that hitherto the New South Wales Government has endeavoured to get as much information as possible as to the health of emigrants before they leave England; but it has always been somewhat untrustworthy, so that extra precautions have to be adopted on their arrival in Sydney, and at present all immigrants' effects are disinfected at our Quarantine, whether there is disease on board their ship or not, for which purpose expensive apparatus, equal to dealing with 800 or 1,000 persons' effects in a couple of days, had been provided.

Dr. Paterson: Do you pass them through a hot-air chamber?

Yes, all the woollen things are put into the hot-air chamber, or are treated with nitrous fumes, while the linen things are cleansed thoroughly by boiling. All this, of course, does not secure absolute immunity, but our past experience has led a good many of us to believe that if we could prevent the advent of immigrants affected with these diseases, it is likely that they would die out here altogether, for we have in some of the Colonies had one or two years during which not a single case of scarlet fever has occurred.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I understand that it is provided in the proposed Bill of Health that each particular emigrant before leaving the United Kingdom should present to the officer in charge a certificate that he came from a district where no infectious disease existed, and that the same certificate should be presented at his port of destination.

The Special Delegate of New South Wales (Dr. Ashburton Thompson): The whole of Great Britain is divided into districts, each of which has a Medical Officer of Health attached to it; this official has to make a return of the state of the public health in his district, and he is therefore well acquainted with the facts. It is suggested that each immigrant should supply himself with a certificate signed by the Medical Officer of Health for the district from which he comes. If, then, that showed that there was infectious disease at the place he was last from, his effects would be subjected to special washing and disinfecting before embarking, and he and his family would be compelled to submit to a special scrutiny at the Immigration Depôt. The intention of the clause is that a fresh obstacle shall be put in the way of that accident which is so frequent at present, the breaking out of measles and scarlet fever on board emigrant ships and the introduction of fresh cases of those diseases to this country.

Dr. Rogers: I suggest that clauses 23 and 24 should be considered together with this clause.

It was so ordered.

Clauses 23 and 24 were read as follows:—

23. If Small-pox exist in the district from which any emigrant comes, every such emigrant shall be vaccinated or re-vaccinated as the case may be before he shall be allowed to embark.

24. If any other Infectious Disease exist in the district from which any emigrant comes, all his clothes and effects shall be disinfected before he is allowed to embark.

The Delegate of Tasmania (Dr. Turnley): I think it necessary to have something of this sort, and in Tasmania instructions have been given to have every emigrant before he goes on board ship examined, as in nearly every instance measles has been found to break out on board.

The President: I think it would be a very simple matter to carry out the resolution; for if the possession of a certificate of health were compulsory there would be no difficulty in obtaining it.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers), moved the adoption of the clauses in the following form:—

That emigrants from Great Britain shall be required to present a certificate of health at the Depôt in that Kingdom, signed by the Medical Officer of Health of the district from which they come, declaring the state of public health in that district as to infectious disease.*

If small-pox be epidemic in the district from which any emigrant comes, every such emigrant shall be vaccinated or re-vaccinated, as the case may be, before he shall be allowed to embark.

If any other infectious disease be epidemic in the district from which any emigrant comes, all his clothes and effects shall be disinfected before he is allowed to embark.

The Delegate of Tasmania (Dr. Turnley): I have pleasure in seconding that motion.

It being put to the vote, the motion was agreed to unanimously.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) moved:—

That it shall be the duty of the Surgeon on board any passenger ship destined for Australasia to supply himself with vaccine lymph, either human or bovine or both, sufficient to vaccinate or re-vaccinate the whole of the passengers and crew.

That it shall be the duty of the Surgeon on board any passenger ship in which small-pox occurs during the voyage to vaccinate or re-vaccinate the whole of the passengers and crew on board such ship.

The Delegate of Tasmania (Dr. Turnley): I second that.

Being put to the vote, these motions were agreed to unanimously.

The Delegate of Queensland (Dr. Bancroft): I beg leave to move—

That it is important to discourage as far as practicable the advent of Chinese population in Australasia, as we are of opinion that from such immigrants leprosy may become established as an endemic disease.

I make this motion because among the special subjects to be dealt with this is not included, and it is one upon which I think we should come to some definite resolution. In Victoria, New South Wales, and Queensland, there are a large number of cases of leprosy among the Chinese population; I cannot say how many, but enough to attract the attention of everybody to the subject. The Delegate of Victoria can tell us how many there are in that Colony; but in Sydney there are already five lepers, and in Brisbane I know of one just now, besides whom there are some further up in Northern Queensland. The history of the

* Finally amended by adding the words, "and that the Agents-General be instructed to give effect to this clause."

the spread of leprosy in the Sandwich Islands proves that the Chinese have taken it there ; and it would be a frightful calamity if the same result happened in Australia, where we are going to have an enormous population of Europeans in the future. Of course the causes tending to promote the spread of the disease are very occult, and no accurate opinion can be given as to how contagion is effected. I have examined many lepers without apprehending that I should take the disease ; but there is some way by which contagion passes. It is now known, in reference to elephantoid disease, that it passes by means of parasitic worms conveyed by blood-sucking flies to water which persons afterwards drink ; filtration and boiling the water, of course, being remedies against the disease ; but in the case of leprosy it is different. The contagion is certainly not through the air, nor is it easy by contact ; but still the experience of the Sandwich Islands shows that it can be conveyed by one diseased person to another, so that a resolution of the sort I have proposed would help the country to a greater degree of safety from the disease than it possesses at present. I think it is time that we should take some definite step in the matter.

The Delegate of Victoria (Dr. McCrea) : In Victoria some years ago, while I was in office, there were thirty cases of leprosy in Victoria, but now there are only twenty. The people of Ballarat are complaining very much at the present time about the number of lepers there, and in no part of the Colony are these leprous Chinese desirable citizens. I do not think the disease has ever been communicated to a European in Victoria, but there is no doubt, from the evidence at hand, that such a thing is possible.

Dr. Bancroft : In two cases in Queensland, leprosy has been imparted to Europeans. I have no doubt of that. In many other parts of the world the same thing has occurred, and in Norway the disease is very prevalent. In Victoria segregation of the lepers has been found to materially lessen the disease, and the Government believe that it will ultimately stamp it out altogether. I agree with the Delegate of Queensland as to the importance of keeping it out of the Colonies, but what means are there of distinguishing leprous persons when they come into it? Six or seven years after a Chinese has come to the Colony leprosy may make its appearance in him without his ever having come into contact with other lepers ; and, this being so, how are the Colonies to act? The Chinese are very useful citizens in some respects, but still some practical means ought to be adopted to keep this dreadful disease away from our shores.

The Delegate of Queensland (Dr. Bancroft) : I think I did mention that there had been one Chinese leper who lived in Brisbane and died ; there is now another leper, a European, in the Colony, and although the disease does not seem to be very much propagated except amongst the Chinese themselves, in all probability as the population becomes more dense the disease will become an established trouble. I have been at the Cape of Good Hope, and I looked into the thing very carefully there, and I found that there were not only adults but children who were lepers. Some of these are taken possession of and are taken to Robin Island, where they are looked after, but the number of lepers in that Colony is increasing very considerably, so extensively in fact that now I fear it is too late to take any measures that will be of any service. They are to be found amongst the Europeans as well as Africans.

Dr. Rogers : That is, the disease is on the increase at the Cape, and it is communicated to Europeans.

Yes, there are numbers of Europeans suffering from it at the Cape. Then there are lazar stations at Singapore, which is now a Chinese Colony under the British flag. From what I have seen in Cape Colony I am quite sure the disease would spread here, and very extensively too.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) : I thoroughly endorse all that the gentlemen who have already spoken have said. If the Delegate of Queensland will make his motion stronger, and bring forward proofs such as he evidently has to show that leprosy can be communicated to Europeans, he would strengthen the hands of the Government of each Colony to take up this question in a proper spirit. There is no doubt that the disease is hereditary, and by the prevalence of prostitution of white women to Chinese, and by marriage, it might become endemic in these Colonies, for it is not limited by climate in any way.

Dr. Bancroft : We have never had the disease amongst the aborigines in Queensland.

No, and why is that? Simply because the black women will not cohabit with the Chinese. It appears that there is sufficient evidence to warrant the belief that long contact with a patient, even as an attendant, is sufficient to communicate one or other form of the disease. Of course there is no doubt that the disease may be dormant in many of the Chinese who come to our Colonies ; but as the Delegate of Queensland seems to have made a study of this question, and probably knows more about it than any one else here, I would suggest that he should prepare a special paper on the subject, to be read before the Conference, and then some legislation may follow.

The President : I think the general terms of the proposition seem to commend themselves to every one, but no proof has yet been offered that leprosy comes alone from the Chinese. That they are principally affected by it in this country there is no doubt, and at the present time there are five Chinese lepers at the Lazaretto in New South Wales. There are also some Europeans suffering from it who are not under restraint. I have met them myself, and the last time I saw one, which was some years since, the man had the disease as pronounced as any Chinese I have ever seen. That leprosy is infectious there is not much doubt, and the Chinese, who are better acquainted with it than any one else, affirm it. Since the Delegate of Queensland seems to have more information on the subject than any one else in the Conference, perhaps he will commit his views to writing, and they can be added to the Report as an Appendix. To discuss the exclusion of the Chinese altogether from the country is a matter which scarcely comes within the scope of the Conference ; and in addition, the Chinese are not more prone to leprosy than some other nations—Norwegians and Hawaiians for instance ; and I do not think that we should treat them in any different manner. Another reason why I should view these proposals with caution is the statement that has emanated from the Delegate of Victoria, who says that whereas in Victoria some time ago there were thirty lepers, at the present day there were only twenty cases. This I think, shows that the lepers are dying out, and that the disease is not spreading.

Dr. McCrea : They were isolated when I took charge ; but one case was in the Castlemaine Hospital for seventeen years, and no disease was communicated.

The

The President : I think that goes to show that it is not a virulent contagion. I think that pronounced lepers should be segregated from the rest of the community, and that other countries ought to be considered, amongst which is the Hawaiian Kingdom, where, if anything, the disease is much more prevalent than in China.

Dr. Bancroft : I would refer those desirous of further information to an article in the *Nineteenth Century* for August of this year, which it seems is to be followed by another in a future number. That the disease is capable of being stamped out we have evidence in Great Britain, where leprosy existed not very long ago ; some few lepers lingered until quite recent time.

Dr. Rogers : It is impossible to say what damage has been done, because the disease is hereditary and may break out at any period of life ; it appears to be as certain as in most cases of phthisis.

The Delegate of South Australia (Dr. Paterson) : I entirely endorse the remarks relative to the inadvisableness of singling out a special race. I have never seen a leper in a Chinese city, although they are common enough in Bombay, and in fact in India generally. I think we should discourage all leprous races from coming to Australia.

The President moved as an amendment:—"That, in the opinion of this Conference, a special examination should be made of all Indian and Chinese immigrants upon their arrival in Australasia, in order to ascertain the presence or absence of leprosy among them."

The Delegate of South Australia (Dr. Paterson) seconded the amendment.

It being put to the vote, the amendment was agreed to.

Ayes—New South Wales, Tasmania, South Australia, Western Australia, Fiji.

Noes—Queensland, Victoria.

The original motion, being put to the vote, was negatived.

Ayes—Queensland, Victoria.

Noes—New South Wales, Tasmania, South Australia, Western Australia, Fiji.

The President : As we have now reached the subject of small-pox, it is, I think, important that as a preliminary to its discussion we should consider the subject of vaccination, which is included under the first part of Clause 8. You are aware that compulsory vaccination laws are in force in all the Colonies but New South Wales and Queensland. When small-pox visited Sydney in 1881 the disease found the Colony exceedingly unprepared for it, inasmuch as for many years before the practice of vaccination had been almost disregarded. The ravages of the malady were therefore unprecedentedly severe ; and, had it not been for the prompt and vigorous measures which the Government took at the time, there can be very little doubt but that small-pox would have become an endemic as well as an epidemic disease in New South Wales, and that it would not have been long before it became prevalent in all the Australasian Colonies and Polynesia. Over £200,000 was spent by our Government on that occasion in our efforts to eradicate the disease, and I believe that it was well spent, but that such an expenditure was necessary appears to me to be a disgrace to the Colony. There seems to be a very great prejudice on the part of those who are quite ignorant of the subject against vaccination, and a number of agitators are continually drawing the attention of the public to the fact that occasionally vaccination has proved the means of propagating disease. This, no doubt, is a fact but such a thing does not happen, according to Dr. Marson, the most eminent authority on the subject, in one case out of a million, and then only through the carelessness of the operator in selecting the lymph. In consequence of this prejudice and agitation on the part of persons who interest themselves in making vaccination appear in a bad light, the Government have neglected it ; but that the apathy of the people is not due to a fear of it itself or want of faith in its efficacy is apparent from the fact that during the year 1881, when small-pox was amongst us, no fewer than 68,962 persons were vaccinated in the Colony ; but when the disease was stamped out, and the immediate fear of it was removed, the vaccinations very soon fell back to 2,188 in 1882, and about a similar number in 1883. In 1882 about 28,000 children were born in New South Wales, and in 1883 about the same number ; many of these died within the first year of life of course ; but out of something like 56,000 only some 5,000 were vaccinated, so that there was a large field for the ravages of the disease. From 1861 to 1872 there were 465,411 children born in the Colony, while only 223,000 of the whole population, including re-vaccinations, were vaccinated by the Government officers, or less than half. Private medical practitioners certainly had carried on vaccination, but to a limited extent. From a circular I sent out some time ago, I found, however, that during two years and a half 133 of the medical practitioners of the Colony did not vaccinate a single case, and I believe the same state of affairs exists at the present time. Every effort has been made to persuade the people to be vaccinated, but they have neglected to do so ; and it is because of this that such rigorous measures are adopted to keep out disease—measures which, so long as I have anything to do with the matter, will be continued. This question is of very great interest to all the other Colonies, because their efforts to repel small-pox are likely to be completely nullified by New South Wales neglecting to vaccinate, and I believe that it is in consequence of this neglect that it has been visited by the disease a great deal oftener than any other Colony. Small-pox has occurred in ships bound for this Colony forty-six times in thirty years, and 230 or 240 people from ships have suffered from it on the ships or at the Quarantine Station. On two occasions it has obtained a foothold in the Colony, and it has only been eradicated by the harsh measures which the Government found it necessary to adopt ; and if the people continue to refuse to submit to vaccination, those measures will have to be increased in rigour, or at any rate still greater powers placed in the hands of the health authorities. Seeing then the importance of vaccination, I should like the Governments of New South Wales and Queensland to make it compulsory within their territories.

The Delegate of Victoria (Dr. McCrea) : I need hardly tell you, Sir, that there is only one way of getting rid of small-pox ; the different attacks we have had in Victoria have only been stamped out by vaccination and re-vaccination—I am satisfied of that ; we have been fortunate enough in Victoria to be successful on several occasions in stamping it out in a short time. We had not the power to re-vaccinate, although we have had compulsory vaccination for a long time ; still we used all the arguments we could to induce persons to submit to re-vaccination, and I am glad to say we were tolerably successful. I may recall to you some of the figures referring to small-pox before vaccination was discovered, before even inoculation was introduced. The number of deaths then from small-pox in every thousand deaths from all causes was sixty. During the inoculation period introduced—if I remember rightly—by Lady Mary Wortley Montagu, the proportion of deaths from small-pox was ninety-three in the thousand. When

vaccination was introduced by Jenner, and before it became compulsory, the deaths from smallpox-fell to 26 per 1,000. The mean annual death-rate from small-pox diminished from 571 per million in 1838 to 82 per million in 1878. In the former year vaccination was not compulsory, while in the latter it was, and had been for some years. Now, during this period there was no diminution in the deaths from other infectious diseases—in fact some of them rather increased, thus showing that the diminished mortality of small-pox was entirely owing to the vaccination. In the period from 1836 to 1867 the mortality percentage of unvaccinated cases was 37, and in well-vaccinated $7\frac{1}{2}$ per cent. in the Small-pox Hospitals in London. The immunity given by vaccination from infection was in exact proportion to the effects of vaccination. One mark on the arm gave 21 per cent. of deaths, two marks 11 per cent., three marks 7 per cent., four marks 5 per cent., while in those who were more perfectly vaccinated a still lower mortality was observed. Re-vaccination gives still more satisfactory results. Dr. Marson reported that during thirty-five years not a single nurse or servant in the Small-pox Hospitals in London ever took small-pox after re-vaccination, and this was borne out by the facts of the recent epidemic in that city: the few who refused to be vaccinated all took the disease. This should carry conviction to the minds of all persons as to the value of vaccination. It has been alleged that syphilis can be conveyed by vaccination, but that can only be so through the carelessness of the operators, and the only case I ever knew of occurred in that way. All danger on this point, however, has now been done away with since it was discovered that persons can be inoculated from the calf, and so the last obstacle is removed to compulsory vaccination. I have strong opinions on this subject, and sometimes use strong language to express them, but there is no language too strong to use on this subject. Any Government which neglects to protect a people by compulsory vaccination against small-pox invites death to the land. I will therefore move,—

That in the opinion of this Conference the welfare of the whole group of Australasian Colonies demands the enactment of compulsory vaccination laws in each Colony without any delay. I do not believe there will be really any serious opposition, and I believe that if the country were polled to-morrow the same result would be obtained as was shown when the House of Commons rejected the proposals of the anti-vaccinators by 286 votes to 16.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I have great pleasure in seconding the motion, as I believe it is one of the most important made or to be made during the whole session of this Conference, and that it will be productive of the greatest benefit to the whole of the Colonies.

It being now 1 o'clock, on motion of the President the discussion was adjourned, in order that each Delegate might have an opportunity of expressing his view of this subject independently.

The Conference adjourned at 1 o'clock p.m., until 10 o'clock a.m. of September 20th.

FOURTH SESSION.

SATURDAY, 20 SEPTEMBER, 1884.

The Conference met in the Executive Council Chamber, pursuant on adjournment.

Were present:—

- The Delegate of New South Wales, acting for the Crown Colony of Fiji, the President, in the Chair.
- The Special Delegate of New South Wales.
- The Delegate of Queensland.
- The Delegate of Tasmania.
- The Delegate of Victoria.
- The Delegate of the Crown Colony of Western Australia.

Were absent:—

- The Delegate of South Australia.
- The Delegate of the Crown Colony of Fiji.

The Conference was called to order by the President at 10 o'clock a.m.

The minutes of the third session were read and confirmed.

The discussion on the motion of the Delegate of Victoria with regard to compulsory vaccination was resumed.

The Delegate of Tasmania (Dr. Turnley): The history of the vaccination question in Tasmania is very much the same as its history in New South Wales as related by the President yesterday. Although we have a compulsory law it is found to be inoperative, because we have no person appointed to conduct the prosecutions, and the apathy of our people proved to be just the same as it is here. For several years not more than a few hundreds were vaccinated; but during the small-pox scare in 1881 the people flocked to the vaccinators, and some 10,000 were vaccinated; but on its cessation the former neglect of vaccination recurred. In my opinion the Press has a good deal to do with this state of things, as the papers continually publish the letters of anti-vaccinationists, setting forth what they call the horrors of vaccination. However, an amending Act was passed in 1882 making stricter provision for compulsory vaccination, and we are now acting on that; but there is a great reluctance on the part of the police to institute prosecutions and on the part of the Magistrates to carry out the law. Still I hope that notwithstanding all this we shall arrive at success, and in the course of two or three years that we shall be able to put the whole of the island in a state of protection, so that we may defy small-pox. The system for some time adopted in Tasmania was the appointment of a local vaccinator for each district in the island; he was allowed travelling expenses at the rate of a shilling a mile, but owing to the paucity of children brought for vaccination these travelling expenses came to something enormous. In one instance one of our vaccinators travelled several miles and vaccinated three children; of course he had to go again on the eighth day, when he had to vaccinate another child, this of course necessitating another trip a week later. This went on until, in the end, the cost for vaccinating these children came to £9 each, and we thought it was quite time to put an end to that

that system. The Government were at last induced to alter it. Now we have two itinerant vaccinators, one for the north and the other for the south portions of the island, and this seems to be sufficient. Under the first system the results were unsatisfactory, as the vaccinators were paid only for successful cases. To have not a single case of failure, in my experience, is a thing that has occurred to very few. In the future our great difficulty will be to bring up the arrears, for there will be no difficulty in vaccinating the children as they are born, for our births in the whole island are only between 3,000 and 4,000 annually, and were the arrears brought up it would only amount to some 2,000 each during the year, and this would be a very easy task. I am, I may say, determined when I get back to see that the law is carried out. With regard to the transmission of disease by vaccination, we know that if the necessary care is taken and if pure lymph is used there is no danger. It is the easiest matter in the world to draw blood in such minute quantity as to be overlooked unless care is used, and it is only when this has been done and when there has been gross neglect in the choice of the vaccinifer that disease can be transmitted. I know that Dr. Cory of the Local Government Board (England) put this to the test, vaccinating himself three times from syphilitic patients without any appearance of disease, but the fourth time, having selected a child obviously severely syphilitized and entirely unfit except for the purpose of this experiment, he did contract the disease.

The President: He tried, for this experiment conducted upon himself, four children with syphilitic sores all over their bodies,—such as no sensible man would think of in ordinary practice. This instance of heroic self-sacrifice in the interests of science shows that even under these conditions it is not easy to transmit disease.

Then if the vaccinator took proper precautions he would never select a vaccinifer without inquiring minutely into the history of the child, and if that is done I see no reason to believe that disease will ever be transmitted. I think if some gentleman would undertake the task of preparing a paper to show the benefits of vaccination proving that there is no danger in the operation it would confer great benefit upon the public. (Appendix D.)

The Special Delegate of New South Wales (Dr. Ashburton Thompson): A memorandum prepared by Mr. Ernest Hart for the Parliamentary Bills Committee of the British Medical Association on this subject is a very admirable, forcible, lucid, and simple statement of the facts which the Delegate of Tasmania wishes should be laid before the public. It has not only been accepted by the profession in general, and by the National Health Society of London, which has distributed either gratuitously or at a merely nominal cost, some 110,000 copies, but it has also been accorded the exceptional honour of being twice revised by the Local Government Board and of being adopted as an official document of that Board. I think that we could not do better than adopt it ourselves. (Appendix C.)

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I should like to draw the Delegate of Tasmania's attention to the fact that the medical men in sending in their returns would only return the successful cases, leaving the vaccinations that were unsuccessful out of account.

Dr. Turnley: No, they are bound to send in a report of every case, and say whether it was successful or not.

Well, I have never had an unsuccessful case except twice in my life; in fact I used to stick to them for months until I did succeed. In Western Australia we have a compulsory Act, which is thoroughly and efficiently carried out; the police make inquiries and every case is reported, and when prosecuted, offenders are fined.

The Delegate of Queensland (Dr. Bancroft): In Queensland there is no compulsory law, but vaccination is gratuitously provided for any person who chooses to avail himself of it; and from time to time, when small-pox threatens, a large number of children are vaccinated; and then comes a story from some crotchety anti-vaccinationist which is told in the Press, and the poor mothers are frightened by it for their children. By that time the small-pox is gone, and for months together we vaccinate very few. We know very well that the people in general have no objection to be vaccinated; and that this is the case in Sydney also is shown by what the President told us—that in one year, when small-pox was epidemic, 58,000 were vaccinated, although at other times the average number of vaccinations per annum is about 2,000 only. If we could get people to listen to the still small voice of reason instead of allowing themselves to be frightened by the anti-vaccinationists, they would not hesitate to get for themselves the protection which vaccination affords. The figures quoted by the Delegate of Victoria yesterday are very startling. They are figures that can hardly be quoted too often to people who seek to be protected from small-pox, but who do not know whether they are not rushing into some new danger. I am quite prepared to strongly press upon this Conference that compulsory vaccination is a necessity at the present time.

On being put to the vote the motion was agreed to unanimously.

Clause 25 was read as follows:—

25. A vessel infected with small-pox is one which has carried a case of that disease during the voyage.

The President: It is necessary that there should be some definition upon this point, because a vessel coming from a small-pox centre is not necessarily a small-pox vessel, although it is known that clothing and even letters may be infected. Still, in point of fact, these articles very seldom are infected in such a way as to cause the spread of the disease. Small-pox is almost invariably conveyed in the persons of those who are infected by it. Although we have had small-pox in New South Wales forty-eight times, either on shipboard or in quarantine, it has been brought I think forty-six times in the persons of those who were suffering from the disease, while only twice has it appeared in such a way that it could not be directly traced to a person who had had the disease. One of these cases was that of a Chinese child who was discovered to be infected, and it was this case which caused the severe outbreak in 1881. It could not be fixed upon any one person who had arrived. The fact that the millions of letters and newspapers and articles of ready-made clothing that have arrived in the Colony have not caused an outbreak is a clear intimation that it is not likely to be conveyed in this way, as it can hardly be supposed that some of these at any rate have not passed through the hands of persons affected. So I think we may very fairly adopt the definition given in this clause as that expressing what we mean by a vessel infected with small-pox.

The Delegate of Queensland (Dr. Bancroft) moved the adoption of the clause.

The Delegate of Tasmania (Dr. Turnley) seconded the motion, which was agreed to unanimously.

Clause

Clause 26 was read as follows:—

26. Persons able to show a certificate of re-vaccination at any date, being not more than previous to their arrival in an infected ship, shall not be detained longer than may be necessary to cleanse and disinfect their clothing on shore.

The President: I think it follows, as a matter of course, that the gentlemen who have expressed their belief in the efficacy of vaccination will give their conviction practical effect by saying that those who have subjected themselves to re-vaccination, and in whom this re-vaccination has run a normal course, have done what the authorities consider necessary for the prevention of the disease, and hence should be detained for a shorter period than those who have not been vaccinated or re-vaccinated. With regard to the period of isolation, I may say that during the epidemic of 1881 there were several cases in which eighteen, nineteen, and twenty days elapsed between the occurrence of different cases. I do not think it possible to argue that they were infected directly from the persons of those who had been previously removed, because it is possible that they may have come in contact with clothing which may have retained the infection; but I do not think that is so likely as that they were infected by contact with persons.

The Delegate of Victoria (Dr. McCrea): I agree with everything that has fallen from the President; our object is to act justly, and we do not want to inflict any inconvenience upon vessels or on passengers that can be avoided. Nothing can show this better than this clause, and it will go a good way to satisfy the public of the advantages of re-vaccination.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): Am I to understand that if the whole of the passengers submit to be re-vaccinated the period of quarantine would be done away with? While a person who is re-vaccinated is in no danger of contracting the disease, he may have imbibed the infection and may carry it with him.

The President: This will not apply to those who are re-vaccinated after their arrival or after becoming infected, but to persons who during the last six months or so have been successfully re-vaccinated, and who would not therefore be liable to infection. Persons who, after arrival, were re-vaccinated would certainly need to go through not less than fourteen days detention, because that length of time must elapse before it can be known whether re-vaccination is successful or not. Of course no practicable amount of quarantine or of vaccination gives a person absolute immunity. You can hardly expect from vaccination an amount of perfection which no other human institution possesses; but I think that if a person has done all in his power to protect himself and those associated with him he should be allowed the full benefit of his foresight.

Dr. Rogers: If a man is vaccinated or re-vaccinated, that is a protection to him; but if he comes in contact with the emanations from small-pox he is just as much a carrier of the disease as if he had not been vaccinated.

Dr. McCrea: He is washed and cleansed.

Dr. Rogers: Then why have quarantine at all? This proposal does not strike me as being scientific or logical.

Dr. Turnley: The person is re-vaccinated before he enters the vessel at all, and if the re-vaccination be successful we believe that he is not susceptible to the disease. If he does not take it he cannot carry it except by his clothing or hair, and before he is allowed to go he is cleansed.

Dr. Rogers: You must bleed him to death and burn his blood and body before you can get rid of the disease. We all know that nurses and doctors convey the disease to those who are susceptible of taking it.

Dr. Ashburton Thompson: No.

The President: I have never heard one single instance of it.

Dr. Rogers: How did I get it myself?—I was in contact with no person that had small-pox.

Dr. McCrea: That you know of.

Dr. Rogers: That I know of, of course. There was small-pox some distance from me, but that was all. I am a believer in this theory, and I feel certain that by this proposal you will be opening the gate to the introduction of disease.

Dr. Bancroft: I think we should bear in mind the fact that, while persons recently re-vaccinated will not take small-pox they may imbibe the poison, but it will not grow and develop in their bodies. If, however, a person is not vaccinated he does develop it, and can give it out in quantity. The chances are ten thousand to one that re-vaccinated persons will not convey the disease to any one else, and the ordinary care that would be taken when a ship arrives here would be sufficient to warrant the authorities in letting them loose.

Dr. Ashburton Thompson: I begin to understand the point raised by the Delegate of the Crown Colony of Western Australia, which I confess has puzzled me until now. It is that a person not himself ill of small-pox, and not having in his clothes or mechanically adhering to his body, the infection of small-pox may, in a quasi-physiological way, absorb into his blood and give off by his breath the cause of this disease. This manner of carrying infection is asserted of cholera. I have never heard it asserted of small-pox, and, in default of evidence, I cannot think the point worth discussion.

Dr. Rogers: But you have heard it asserted of scarlet fever?

I have not; and I point out that upon such a point it would be exceedingly difficult to obtain satisfactory evidence. The evidence in the case of cholera is derived from a single instance, as far as I remember, and amounts to no more than a presumption after all. But we are speaking of small-pox, and if the point is to be discussed the Delegate of the Crown Colony of Western Australia should produce evidence. However, there is a practical objection to this clause, which is that satisfactory evidence of the genuineness of the certificate of re-vaccination produced may not be attainable.

The Delegate of Victoria (Dr. McCrea): I should like to remove all doubts as to the propriety of adopting this clause. The matter is a practical one, and resolves itself into two parts—first, effective re-vaccination; and second, thorough disinfection of the clothes and hair. I think the evidence I brought before you yesterday will prove that the objections raised by the Delegate of the Crown Colony of Western Australia are not justified by facts. Sir James Paget said of these diseases, "that they caused the elimination of some substances from the blood which rendered the person insusceptible to the same diseases again."

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I am anxious to be practical and to see our every act go forth to the people with unanimity. I may have spoken theoretically, but my objection

objection was practical, as I consider by allowing persons by virtue of re-vaccination to go abroad you are neutralizing the principle of quarantine.

The President : The clothing will be baked at a temperature of 250° and will be subjected to strong nitrous fumes or sulphurous fumes. All the security it is possible to get will be obtained in three days as well as in fourteen.

Dr. Rogers : I will accept three or four days, but not four or six hours. I withdraw my opposition to the motion, but I should like to see the time of detention for disinfection fixed at three days.

The Delegate of Queensland (Dr. Bancroft) moved the adoption of the clause in the following form :—

That persons able to satisfy the Health Officer that they have been successfully re-vaccinated at a date being not more than six months previous to their arrival in an infected ship, may at the discretion of the Health Officer be released after such time, *being not less than three days,** as is necessary to cleanse and disinfect their clothing on shore.

The Delegate of Victoria (Dr. McCrea), seconded the motion. On being put to the vote it was agreed to unanimously.

Clause 27 was read as follows :—

27. That persons arriving in an infected ship not being themselves affected shall be re-vaccinated. It was ordered that this should stand before clause 26. On being put to the vote the clause was agreed to unanimously.

Clause 28 was read as follows :—

28. Those whose vaccination runs a normal course may be released on the day.

The President : It is perfectly clear that where a person remains unvaccinated or declines to be re-vaccinated he should be detained a very much longer time than those who submit and whose vaccination runs a normal course. I am quite ready to allow that where a person is vaccinated immediately on arrival of the ship and the vaccination runs a normal course, that there can be no reason why he should be kept in quarantine any longer than is necessary to show that his vaccination is successful.

The Delegate of Victoria (Dr. McCrea) : This is a subject I have thought very deeply over, and I have acted on the conclusions I have arrived at, and in all cases where vessels have been put into quarantine in Victoria the people were released on the fourteenth day. Dr. Marson's experience seems to me to settle this matter. He has recorded the fact that the period of incubation in 5,000 cases was exactly thirteen times twenty-four hours, and this is entirely borne out by my own experience. A mail steamer was put into quarantine in Melbourne with one case on board. When the vessel was to leave for Sydney, this man was taken ashore in a boat and the second mate went with him. Exactly thirteen times twenty-four hours afterwards that mate was taken with the disease, and there were cases in the Melbourne Hospital of a similar character. There was a man came there who had picked up small-pox in the islands; he slept one night in the hospital, and the disease was conveyed to two persons in the ward in which he slept, and they showed it exactly thirteen times twenty-four hours afterwards. There was another case of a boy who lived at Greensborough, and who came into Melbourne on a certain day. He was in Little Bourke-street, 106 yards from where the patient was in the hospital, yet he too was taken ill with the disease precisely the same length of time afterwards. There was a girl in the same street living in Fitzroy, and thirteen times twenty-four hours afterwards she was taken ill. With regard to some alleged prolonged cases, there are many ways by which persons may become infected. There was the case of the "Great Britain," where the disease appeared when she had been forty days out, and there is not the slightest doubt that the person who was taken ill derived it from the clothes. In London clothing is often made under what is known as the "swearing" system, and there is no doubt that persons who have just had small-pox have frequently worked at these clothes. It was reported in the paper since I came here that a case of small-pox had broken out more than fourteen days after the occurrence of the previous one; I wrote to Dr. Shiells about it, and his reply is to the effect that the case broke out thirteen days after precisely. I submit that this is proof that the period of incubation is fourteen days, and passengers should not be detained longer.

The President : This proposal is only with reference to those cases where vaccination has run its normal course. I would suggest that the period of fourteen days should be fixed here, and say twenty-one days with those who decline re-vaccination.

This involves the question I am now discussing,—that they should be released on the fourteenth day. I feel strongly upon this subject, because it is an important matter. I have had the support of the whole mercantile community with me, because I do not detain vessels longer than necessary, and I think fourteen days is quite sufficient. Yesterday we were told by the Agent of the Orient Company that our estimate of £200 a day as the expense of a vessel in quarantine was insufficient, and that it would really cost £300 a day; and if you keep them longer than necessary, that means £2,100 a week. I feel sure that safety can be entirely obtained by fourteen days quarantine.

After further informal discussion,—

The President : In my opinion the period should be a fortnight—of course, the release to be at the discretion of the Health Officer; but I also think that when persons refuse to be vaccinated the period should be made at least twenty-one days.

Dr. McCrea : I would go further, and compel them to comply with the law.

The President : We might recommend that they shall be detained until the Health authority is satisfied that they will not convey contagion, the period being not less than twenty-one days.

It being now 1 o'clock p.m., the Conference adjourned until 10 a.m. on Tuesday, 23 September.

* Finally amended by striking out the words italicised.

FIFTH SESSION.

TUESDAY, 23 SEPTEMBER, 1864.

The Conference met in the Offices of the Health Department, pursuant on adjournment.

Were present:—

The Delegate of New South Wales, acting for the Crown Colony of Fiji, the President, in the Chair.

The Special Delegate of New South Wales.

The Delegate of Queensland.

The Delegate of South Australia.

The Delegate of Tasmania.

The Delegate of Victoria.

The Delegate of the Crown Colony of Western Australia.

Was absent:—

The Delegate of the Crown Colony of Fiji.

The Conference was called to order by the President at 10 o'clock a.m.

The minutes of the fourth session were read and confirmed.

The Delegate of South Australia (Dr. Paterson) having explained his absence from the fourth session, said: Not having had the opportunity under these circumstances of discussing the question of compulsory vaccination on Saturday, I should like now to state my opinions upon this very important matter. I regard vaccination as the very greatest benefit that has ever been conferred upon the human race, and I think Jenner the greatest benefactor the human family ever had. When he first advocated vaccination, he claimed for it that it was an absolute safeguard against small-pox; but in the course of a few years he had reason to change his views as regards its conferring perfect immunity. Still, the cases in which it does not operate perfectly are comparatively rare; and even in the exceptional cases in which an attack of the disease comes on after vaccination, advantages are secured by it which are of a very important character. I do not think we can properly estimate the value of vaccination without referring to the history and records of the ravages of the disease before it was discovered. I think every one who has gone into the history of small-pox—and we have a history of small-pox dating back to the Arabian physician Rhazes, who was the first to call attention to this disease and to its contagious character—must see the contrast between what small-pox was then and what it is now. Before vaccination it was a devastating plague. In those exceptional cases in which small-pox has succeeded upon vaccination the operation has acted upon the disease in a most material way by preventing a fatal termination, and above all, recovery takes place under very favourable conditions. In the unvaccinated the recoveries that take place occur under conditions that render life almost intolerable. Many of the recovered persons have lost their sight, others have lost their hearing, while in others the constitution is crippled. And then the disease shows its ravages by scars on the face. Perhaps as regards men this is a matter of comparatively little importance, but as regards women it is one of very great importance. The most beautiful specimens of our race are disfigured and lose all traces of their beauty, and this for women is a most important consideration. Vaccination prevents death and prevents disfigurement. Now, as regards the question of compulsory vaccination, I hold that it should be compulsory on every member of the community, for this reason—that if any member of the community is so irrational as not to be able to perceive the value of vaccination, while he may be justified in taking the risk so far as concerns himself, he has no right to be a source of danger to his fellows; and every unvaccinated man or woman is a source of danger. There is still another point I should like to refer to, and that is re-vaccination. I do not know that any Legislature up to the present time has ever seen its way clear to make re-vaccination compulsory by Act of Parliament. There are many difficulties in the way; but if it could be accomplished it would be of great service, for it would establish for vaccination what Jenner claimed for it in the first instance. It would fairly eradicate small-pox, and this is no light consideration; for, leaving everything else out of the question, the monetary cost of the disease is very considerable. Take London, for instance. London has to provide small-pox hospitals and floating vessels, the latter being now considered the best means of providing for cases of this disease. If what I claim for re-vaccination is true—that it will prevent small-pox, and stamp it out—all this money would be saved; so that there is an advantage not only to the individual but to the community. I think the present is an admirable opportunity for the Colony of New South Wales to reform herself in this matter of vaccination. This plan of dealing with small-pox is a scientific and rational one, while quarantine is rather mechanical, unscientific, and irrational. I do not disparage quarantine. No man could have a higher idea of its value than I, because this continent has been kept nearly free from the disease for nearly a century by the operation of these quarantine laws. Still I look upon the other as the more effective way of fighting small-pox, and in the end it would be successful.

The President: There is nothing absolutely certain in this world; but it is demonstrated that vaccination renders people greatly less liable to the invasion of small-pox, although it does not absolutely prevent it. We know, as was stated by the Delegate of Victoria the other day, that at the London Small-pox Hospitals, during a period of forty-one years, not one case occurred in which a nurse or other official suffered from the disease; they were all vaccinated or re-vaccinated on entering the service. This shows what perfect vaccination will do. But it is perfectly well known to medical men that many reputed vaccinations have not in fact been properly done. I find that many persons who say that they have been vaccinated show not the slightest evidence of the operation, the skin being perfectly smooth, without the slightest appearance of having been ever disturbed. Now that such persons as these should suffer from small-pox is not at all remarkable.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I am very glad that questions concerning vaccination are being raised in the public prints, as it is only through them that the people can be brought to see the necessity for re-vaccination. There are persons who, without objecting to vaccination, yet believe that compulsory vaccination is an infringement of their individual freedom; but

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can any Act be instanced which does not override private judgment and inclination, for the sake of the public well-being? Whilst it would, as the Delegate of South Australia states, be a great thing for New South Wales to take the lead in passing a compulsory re-vaccination law, we must remember that in Victoria, South Australia, Tasmania, and Western Australia—four out of the eight Colonies, compulsory vaccination is the law of the land, and it is a law that is very fairly carried out in the majority of them. I can say that it is efficiently carried out in Western Australia. The more we can illustrate the advantages the better, but we must not be afraid to acknowledge that it is not in itself such an absolute protection as to have a mathematical certainty about it.

The President: I take it to be the opinion of those here that re-vaccination is advisable in all cases, but essential in those who have been brought into contact with small-pox patients.

The Delegate of Victoria (Dr. McCrea) moved:—

That those in whom vaccination runs a normal course, or who after repeated trials at the Quarantine Ground prove to be insusceptible of vaccination, may be released on the fifteenth day.

In making this motion, I will point out that it would be possible to attempt to vaccinate a man four times in that space of time, as it could be seen by the third day whether the operation was likely to be successful.

The Delegate of South Australia (Dr. Paterson): I second the motion with very great pleasure. On being put to the vote it was agreed to unanimously.

Clause 29 was read as follows:—

29. Those who refuse vaccination or re-vaccination shall be detained until days have elapsed.

The Delegate of Victoria (Dr. McCrea) moved that the clause should read "until they comply with the law."

The Delegate of South Australia (Dr. Paterson): I prefer the clause as it is. You may have people upon whom a medical officer would not care about performing the operation, and this clause leaves it to his discretion.

The Delegate of Victoria (Dr. McCrea) proposed, and *The Delegate of South Australia* seconded the motion:—

That those who refuse vaccination or re-vaccination shall be detained until the Health Officer is satisfied of their inability to spread small-pox, but for no shorter period than twenty-one days.

On being put to the vote the motion was agreed to unanimously.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I move—

That it is desirable to have power to compel the re-vaccination of persons elsewhere than at the Quarantine Station known to have been in contact with the infection of small-pox.

The Delegate of Queensland (Dr. Bancroft) seconded the motion.

The Delegate of Victoria (Dr. McCrea): I am afraid that this motion would prove impracticable.

We have the power when small-pox comes to a house of isolating that house, and of compelling everybody to be vaccinated, because we can order the isolation to go on until they consent; but how can we tell who has come into contact with the contagion of small-pox?—We cannot select them out of the general community.

The motion was put to the vote by the President.

Ayes—Western Australia, Queensland, Tasmania.

Noes—Victoria, New South Wales, South Australia, Fiji.

The motion was declared lost accordingly.

Clause 30 was read as follows:—

30. That any vessel having on board any case of cholera, whether Asiatic or sporadic, or any case which may reasonably be supposed to be cholera in either of these or any other form, shall be quarantined.

The Delegate of South Australia (Dr. Paterson), seconded by *The Delegate of Tasmania* (Dr. Turnley), moved the adoption of the clause.

Clause adopted unanimously.

Clause 31 was read as follows:—

31. All hands, except such as are actually necessary to cleanse the ship expeditiously and thoroughly, shall be landed at the Quarantine Ground, where they shall be detained for the space of clear days.

The Delegate of Victoria (Dr. McCrea): I have no intention of taking up time in speaking on this question, but I will put before the Conference what I know about the matter. The time of incubation of this disease is stated as being from one to fourteen days, but there are one or two cases here which I noted at the time. The "Apollo" ship left Cork on June 17, 1849; the first case broke out on June 18, the second on June 27. The ship "Renown," with troops, left Gibraltar on August 21; the first case occurred on the 22nd, while the second did not make its appearance until September 5, or thirteen days afterwards. The ship "Gertrude" left Calcutta in May, 1859, and twenty-four days after she left cholera broke out on board. Now, I do not think we should conclude that the disease took all that time to incubate, for we know that it may lie concealed in clothing. I am not aware of any case having occurred at a quarantine station after fourteen days have elapsed.

The Special Delegate of New South Wales (Dr. Ashburton Thompson): In 1874 the International Sanitary Conference of Vienna discussed the incubation period of cholera, and resolved that, in nearly every instance, the period from the poisoning to the premonitory diarrhoea does not exceed a few days, and that the premonitory diarrhoea does not last more than a few days. I think that, including both of these indefinite periods, ten days is a fair interpretation of this resolution. Lebert estimates the incubation of cholera at from a few hours to a week or more. The period, for practical purposes, is fixed at the Port of New York at four or five days. On the other hand, a great many authors decline to name any definite incubation period; while Greece fixes the period of quarantine for cholera at twenty days. But I think that a period of ten days will cover all the risks that can be practically met in this way. We have to bear in mind that quarantine is only one part of our general scheme for preventing disease. There are many instances to prove that, in a clean city—a city with pure air, pure water, and pure food—cholera and yellow fever cannot spread, and other epidemic diseases do not flourish at least. This is a point that is very often overlooked; but you of course have it in mind.

Asiatic

Asiatic and sporadic cholera are specifically mentioned in this clause, because, until the cause of cholera is recognized, it is not possible to say whether there is any essential difference between the two or not. Stress was laid upon this point by Simon twenty years ago, and it must be still insisted upon to-day, notwithstanding the recent researches of Koch. So far as the accounts of his experiments which have been given to the world (I speak six weeks after the date of the latest information) go, he has proved—and no one I suppose knows this better than Koch himself—he has proved nothing. At present the diagnosis between Cholera Asiatica and Cholera Nostras remains where it was; often easy, it is sometimes impossible. We must therefore frame such regulations as these so as to include Cholera Nostras.

The Delegate of Queensland (Dr. Bancroft): I may say that in Queensland there came under my observation two cases of—to all appearance—cholera. One occurred to a man engaged in shipping horses; he became very ill, with vomiting and purging, and was almost pulseless. He was treated with small subcutaneous injections of morphia, and recovered.

The Delegate of South Australia (Dr. Paterson): There are scarcely any of the Colonies which do not have cases of Cholera Nostras. It is not uncommon in South Australia, and I agree with the Special Delegate of New South Wales that it is exceedingly difficult to distinguish between the symptoms of the one and the other; but I think we may draw the distinction that Cholera Nostras is limited to one or two cases. A scare sometimes arises from this being called Asiatic Cholera. In Port Adelaide a physician diagnosed a case of Cholera Nostras as Asiatic Cholera; this was a mistake, but the result was that a panic was caused. I pointed out that, where only one case occurs, a medical man should hesitate to pronounce it Asiatic Cholera.

The President: I quite agree with what has been said on this subject, that practically there is no difference between the two as far as the symptoms of disease are concerned. They follow exactly the same course, except that in the one case there is a tendency for the disease to spread, and in the other there is an absence of any such tendency. But in cases of severe sporadic cholera every sign and symptom is present. I am going to propose now that this clause shall be slightly altered, to read as follows:—

That all hands except such as are necessary to cleanse the ship expeditiously and thoroughly shall be landed at the Quarantine Ground, where they shall be detained for a period of not less than twenty-one days.*

This may appear a somewhat rigorous proceeding; but we have here a virgin country that has never been visited by these disorders, and the interests involved are so vast that I do not think we can be too rigorous in dealing with cholera. The manner in which the disease has lately visited Southern Europe is a very good earnest of the manner in which it might visit Australia if we gave it the opportunity. The general want of all sanitary precaution is a feature in which Australasia and Southern Europe resemble each other very materially. In our towns our experience would probably be that of other large towns, but in the country districts we might expect something much more terrible than has visited any other part of the world, except in places where the people are compelled to drink stagnant surface water as we are often compelled to do. When once the water is fouled, there would be no reason why the disease should not remain; for the main cause of cholera, as of typhoid fever, is the drinking of impure water. You will understand at once that this period of twenty-one days that I have fixed is a purely arbitrary period, because we have really no positive evidence to show how long it takes for cholera to incubate.

The Delegate of Tasmania (Dr. Turnley) seconded the motion.

Dr. Rogers (Western Australia): If a case occurs on board a steamer putting in at King George's Sound, say fifteen or twenty days prior to arrival there, are the passengers to be landed there or to come on to their port of destination? I have seen cholera, but it was in London, and I did not see many cases. Now I had a case which occurred in Albany; I will give you the symptoms, and ask what you would call it. A man was taken suddenly ill with violent cramps, vomiting, purging, suppression of urine, cold extremities, and intense thirst. Had cholera been in the neighbourhood, I should undoubtedly have said that it was a case of cholera. The man did not die.

The President: It was a case of sporadic cholera.

No, I do not think so—I do not think it was cholera at all. I think, with all due deference to you, that, taking into consideration the practice everywhere else, twenty-one days is a very long period of time, as it is not based on any previous experience. Unless we can bring forward some facts for altering the course of procedure, we shall be charged with assuming to lay down a rule upon a matter of which none of us has had any experience to speak of.

Dr. Paterson: From when do you propose to date the twenty-one days?

The President: From the date on which the people are landed. I think the issues involved here are so terrible—a population of 3,000,000, which has hitherto been free from the disease—that if we do make an error, it had better be on the side of prudence. The probability of cholera ships coming here is not very great; cholera only comes occasionally, and therefore the hardship would not be very great. The fact is that if we once get cholera amongst us, it will be almost if not quite impossible to stamp it out. Even if it is eventually eradicated, it will first ravage the whole of the country districts, where people are not able to “put their houses in order” so as to keep it away; they must drink the surface water.

Dr. Bancroft: Where do they not drink surface water?

Quite so; but here the people drink from waterholes, and very dirty waterholes indeed. The circumstances of drinking surface water in England and Australia are very different indeed.

On being put to the vote, the motion was agreed to unanimously.

The Delegate of Queensland (Dr. Bancroft): I think it would be unfair to detain people at King George's Sound for twenty-one days, if there had simply been one case on board a ship (say) three weeks previously, and I will therefore move—

That a vessel having had a case of cholera during the voyage shall be detained no longer than is necessary to cleanse and disinfect the vessel, provided twenty-one days have elapsed since the occurrence of the last case.

The Delegate of South Australia (Dr. Paterson) seconded this motion.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I think it would be impracticable to land all the people at a quarantine outpost.

The President: Yes; we do not intend that.

After some further discussion the motion was withdrawn.

It being now 1 o'clock p.m., on motion of the President the Conference adjourned until 2:30 o'clock p.m. The

* Finally amended to “ten clear days.”

The Conference reassembled at 2:30 o'clock p.m.

Clause 32 was read as follows:—

In order to facilitate cleansing operations, cargo shall be discharged into lighters, and may thence be passed out of quarantine.

The Delegate of Victoria (Dr. McCrea), seconded by *The Delegate of South Australia* (Dr. Paterson), moved that the clause be preceded by the words "At the terminal port," and adopted.

On being put to the vote, the clause thus amended was agreed to unanimously.

Clause 33 was read as follows:—

Cleansing having been completed, the hands employed thereat shall be quarantined for the space of twenty-one* clear days.

The clause was agreed to, *The Delegate of Queensland* (Dr. Bancroft), dissenting.

Clause 34 was read as follows:—

A crew may be supplied to the vessel from the hands first quarantined, if the prescribed period has elapsed, or otherwise as may be convenient.

The clause was unanimously agreed to.

Clause 35 was read as follows:—

Any vessel arriving from a country declared to be infected with yellow fever, *if the disease prevail in the port of departure*,† shall be required to discharge cargo into lighters, and to remain at the Quarantine Ground, and in quarantine, until she shall have been cleansed and purified.

The President: Experience tells us that in this case the disease is conveyed by ships and goods as well as by persons, and therefore the fact that a vessel comes from a port infected with yellow fever is a reason in itself why she should be sent to quarantine for purification. In the United States it is the custom at certain times of the year to quarantine all vessels arriving at the Southern ports from certain places in the Mexican Gulf which are usually infected with yellow fever, and they are obliged to go to the Quarantine Station whether they have the disease on board or not. They are obliged to land the whole of their cargo for disinfection before it is allowed to go to the town, and experience has shown that only by some such measure have they been able to keep their ports clear of this disease. Now, here we have hitherto had an absolute immunity from yellow fever, because we have been in no way closely connected with the Mexican Gulf; but if the Panama Canal is completed and vessels come that way, we shall hardly dare to hope that this immunity will continue: The Pacific in course of time will doubtless become infected, and more particularly that portion of Australasia which exists in the neighbourhood of the Gulf of Carpentaria. The climate and soil and general features of this country are exceedingly like those of some countries bordering on the Mexican Gulf, and under these circumstances I think it very desirable that some such resolution as that indicated by this clause should be affirmed.

The Delegate of Victoria (Dr. McCrea): I think this is very desirable; the regulations made with reference to the importation of yellow fever should be exceedingly strict. You all know the case of the vessel which went to Bahia and landed a person sick of this terrible disease. This person was visited by a priest, and forty days afterwards this priest took the fever without any other case having occurred. I do not think there can be any mistake about that case at all—it is one that quite settles the matter. When in the West Indies and on the coast of Africa I noticed that yellow fever seemed to attach itself to the ships, one vessel from the coast of Africa being especially notorious. The pilot went on board at Spithead, and instead of landing her cases, as she should have done, she went on to the eastern parts of the Thames, and the pilot and another person took ill of yellow fever and died. Then there is another case of a man-of-war which went over to condemn slavery and got the disease on board; her crew was decimated, and they could not get the fever out of her until she was battened down and filled with the most dense fumes of sulphur. Again, 112 men and 4 officers of the ship "Bristol" were sent on board the "Isis" at Sierra Leone to move the latter vessel into different waters. Seven cases had occurred on board and proved fatal. On 31st December, one of the Bristol party took the disease, and on 1st January there were twenty-one cases, on the 2nd six, on the 3rd three, on the 5th two, on the 6th one, and on the 12th one; in all thirty-eight cases occurred, with twenty-one deaths, all amongst this boarding party, while there was not a single case among the others. These were all of a very violent type. I strongly support the adoption of this clause.

Dr. Bancroft (*Queensland*): Do you know whether the disease came here or into the Pacific at the time the mail steamers were trading with Panama?

The President: I believe not, but I will read an extract from a speech delivered by Dr. Turner, the Secretary of the National Board of Health of the United States, made at the International Sanitary Conference of Washington, 1881, in which this passage occurs:—"The first vessel which shall sail from an original or secondary source of infection, and shall pursue its course from the Carribean Sea or the Gulf of Mexico (through a Panama Canal or by means of transport across the Isthmus) to the Pacific Ocean, and bound westward, will be a fatal threat for a part of the globe until now free from infection, *i.e.*, the Eastern Archipelago and countries of China, Japan, the British Indian Empire, the Spanish, French, Portuguese, and Netherlands Colonies, Australasia, Polynesia, will all be threatened with infection. Yellow fever is a threat to the whole of humanity, and populations at present free from contamination have no safeguard against it. It causes great hindrances to and can completely stop commerce, industry, and immigration; it threatens the existence, the propagation, the prosperity, and the domination of the white race in the tropical and sub-tropical climates." That will give you an idea of what is thought of yellow fever in a country which has had experience of it. No strictness with which we may treat vessels is too great, so long as it maintains our present immunity from the disease.

On being put to the vote, the clause was unanimously agreed to.

Clause 36 was read as follows:—

Her cargo shall be landed at quarantine wharves, and shall there lie freely exposed to the air for the space of days.

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* Finally amended to ten clear days.

† Finally amended by striking out the words italicized.

The Special Delegate of New South Wales (Dr. Ashburton Thompson): From the Second Annual Report of the State Board of Health of the State of New York, I observe that Dr. William Smith, the Quarantine Health Officer, has, by the experience of years, been led to the conclusion that it is of no use to land and expose cargo brought in ships infected with yellow fever for any length of time, and accordingly he does not detain the cargo for any particular number of days. The result of his experience allows him to release the cargo almost immediately and without treatment. The French, however, clear cargo in three divisions. They regard clothing, things in use, feathers, hair, and the like as the most dangerous articles; they consider cotton, fax, and hemp as less dangerous; but they regard as not dangerous at all articles not mentioned under the two former heads. They discharge all the cargo into lighters and take it to the Quarantine Ground, and each package is exposed separately to the air and is sprinkled with disinfectants of more than one kind. Now, yellow fever is not communicable by persons; it does not infect communities, but only things and places and ships. Hence, if a case of fever come to the port of New York in a ship, inquiry is made so as to learn whether it were contracted on shore or on the ship itself after embarking. In the former case they pass the other people on board ashore at once; but if it arose after embarking and on the ship itself, everybody is detained in quarantine for observation. This is the intelligent course pursued at New York, which city has had dire experience of yellow fever. Next, the question must be considered, how long should the quarantine of observation last? One eminent authority fixes the period of incubation at from twelve hours to several months. That well-known physician, Dr. Joseph Jones, of New Orleans, declines to fix any period. For our purpose—which is to make out of quarantine what defence we may—this will not do; we must fix some practical working period, and such a period is fixed at the port of New York, where they have yearly about 500 ships from ports infected with yellow fever, at five days. It appears to me that this precedent may well form a starting-point for us, although it is open to us to make the period a little longer. I do not think that anything worth speaking of would be gained by greatly prolonging it.

The Delegate of South Australia (Dr. Paterson): After the very lucid statement made by the Special Delegate of New South Wales I think we cannot do better than follow the example of those who have most practical experience of this matter, and I propose to fill the blank with the word "five."

The President: We are dealing with an important subject, and it would be a great mistake to err on the side of laxity. I think it would be safer to say ten days.

Dr. Paterson: I am quite willing to accept that.

The motion to adopt the clause with the blank filled in with the word "ten" was unanimously agreed to.

Clause 37. The vessel shall be thoroughly cleansed as may be specially ordered in the case of yellow fever.

The clause was unanimously agreed to.

Clause 38 was read as follows:—

38. If no case of yellow fever or of other disease has occurred on board during the voyage, being more than days from the date of leaving the infected port, her passengers may be admitted to pratique.

The clause was agreed to, the word "ten" being inserted in the blank.

Clause 39 was read as follows:—

39. But if any case has occurred on board, the passengers and crew shall be detained for ten clear days on shore at the Quarantine Ground, and their effects as long as may be necessary to thoroughly disinfect them to the satisfaction of the Port Sanitary Officer.

The clause was unanimously agreed to.

Clause 40 was read as follows:—

40. The special measures necessary to disinfect ships infected with yellow fever, or vessels bearing cases of remittent or typho-malarial fever, which are often not easily distinguishable from yellow fever.

The clause was amended, by agreement, as follows:—

That vessels bearing cases of disease not easily distinguishable from cases of yellow fever shall be subjected to the same treatment as for yellow fever and unanimously adopted.

Clause 41 was read as follows:—

41. To what treatment shall the persons arriving in vessels infected with typhus, relapsing, typhoid, or scarlet fever, morbilli or whooping-cough be subjected, and what are the measures to be taken to disinfect the vessels?

It was agreed that typhus and relapsing fever should be considered together, and apart from the other diseases mentioned. And after discussion it was agreed—

That the period of detention for typhus and relapsing fever shall be twenty-one days.

The Delegate of South Australia (Dr. Paterson) proposed that the remaining diseases should be taken together, and said: I do this on the ground that they are all endemic, and are not now to be imported here for the first time.

It was so ordered.

The Delegate of South Australia (Dr. Paterson): Several years ago it was laid down in South Australia that it would be unfair to quarantine persons arriving in the Colony by sea in vessels which had on board diseases already existing in the country; but we all know these diseases vary much in intensity, and we came to the conclusion that it was advisable to separate the sick from the healthy, and place the sick in the Quarantine Hospitals, while the healthy were granted pratique. My feeling is that this would be sufficient here.

The President: The practice in New South Wales has been to deal differently with immigrants and ordinary passengers. The latter are allowed to pass out of Quarantine without detention, as these diseases are all endemic here; but where we are dealing with immigrants the case is quite different. In this case the persons suffering are placed in the Quarantine Hospital with (as a rule) the families to which they belong; the rest of the passengers on board the ship are taken on shore, where their clothing undergoes a process of disinfection, and then they are allowed to depart immediately. The others are detained until they are well, and then their clothing is disinfected. The

The Delegate of Queensland (Dr. Bancroft) : The practice with us is, I think, much the same as that described by the President, although in Brisbane we suffer from time to time through typhoid being brought in by the immigrants. I consider that in towns where a considerable number of immigrants are brought in additional precautions are necessary with regard to typhoid.

The Delegate of Victoria (Dr. McCrea) : In Victoria when there was much measles or scarlatina we used to put them into quarantine until the patients and their families were landed, and then we let the ship go. This was done not only with immigrant vessels, but with all passenger ships. It was after the great ravages made by measles in Fiji that I adopted this plan.

The Delegate of Tasmania (Dr. Turnley) : In Tasmania measles and scarlatina are both prevalent, and I never quarantine them.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) : In Victoria the authorities do not adopt free-trade in regard to these diseases, but it appears that in Queensland, South Australia, and Tasmania they do. Now in Western Australia we do not. If a vessel arrives which has had or has a case of measles on board it is put into quarantine, and in the case of foreign vessels those on board would be detained fourteen days; and whatever the resolution of this Conference may be we shall continue that plan, because, until recently, we have through it not had a case of measles in the Colony. Small-pox we have never had. Measles was smuggled into the Colony about a year ago, and spread 1,500 miles; it has destroyed a large proportion of the labourers upon whom the people in the north-west depend to carry on their stations—I mean the natives; and we found that the further north the disease went the more virulent it became. Scarlet fever, since I left the Colony, has broken out in Perth, but the case has been isolated. There is one disease omitted from this clause, and that is diphtheria, which is capable of being carried a thousand miles by ship. The mail steamer brought from Adelaide a woman with three children. Diphtheria broke out among them on arrival, and I isolated the case. Most of the family died, but the disease did not spread, and it will certainly be still regarded as quarantinable in Western Australia.

It being now 4:30 o'clock p.m., the Conference adjourned until 10 o'clock a.m. of the 24th September.

SIXTH SESSION.

WEDNESDAY, 24 SEPTEMBER, 1884.

The Conference met in the Executive Council Chamber.

Were present:—

The Delegate of New South Wales, acting for the Crown Colony of Fiji, the President, in the Chair.

The Special Delegate of New South Wales.

The Delegate of Queensland.

The Delegate of South Australia.

The Delegate of Tasmania.

The Delegate of Victoria.

The Delegate of the Crown Colony of Western Australia.

Was absent:—

The Delegate of the Crown Colony of Fiji.

The Conference was called to order by the President at 10 o'clock a.m.

The minutes of the fifth Session were read and confirmed.

The discussion upon measles, scarlet fever, typhoid fever, &c., was resumed.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) : From the expression of opinion which fell from several of the Delegates yesterday, it appeared to me that it is not their intention to advise that typhoid fever, scarlet fever, or measles should be subject to the same system of quarantine as the diseases previously considered. Now, as this is a matter for uniformity of action, if we acknowledge that these are contagious disorders at all, I think it is incumbent upon us to be consistent and to try as carefully to keep out a disease that is as virulent as many of the others. Unless this is done I shall not be carrying out my instructions from my Government. They have laid down distinctly the diseases for which I am to put the quarantine laws into force. It is twenty years since measles was present in Western Australia, and more than that since scarlet fever was there; while there has never been an attack of small-pox. Now we have been quarantining for measles and scarlet fever, and we propose to continue to do so, and I want to see these diseases brought under the same rule as small-pox. It is no argument to say that you already have these diseases in your midst, for if it were possible to have their further introduction stopped they would soon exhaust themselves. If the argument is sound that you are not to quarantine for measles and scarlet fever because they are amongst you, that will hold good with regard to small-pox, because you have that disease amongst you. It is in Victoria and New South Wales, and has been very lately in South Australia. If I am to discharge my duty according to my instructions, I must urge this point—that the Government of Western Australia will not come into the confederation under such circumstances. If you should set your faces against one form of disease, and admit another which is often equally virulent and more infectious, I think it would be a mistake. In small-pox you have a means of protection—something that will modify it or annihilate it; but with scarlet fever and measles you have no such safeguard, so that there is a stronger argument for quarantine against them than against small-pox. Scarlet fever, whooping cough, and measles I propose to include in the federal scheme now before the Conference.

The Delegate of Tasmania (Dr. Turnley) : I will second that for the sake of argument. With regard to Tasmania, measles has always been prevalent there, but in a very mild form, and there would be a very great outcry if vessels were quarantined with this disease only on board. I do not agree that measles would die out if new cases were prevented from coming in, as every new birth affords pabulum for the disease.

The

The Delegate of Queensland (Dr. Bancroft) : I beg leave to move as an amendment :—

That with regard to measles, scarlatina, typhoid fever, and other infectious diseases, it will behove Colonies in which these diseases are absent to use all necessary precautions to prevent their introduction by sea.

I think that will meet the case of Western Australia, and of any other Colony which may find itself in a similar position to it, while it will leave some discretion to the various Colonies as to which diseases pratique may be granted, and which shall be quarantined.

The Delegate of Victoria (Dr. McCrea) : I was going to move something similar to that in the following form :—

That though it would be desirable to eradicate such diseases as typhoid fever, scarlet fever measles, and diphtheria from the Colonies, it has not been proved to the satisfaction of the Conference that any measures of Federal Quarantine that could be adopted would be generally successful in attaining the desired object ; this Conference therefore recommends that when any such diseases are found to arrive in any vessel the Health Officer at the port for which such vessels are destined shall use his discretion by detaining such vessel a sufficient time to land the sick and their attendants and disinfect the vessel, the patients being detained in quarantine until they recover.

Scarlet fever and these other diseases I have mentioned have not yet become endemic in Western Australia, simply because there has been comparatively little intercourse between it and the other Colonies, but I have little doubt that before long they will obtain a foothold and be just as difficult to eradicate. It is quite possible to stamp out small-pox and cholera, but it is not possible to stamp out diseases which have become endemic. It has been tried in Victoria and it failed. Such measures as are taken with regard to small-pox cannot be tried with regard to these diseases. In small-pox we can vaccinate as well as segregate, but we cannot do this with measles, diphtheria, scarlatina, and the like. I think also that the Government of Western Australia would have done better if they had left their Delegate to exercise his own judgment after hearing the opinions of those assembled. When I left Victoria I was wholly untrammelled, for I came to gain as well as to give information. Western Australia can adopt what measures she pleases for the prevention of these diseases, and every other Colony can do the same thing. I do hope the Delegate of the Crown Colony of Western Australia will put himself in the same position as the other Delegates, and adopt the views of the majority.

The Delegate of South Australia (Dr. Paterson) : I beg leave to second the amendment proposed by the Delegate of Victoria, but to say also that I sympathize very much with the Delegate of the Crown Colony of Western Australia, in the position in which he finds himself. He is doubtless justified in trying to keep his Colony, which he says has been free from measles for twenty years, still free, if it seem to him possible to do it. In South Australia this disease has been endemic for many years, as well as the other diseases referred to ; and as the health authorities desire to place as few restrictions on commerce as possible, they arrived a good many years ago at the conclusion that it was not necessary to enforce a rigorous quarantine for diseases already existing in the country. This principle has been acted on for a number of years, and we have never seen any reason to depart from it. I am glad to see that the Delegate of Victoria leaves the matter to the discretion of the various Health Officers, for, in considering the question, the people to be quarantined must be considered as well as the people in the country. The fallacy of the argument used by the Delegate of the Crown Colony of Western Australia with regard to small-pox appears, when it is considered that we always have these diseases now under consideration with us, while we have small-pox very seldom indeed. Except at the Quarantine Station, we never had it in South Australia until within the last three months, when it was discovered at Bordertown, but there it was limited to three persons. It would be a great pity if Western Australia declined to enter into the scheme on this account, for I have no doubt her immunity is due, as has been alleged, to her small commercial intercourse. It is impossible to eliminate these diseases now, as they are too firmly established in these countries, and whatever recommendations to that effect we might make, I am quite sure no Government would adopt anything that would involve the indiscriminate quarantining of ships for these diseases.

The President : I sympathize, as I am sure we all do, with the Delegate of the Crown Colony of Western Australia in his desire to keep his Colony still free from these diseases ; and on the part of Fiji, which Colony I have the honor to represent also, I may say that nothing that this Conference may do will prevent us from keeping scarlet fever away if we can. We are all bound to take such measures of prevention as this Conference may recommend, but cases may arise in which further action may be necessary. The freedom from these diseases hitherto enjoyed by Western Australia is of course due entirely to her isolated position, for if it had been possible to reach that Colony by land in any but a most difficult way it must have suffered in precisely the same manner as we have suffered in these eastern Colonies. We have, I think, laid it down as a principle that land Quarantine is impracticable, so that those diseases must reach Western Australia in the course of time. With regard to what has been said as to new arrivals being fresh sources of infection, such cases form new centres, which prove more virulent than those already existing ; in the course of years scarlet fever seems to wear itself out. I think, therefore, it would be well that this resolution of the Delegate of Victoria should be carried out. It will meet the case of Fiji, and I have no doubt it will be carried out there.

The Special Delegate of New South Wales (Dr. Ashburton Thompson) : I have no doubt that in the case of measles or scarlet fever we ought to have the power of isolating the patient and his attendants, and that that power should be invariably exercised ; but I think that it would be unprofitable, and therefore unpractical, to detain every one on board.

Dr. Turnley : That is the plan adopted in Tasmania. The patients are taken out and detained, but the vessel is not detained.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) : The fact is, we have not got these diseases in Western Australia, and we do not want them ; but you have got them. What I want is consistency. You must see that every member of this Conference has admitted the principle of quarantining for infectious diseases, and I want that principle to apply equally. There is no consistency in detaining a vessel for small-pox if equally virulent diseases are allowed to pass. The isolation of disease is as practicable in a population of 80,000,000 as in Western Australia, and what we have done there you can, if you will, do here. I cannot adopt the Delegate of Victoria's views, and I do not think one argument has been advanced that can shake my convictions, and I am pledged by my convictions as much as by my instructions. But it seems you do quarantine a vessel for a malignant case of measles or scarlet fever.

The

The President: We do not quarantine.

You separate the sick from the healthy; now I want this to be universal.

The President: Perhaps the Delegate of the Crown Colony of Western Australia will give us some idea of the details of the plan he wishes to be carried out.

I should adopt this method: take the case of a ship arriving in Melbourne with a thousand passengers, and forty cases of measles broken out two days before arrival. If there is a medical officer on board, and ordinary judicious methods have been adopted, such as isolation of the sick, I should order the whole of those who have been in contact with the sick on shore, have that portion of the ship thoroughly disinfected; and would keep the whole of the other passengers in quarantine for seven days.

The President: Would that be sufficient?

I should take into consideration the isolation on board the ship.

The President: But we have already agreed that that is not to be depended upon.

Well, that is the method I should adopt. I would not have a hard and fast line, but would be guided by the stage of the disease and other circumstances.

The Delegate of Queensland (Dr. Bancroft): I beg leave to withdraw my motion in favour of the amendment proposed by the Delegate of Victoria.

The amendment was then put to the vote by the President.

Ayes—New South Wales, Queensland, South Australia, Tasmania, Victoria, Fiji.

Noes—Western Australia.*

The amendment was declared carried accordingly.

RABIES.

The Delegate of Queensland (Dr. Bancroft): As one of the miscellaneous points, I think that hydrophobia should be considered, and I do not think we need take long to consider it. If there is any fear entertained that rabies may become endemic here, precautions against it should be taken. I think we have now all the good races of dogs introduced already, and I do not see that it would be any great hardship to prohibit entirely the further introduction of dogs. There is no doubt that the disease hydrophobia will live in hot countries. In Borneo I have heard of it upon good authority, and there it is very much hotter than in parts of Australia. I move, "That this Conference is of opinion that, for fear of rabies becoming an endemic disease in Australia, it is desirable for the Australian Colonies to prohibit the further importation of dogs, except under quarantine regulations extending over a period of not less than six months."

The President: On this matter the Board of Health of New South Wales recommended that a quarantine should be placed on the importation of dogs into the Colony; but on reconsideration it was agreed that the importation of dogs should be prohibited altogether; but we found that we had no power to enforce any regulations that we might bring in, so the matter was held over, and our recommendations have not been carried out. I have made inquiries as to the period of incubation of rabies, and have discovered that although a quarantine of six months would not afford absolute security, it is exceedingly probable that immunity would thus be obtained. The period of incubation extends, most authors say, for four months, although it has been said to extend to a greater period. I should therefore recommend the time of six months.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I am quite prepared to second the motion. The observations made with respect to hydrophobia pertain to human beings, but touching the incubation period from dog to dog we have no record whatever that I know of.

The motion was unanimously agreed to.

DISINFECTION OF CLOTHING, &c.

The Delegate of Queensland (Dr. Bancroft) suggested that the President should give the Conference some idea of the best way of disinfecting clothes other than by washing.

The President: My chief experience, in fact my only experience, of disinfection and cleansing has been gained comparatively recently—since I have held an official position under this Government; and the course which has been hitherto and is now adopted may be divided into two or three processes, necessarily, because of the different fabrics that have to be treated. In the first place there is cotton and linen clothing, which, of course, it is possible to wash. These are placed in copper boilers, each boiler having a perforated steam coil at the bottom. Water is poured on the clothing with, usually, a weak solution of carbolic acid, and then the steam is turned on. In the course of a few minutes the whole mass is boiling, and it is kept at this boiling point, in the case of measles and scarlet fever, for not less than one hour, and in the case of small-pox for several hours. It is then taken out and washed in the ordinary way. The clothing that has actually been in contact with a small-pox patient is immediately burned, as is also the bedding and clothing of those who have suffered from measles or scarlet fever, save under exceptional circumstances. As for woollen clothing, it is placed in a hot chamber—what is known as Frazer's patent disinfector. This is raised to a heat of between 240° and 300° F., and a quantity of sulphur is burned in it; while the clothing of those who have not suffered from disease, but have merely arrived in the same ship, is subjected to nitrous fumes evolved by treating copper filings in a porcelain basin with nitric acid, thus, I think, completely destroying the infection. It was my custom at one time to use sulphurous acid, but my experience is that it destroys some fabrics, and hence is not so harmless as the nitrous fumes are. Now, with regard to the measures taken for dealing with immigrant ships, or any vessels that measles or scarlet fever may appear in. Where possible the bedding is destroyed, and this is invariably done in immigrant ships if any disease has appeared. Our arrangement now is that this bedding is the property of the Government; and although we allow the immigrants to take it away if there has been no sickness on board, in the other case the blankets and beds are taken away; the blankets are boiled, and the beds are piled in a heap on the beach and are burned, for we find that they are practically useless.

The Delegate of Victoria (Dr. McCrea): I would point out that if by boiling or heating to 250 degrees all disease germs can be destroyed, it is unnecessary to destroy anything. There has been an immense amount of destruction of furniture, bedding, and so on in Victoria, which I consider was wholly unnecessary. I do not think fire is so good as subjecting these things in closed vessels to a severe heat, as the germs may not be destroyed, and may be taken into the air and distributed by the wind. I

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* At the ensuing session this opposition was withdrawn.

am sorry to have to call into question the very efficient measures the President has taken here, but with regard to nitrous fumes and their bleaching power, those who have seen a cork taken out of a nitric acid bottle will have seen that it is bleached; and if heat is sufficient, what necessity is there for nitrous or sulphurous gas or carbolic acid? Of course heat can be applied in large centres of population; but there are places where it is not ordinarily available. Now, in such cases a common camp-oven can be used; it can be heated to 250 degrees, and kept at that heat with very little fire. Take the articles and wrap them in a couple of folds of newspaper, put them in the oven, and keep them there as long as you like, and in order that there may be no mistake about the heat applied, I maintain that they should not be taken out until the paper is charred, thus proving that there has been sufficient heat to destroy the infection.

The Delegate of South Australia (Dr. Paterson): The system in South Australia is very similar to those described by the President and the Delegate of Victoria, though I have had no experience of the the nitrous fumes. It is certainly the case that sulphurous acid may affect the colour, but in my experience it does not injure the fabric. There is one other mode of disinfection which has not been alluded to, and that is exposure to the sun and air; I am not sure that this is not as effective as any, though we have never trusted to it alone, but have invariably passed the articles which have been exposed through the hot-air chamber.

The Delegate of Tasmania (Dr. Turnley): I think there is no doubt that heat of a certain temperature will kill the germs of disease; and the plan I adopt has an advantage, because the heat cannot get above a certain point. Fill your boiler with a solution of nitrate of potash, and then the heat cannot go beyond 240°; and if you want more you can take a solution of chloride of zinc, which will give you 300° and no more. The advantage of this plan is that there is no danger of burning the clothes.

The President: Have you a thermometer in the hot-air chamber?

Dr. Turnley: Oh, yes, of course. We do not use this; but I have advised the Government to do so, as the cost would be very trifling.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): I fully endorse the principle of disinfecting by high temperatures, but if you have not got men in connection with your Departments who are well up to their work, you may come to grief, for I gave instructions to subject a man's clothes to sulphurous fumes, and the attendants popped the gentleman himself into the chamber. I believe burning to be the best plan of all; and it is only because you cannot burn that you do not. In such a case as small-pox, I do not admit that heat is as effective as destruction by burning.

It being now 1 o'clock p.m., the Conference adjourned until 10 o'clock a.m. of the 25th September.

SEVENTH SESSION.

THURSDAY, 25 SEPTEMBER, 1884.

The Conference met in the Executive Council Chamber, pursuant to adjournment.

Were present:—

The Delegate of New South Wales, acting for the Crown Colony of Fiji, the President, in the Chair.
 The Special Delegate of New South Wales.
 The Delegate of Queensland.
 The Delegate of South Australia.
 The Delegate of Tasmania.
 The Delegate of Victoria.
 The Delegate of the Crown Colony of Western Australia.

Was absent:—

The Delegate of the Crown Colony of Fiji.

The Conference was called to order by the President at 10 o'clock a.m.

The minutes of the sixth session were read.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers): After further consideration of the motion of the Delegate of Victoria, with regard to measles, scarlet fever, and contagious diseases of that class, I am able to withdraw my opposition to it. I understand that it does not infringe the Federal principles which govern our deliberations, and I therefore ask that my vote may be recorded in its favour.

It was so ordered.

The minutes as amended were confirmed.

The President: At the close of the last session, we were considering the question of disinfection and cleansing. I think the views of all the members were given and understood, so that it will be unnecessary to discuss the matter further, but I suggest that a sub-committee of two of our number should be appointed to draw up a code of instructions for disinfection; such a code as would give every one of the Colonies confidence in the measures we are adopting at the outport stations. At the present time the manner of disinfecting is laid down according to the individual notions of those at the head of affairs, and is sometimes carried out by persons who are technically uninstructed. I think a code of instructions should go forth from this Conference so framed that a person not otherwise specially instructed should understand what is and what is not considered sufficient to render goods or clothing free from the power of spreading infectious disease.

This proposal having been discussed, it was decided that for ordinary ports this matter should be left to the direction of each Health Officer; but that a code should be framed for the Federal Outports by the delegates charged with the duty of organizing them.

The Delegate of Victoria (Dr. McCrea): I have prepared a sketch of what, in my opinion, a quarantine outport should be: and possibly we may consider these things together.

The President: We should be glad if you will read it.

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The Delegate of Victoria (Dr. McCrea) :—

QUARANTINE OUTPOSTS.

Officers in residence.

A Superintendent, who shall be a Storekeeper and Dispenser in charge of the establishment, under the control and direction of the Medical Officer, who will be the Chief Superintendent.

A sufficient number of labourers to keep the establishment in thorough order and efficient readiness at all times to meet the emergencies of vessels coming into Quarantine. Chinese are very suitable for such offices—they can wash clothes and turn their hands to anything; or men-of-war's men would answer.

One or two disinfectors, who by instruction and practice under the eye of the Storekeeper, are made experts in the modes of disinfection.

A medical man, either resident on the station or available on hours notice.

Officers not resident.

A number of available nurses whose services could be relied upon in cases of emergency arising from unusual numbers of cases requiring to be treated.

Buildings.

Furnished houses for the Medical Officer and Storekeeper.

Furnished accommodation for labourers and disinfectors.

Dispensary and Hospital buildings, with accommodation for persons, each building to contain ten or twelve patients at most; the buildings to be in separate groups, in order to effectually separate persons infected by different diseases, or to serve as convalescent hospitals when required; the buildings to be constructed of materials which will readily admit of being disinfected, to be properly fitted as hospitals, and have earth-closets attached.

An efficient store, comprising an office and electric telegraph establishment.

A building for boilers, washing, and disinfecting apparatus, &c.

Kitchen, with baking oven.

Dead-house.

Stable, slaughter-house and fowl-yard, wood-shed, tanks and their equipment, hospital furniture.

A supply of stores, comprising bedding, cloths, baths, utensils for cooking, ablution, eating, drinking, and washing. Food and drink, medical comforts, all the requisites for furnishing hospitals, disinfecting substances, &c.

Ambulance.

Horse and cart.

Supplies of animals, vegetables, &c., for feeding the employés, patients, and convalescents, if these cannot be procured daily at a convenient distance. The labourers should be encouraged to rear poultry, which might be purchased from them, when required, for the patients.

Disinfection and Cleansing.

All patients should be bathed in warm baths, if there is no medical objection.

All textile fabrics which water will not spoil should be boiled for hours and dried in the sun.

All articles which water would spoil should be subjected to a heat of at least 250° Fahrenheit for a space of hours.

For disinfecting cabins and parts of ships the surfaces should be brushed over with a whitewash brush dipped in benzine, about a couple of square feet at a time, the operator to be followed by another holding a spirit lamp, with which he immediately sets fire to the benzine. In this way all wood, whether painted, varnished, or gilt, and all articles of furniture may be cleansed and thoroughly disinfected without any risk whatever of burning the material operated upon. Walls, floors, and roofs of hospitals may be thus disinfected.

For disinfecting the whole of a ship, as in cases of yellow fever, the hold and between decks should be filled with the fumes of burning sulphur, all openings being closed and kept closed for hours. The proportion of sulphur required to be burnt for thorough disinfection and destruction of germs is 3 grains for every cubic foot of space, a pound of sulphur for every 2,560 cubic feet.

Advantages of Outposts for Quarantine.

Ships with infectious diseases on board will be relieved of their sick, with their clothes and bedding, which are sources of contagion; the places they occupied on board will be disinfected; in cases of small-pox, all on board will be re-vaccinated. In most cases the disease will be stayed, and even if some cases are incubating, the disease in these will be modified. If no cases occur afterwards the ship will be performing part of her final quarantine whilst proceeding on her voyage, and if proper precautions have previously been taken in isolating the cases of infection, the measures taken at the sanitary outpost will almost always stamp out the disease.

In cases of cholera the separation of the sick and their attendants, the purification of their clothes and bedding, the disinfection of their cabins and places of sleeping will go far to stop the sources of the disease, whilst allowing the passengers other than the sick to land and run about on shore, whilst their clothes and the places they occupied on board are being disinfected, will in most cases prevent the disease spreading further amongst them.

In cases of yellow fever, the removal of the passengers, sick and healthy, on shore, their separation there, the disinfection of themselves and their clothes and bedding, and the disinfection of the ship in which the disease is concentrated, will in all probability put a stop to the spread of the disease.

Disadvantages which will accrue from neglect to repair to outposts.

If the measures related have the influences expected from them, the neglect of taking them will necessarily involve the continuance of the disease, the probable consequent loss of life, and the longer detention of the vessel at her port of destination.

Advantages

Advantages to Colonies.

The advantages to the various Colonies would be that in most cases the contagious diseases which had broken out in vessels on their voyage would be stamped out at the Quarantine outport; the detention of the vessels at the terminal port would be greatly shortened; there would be often no necessity for any further cleansing or disinfecting processes at the terminal port; and even if incubating disease broke out between the two ports, in the case of small-pox for instance, the disease would be modified by the re-vaccination, and an entire stop put to its progress among those not infected on arrival at the out Quarantine port; money would be saved, both to the shipowners and to the Government, and what is of far more importance, danger to life, and, especially to the female sex, the disfigurement consequent on eruptive disease, would be very much lessened.

The Delegate of South Australia (Dr. Paterson): I propose that the Conference resolve itself into Committee of the Whole, to consider the suggestions made by the Delegate of Victoria, and other matters relating to Federal quarantine outports.

There being no objection, it was so ordered.

In Committee:—

Dr. Rogers moved the following resolution, which was unanimously carried:—

The Federal Quarantine Outport for vessels approaching Australasia from the Westward should be established at King George's Sound, and should be in telegraphic communication with the mainland.

Dr. Bancroft explained that he had not been furnished by his Government with instructions which would enable him to recommend a site for the Northern Federal Outport.

Dr. Mackellar drew the attention of the Committee to the correspondence already laid before them which had passed between his Government and the Government of Victoria upon this subject, and pointed out that the information collected by the latter Government seemed to show that Thursday Island is a wholly undesirable site. On the other hand, the letter written by the Harbour-master of Cooktown to the Secretary of the Central Board of Health of Victoria, in answer to inquiry made by direction of that Board, contained such particulars of Lizard Island (off Cooktown) as showed it to be well fitted in many respects for the present purposes.

After consideration and discussion the following resolution was carried unanimously:—

The Federal Quarantine Outport for vessels approaching Australasia from the Northward should be established at Lizard Island, near Cooktown, or at any other place which the Government of Queensland may be able to show to be more suitable, and should be in telegraphic communication with the mainland.

The Committee proceeded to consider the equipment of the Federal Outports, and the following resolution was carried unanimously:—

The permanent buildings at each Federal Quarantine Outport should consist of hospital accommodation for thirty patients and the buildings necessary for the Medical Officer and the permanent staff. Provision should be made at each Federal Quarantine Outport for the temporary accommodation on shore of six hundred persons, in order that all persons may be landed when that step is considered necessary in order to effectually cleanse the vessel.

It being now 1 o'clock p.m., the Committee reported progress.

Upon motion of the President, the Conference adjourned until 10 o'clock a.m. of Friday, September 26.

EIGHTH SESSION.

FRIDAY, 26TH SEPTEMBER, 1884.

The Conference met in the Executive Council Chamber, pursuant on adjournment.

Were present:—

The Delegate of New South Wales, acting for the Crown Colony of Fiji, the President, in the Chair.

The Special Delegate of New South Wales.

The Delegate of Queensland.

The Delegate of South Australia.

The Delegate of Tasmania.

The Delegate of Victoria.

The Delegate of the Crown Colony of Western Australia.

Was absent:—

The Delegate of the Crown Colony of Fiji.

The Conference was called to order by the President at 10 o'clock a.m.

The minutes of the seventh session were read and confirmed.

The Conference again went into Committee of the Whole, and continued to consider the equipment of the Federal Outports.

In Committee:—

The following resolutions were arrived at, and ordered to be added to the three resolutions adopted at the seventh session, and together to form the Report of the Committee.

A Medical Officer should be appointed, who should receive two hundred pounds per annum as a retaining fee; in consideration whereof he shall superintend and constantly maintain in efficient working order the permanent staff and buildings of the outport, and shall always be ready to proceed to the outport upon receiving notice to prepare to receive infected vessels, and to remain there in charge of the sick, and his fees when thus employed shall be five guineas per diem in addition to the retaining fee above mentioned. ▲

A Superintendent should be appointed, who shall be a Storekeeper and a Dispenser, at a salary of two hundred pounds per annum, with a residence but without rations, who shall be responsible to the Medical Officer.

Four men, preferably retired man-of-war's men, should be appointed to fulfil the duties of wardsmen, disinfectors, labourers, and to make themselves generally useful, as they may be directed by the Medical Officer, or in his absence by the Superintendent, at a salary of nine pounds a month each with quarters.

There should be a house which shall contain four rooms and a bath-room for the Superintendent, to which shall be attached, in communication with the former but capable of being shut off from it and having a separate entrance, two rooms and a bath-room for the Medical Officer, and kitchen and offices.

There should be four detached dwellings for the four attendants.

There should be a store.

There should be erected a sufficient number of wooden platforms to accommodate tents enough to hold six hundred people.

There should be a sufficient water supply, which shall be raised into overhead tanks by windmills or otherwise as may be most convenient, and which shall be thence distributed by pipes throughout the establishment.

There should be such laundry accommodation as shall be sufficient to wash the clothes of six hundred persons in thirty-six hours.

There should be an efficient disinfecting apparatus.

The President having taken the Chair :

The Delegate of Victoria (Dr. McCrea) presented the Report of the Committee, and, seconded by the *Delegate of the Crown Colony of Western Australia* (Dr. Rogers), moved its adoption; and it was adopted unanimously.

The President : It appears also that the estimate of the total cost for each outport formed by the Committee amounts to about £12,000, and I propose that we adopt a resolution expressing this opinion.

There being no objection, it was so ordered. The following resolution was accordingly drawn up and unanimously adopted :—

That this Conference is of opinion that this equipment may be provided for each out-port at a cost of about twelve thousand pounds for each out-port.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) : I think that we should pass a resolution expressly stipulating that the expenses of persons quarantined at the outports should fall upon the ship bringing them. I therefore move—

That the expense of the maintenance of the persons landed in quarantine at the outports should be borne by the owners of the vessels.

The Delegate of Victoria (Dr. McCrea) seconded this motion. On being put to the vote it was carried unanimously.

The President : We must now go back to the clause No. 8, in part considered at the first session; for although the first part of it was dealt with, the second part, which is drawn with reference to the compulsory notification of contagious diseases, was allowed to stand over. With regard to this matter, it would be well if the Conference were to express by resolution its opinion of the means whereby the end, which doubtless we all agree in seeking, is most likely to be attained; I mean that the various Governments shall at the earliest possible period obtain information as to the prevalence of infectious diseases among their people. Hitherto, the only means of obtaining this information has been, as it still is, by the mortality returns; but they are available too late to be of any practical value. We desire to prevent the spread of disease, and the information therefore ought to be furnished to the health authorities while the disease is in progress, and, if possible, at its outset. If such reports were available, it would be possible for the Health Officers to go to the spot to give instructions which would limit the contagion, and to trace the source of the disease; and I have no doubt that in a large number of cases epidemics would by this means be nipped in the bud. Dr. B. W. Richardson has pointed out that the first epidemic of diphtheria has been traced to a single small town in England, whence the disease spread over the whole country. If the existence of the disease in that town had been accurately known at the outset, it is quite possible that it might have been entirely prevented from spreading through the community. I suggest, therefore, that we should recommend that an Act should be passed which should compel the householder to report at once the existence of any infectious disease in his family to the appointed official.

The Delegate of Victoria (Dr. McCrea) : All that is done in the Victorian Public Health Act.

I did not know that the Victorian Act refers to measles and scarlet fever, whooping cough, and typhoid fever. It is notorious that in all the Colonies children are sent to school suffering from scarlet fever and measles, or from houses infected with them, or just after recovering from them, thus becoming very prolific sources of infection where they are not detected and sent home again; and legislation should be made to meet this state of affairs, as well as for the compulsory registration of infectious disease, which is desirable to enlarge our knowledge of the origin and spread of epidemics as well.

The Delegate of Victoria (Dr. McCrea) : Our Act applies to all infectious diseases alike.

The Delegate of Queensland (Dr. Bancroft) : It is very certain that children carry infection with them to school, and it cannot be expected that the teachers should be able to recognize diseases, or to ascertain whether disease exists in the family from which children are sent to school. The result is that schools are often centres from which disease is widely disseminated.

The Delegate of South Australia (Dr. Paterson) : I think the doctor should be compelled to report small-pox, plague, or cholera, and such diseases, but in other cases the householder should be held responsible.

The Delegate of Tasmania (Dr. Turnley) : Although there is no legal enactment on the subject in Tasmania, it is the general practice for medical men to report to the Health Officer, so that precautions may be taken. I think, however the onus should lie upon the householder.

The Delegate of the Crown Colony of Western Australia (Dr. Rogers) : I think myself that the medical man is the proper person to report the existence of any disease of an infectious nature; for although of course we owe a duty to our patients, we also owe a duty to the community and are in a measure responsible for its safety.

The Special Delegate of New South Wales (Dr. Ashburton Thompson) : I am obliged to say that I entirely disagree with the Delegate of the Crown Colony of Western Australia. Physicians owe no duty

to the State which is not shared in common by every other citizen. It must, I think, be now ten years since I first wrote and spoke upon this subject in London. I have always consistently held the opinion that, the notification of disease being desirable both to prevent the extension of it by contagion and to enlarge our knowledge of the conditions under which epidemics occur, the compulsion to notify should be laid upon all persons alike as being simply a civic duty, and not especially upon the physician. I express this opinion again to-day, but in circumstances which are vastly different. Ten or twelve years ago public opinion upon this point was unformed; the profession foresaw but little objection to the compulsion to notify being laid upon it. The consequence was—everybody being quite of one mind that compulsory notification is desirable—that, first in one city and then in another, medical men found that under a clause introduced into some Private Act of Parliament, entitled Gas and Water Act or Highways Act of such and such a city, or by some other title equally well calculated to avoid the suspicion that any such clause could possibly be introduced in it and therefore to avoid discussion, they were saddled with the task of reporting. Now, during the last three or four years we have all had the opportunity of watching the result of the experiments thus tried; and we know that while in several of these towns such agitation has been carried on against these clauses as only falls short of rebellion against the law, the whole profession in England, both by a resolution of the British Medical Association—which as you know numbers 10,000 members and more—and otherwise, has, upon various grounds, declared itself against the laying of the compulsion upon the physician. Now, I do not cite this fact to you because it is English, but because the action taken is based upon the principle by which I know you are all guided, namely, that a patient's confidences should be regarded by the doctor as inviolable, just as they are regarded as inviolable by the lawyer and the priest. This has been instilled into us so early that we act in accordance with it without reflection; and so that some of us, I do not doubt, forget that in so acting they are acting upon a sacred principle which was laid down for us by the Father of Medicine, and which has lived with vital force ever since. Now I will take an extreme illustration of this position. The term contagious or infectious disease includes syphilis. I am quite anxious that it should be understood to include syphilis. No disease so deadly, obstinate, treacherous, and far-reaching, is known to medicine; and against it we have absolutely no protection, except such as isolation of cases of it may afford. I am more anxious therefore to seize upon this means of controlling syphilis than to seize upon it as against cholera or yellow fever even; but I am not prepared to become the informer, and I will ask you—you who are the confidants, the advisers, the consolers, the trusted friends of your people; far more freely if not more implicitly trusted than their spiritual advisers—I ask you, are you prepared to become the informers, and therefore, in some cases at least, the last moving causes of domestic misery? Well, I think I see that you are not willing to play this rôle, and I therefore leave this extreme illustration upon one side. Whatever the disease may be, the same principle guides us. In truth, a little exactitude of thought would prevent the most superficial person from falling into the error which is committed when the ordinary social duty of not injuring our neighbours by infecting them with deadly fevers is confounded with the special duty of our profession to show how disease may be prevented. Observe, I do not say to prevent disease. That is in the power only of the whole community acting in concert; it is beyond the powers of any individual, or small section of society. As citizens we equally share the executive labour with other citizens; as physicians we direct the united powers of the community into useful channels in virtue of our special knowledge. This and no more is our duty, if we choose to practise our profession—to show the way. I have here many cuttings from various medical journals which, while they show that professional opinion is what I have stated it to be in England (and indeed in other parts of the world), show also that when the compulsion is laid upon the physician the object sought is actually obstructed. I need not say that this results not from the action of the doctors—we are, and we are proud to be known to be, the intelligent friends of law and order—but from that of the public, who, under these circumstances, are found to conceal their cases to the very last extremity. It is already long past our usual hour of rising, and it is, I know, unnecessary that I should read these extracts to you. Mainly, moreover, I support the principle I have described; and I beg leave to move, therefore:—

That this Conference earnestly desires that it may be made compulsory to notify infectious diseases in all the Colonies; but it is of opinion that the compulsion to notify should not be laid upon the medical attendant, but that every useful purpose will be served if the compulsion be laid upon the householder or person in charge of the sick only.

The Delegate of Queensland (Dr. Bancroft): I second that motion.

The President: In putting this resolution to the vote, I may say that I entirely agree with it. I think the suggestion that the term infectious disease really includes syphilis, excellent. That is my opinion, and I express it distinctly, because of the desire on the part of some people to have special legislation of another kind for the eradication of syphilis. I think there is such a law in Queensland, in Tasmania, and in Victoria, but these special laws are said to have failed in their object, whether on account of difficulties in the way of carrying them out or for other reasons. The only way to materially diminish this disease is to get at it by compulsory notification.

The Delegate of Victoria (Dr. McCrea): Just one little point to strengthen this. I think that it is desirable to impose no penalties upon the doctors, because I think that they should be kept the voluntary friends of law which they have always shown themselves to be. Nevertheless, I think that while the compulsion to notify the presence of disease to the authorities should be enforced upon the householders, under penalties for neglect, the doctor should be obliged to inform the householder of the nature of the disease. I should be glad therefore if the Special Delegate of New South Wales could modify his motion so as to express this.

Thereupon the motion was amended as follows:—

This Conference earnestly desires that the notification of infectious diseases should be made compulsory in all the Colonies, but is of opinion that every useful purpose is served when the physician is required to inform the householder in writing of the nature of the disease and when the obligation to notify the existence of the disease to the authorities is laid upon the householder alone.

And upon being put to the vote it was agreed to unanimously.

It being now 1:30 o'clock, upon motion of the President, the Conference adjourned until 10 o'clock a.m. of the 27th September.

NINTH SESSION.

SATURDAY 27th SEPTEMBER, 1884.

The Conference met in the Executive Council Chamber, pursuant on adjournment.

Were present:—

- The Delegate of New South Wales, acting for the Crown Colony of Fiji, the President, in the Chair.
- The Special Delegate of New South Wales.
- The Delegate of Queensland.
- The Delegate of South Australia.
- The Delegate of Tasmania.
- The Delegate of Victoria.
- The Delegate of the Crown Colony of Western Australia.

Was absent:—

- The Delegate of the Crown Colony of Fiji.

The Conference was called to order by the President at 10 o'clock, a.m.
The minutes of the eighth session were read and confirmed.

The Conference proceeded to consider the various Quarantine Laws at present in force, and the following resolutions were unanimously carried:—

- That this Conference accepts part VI. Quarantine of the Public Health Statute 1865 of Victoria as the basis upon which to frame a Federal Quarantine Act.
- That the said Part of the said Statute should be modified in accordance with the Resolutions in general adopted by this Conference in so far as they touch upon subjects proper to be dealt with in a Quarantine Act of Parliament.
- That without prejudice to the tenour of the preceding Resolutions, the following points be especially mentioned of which it appears to this Conference alteration should be made:—
 18. Mails and loose letters should be excepted from the list of articles mentioned in Clause 86 as liable to Quarantine, the same nevertheless to be carefully disinfected before being handed over to the Post Office officials.
 19. All penalties prescribed should be in the amounts at present named, but the words "not exceeding" or "not more than" preceding the said penalties should be struck out, and the penalties be made absolute in the said amounts.
 20. Clause 95 should be so altered that every ship liable to inspection making any Australasian port shall be obliged to hoist the yellow flag therein ordered to be hoisted by ships liable to Quarantine and to keep it flying until the Health Officer shall order it to be hauled down, or at night-time the signal lantern therein described, and so that the laws applying to ships in Quarantine shall apply to every such incoming ship until the said flag shall have been hauled down by order of the Health Officer, the object being to prevent all communication with incoming vessels until the Health Officer shall have satisfied himself that they are not liable to Quarantine.
 21. From Clause 101 and elsewhere, if they are used in the same sense, the words "for the purpose of going ashore" should be omitted.
 22. The 9th and 11th Clauses of 17 Victoria No. 29 should be added.
- 23. That one Quarantine Bill should be drawn upon the lines herein indicated, and that it be recommended for adoption to the Legislatures of the various Colonies, under the title of The Federal Quarantine Act of Australasia.

The Delegate of Victoria (Dr. McCrea): I think that the establishment of the outport stations should be carried out under the superintendence of some member of this Conference. At King George's Sound, doubtless, the work will be superintended by the Delegate of the Crown Colony of Western Australia, but no one will be at liberty to take the matter up in Queensland. I suggest therefore that the Special Delegate of New South Wales should be named to the Government of Queensland to undertake the work, as he is the only member of the Conference who would be at liberty to do it, and is thoroughly well acquainted with our views. He also has special knowledge of sanitary work, and it is desirable that no mistakes should be made. Possibly the President might be able to forward a representation to the Queensland Government on the matter, or it might be more fitly done perhaps by the Delegate of Queensland himself.

After some informal discussion *the Delegate of Queensland (Dr. Bancroft)* pointed out that, as some time must elapse before the actual construction of the outports could be begun, it might be inadvisable to name any particular Delegate for this duty.

The Delegate of Victoria (Dr. McCrea): Then I will make the following motion:—

That this Conference is of opinion that, in order that the Federal Outports may be constructed in accordance with its intentions and wishes, the design of each outport should be entrusted to one of the Delegates who, from having taken part in these proceedings, is most competent to select the site, to plan the establishment and superintend its construction; and that in the case of Queensland, the Delegate selected shall visit any place which may be recommended by the Government of that Colony as a site for this purpose.

The Delegate of Queensland (Dr. Bancroft): I have pleasure in seconding it.

Upon being put to the vote it was unanimously carried.

It being 1 o'clock p.m., the Conference adjourned until 10 o'clock a.m. of the 30th September.

TENTH SESSION.

TUESDAY, 30 SEPTEMBER, 1884.

The Conference met in the Offices of the Health Department.

Were present :—

- The Delegate of New South Wales, acting for the Crown Colony of Fiji, the President, in the Chair.
- The Special Delegate of New South Wales.
- The Delegate of Queensland.
- The Delegate of South Australia.
- The Delegate of Tasmania.
- The Delegate of Victoria.
- The Delegate of the Crown Colony of Western Australia.

Was absent :—

- The Delegate of the Crown Colony of Fiji.

The Conference was called to order by the President at 10 o'clock a.m.
The minutes of the ninth session were read and confirmed.

The Conference resolved itself into a Committee of the Whole, in order to consider the Resolutions hitherto adopted and to make such alterations and additions as might seem advisable.

Dr. McCrea took the Chair.

Certain additions and alterations having been agreed to and made,—

Dr. Ashburton Thompson proposed that the amended Resolutions should be rearranged in a certain order which he showed.

Dr. Paterson moved that the whole body of Resolutions be entered afresh in the minutes, with the alterations now adopted, and in the order proposed by *Dr. Ashburton Thompson*.

Dr. Bancroft seconded the motion, and it was agreed to unanimously.

The *President* having resumed the Chair, the *Delegate of Victoria* (*Dr. McCrea*) presented the Report of the Committee and moved its adoption.

The *Delegate of the Crown Colony of Western Australia* (*Dr. Rogers*) seconded the motion.

On being put to the vote it was agreed to unanimously.

It being now 1.20 o'clock p.m. the Conference adjourned until 3.30 o'clock p.m., in order that the necessary entries in the minutes might be made.

The Conference reassembled in the Offices of the Health Department at 3.30 o'clock p.m.

The minutes of the present Session having been read and confirmed,—

The *President* proposed that the Resolutions, amended, rearranged, and entered in the minutes, as had been unanimously resolved, be taken as read, and be forthwith signed by the Delegates of the Colonies and Crown Colonies represented, in alphabetical order of the names of their respective Colonies; and it was so ordered.

The following document was then so signed accordingly :—

The Resolutions adopted at the Australasian Sanitary Conference of Sydney, N.S.W., 1884, unanimously approved, and signed by the Delegates at the Tenth Session held 30th September; being the last act of this Conference.

TITLE.

1. That this Conference be named "*The Australasian Sanitary Conference of Sydney, N.S.W., 1884.*"

DEFINITIONS.

2. That the word "*vessel*" or "*ship*" in these proceedings shall be interpreted to mean the vessel and all persons and things on board.
3. That by Quarantine this Conference understands such measures taken in regard to vessels coming to the various Australasian ports as will effectually protect the Australasian Colonies from the invasion of contagious or infectious disease consistent with the least possible interference with the liberty of individuals and with the least possible restriction to commerce.
4. That a vessel infected with small-pox is one which has carried a case of that disease during the voyage.

PRINCIPAL RESOLUTIONS.

5. That since Australasia consists of adjoining territories and adjacent islands which are remote from the rest of the world but are in daily communication with each other by railways and steam-vessels it is desirable that the several Governments should agree in their laws and practice of Quarantine.
6. That it is desirable to have accurate information of the state of the public health in the exporting country and in ports touched at upon the voyage.
7. That special measures should be taken to ensure the departure of immigrant vessels under such conditions both as regards crews and passengers as shall ensure freedom from infectious sickness during the voyage.
8. That when a port is declared infected it should be gazetted by all the Colonies simultaneously.
9. That it is desirable that the various Governments should be accurately informed of the state of the Public Health in the Colonies respectively under their control.
10. That measures should be taken by each Colony to secure the health of the people and to obtain the earliest information of the presence and prevalence of infectious disease among them.

11. *That matters affecting the Public Health should be made known by each Colony to every other and that this should be done by direct communication between the Medical Advisers to the various Governments.*
12. *That it be suggested to the Governments of the various Colonies that they do instruct their several Agents-General in London to obtain all the information possible relating to the outbreak of contagious and infectious disease in various parts of the world and communicate the same to the Colony of New South Wales which shall disseminate the information among the other Colonies.*
13. *That it is expedient to establish outports for purposes of quarantine to which vessels approaching Australasian ports with virulent infectious disease on board shall repair before proceeding to their first port of call in Australasia at such points as may be deemed most convenient for the intended purpose.*
14. *That vessels repairing to such ports and there discharging the sick and such persons as may be considered to have run most risk of infection and having undergone such purification as may be ordered may proceed upon their voyage in Quarantine.*

SPECIAL RESOLUTIONS.

AS TO LAWS.

15. *That this Conference accepts Part VI. Quarantine of the Public Health Statute 1865 of Victoria as the basis upon which to frame a Federal Quarantine Act.*
16. *That the said Part of the said Statute should be modified in accordance with the Resolutions in general adopted by this Conference in so far as they touch upon subjects proper to be dealt with in a Quarantine Act of Parliament.*
17. *That without prejudice to the tenour of the preceding Resolutions the following points be especially mentioned of which it appears to this Conference alteration should be made:—*
 18. *Mails and loose letters should be excepted from the list of articles mentioned in Clause 86 as liable to Quarantine the same nevertheless to be carefully disinfected before being handed over to the Post Office Officials.*
 19. *All penalties prescribed should be in the amounts at present named but the words "not exceeding" or "not more than" preceding the said penalties should be struck out and the penalties be made absolute in the said amounts.*
 20. *Clause 95 should be so altered that every ship liable to inspection making any Australasian port shall be obliged to hoist the yellow flag therein ordered to be hoisted by ships liable to Quarantine and to keep it flying until the Health Officer shall order it to be hauled down or at night-time the signal lantern therein described and so that the laws applying to ships in Quarantine shall apply to every such incoming ship until the said flag shall have been hauled down by order of the Health Officer the object being to prevent all communication with incoming vessels until the Health Officer shall have satisfied himself that they are not liable to Quarantine.*
 21. *From Clause 101 and elsewhere if they are used in the same sense the words "for the purpose of going ashore" should be omitted.*
 22. *The 9th and 11th Clauses of 17 Victoria No. 29 should be added.*
23. *That one Quarantine Bill be drawn upon the lines herein indicated and that it be recommended for adoption to the Legislatures of the various Colonies under the title of The Federal Quarantine Act of Australasia.*

AS TO THE BILL OF HEALTH.

24. *That each vessel should bear but one Bill of Health which should be endorsed at each port of call.*
25. *That the Bill of Health should be of a prescribed form namely that known as the International Bill of Health.*
26. *That the fact of any vessel bearing a clean Bill of Health shall not necessarily exempt her from a thorough medical inspection.*

AS TO IMMIGRANTS.

27. *That Emigrants from Great Britain should be required to present a certificate at the Depot in that Kingdom signed by the Medical Officer of Health for the district from which they come declaring the state of the Public Health in that district as to infectious disease and that the Agents-General be instructed to give effect to this Resolution.*
28. *That if small-pox is epidemic in the district from which any emigrant comes every such emigrant shall be vaccinated or re-vaccinated as the case may be before he shall be allowed to embark.*
29. *That if any other infectious disease is epidemic in the district from which any emigrant comes all his clothes and effects shall be disinfected before he shall be allowed to embark.*

AS TO COMPULSORY VACCINATION.

30. *That in the opinion of this Conference the welfare of the whole group of Australasian Colonies demands the enactment of Compulsory Vaccination Laws in each Colony without any delay.*

AS TO NOTIFICATION OF INFECTIOUS DISEASES.

31. *This Conference earnestly desires that the notification of infectious diseases should be made compulsory in all the Colonies but is of opinion that every useful purpose is served when the Physician is required to inform the Householder in writing of the nature of the disease and when the obligation to notify the existence of the disease to the Authorities is laid upon the Householder alone.*

AS TO PARTICULAR DISEASES.

Small-pox.

32. *That it shall be the duty of the Surgeon on board any passenger ship destined for Australasia to supply himself with vaccine lymph either human or bovine or both sufficient to vaccinate and re-vaccinate the whole of the passengers and crew.*
33. *That it shall be the duty of the Surgeon on board any passenger ship in which small-pox occurs during the voyage to vaccinate and re-vaccinate the whole of the passengers and crew on board such ship.*
34. *That persons arriving in an infected ship not being themselves affected shall be re-vaccinated.*
35. *That persons able to satisfy the Health Officer that they have been successfully re-vaccinated at a date being not more than six months previous to their arrival in an infected ship may at the discretion of the Health Officer be released after such time as is necessary to cleanse and disinfect their clothing on shore.*
36. *That those in whom vaccination runs a normal course or who after repeated trials at the Quarantine Ground prove to be insusceptible of vaccination may be released on the fifteenth day.*
37. *That those who refuse vaccination or re-vaccination shall be detained until the Health Officer is satisfied of their inability to spread small-pox but for no shorter period than twenty-one days.*

Cholera.

38. *That any vessel having on board any case of cholera whether Asiatic or sporadic or any case which may reasonably be supposed to be cholera in either of these or any other form shall be quarantined.*
39. *That all hands except such as are actually necessary to cleanse the ship expeditiously and thoroughly shall be landed at the Quarantine Ground at the terminal port where they shall be detained for a period of not less than ten clear days.*
40. *That at the terminal port in order to facilitate cleansing operations cargo shall be discharged into lighters and may thence be passed out of Quarantine.*
41. *That cleansing having been completed the hands employed thereat shall be quarantined for the space of ten clear days.*
42. *That a crew may be supplied to the vessel from the hands first quarantined if the prescribed period has elapsed or otherwise as may be convenient.*

Yellow Fever.

43. *That any vessel arriving from a country infected with yellow fever shall be required to discharge cargo into lighters and to remain at the Quarantine Ground and in Quarantine until she shall have been cleansed and purified.*
44. *That her cargo shall be landed at Quarantine wharves and shall there be freely exposed to the air for ten clear days.*
45. *That the vessel shall be thoroughly cleansed as may be specially ordered in the case of yellow fever.*
46. *That if no case of yellow fever have occurred on board during the voyage being more than ten days from the date of leaving the infected port her passengers may be admitted to pratique but that if any case have occurred on board the passengers and crew shall be detained for ten clear days on shore at the Quarantine Ground and their effects as long as may be necessary to disinfect them to the satisfaction of the Health Officer.*
47. *That vessels bearing cases of disease not easily distinguishable from yellow fever shall be subjected to the same treatment as for yellow fever.*

Typhus and Relapsing Fevers.

48. *The period of detention for typhus and relapsing fever shall be twenty-one days.*

Typhoid and Scarlet Fevers, Measles, Diphtheria, &c.

49. *That although it is desirable to eradicate typhoid and scarlet fever measles diphtheria and other such diseases from the Colonies it has not been shown to the satisfaction of this Conference that any measures of Federal Quarantine that could be adopted would be generally successful This Conference therefore recommends that the Health Officer of the port for which such passengers are destined shall use his discretion by detaining vessels which bear cases of such diseases for such times as may be necessary to land the sick and their attendants and to purify and disinfect the part of the vessel used by them the persons landed being detained until he is satisfied of their inability to spread the disease in question.*

Leprosy.

50. *That in the opinion of this Conference a special examination should be made of all Indian and Chinese immigrants upon their arrival in Australasia in order to ascertain the presence or absence of Leprosy among them.*

Rabies.

51. *That in view of the danger that rabies will become endemic in Australasia unless measures are taken to obviate it it is advisable that the various Colonies should prohibit the further importation of dogs except they be detained in Quarantine for a period of not less than six months.*

AS TO FEDERAL QUARANTINE OUTPORTS.

52. *The Federal Quarantine outport for vessels approaching Australasia from the Westward should be established at King George's Sound and should be in telegraphic communication with the mainland.*

53. *The Federal Quarantine outport for vessels approaching Australasia from the Northward should be established at Lizard Island near Cooktown or at any other place which the Government of Queensland may be able to show to be more suitable and should be in telegraphic communication with the mainland.*
54. *The permanent buildings at each Federal Quarantine outport should consist of hospital accommodation for thirty patients and the buildings necessary for the Medical Officer and the permanent staff. Provision should be made at each Federal Quarantine outport for the temporary accommodation on shore of six hundred persons in order that all persons may be landed when that step is considered necessary in order to effectually cleanse the vessel.*
55. *A Medical Officer should be appointed who should receive two hundred pounds per annum as a retaining fee in consideration whereof he shall superintend and constantly maintain in efficient working order the permanent staff and buildings of the outport and shall always be ready to proceed to the outport upon receiving notice to prepare to receive infected vessels, and to remain there in charge of the sick and his fees when thus employed should be five guineas per diem in addition to the retaining fee above mentioned.*
56. *A Superintendent should be appointed who shall be a Storekeeper and a Dispenser at a salary of two hundred pounds per annum with a residence but without rations who shall be responsible to the Medical Officer.*
57. *Four men preferably retired man-of-war's men should be appointed to fulfil the duties of wardsmen disinfectors labourers and to make themselves generally useful as they may be directed by the Medical Officer or in his absence by the Superintendent at a salary of nine pounds a month each with quarters.*
58. *There should be a house which shall contain four rooms and a bath-room for the Superintendent to which shall be attached in communication with the former but capable of being shut off from it and having a separate entrance two rooms and a bath-room for the Medical Officer and kitchen and offices.*
59. *There should be four detached dwellings for the four attendants.*
60. *There should be a store.*
61. *There should be erected a sufficient number of wooden platforms to accommodate tents enough to hold six hundred people.*
62. *There should be a sufficient water supply which shall be raised into overhead tanks by windmills or otherwise as may be most convenient and which shall be thence distributed by pipes throughout the establishment.*
63. *There should be such laundry accommodation as shall be sufficient to wash the clothes of six hundred persons in thirty-six hours.*
64. *There should be an efficient disinfecting apparatus.*
65. *That the expense of the maintenance of the persons landed in Quarantine at the outports should be borne by the owners of the vessels.*
66. *That this Conference is of opinion that this equipment may be provided for each out-port at a cost of about twelve thousand pounds for each out-port.*
67. *That this Conference is of opinion that in order that the Federal outports may be constructed in accordance with its intentions and wishes the design of each outport should be entrusted to one of the Delegates who from having taken part in these proceedings is most competent to select the site to plan the establishment and superintend its construction and that in the case of Queensland the Delegate selected shall visit any place which may be recommended by the Government of that Colony as a site for this purpose.*

CHARLES K. MACKELLAR.
 J. ASHBURTON THOMPSON.
 JOSEPH BANCROFT.
 ALEX. S. PATERSON.
 GEORGE TURNLEY.
 W. McCREA.
 CECIL ROGERS.

THE PRESIDENT OF THE CONFERENCE,—

CHARLES K. MACKELLAR.

THE SECRETARY OF THE CONFERENCE,—

J. ASHBURTON THOMPSON.

30 September, 1884.

APPENDIX A.

FEDERAL QUARANTINE.

The Secretary, Board of Health, Melbourne, to The Under Secretary.

Central Board of Health, Melbourne, 5 December, 1883.

MEMO.—The newly constituted Central Board of Health held their first meeting this day, when, in compliance with the request of the Honourable the Chief Secretary, they at once discussed the question of Federal Quarantine, as submitted to the late Board some time since, in a pamphlet published by Dr. C. K. Mackellar, the Medical Adviser to the Government of New South Wales, by whom this scheme of Federal Quarantine has been proposed.

The Board have the honour to report:—

I. That they are of opinion it is very desirable to establish Federal Quarantine Stations at Western Australia, Northern Queensland, and New Zealand, on the basis suggested by Dr. Mackellar, and also by the New South Wales Branch of the British Medical Association, whose resolutions on the subject were forwarded by the Government of that Colony, and are attached hereto.

II. On the question of sites the Board have collected certain information, which they beg to urge on the attention of the Chief Secretary.

III. Presuming that one of the stations will be fixed at Albany, the Board are of opinion that it will be wise to establish the station on Rabbit Island, for the reasons given in the letter (attached) from Dr. Rogers, the Resident Medical Officer at Albany, to the Central Board.

IV. On the question of a site in Northern Queensland, the Board are of opinion that Thursday Island is unsuitable. The Quarantine Station on this line of route must have telegraphic communication with the coastal centres, must have ample provision for obtaining fresh food, an ample supply of fresh water, convenience for debarkation, and thoroughly efficient medical supervision and attendance.

V. These provisions are not to be obtained at Thursday Island, which has, besides, many other disadvantages.

VI. The Board made inquiries as to another site, in place of that above suggested, and venture to recommend that Lizard Island, near Cooktown, be adopted, as possessing all the necessary conditions.

VII. On this point some particulars are given in the letter of Captain Fahey (the Harbour Master of Cooktown) to this Board, copy of which is attached.

VIII. The Board do not deem it necessary to deal with the question of a site in New Zealand, nor, at this stage, with the minor details of the proposed scheme of Federal Quarantine.

JOHN J. SHILLINGLAW,

Secretary.

FEDERAL QUARANTINE.

By DR. CHARLES K. MACKELLAR,
Health Officer and Medical Adviser to the Government of New South Wales.

[Read before the Medical Section of the Royal Society of N.S.W., 20 July, 1883.]

At a meeting of the Medical Section of the Royal Society of New South Wales, on 20th July, 1883, at their house, Elizabeth street, Sydney, Dr. Frederic Norton Manning in the Chair, the following paper on the necessity of a system of Federal Quarantine for the Australasian Colonies was read by Dr. Charles K. Mackellar, Health Officer and Medical Adviser to the Government of New South Wales:—

I have been invited to initiate this evening a discussion upon the whole question of quarantine, and I willingly accede to the request, as I fully recognize the necessity for our arriving at clear and decided views as to what amount of quarantine restriction is and what is not necessary in order to afford us the greatest amount of security from extraneous epidemic diseases. I propose, in a general and discursive way, to give a short history of quarantine, and to answer in the affirmative the three following questions:—

- 1st. Is the imposition of quarantine in accordance with the teaching of modern medical science?
- 2nd. Is it advisable that a rigorous quarantine should be maintained throughout Australia?
- 3rd. Is it necessary that there should be a mutual agreement between our various Governments on this subject—in fact, a federal quarantine?

During the short period in which I have held an official position in the Health Department of New South Wales, I have been asked so often, with such seeming earnestness, and by such intelligent and thoughtful men, whether quarantine is really necessary, that it appears to me that people, as a rule, have no very clear ideas upon the subject. Nor is this to be wondered at, as it is imposed at comparatively rare intervals, and perhaps not one in a thousand of our population has been at any time subject to its influence. Moreover, many commercial writers, and even some medical authors of the greatest repute, especially in those countries which have very large commercial interests at stake, and at the same time such a geographical position as renders efficacious quarantine in their case impossible, at times decry the beneficial influence to be derived from its imposition.

A short time ago I had placed in my hands by the Government a letter written by Dr. Sedgwick Saunders, the Medical Officer of Health for the city of London, and addressed to the Eastern and Australian Steam Navigation Company, wherein the following sentences occur:—"Respecting the question of quarantine, it is pretty well agreed among American and English sanitarians that the medical inspection of a ship, with a proper supply of detached hospitals, is infinitely preferable to the detention of a number of healthy people for any portion of what may be termed the 'incubation' period. Quarantine is not only utterly useless in small-pox, or diseases of the zymotic class, which have a definite time for their development after exposure to contagion, but it leads to all kinds of deceit and falsehood on the part of those who

who are interested in clearing the ship, besides inflicting great personal inconvenience upon healthy persons." And further on in the same document a very important statement is made, as follows:—"The most recent authoritative dictum upon this subject is that published in the 'Supplement to the Ninth Annual Report of the Local Government Board, 1879-80, in a paper by Mr. J. Netten Radcliffe, where we find the following:—"Quarantine rests upon the traditions of medicine—not upon the existing state of medical knowledge in British medical schools as to the diseases to which it is applied. The experience of quarantine in this country has been such as to show its utter futility as a practical measure of precaution against the invasion of a foreign disease, and for some time past it has been seen that such medical reasons as can be pleaded for it are countervailed by medical and social reasons of quite equal force against it. Hence quarantine is now retained on the statute book for the purpose of avoiding certain disabilities to which our shipping would else be subject in countries in which quarantine is held to be an essential element in the prevention of certain spreading diseases."

In the face of such a dictum, one cannot wonder at the impatience exhibited by the trading community when one of their vessels is detained. What the medical reasons which countervail the performance of quarantine are I know not, as the way in which we conduct it in this Colony implies a strict adherence to known sanitary laws, such as the segregation of the sick, the disinfection of persons and things, and the thorough cleansing of vessels. The social reasons are apparent to all, but I think that if the commercial reasons had been added the matter would have been clearer still. So far as I can see, the whole of the objections to our quarantine may be summed up in the inconvenience and thralldom to persons and the temporary damage to commercial interests. The imposition of quarantine upon a ship not only implies a very serious monetary loss to her owners, but it also entails the arbitrary detention of a number of apparently healthy people—not because of any act of their own, but simply because they have been unfortunate enough to come within the range of virulently infectious disease. It is a sort of imprisonment without a crime; and I have therefore deemed it my duty, while enforcing a rigid examination of persons and vessels likely to endanger the public health, to make the detention of ships as short as is consistent with perfect innocuousness, and the imprisonment of the unfortunate passengers as free of unpleasantness as the circumstances of the case would permit.

I may here give you a brief outline of the method in which we conduct our quarantine at this port. All vessels from places beyond the Colonies are subjected to inspection by the Assistant Health Officer, whether they have clean bills of health or not, unless they have touched at one of the colonial ports *en route* to Sydney; but on the Governor and Executive Council proclaiming that any port or country is affected with infectious disease, a vessel arriving from such country is rigorously examined, notwithstanding her having touched at and received pratique at a colonial port; and, moreover, in her case the examination must be conducted during daylight at the Quarantine Station. If the boarding officer is satisfied that her admission is not likely to endanger the public health, he immediately gives her pratique; but if the sanitary condition is such as to be likely to prejudice the public health, his duty is to detain her until a satisfactory cleansing process is effected; and should she have virulently contagious sickness on board, the passengers and crew are detained for such a period as may be deemed necessary. For instance, on the arrival of a ship at this port with small-pox on board, she is immediately placed in quarantine; all communication with the shore, except through the medium of the quarantine officers, is interdicted; the patients and convalescents are removed to their respective hospitals, and the passengers and crew of the vessel, all of whom have of course necessarily been within the range of infection, are taken on shore, isolated, and detained for twenty-one days, which term our experience in the late epidemic furnishes some evidence to show may be considered as the limit of the period of incubation of small-pox. The principle which guides us is, that persons who may reasonably be suspected to be incubating virulently infectious disease should be detained for a sufficient time to allow the disease to develop; but that, with regard to ships, all that is required is thorough cleansing and fumigation, for in their case time is not esteemed as being by any means an important element whereby we may obtain safety. When vessels arrive at night, except from proclaimed ports, the custom has been to have them immediately examined, and, unless the passengers are found to be suffering from infectious disease, to give them pratique; but I am by no means convinced that this is a safe course, because of the known difficulty which always attends the diagnosis of mild cases; and, after all, detention until daylight could hardly be considered a very great hardship, while it might prevent an error in diagnosis which would plunge the whole Colony into epidemic sickness.

What was by early Scriptural metaphor so aptly called "the pestilence that walketh in darkness" has from time to time throughout all ages spasmodically engaged the attention of mankind; but curiously enough, this subject, which above all others has most materially affected the happiness of individuals, the prosperity of countries, and even the progress of the civilized world, has for the most part only been seriously considered during the course of some awful epidemic, and at its close nations have lapsed into the apathetic state until aroused by another similar calamity. As Hirsch says, "It is human nature to soon forget past sufferings. We bury our dead; a little time will dry our tears; in another little time we dance over their graves."

In early times no effort seems to have been made to trace the epidemics which devastated Europe. The physicians of the 14th Century seem not only to have been unable to cope with the terrible mortality of the black death, which swept off in four years one-fourth of the population of the old world, but they seem to have been unable in any way to trace its origin; and the same may be said of the pestilence called the sweating sickness of 1485, the plague of London in 1499, and again the sweating sickness in 1506. But during the previous century the inhabitants of the countries bordering upon the Mediterranean had begun to observe that the Levant was the channel through which these visitations reached them; and reasoning from the experience that communities isolated upon remote islands did not apparently suffer in the same ratio as the more easily accessible populations, they seemed to have formed the idea of a quarantine for all vessels arriving from that locality. At first this procedure arbitrarily entailed a detention for forty days, but of late years this has been much modified; the laws of those countries are, however, still very arbitrary in their provisions as regards quarantine, and there is good reason to suspect that commercial jealousies have occasionally stimulated various ports to prostitute the law by proclaiming as infected their more prosperous neighbours, simply in order to injure their commerce and to irritate and annoy their rulers. However, the earnestness and vigour with which those countries still advocate a modification of the old system would seem to show that it must have rendered good service in the past.

The subject of quarantine has been deemed of such vast importance by European nations that during the last thirty-two years no less than thrice have what have been called International Sanitary Conferences been convened to discuss the whole question. The first of these, which was held in Paris in 1851, was very comprehensive in its scope, as it undertook to determine the question of quarantine in respect not only to cholera but also to other infectious diseases, and especially yellow fever and the plague. It must be here noted that small-pox, typhus, and some other infectious diseases were considered endemic in Europe, and therefore were not discussed. There were present both consular and medical delegates from Great Britain, France, Austria, Russia, Spain, Portugal, Greece, Tuscany, Naples, the Papal States, and Turkey. For no less than eight months they continued their deliberations, and amongst them there seemed to be a very great difference of opinion as to the necessity for strict quarantine, especially as regards cholera, the British, French, and Austrian members being opposed to its being rigorously carried out; but it was nevertheless carried by a large majority that a modified quarantine should be maintained. The British did not assent, because the restriction upon the freedom of intercourse was considered unnecessarily harsh; but it is worthy of note that within a few years afterwards the quarantine of some of the countries represented was more more rigorous than ever.

The International Conference on the same subject in 1866, which was held at Constantinople, was chiefly on the subject of cholera; it was attended by representatives from Great Britain, France, Austria, Prussia, The Netherlands, Belgium, Denmark, Russia, Spain, Portugal, Greece, Italy, Sweden and Norway, the Papal States, and Egypt. Here the French representatives seem to have taken the initiative, and to have recommended very much more stringent measures than those opposed by them at the Conference of 1851. In fact their proposal would virtually have stopped all trade in the Red Sea, during the prevalence of cholera, among the pilgrims who annually visit Mecca, and who are so liable to its ravages. The English delegate again opposed, on the ground of interference with commerce; but the Swedish representative immediately met him with the argument that the interests of the public health should override all other considerations. The question that the Turkish Government should be recommended to adopt these rigorous measures was decided in the affirmative by a majority of 17 to 8. It was also decided that India, especially the valley of the Ganges, was the source from which the pestilence always rose; that it was transmissible by human intercourse between places was also shown, and the efficacy of restrictive measures was very clearly proved, the several countries which escaped the visitation of 1865 being those where a rigorous quarantine was maintained. And finally, the fact that bad hygienic and general insanitary conditions predisposed places to virulent epidemics of cholera when once it was imported was very generally agreed to.

The last great Conference, which was held at Vienna in 1874, was the most scientifically conducted and the most important of all. It was called together by the Government of Austria, and no less than twenty-one Governments sent representatives. Its business was divided into four sections:—1st. Scientific questions relating to cholera and other diseases of epidemic nature. 2nd. Questions as to quarantine. 3rd. Concerning the formation of a permanent International Commission upon Epidemics. 4th. As to yellow fever. The discussion upon cholera occupied so much time that the last section was left out of consideration; but it was unanimously resolved that the first-named disease could be, and was, transmitted not only by persons coming from an infected locality, but by the personal effects of those who have been affected; and it was, by a majority, resolved that it could be produced in a variety of other ways, which I need not now enumerate. The second question was divided into two parts, quarantine by land and quarantine by sea. Land quarantine was, by a majority, pronounced impracticable; but the Conference expressed its approval of the measures recommended by the previous Conference held at Constantinople, as regards sea quarantine, and especially with reference to the Red and Caspian Seas. However, they provided an alternative measure to be adopted should cholera once again obtain a foothold in Europe; or for those States which preferred a milder course, in a system of medical inspection, and, if necessary, disinfection, without the detention of the apparently healthy. The project for the establishment of a permanent International Commission upon Epidemics was, I am glad to say, unanimously agreed to.

Like cholera, yellow fever has what may be called a permanent home—this is situated in the districts within the Mexican Gulf—and at one time it was believed that it could not exist beyond this unfortunate locality; but we know that within the last five and twenty years it has frequently been carried from thence to new fields for its ravages, and epidemics of awful magnitude have been experienced in latitudes precisely similar to that of this city. It visited Brazil in 1852, the southern portions of Europe in 1870, in 1871 there was a terrible epidemic in Buenos Ayres, and it also occurred in Monte Video, while in 1873 it ravaged the Southern States of America. Clearly all these cases were first imported from the Mexican Gulf, where it is endemic; and that the authorities of the American States are thoroughly alive to this danger is shown by the very rigid inspection of ships they enforce in the Southern States. I must observe, however, the manner in which yellow fever may be conveyed is a point which has been warmly contested, and by several Commissions decided in as many different ways; but I think that I am right in saying that all agree that it may be conveyed in clothing which has been used by an infected person.

At the International Medical Congress of 1881 the subject of quarantine met with careful consideration, and it is only fair that I should say that on the whole a much modified system seemed to be viewed with most favour—rather a system of inspection and purification than one of detention during the incubatory period. Professor De Chaumont, in a paper there read by him, says:—"With reference to quarantine, as originally understood, I think that we may look upon this as a relic of barbarous times. It is impossible to carry it out strictly and absolutely, and anything less than that only inflicts commercial loss and personal hardships, besides in some cases increasing the danger it seeks to prevent. If vessels are carefully inspected and the sick removed to hospital for treatment, all others who show no signs of illness, as tested by the thermometer, &c., might be allowed to leave, with the precaution that each should be stripped of his clothing and take a general bath. The clothing, in the meantime, should either be disinfected by heat or destroyed, the owners being compensated. Steps should of course be taken to cleanse and fumigate the vessel, and to disinfect everything on board. With proper hygienic measures at home, we need not fear the importation of disease from abroad."

Gentlemen, although I cannot say that we should be prepared to quite accept the last sentence as infallible, yet, nevertheless, I fully recognize what a world of wisdom it contains.

I think that I have said before that the geographical position of England deprives it of the advantages to be derived from a comprehensive quarantine system, yet nevertheless it would seem that serious

serious attention has been more than once given to the circumstance that her great seaports suffer from imported infectious disease to a very considerable extent. I recently perused a paper by Dr. J. Stopford Taylor, of Liverpool, read before the International Medical Congress, the peroration of which states that one of its objects "is to bring before the Congress a brief account of some of the calamities which have been inflicted upon the inhabitants of Liverpool by the importation of infectious disease."

It is hardly necessary to give instances where ships have conveyed epidemic diseases to remote countries; but, were it necessary, the history of the manner in which a United States' frigate conveyed cholera to Japan, causing, it is said, 200,000 deaths from that disease in the city of Yeddo alone—or that of the shocking epidemic of measles in Fiji, in which, if I mistake not, 50,000 or more persons are said to have died, and which is said to have been the result of a visit of one of our own ships of war—would suffice.

Hitherto we in the Australian Colonies have enjoyed a remarkable immunity from epidemic sickness, owing, no doubt, chiefly to our geographical position. Situated as we are at a great distance from those countries with which we have had any considerable trade, diseases have had time to develop and die out during the necessarily tedious voyage of vessels carrying passengers to our shores; but now, when in a few weeks rapid mail steamers bridge over the distances which at one time took as many months to traverse, we can hardly hope to obtain protection in this way. And, moreover, our trade with India, China, and the islands of the Eastern Archipelago—countries distant but a couple of weeks' sail—is rapidly developing, and I am afraid that it is from this source that we may one day receive a blow, in the shape of some terrible epidemic, which half a century's prosperity will hardly suffice to repair.

In all the Australian Colonies the quarantine system is authorized; but the thoroughness with which it is enforced varies very much in several, and there is no mutual agreement between them as to what is and what is not necessary for our common weal. All show the same disposition to evade the duty of dealing with infected vessels, and frequently great difficulty is experienced by their owners or agents in obtaining proper accommodation for the sick in consequence. This was very clearly shown in the case of the "Mirzapore" some years ago, when she arrived at Adelaide with one patient suffering from small-pox. He was not allowed to land, but was obliged to go on in the ship; and I have been informed that when the vessel arrived at Melbourne there were half a dozen more persons ill with the same disease. More recently we had the "Menmuir" sent on to us in similar fashion; and there can be no doubt that the subsequent outbreak, in which no less than eight persons were affected, was caused by the unfortunate circumstance that the first patient was not promptly landed on the northern coast. Having these difficulties in view, I a short time since deemed it my duty to draw the attention of our Government to the necessity for an agreement with the neighbouring Colonies upon the subject, and pointed out the propriety of establishing quarantine stations at the northern and western extremities of our coasts, so that vessels approaching the Colonies with infectious disease on board might promptly land the sick; and then, after purification, come on to their destination in quarantine. That this would be an advantage to the passengers of such vessels must be apparent to all, as they would be the sooner rid of a source of danger to themselves; and that it would benefit the vessels is shown by the favour with which the proposal has been received by the Steamship Owners' Association of New South Wales. We should have quarantine regulations common to all the Colonies; and the stations, which would manifestly be for the benefit of all of them, might be maintained at their joint expense, in the ratio of their respective populations. In short, we should have a federal quarantine for Australia; for whatever differences of opinion may exist amongst our politicians as regards the land policy, or the question of the relative merits of free trade and protection, there certainly can be no difference of opinion as to the necessity for keeping our country pure and free from epidemic disease; and the only question to be decided is whether that is most likely to be accomplished by a federal quarantine.

The Colonial Secretary to The Premier of Victoria.

New South Wales.

Sir,

Colonial Secretary's Office, Sydney, 27 August, 1883.

In transmitting to you a copy of a series of resolutions regarding Federal Quarantine, passed at a recent meeting of the New South Wales Branch of the British Medical Association, I have the honor to request that you will be so good as to bring the same under the consideration of your Government, with a view to a practical issue being arrived at.

I have, &c.,

ALEX. STUART.

Resolutions referred to, passed at a meeting of the New South Wales Branch of the British Medical Association, held on 3rd August, 1883.

1st. That an efficient system of quarantine is essential to the health and prosperity of the Colonies of Australasia.

2nd. That the geographical position of these Colonies is highly favourable to the development of the best results of a fully and well organized quarantine.

3rd. That such a system should be framed and conducted upon federal principles, combining efficiency, humanity, and hospitality.

4th. That the central position of Sydney renders it desirable that the Government of New South Wales should initiate a conference of all the other Australasian Colonies to consider and frame a system founded upon the before-mentioned principles.

We understand Federal Quarantine to mean—

1st. A system of quarantine which is designed, agreed upon, and carried out by the unanimous consent and control and at the expense of the Australasian Colonies, including New Zealand.

2nd. The system to consist of—

A. *General quarantine*, to be carried out at the first point of entry; and
B. *Local quarantine*, to be conducted at intermediate and ultimate ports.

3rd. The "General Quarantine Depôts" to be so situated and organized as to insure immunity from all danger of infection to the Colony in which it is located.

FEDERAL

FEDERAL QUARANTINE.

The Resident Medical Officer, Albany, Western Australia, to The Secretary, Central Board of Health.

Sir,

22 October, 1883.

In reply to your request for an expression of opinion relative to quarantine, and also for a return of any buildings for quarantine purposes at Albany, I have much pleasure in acceding thereto.

I fully concur in the views of Dr. Mackellar, as advocated in the paper kindly sent by you. I believe in quarantine in the abstract.

For quarantine to be more perfect, with a view of protecting the Eastern Colonies from disease imported from Egypt, India, or the Cape, such ships calling here should be inspected by a medical man, the passengers and crew mustered for that purpose, and by daylight. In the event of there being on board any person or persons suffering from disease, such as cholera, small-pox, typhus, scarlatina, plague, or measles, they should be landed at this port, where suitable accommodation and medical aid should be provided by the United Colonies of Australasia; the ship should then be thoroughly fumigated by (say) sulphurous acid, under the inspection of the medical officer, and then, and not till then, allowed to proceed on her voyage, and, if calling at Adelaide, could be then again inspected. If there has been a death from either of the above causes, the like precautions as regards the ship and the clothing of the deceased, and all in attendance, should be enforced. By these or similar means the chances of conveying virulent disease by sea to the neighbouring colonies would be reduced to a minimum.

The whole question of quarantine is a question of pounds, shillings, and pence, which to a country like Australasia should occupy a very subordinate position to the more vital question of physical health. The moral degradation consequent on low physical power is overwhelming as an argument against the commercial view; drunkenness, crime, and pauperism are the invariable results or accompaniments of low vital power.

The circumstances which influence opinion in Europe, and particularly in England, as to the value of quarantine do not obtain in Australia. By our geographical position we are enabled to isolate at a sufficient distance from our shores to warrant almost absolute safety from ships arriving from foreign ports affected with virulent disease.

Our commercial interests are not so vast as to be placed in comparison with the more important subject of health; we are almost in the position, as compared to the Mother Country, stated by the late Mr. Simon, Medical Officer to the Privy Council, to be necessary to a country instituting strict quarantine rules, viz., "To treat our commerce as a subordinate political consideration."

We are a pastoral and agricultural community, having no great centres of manufacturing industries dependent upon foreign countries for raw material, which, if the import is stayed by considerations of public health, may throw out of employment tens of thousands, thereby disturbing the social harmony, and perhaps produce political disturbances. For so vast a continent the population is small, under four millions, life too valuable, and the happiness of the people too important to permit the lower consideration of commerce to influence us when advocating the highest possible physical well-being and its correlative development of a higher mental state.

Small-pox, measles, scarlatina are endemic in England, and with the exception of measles all unknown in this Colony. Why introduce such foul denizens amongst us, perhaps to become permanent? I say better by far, "natural seclusion," as a result of strict quarantine, which Mr. Simon says must ensue.

If you will look at a map of King George's Sound and surroundings you will see we have two harbours, an inner and an outer, at the former of which, about 2 miles from town, we have a Quarantine Station. There are two buildings about 100 yards apart having the following number of rooms and offices. Larger house—two front rooms, 14ft. x 17ft.; one back, 14 x 15; and one 14 x 17; a detached kitchen, 12 x 16, with a large oven for heating clothing, &c. Smaller house—two front rooms, 12 x 14; two back rooms 12 x 12. The station is situated at east end of Princess Royal Harbour (inner). I opposed the erection of these buildings, and wrote to this Government at the time concerning the matter. Should this port, in the event of Federal Quarantine becoming a fact, be made the outport of health for the Eastern Colonies, the townspeople will be disposed, I think, to take the view I did years ago, and suggest as a greater guarantee from infection to this population, that at least hospital arrangements for the absolutely sick be in the outer harbour, where there exists an island about a mile and a half long and half a mile wide, with fresh water, easy of approach, readily communicable at a little cost with the main, and well sheltered by woods, deep water nearly all round, and affording good anchorage for any known ships afloat. It is known as Rabbit Island.

The system adopted here on arrival of ships from foreign parts is the same as at Adelaide—there is no "inspection" by a medical man. In the event of there being on board disease of a nature quarantinable, the Health Officer is summoned, and discusses the question at a distance with the master, or if there is one on board, the surgeon, and the question is settled at a distance from the ship, as to pratique or otherwise; if no pratique, our regulations are strict and always well carried out by the officials here. I presume economy is the ruling principle in adopting this method. I shall always be pleased to give you any information in my power.

I have, &c.,

CECIL ROGERS,
Medical Officer.

Extract from a letter from the Harbour Master, Cooktown, to The Secretary of the Central Board of Health.

Cooktown, 2 October, 1883.

For an International Quarantine Station nothing, in my opinion, in Australasia can be compared with Lizard Island, in the vicinity of this port.

I admit that Thursday Island, or one of the numerous islands in its vicinity, would be an appropriate place, as being one of the Australian gates from the East; but the most essential requirements of a quarantine station are entirely wanting in that locality, such as vegetables and fresh meat, milk, and other necessaries, all of which would be available at Lizard Island.

The

The island itself is 48 miles north of Cooktown, has permanent water, capital soil, and a first-class anchorage for vessels of all sizes; portions of it are elevated; it has a nice sandy shelving beach; and the sea all round teems with fish.

The sailing directions are to be found in "Melbank's Nautical Almanac."

Should the Colonies decide upon establishing Federal Quarantine Stations, none more suitable for Northern Australia can be recommended than Lizard Island; it is an excellent landmark, and well known to all mariners.

Thursday Island is 350 miles away from all settlement, and has no permanent water.

B. FAHEY.

APPENDIX B.

MEMORANDUM for His Excellency the Governor of the Crown Colony of Fiji, prepared by the Honourable W. M'Gregor, M.D., C.M.G., Chief Medical Officer and Receiver-General.

YEARS before the question of Federal Quarantine was raised in Australia, experience in working quarantine had convinced me that a common course of action among the Australasian Colonies in this matter would be productive of great benefit—that it would, in fact, afford additional and better protection to the public against the introduction of dangerous diseases—would render quarantine restrictions less troublesome and expensive to shipowners, and less perplexing to shipmasters and passengers.

So far as Fiji is concerned, it is of great importance that Health Officers should have confidence in the bills of health brought by vessels from the neighbouring Colonies, and that they should be able to believe that any quarantine in force there, with regard to suspected vessels or people in quarantine suffering from infectious disease, is of such a thorough and careful nature as to justify the granting of pratique to vessels arriving here from a port in which either ships or people suffering as above are detained in quarantine.

For example, it would appear that one or two cases of small-pox have appeared in New Zealand, and a steamer from that Colony will arrive here in a few days. The probability is that this vessel will bring a bill of health from the Collector of Customs in Auckland, and the very difficult question will arise as to whether any quarantine has been established in New Zealand, and if so, whether it is carried out in such a way as to justify a vessel arriving here from Auckland being admitted to pratique. Vessels from Sydney are in parallel circumstances. Small-pox exists in Melbourne, a city in constant direct communication with Sydney, and it is all but impossible to ascertain in Fiji at the present time whether those suffering in Victoria from small-pox are isolated, or with what stringency any quarantine established there is carried out.

It is of so much importance to Fiji that diseases like small-pox and cholera should be kept out of the Colony, that when in any given case a doubt exists as to the granting of pratique to any ship, the doubt should be determined by putting the vessel in quarantine. Similarity of procedure in quarantine matters in all the Australasian Colonies would remove all doubt in many cases, and enable pratique to be given where it must at present be refused.

The first steps should therefore be to provide for the issue of bills of health by a medical officer at each port. It is found by experience that bills of health signed by an officer of Customs only are not reliable. Many such have come into my possession certifying that there was no infectious disease in a port when it was notoriously otherwise. Not long ago a vessel arrived in Fiji with two bills of health, one signed by the Collector of Customs at the port of departure, certifying in the usual way the absence of all infectious diseases, while the other, written in German, and signed by the German Consul, certified to the prevalence of measles. It need hardly be added that the master of that vessel was not a German scholar. There are probably few health officers of long experience that have not learnt to look on clean bills of health from Customs officers with a considerable amount of suspicion. They certainly can be procured from an officer of Customs when they could not be obtained from a medical officer. Were bills of health, however, always signed by a medical officer, the document would come to be of real use, as no health officer would or could sign such a certificate without being satisfied that its contents were true.

In all such cases the Medical Officer of the port should be paid a fixed salary, so that shipmasters should not have to pay a fee for the bill of health. But in return for obtaining a bill of health without payment of a fee, every shipmaster from a foreign port should have to carry a bill of health from the Medical Officer of the port of departure.

More important, however, than the matter of bills of health is the question of uniformity of action with regard to the establishment and maintenance of quarantine.

This object may be obtained in one or other of two different ways. One or more central or convenient stations might be maintained by the Colonies jointly, where all vessels put in quarantine might be detained until admitted to pratique; or each Colony should have a quarantine station, and manage its quarantine in such a way as to satisfy all the other Colonies.

Of the two systems the latter is in my opinion the more practicable, and it is in fact the only plan that would be applicable to Fiji, on account of its isolated position. A set of quarantine regulations should be agreed upon and used in all the Australasian Colonies.

These regulations would establish uniformity of procedure in all the principal matters connected with quarantine, so that each Colony would have full confidence in quarantine carried out in any other Colony, and shipmasters would very soon become perfectly familiar with all matters connected with a system practised in all the Colonies of Australasia,—a matter of no small importance, for it is constantly asserted by shipmasters that they do not know, or do not understand, the quarantine regulations of any given Colony, and that everything is different elsewhere. The following points at once suggest themselves to one for consideration in such regulations:—

Signals to be displayed by a vessel arriving from a foreign port.

The boarding of such vessel by a pilot, and his detention there with the crew of his boat until released by the Health Officer.

Boarding or examination of a vessel by a Health Officer, and his detention on board with his boat's crew if there is any infectious disease.

Signals to be used for different purposes by a vessel in quarantine, or at a quarantine station when in use.

The disinfecting of mail matter.

The landing of live stock.

The exchange of mail matter with those in quarantine.

The supplying of provisions to those in quarantine.

There are a number of very important points on which a common agreement should be come to that cannot form part of any set of regulations, such as these:—

A. In respect of what diseases quarantine will be established.—In Fiji the only serious contagious diseases that are regarded as being domesticated in the country are measles, whooping-cough, parotitis, and chicken-pox. Against these diseases no quarantine is now established in Fiji.

In the other Colonies of the Australasian group probably other diseases, such as diphtheria, typhoid fever, scarlet fever, &c., may be regarded as not requiring quarantine.

B. There is little reason to suppose that the infectious matter of a disease would remain longer active in our Colony than in another, so that a term might be agreed upon for the minimum duration of quarantine in the case of the diseases requiring such restrictions. The period would date from the last exposure to infection. On this point great diversity of practice exists, so great that one would not be far wrong in saying that the duration of detention in quarantine is more influenced in many places by the amount of public alarm occasioned by the presence of a disease than by any deliberate scientific conclusion as to its nature and natural history.

Care should be exercised that the periods agreed on are sufficiently long, and it should also be clearly understood that such periods express the minimum duration of quarantine in each case.

In Fiji it has been customary to require in the case of small-pox, for example, a period of twenty-one days between the last exposure to infection and the granting of pratique. But it has been decided necessary in certain cases to keep up quarantine

quarantine much longer. Thus, in the case of the "Leonidas" in Fiji, in 1879, the coolies landed from that vessel were detained in quarantine until the 8th August, although the last case of small-pox, which was of modified type, showed itself at the middle of May. This was deemed advisable mainly because the first case of small-pox on board the "Leonidas" was identified on 8th March, and the second case showed itself sixty-two days after.

C. The selection and isolation of quarantine stations.—No Colony can have confidence in the quarantine arrangements of a neighbour unless it is known that the quarantine station of the neighbour is so situated that all personal communication with it will certainly be cut off.

A sketch is attached hereto showing the position of the quarantine station for Fiji, which, it is confidently hoped, will meet with approval, and help to gain the confidence of our neighbours. It is surrounded by water, which is several fathoms deep everywhere save at one point, and opposite that point a guard-house is built, and is occupied by an armed guard when the station is in use. All personal communication with those in quarantine on the island is thus completely cut off.

Coolies arriving from India are, if quarantine is deemed necessary, detained on the island marked "Indian Dépôt" on the sketch, which is completely isolated by deep water all round. Armed guard-boats are anchored at a distance of three or four hundred yards from the island, to prevent all communication.

D. The details of the exchange of mail matter, and the supplying of provisions, which cannot be dealt with in a regulation, are of great importance in practice.—The plan adopted in Fiji for supplying provisions, &c., is very simple, but entirely dispenses with any personal communication. If there is a suitable shoal or reef near the vessel or quarantine station, provisions, &c., are deposited there at low-water, and after the visiting party have retired those in quarantine come and remove the articles, in a boat if that is required. If no reef or shoal is convenient, a small platform is built in shallow water, of such a height that its surface will be level with the water about half-tide. On this provisions, &c., are placed at low-water, and removed by those in quarantine when the visiting party have retired. No further communication is held until next tide. For exchanging mail matter the following plan is adopted:—An endless cord, about two hundred yards long, is made to run through a ring or pulley on board the vessel, or at the water's edge at the quarantine station, and through a ring at a guard boat or guard station; a large jar is attached to the cord at the end of quarantine, where the jar can be filled with some disinfecting agent by the medical officer. It is then drawn into quarantine, where letters can be put into it, and it can be properly secured under his supervision, and then drawn back through the sea a distance of 100 yards before it is touched.

If it is not possible for a medical officer to superintend the exchanging of mail matter, the following plan is used:—Those in quarantine put their letters into a heavy wide-mouthed jar, with a cork stopper, about four to six inches in diameter, made securely watertight; this is thrown into the sea and picked up after being thoroughly soused there, and when it has reached a proper distance from those in quarantine. It is then brought unopened to the medical officer to be fumigated. A box provided with a lid of some kind is procured, and in it a free supply of sulphurous acid or chlorine gas is generated; a corkscrew is screwed into the stopper of the jar, with a strong cord attached to its handle; the jar is then placed in the box, and the cord brought through a small hole in the lid of the box; when it is seen that the box is full of gas, the stopper is jerked out of the jar by the cord attached to the corkscrew, and the letters thus exposed to the action of the gas for a considerable time. In this way they are thoroughly disinfected, without a particle of risk either to the letters or of infection.

The practice in force here in these matters is not described as a method that should be adopted everywhere; but it is unquestionably more simple, and in both theory and working is far superior to any means of communication by the use of a boat, visited alternately by those in and those not in quarantine.

E. Some arrangement should be made whereby an officer in each Colony should communicate to an officer in each of the other Colonies immediate information on the outbreak of any infectious disease, as also regular reports as to its progress up to its extinction.

No attempt is made in these few notes to exhaust the subjects to which they relate, and I must be satisfied by merely endeavouring to show that substantial benefit to all concerned can be derived from a common agreement by all the Australasian Colonies to establish and maintain uniformity of action in the instituting and carrying out of quarantine.

27th August, 1884.

W. M'GREGOR,
Chief Medical Officer.

APPENDIX C.

A MEMORANDUM OF THE INFLUENCE OF VACCINATION IN THE PREVENTION AND DIMINUTION OF MORTALITY FROM SMALL-POX.

Presented to the Parliamentary Bills Committee of the British Medical Association.

By ERNEST HART,
Chairman of the Committee.

1. THE introduction of vaccination was followed by a marked decrease in the small-pox death-rate; and, concurrently with the diffusion of vaccination, the small-pox death-rate has further progressively diminished.

Prior to the introduction of vaccination, small-pox was an almost universal disease. Continuously present in all large centres of population, it assumed epidemic proportions at intervals of two to four years, while the smaller towns and rural villages—except such as were exceptionally isolated—were as a rule visited by an epidemic of the disease once in every three to six years.¹ No class of society was exempt from its ravages; and while most fatal in the filthy homes of the poor yet it spared not the palaces of kings nor the mansions of the rich.² So common, indeed, was the disease that it was rare for any one to reach adult life without having passed through an attack.³ The dread with which it was looked upon may be readily inferred from the eagerness with which inoculation was had recourse to towards the end of the eighteenth century. After the introduction of vaccination, the mortality from the disease underwent a marked diminution. How great this diminution has been in the case of London is shown by the following table:—

TABLE showing the Small-pox Deaths per 1,000 Deaths from all Causes in London from 1631 to 1882.⁴

| Period. | Small-pox Deaths per 1,000. Total Deaths. | Period. | Small-pox Deaths per 1,000. Total Deaths. | Period. | Small-pox Deaths per 1,000. Total Deaths. |
|-----------|---|-----------|---|---------|---|
| 1631-35 | 48 | 1741-50 | 73 | 1801-10 | 67 |
| 1651-60 | 59 | 1751-60 | 100 | 1811-20 | 41 |
| 1661-70 | 39 | 1761-70 | 103 | 1821-30 | 33 |
| 1671-80 | 66 | 1771-80 | 97 | 1831-40 | 23 |
| 1681-90 | 76 | 1781-90 | 92 | 1841-50 | 16 |
| 1691-1700 | 53 | 1791-1800 | 93 | 1851-60 | 11 |
| 1701-10 | 58 | ..... | ..... | 1861-70 | 11 |
| 1711-20 | 81 | ..... | ..... | 1871-80 | 19 |
| 1721-30 | 83 | ..... | ..... | 1881-82 | 17 |
| 1731-40 | 77 | ..... | ..... | ..... | ..... |

Preinoculation Period.

Inoculation Period.

Vaccination Period.

¹ Hillary: *Rational and Mechanical Essay on the Small-pox*. London, 1735.

² See Burnet's *History of William and Mary*, pp. 138, 304; Walpole's *Letters* (April 2nd, 1750); Pepys; Evelyn; St. Simon; Bescaval; Vehse, etc.

³ Hillary: *loc. cit.*; Haygarth: *Sketch of a Plan to Exterminate the Natural Small-pox*. London, 1793.

⁴ Calculated from data in Marshall's *Bills of Mortality* and the Registrar-General's Annual Reports.

The table shows that the proportion of small-pox deaths to deaths from all causes, has undergone considerable diminution. It is, moreover, universally admitted that the total death-rate of the metropolis is now much lower than it was in the seventeenth and eighteenth centuries. Hence, as the small-pox death-rate has diminished in greater ratio, it is clear that the diminution in the small-pox death-rate must be enormous.

As regards England generally, it is equally certain that the mortality from small-pox is infinitely less than in prevaccination days, although the absence of registration in the earlier period precludes any accurate statistical comparison. In registration times, however, the mortality from the disease has steadily declined, as the following table shows:—

MEAN Annual Death-rate from Small-pox per Million living in England and Wales, 1838-79.⁵

| | | Compulsory Vaccination. | |
|---------|-------------|-------------------------|------------------|
| 1838-42 | 571 | 1855-59 | 199 |
| 1843-46 | No returns. | 1860-64 | 190 |
| 1847-49 | 303 | 1865-69 | 147 |
| 1850-54 | 279 | 1870-74 | 433 ⁶ |
| ..... | ..... | 1875-79 | 82 |

Some idea of how much less is the present mortality from small-pox than the mortality during the last century, may be gathered from the fact that the average annual deaths from that disease during the seven years 1873-79, in England and Wales, were very slightly in excess of the annual average deaths during the eighteenth century in London alone; the population in the first case being about twenty-four millions, in the second, considerably less than one million.⁷

2. There is no cause sufficient to explain this diminution in the small-pox death-rate other than vaccination.

It is maintained by some that the decrease in the mortality from small-pox is explained by the improved sanitary condition of the population. Improvement in this respect must undoubtedly have tended to diminish in some degree the death-rate by that disease, but other causes have been at work with an opposing tendency. The population of the country has grown denser, the facility of intercourse has increased a hundredfold, and the movement of the population is incalculably greater now than during the last century. All these latter circumstances necessarily increase the danger of diffusion of infectious diseases, and it is more than doubtful whether the sanitary condition of the people has yet attained such perfection as to neutralize their effect. Moreover, in the case of measles and whooping-cough,⁸ there is not only no diminution, but even a slight increase in the proportion of deaths from these diseases to the total deaths; and if sanitation has had no perceptible effect on these diseases, it is absurd to credit it with a large effect on small-pox, whose contagion is stronger and surer than that of any other disease.

3. The manner in which, and the times at which, the diminution chiefly occurred, point clearly to the existence of a casual relation between that diminution and vaccination.

While showing a steady tendency to diminish, the mortality from small-pox underwent the greatest decrease in the periods immediately following the legislative measures for the promotion of vaccination. In 1840 the Legislature made public provisions for vaccination, and immediately thereafter came a large fall in the small-pox mortality. In 1854 vaccination was made compulsory in England and Wales, and in the following years a second marked fall occurred in the small-pox death-rate of these countries. In Scotland, where vaccination was not yet compulsory, the death-rate remained high, being 50 per cent. higher than that of England and Wales in 1855-59, and over 100 per cent. in 1860-64—there being no marked difference in the condition of the two populations other than the absence of compulsory vaccination in Scotland. The enactment of compulsory vaccination in Scotland was speedily followed, as in England, by a large diminution in the small-pox death-rate.⁹ The remarkable sequence of events thus briefly described amounts almost to a demonstration of the influence exercised by vaccination on the small-pox death-rate.

4. While a marked decrease has occurred in the total small-pox death-rate, a still greater decrease has occurred in the small-pox death-rate among children.

In pre-vaccination periods, the deaths from small-pox occurred almost exclusively among the very young. Thus, out of 622 total deaths from that disease in Kilmarnock in the thirty-six years 1728-64, 563 were of children under five;¹⁰ in Chester, in the six years 1772-77, of 378 deaths, 369 were of children under ten, and of these no fewer than 335 were under five;¹¹ in Warrington, in 1773, of 211 persons dead of small-pox, a 1 were under ten, and 199 were under five;¹² in Carlisle, in the nine years, 1779-87, of 241 deaths, 228 were of children under five.¹³

In epidemics of small-pox since the introduction of small-pox, a comparatively small proportion of the deaths occur among children under five, and this proportion has progressively diminished with the diffusion of vaccination. For example, out of 7,982 deaths from small-pox in London in 1871, only 2,945 or 37 per cent. were of children under five. Of 2,371 deaths from small-pox in London in 1881, only 620 or less than 22 per cent. were of children under five.¹⁴

It is therefore clear that of the total small-pox deaths, the proportion occurring among children has been very much less since the introduction of the vaccination than it was before that event. But the total post-vaccination death-rate is much less than the total prevaccination death-rate, hence it follows that the small-pox death-rate among children has undergone an enormous reduction since the introduction of vaccination.

5. In epidemics of small-pox, the unvaccinated portion of the community suffers to a much greater extent than the vaccinated. This fact is well illustrated in the case of the year 1882, when small-pox was epidemic in London. During that year 2,371 deaths¹⁵ were registered from small-pox. Of these, 524 were stated to have been vaccinated, and 962 unvaccinated, while regarding the condition of the others as to vaccination, no statement was made. It is tolerably certain that among the population of London not more than 10 per cent. are unvaccinated, and if 10 per cent. be supposed to be doubtfully vaccinated, there will remain 80¹⁶ per cent., presenting clear evidence of vaccination. If, then, the vaccinated and unvaccinated had been equally liable to fatal small-pox, the former would have died at the same rate as the latter; and since 962 of the unvaccinated died, there would have died 7,696 among the vaccinated. But the actual number of deaths among the unvaccinated was 524; hence it is clear that the vaccinated and unvaccinated were not equally liable to death from small-pox.

Moreover, if the mortality among children be considered, the difference between the vaccinated and unvaccinated appears still more striking. The deaths from small-pox during 1881 included 27 of vaccinated children under the age of five, and 368 of unvaccinated children under that age. If unvaccinated and vaccinated children had been equally liable to fatal small-pox, the vaccinated children would have died at the same rate as the unvaccinated, *i.e.* (taking the proportion of vaccinated and unvaccinated as previously stated), the deaths among the vaccinated children under five would have been 2,944. But the actual number was 27, and it is therefore obvious that unvaccinated children are liable to fatal small-pox in an enormously greater extent than vaccinated children; or, in other words, vaccinated children are to a large extent protected from fatal small-pox.

Statistics

⁵ Taylor, P. A.: *Nineteenth Century*, May, 1882.

⁶ The considerable increase in this quinquennium was due to the severe and widespread epidemic of 1870-73, at which time all circumstances combined to favour the occurrence and diffusion of a great epidemic. Compared with similar epidemics of prevaccination periods, this epidemic affords incontestable evidence of the value of vaccination. See Fraser: "The Epidemic of 1870-73, in relation to Vaccination." *Sanitary Record*, April, 1883.

⁷ Total small-pox deaths in England and Wales, 1878-79, 14,566. Annual average 2,081. Total small-pox deaths in London (within the Bills), 1701-1800, 186,865. Annual average 1,984.

⁸ Guy: "Two Hundred and Fifty Years of Small-pox in London." *Journal of Statistical Society*, September, 1882.

⁹ See Mr. Carpenter's letter on "Small-pox and Vaccination," addressed to the Right Hon. Lyon Playfair, April 23, 1883.

¹⁰ McVail: *An Inquiry into the Prevalence of Small-pox in Kilmarnock in the Last Century*. Glasgow, 1882.

¹¹ Haygarth; *loc. cit.*

¹² Percival: *Essays, Medical, Philosophical, etc.* Warrington, 1789.

¹³ Heysham: *Works*.

¹⁴ Reports of Registrar-General.

¹⁵ *Vide Registrar-General's Annual Summary for 1882*.

¹⁶ This estimate is certainly well within the true proportion.

Statistics¹⁷ of a similar nature might be multiplied indefinitely; and it may be laid down as a fact admitting of no question, that whenever small-pox attacks a community, the unvaccinated part of that community will suffer in enormously greater proportion than the vaccinated.

6. Among persons attacked by small-pox, the mortality is greater in the unvaccinated than in the vaccinated. The difference in the mortality of the two classes is shown by the following tables, which require no comment.

1. MORTALITY from Small-pox among the Vaccinated, Doubtfully Vaccinated, and Unvaccinated.¹⁵

| | Cases. | | | Deaths. | | | Mortality per Cent. | | |
|---|-------------|------------------------|---------------|-------------|------------------------|---------------|---------------------|------------------------|---------------|
| | Vaccinated. | Doubtfully Vaccinated. | Unvaccinated. | Vaccinated. | Doubtfully Vaccinated. | Unvaccinated. | Vaccinated. | Doubtfully Vaccinated. | Unvaccinated. |
| London Small-pox Hospital (1836-67) ¹⁹ ... | 10,398 | 263 | 2,020 | 790 | 106 | 1,043 | 7.50 | 40.3 | 34.9 |
| Metropolitan Asylum Board Hospital ²⁰ ... | 13,575 | 2,130 | 3,973 | 1,027 | 671 | 1,593 | 7.56 | 31.5 | 40.0 |

2. MORTALITY from Small-pox among the Vaccinated, Doubtfully Vaccinated, and Unvaccinated, under 10.

| | Cases. | | | Deaths. | | | Mortality per Cent. | | |
|---|-------------|------------------------|---------------|-------------|------------------------|---------------|---------------------|------------------------|---------------|
| | Vaccinated. | Doubtfully Vaccinated. | Unvaccinated. | Vaccinated. | Doubtfully Vaccinated. | Unvaccinated. | Vaccinated. | Doubtfully Vaccinated. | Unvaccinated. |
| Metropolitan Asylum Hospitals ²¹ | 1,291 | 359 | 1,512 | 56 | 102 | 745 | 4.33 | 28.4 | 49.2 |

7. Among the vaccinated attacked by small-pox, the severity of the disease is inversely proportional to the quality of vaccination.

The severity of small-pox is found to vary with the quality of the vaccine marks. It is found that the more closely the cicatrix resembles the typical cicatrix (*i.e.*, the cicatrix resulting from the performance of vaccination in the best-known way), the less severe is the disease. The fact has been demonstrated by clinical experience, and is clearly illustrated by the following tables:—

CLASSIFICATION of Small-pox Cases (Vaccinated) according to the number and quality of the vaccine cicatrices.

Table 1.—Metropolitan Asylum Board Hospitals,²² (MacCombie).

| | Marks. | Cases. | Deaths. | Mortality per Cent. |
|--------------------------------|--------|--------|---------|---------------------|
| Vaccination Imperfect | 1 | 2,004 | 341 | 16.7 |
| | 2 | 2,476 | 270 | 11.2 |
| | 3 | 1,778 | 133 | 7.4 |
| | 4 | 949 | 46 | 4.2 |
| Vaccination Good ²³ | 1 | 1,095 | 70 | 6.4 |
| | 2 | 1,461 | 51 | 3.7 |
| | 3 | 1,095 | 41 | 3.7 |
| | 4 | 826 | 23 | 2.7 |

Table 2.—London Small-pox Hospital (Marson).²⁴

| | Marks. | Cases. | Deaths. | Mortality per Cent. |
|--------------------------|--------|--------|---------|---------------------|
| Vaccination Indifferent. | 1 | 1,555 | 353 | 21.43 |
| | 2 | 1,866 | 252 | 12.18 |
| | 3 | 1,161 | 65 | 4.77 |
| | 4 | 1,196 | 37 | 1.69 |
| Vaccination Good. | 1 | 1,059 | 34 | 2.75 |
| | 2 | 1,308 | 24 | 1.38 |
| | 3 | 992 | 14 | 1.01 |
| | 4 | 1,263 | 11 | .07 |

CLASSIFICATION of Small-pox Cases (Vaccinated) under 10, according to the quality of the Vaccine Cicatrices.²⁵

| | Cases. | Deaths. | Mortality per Cent. |
|----------------------------|--------|---------|---------------------|
| Good Vaccination..... | 372 | 2 | 0.53 |
| Imperfect Vaccination..... | 651 | 49 | 7.52 |

7a. The value of vaccination is further shown by the almost absolute protection against small-pox afforded by successful revaccination in the adult, following efficient vaccination in infancy.

Revaccination

¹⁷ Vide Bousquet: *Traité de la Vaccine*, Paris, 1833 (Statistics of the Epidemic of Small-pox in Marseilles in 1823, prepared for Soc. Roy. de Méd.); Cross: *History of Norwich* (Statistics of Small-pox in Norwich in 1819); Thomson: *Small-pox* (Epidemic in Quebec, 1819-20), etc. Compare also Reports of Sanitary Commissioners in India, *e.g.*, Dr. Little's *Report on Vaccination in Berar* for 1881.

¹⁸ In the statistics of the metropolitan small-pox asylums, the "vaccinated" are those who present marks, however imperfect, of a primary vaccination; the "unvaccinated," those who present no marks, and in whose case it is admitted by the patients themselves, or their guardians, that they have never undergone the operation; the "doubtfully vaccinated," those who present no evidence of vaccination, but who profess to have undergone the operation, or have no knowledge as to whether they had ever undergone the operation. It is evident that the "doubtfully vaccinated" are really "unvaccinated."

¹⁹ Marson: Evidence before the Select Committee on Vaccination, 1871.

²⁰ These include cases admitted into the following asylums:—Deptford, 1878-81; Hampstead, 1876-78; Homerton Small-pox Hospital, 1871-82; Homerton, Fever Hospital, 1876-77 and 1881-82; Stockwell, 1882. Vide annual reports of the several hospitals. For further figures consult report of Board of Health of the City of Philadelphia, 1872; papers on vaccination by Mr. Simon; etc.

²¹ Homerton Small-pox Hospital, 1871-80; Deptford Hospital, 1878; Stockwell Small-pox Hospital, 1882.

²² Deptford, 1878-79; Fulham, 1877-78; Hampstead, 1876-78; Homerton Fever, 1876-77; Homerton Small-pox, 1871-78.

²³ "Good vaccination" is defined in the Metropolitan Asylums Board Hospitals Reports to mean "a superficial area of not less than one-third of a square inch of one or more cicatrices thoroughly well vaccinated."

²⁴ Marson: Evidence before Select Committee on Vaccination, 1871. In calculating percentage mortality, Mr. Marson has deducted those deaths occurring from superadded diseases: this is not done in the previous table.

²⁵ Metropolitan Asylum Hospitals, Homerton Small-pox, 1871-78; Deptford, 1878-81.

Revaccination affords protection to those, even, who are constantly exposed to the infection, as the nurses and attendants on small-pox hospitals. During thirty-five years' experience in the London Small-pox Hospital, Mr. Marson never had a nurse or servant contract small-pox, all having been revaccinated.²⁶ In the hospitals of the Asylums Board during the last twelve years, small-pox has been almost unknown among the revaccinated members of the staffs.²⁷ This immunity is not to be explained on the supposition that the majority of these attendants had previously suffered from small-pox, because only a very small proportion of them were thus protected.²⁸ Nor is it to be explained on any hypothesis of "tolerance," because no such tolerance exists among unprotected nurses exposed to fever;²⁹ and those members of the staff of small-pox hospitals who had not been successfully revaccinated, and who had not already had small-pox, contracted the disease.³⁰

Further illustration of the protective power of revaccination is furnished by our own Army and Navy.³¹

8. Vaccination does not, in the vast majority of cases, endanger the life of, or cause injury to the individual submitted to it.

It has occasionally been alleged that the operation of vaccination may be the means of conveying the poison of syphilis to the child submitted to it. That this risk may exist under exceptional combinations of circumstances may readily be admitted; but, seeing that syphilis can be produced only by its own specific virus, the inoculation of that disease in the operation of vaccination is compatible only with the grossest carelessness on the part of the operator. In England, the risk, if it exist at all, is certainly infinitesimal; and in no single instance have the Government inspectors of vaccination been able, after the most rigid inquiry, to find one single case of syphilis after vaccination.³²

In a small proportion of cases, the operation of vaccination is followed by erysipelas. When this occurs, however, it is, in most instances, due to avoidable circumstances, and in no case is it directly dependent on the vaccine virus. Moreover, the cases in which it occurs are so exceedingly rare that no reasonable man would hesitate, on account of this risk, to have his child vaccinated.

9. The facts adduced in the foregoing statement demonstrate that, by conferring protection against the most virulent of all contagious diseases, vaccination annually saves thousands of infant lives; and that its inestimable benefits are obtained at the cost of an infinitesimal amount of suffering.

APPENDIX D.

The London "Times," Friday, 8 June, 1883.

PARLIAMENTARY INTELLIGENCE—HOUSE OF COMMONS.

INFECTION BY VACCINATION.

SIR LYON PLAYFAIR asked the President of the Local Government Board whether one of the Board's officers in the course of an investigation into the circumstances under which syphilis could be transmitted in the act of vaccination had infected himself and had seriously injured his health; and whether, if that were true, the conditions under which he succeeded in infecting himself were such as might occur during the legitimate operation of vaccination.

SIR CHARLES DILKE.—Yes, Sir, the facts are substantially as stated in the first part of this question. The officer to whom my right honorable friend refers, believing that syphilis, although it had very rarely indeed been communicated in any of the operations of vaccination, nevertheless could under some circumstances be so communicated, was desirous of learning the conditions under which such a transmission was possible. His object was to obtain better information than any of the rare accidental cases hitherto reported could afford respecting the precautions proper to be taken for avoiding even risk of such an occurrence during the practice of vaccination. The investigation required experiments to be made in the human body, and these (though of course not acting as an officer of the Board) he proceeded to make on his own person, and at the end of his experiment he did infect himself with syphilis. The case is at present the subject of skilled inquiry, and a complete reply to the second part of the question cannot be given until it has been reported upon. I may say, however, that I believe that the result of transmitting the infection of syphilis was not obtained without departure, in essential respects from the Board's instructions to public vaccinators and from the recognized practice of all vaccinators. I cannot conclude without expressing my esteem for this official's self-devotion, and my regret for the personal suffering which he has endured through his honorable sacrifice of himself in the interests of science and humanity. (Hear, hear.)

The British Medical Journal, May 31, 1884.—Leader.

DR. CORY'S VACCINO-SYPHILIS EXPERIMENTS.

THE Local Government Board have, we believe, a set form of words in which to chide unsystematic Health Officers who are dilatory in the making of their annual reports. These procrastinating officers are reminded that the usefulness of a report is materially diminished when too long an interval elapses between the period to which it refers and the date of its presentation. It is not out of place to note in this connection that we were favoured, on May 24th, 1884, with a report, dated 31st December, 1883, chronicling the proceedings of the Medical Department of the Local Government Board during the year 1882. This is the more noticeable because the volume contains a long ante-dated report of much importance—that of the Committee of eminent practitioners appointed to investigate Dr. Cory's experiments in vaccinating himself with lymph from the arms of syphilitic children. With a desire to settle for himself the vexed question whether vaccine lymph taken from a syphilitic person, if unmingled with the blood of the vaccinifer, does not contain the syphilitic virus, and is incapable of imparting syphilis by its inoculation, Dr. Cory made at intervals four separate experiments on himself with lymph derived from obviously syphilitic children. The fourth experiment was successful; and Dr. Cory had to endure in the cause of science, all the pains and penalties of syphilitic inoculation. His experiences conclusively prove, in the opinion of the Committee, which consisted of Dr. Bristowe, Dr. Humphry, Dr. Hutchinson, and Dr. Ballard, "that it is possible for syphilis to be communicated in vaccination from a vaccine vesicle or a syphilitic person, notwithstanding that the operation be performed with the utmost care to avoid the admixture of blood." This, it will be observed, is an absolutely new departure from the hitherto accepted view of English writers that vaccine lymph could by itself propagate nothing but vaccinia, from however diseased a subject the lymph might be derived.

It is right to state that the infants from whom Dr. Cory took lymph for his personal vaccination were, in all cases but one, which was unsuccessful, not suffering from hereditary disease in a latent form, but were infants in whom active symptoms were unmistakably present, as shown by cutaneous eruption, snuffles, mucous tubercles, and ulcerations. Out of the four children in question, one only was proved to have been capable of imparting syphilis by the lymph taken from its vaccine vesicle. These infants were in such a condition of obvious syphilitic disease as would certainly have precluded their use as vaccinifers by even an inconsiderate and reckless vaccinifer; indeed, they were selected by Dr. Cory for his self-vaccination because they were unquestionable syphilitic cases.

Probably it is unnecessary to say concerning this history that its counterpart is not likely to be found in the annals of any vaccination station or surgery in this country: but abroad, where vaccination is more carelessly performed, and is apt to degenerate into an affair of midwives, its warning may perhaps be not unneeded. The lymph of a vaccine vesicle upon

²⁶ Marson: Evidence before Select Committee.

²⁷ Sweeting: *Memorandum on Vaccination*, presented to Metropolitan Asylums Board. Upwards of 20,000 cases of small-pox have been under treatment, during this period, in these hospitals.

²⁸ At Fulham, out of a staff of 295, only 42 had previously had small-pox; at Stockwell, 16 out of 340 had been patients at Homerton (during, eleven years) 34 were selected from old patients; at Deptford, 20 out of 265; and on the *Atlas*, 3 out of 161. *Vide Sweeting, loc. cit.*

²⁹ In the three great fever hospitals of London, during the ten years 1871-80, during which period only 2,177 cases of typhus came under treatment no fewer than 78 members of the staffs contracted that fever, with a fatal result in 21 instances. At Homerton Fever Hospital, during the two last winters, when typhus was somewhat prevalent in London, 14 members of the staff contracted the fever, of whom 2 died. *Vide Reports for 1880, 1881, and 1882.*

³⁰ *Vide Sweeting, loc. cit.*

³¹ *Vide Hart: The Truth about Vaccination*, pp. 57, 58, 74 and 75.

³² *Vide Stevens: BRITISH MEDICAL JOURNAL*, December, 1879, p. 956.

upon an active syphilitic child may, it would appear (though under limited conditions that remain obscure) contain the virus of syphilis, even where there is no recognized admixture with the lymph of matters foreign to it. But, as we have indicated, it was needful for the purpose of Dr. Cory's experiments that he should deliberately infringe rules which habitually guide him, as they guide other people, in the practice of vaccination. He had to take, and he did take intentionally, lymph from children with strongly marked manifestations of syphilis, one of which manifestations was pronounced skin disease; and this abandonment of rules would seem to have been of the essence of his success in transmitting syphilis.

Irrespectively altogether of the question whether there was any risk of the transmission of syphilis in the act of vaccination, except through the most culpable incompetence or misconduct of the vaccinator, it has in this country always been laid down as a fundamental rule not to use the lymph of an unhealthy person, whatever the nature of the ill health, for the vaccination of others. The instructions of the Local Government Board require the vaccinator to "take lymph only from subjects who are in good health, and to always carefully examine the subject as to any existing skin disease, and especially as to any signs of hereditary syphilis." Dr. Cory's result does not therefore give any new rule for the guidance of the practitioner. The existing obligations on the vaccinator will remain neither weakened nor strengthened, and the result of Dr. Cory's experiment, in which the ordinary rules of practice were necessarily disregarded, does not in the least affect the conclusion, derived from long-continued experience of properly conducted vaccination, that the observance of the recognized rules is, in practice, a sufficient safeguard against the transmission of syphilis.

APPENDIX E.

THE RIGHT OF THE STATE TO ENFORCE NOTIFICATION, AND THE BEST METHOD OF DOING IT.

By ALFRED CARPENTER, M.D., M.R.C.P., J.P.,

Chairman of Council of the Sanitary Institute of Great Britain.

Being a Paper read June 13, 1884, at the Conference organized at the International Health Exhibition by the Society of Medical Officers of Health, the Sanitary Institute of Great Britain, and the Parkes Museum of Hygiene.

SUPPORTING as I do in the main the observations of my friend Dr. Hill as to the necessity for early discovery, I wish to point out some of the difficulties which are in the way of doing it as is suggested by some earnest sanitarians, and at the same time to give a short history of the progress which has been made in that direction. I agree fully with the proverbial statement that "a spark is a molecule of matter which may kindle a world," and I opine that the great object of the sanitary world is to get evidence of the presence of that spark before it has time to reproduce its kind, and that the machinery which will give the most complete and general result in practice will be more satisfactory than one which may be perfect in theory but for various reasons not so efficient in action. The first good experiment as to method came from Manchester. The Manchester Sanitary Association did that nearly twenty years ago which the Society of Medical Officers of Health suggested as the right thing, but failed to do it for want of funds, the Government of the day refusing to help them in their proposals. The Manchester Association published a weekly return of all new cases of diseases coming under treatment at the various medical institutions in Manchester and Salford. The Sanitary Section of the International Statistical Congress held in the preceding year had considered the subject and had pointed out the method of doing it. The Congress had urged it as a duty upon Governments to get the information in the usual way, and pointed out that a knowledge as to the position of the onset of disease was of more importance than were the returns of actual mortality,—a principle which I had inculcated at various local meetings held for sanitary purposes long before the Congress alluded to. The Manchester returns gave timely warning of the foci from whence it might be expected that infectious diseases would spread, as spread they did. Manchester, without Government assistance, did that which London was unable to do. Attempts were soon made in different parts of the kingdom to provide similar returns, but they were only "flashes in the pan," and were not persistent. The late Dr. Lankester brought the matter to the notice of the Social Science Association on June 5, 1871, at their rooms in the Adelphi, Dr. W. Farr being the Chairman at that meeting. Dr. Lankester urged that the State should stand *in loco parentis*, as regards those children who were not vaccinated, and that a Court of Summary Jurisdiction should have them vaccinated in spite of the parents, and that heavy fines should be inflicted upon all medical men who attended cases of small-pox who did not at once notify to the local authority the fact of its presence at that particular place. This was the first suggestion made in a general meeting in this country, that a penalty should be put upon a medical man for not notifying to the local authority the fact of the fire, although it had been previously suggested that the local authority ought to be fined for allowing the fire to extend itself. I had urged this view because the foci of disease could not become persistent if the local authority did its duty, and insisted upon local cleanliness, with the generous distribution of a pure water-supply.

The subject of notification of small-pox, upon the motion of the late Dr. Stewart, was referred to the Committee of the Health Department of the Social Science Association to consider and report upon, as to what steps could be taken to effect the desirable object of stamping it out. It was discussed and re-discussed at the Congress of that Association, without any satisfactory result. At Brighton, in 1875, it was resolved to recommend the Council to take into consideration the desirability of promoting by legislative enactment that all cases of an infectious character should be reported to the Medical Officer of Health of the district, but to meet objections made in the meeting the reporter was not distinguished.

Dr. Littlejohn is said at that meeting to have strongly opposed the resolution as it stood when first considered, viz., "that it should compel medical men to report." He said veterinary surgeons were not called upon to send certificates under the Contagious Diseases (Animals) Act to the county authority, and he considered that it would be "invidious and monstrous to throw such a responsibility upon medical men, instead of casting it upon the man of the house where the case took place."

In the same year, 1875, the North-western Association of Medical Officers of Health memorialized the President of the Local Government Board, in favour of putting medical men in a criminal position if they did not report to the local authority any case they might be called upon to attend. The subject was again publicly discussed in London, on April 29, 1876, when, at the request of the Health Committee of the Social Science Association, I read a paper upon the right of the State to obtain early information of the appearance of epidemic or infectious disease in a given district. I discussed whether the medical attendant ought to be the informant or not. In that paper I dealt with the subject from its various aspects, *pro* and *con*. A very careful consideration led me to conclude that there were even more than two sides to the question under consideration, and that it was not so absolutely one-sided as the Social Science Association and Northern Medical Officers of Health Society at their various meetings seemed to think. The Chairman (Dr. W. B. Richardson), in summing up, said that the discussion four distinct views had been enunciated.

1. That the duty should be absolute upon the medical attendant, under a penalty for neglect.
2. It should be upon the legal representatives as head of the family, or of the household in which the case occurred.
3. That there should be a dual notification, that is notification by both parties. Whilst the fourth made it the duty of the medical attendant to inform the head of the household in writing as to the infectious character of the disease, which information the householder should be bound, under a penalty, to transmit to the local authority.

Each project had been supported in the discussion by about an equal number of speakers. The last view was the system advocated in my paper, and is the plan which, to my mind, was most likely to effect the object we all had in view.

The divided councils at Adam-street did not get the matter settled. It was again taken up by the Society of Medical Officers of Health, and at a meeting held December 15 in the same year, certain resolutions were proposed; and after several suggestions and amendments had been made, it was unanimously resolved that—

1. Infectious disease ought to be reported by the householder to the sanitary authority without delay.
2. Every medical man attending a case of infectious disease should give immediate information respecting its nature to the occupier or other person responsible for reporting to the sanitary authority.

It does not appear from the report of the discussion at that meeting, which was presided over by Dr. Buchanan, that any proposal was made that medical men should be subject to a criminal prosecution if they did not disclose the nature of the disease to the householder, much less suggest that they should be criminally prosecuted if they did not do so to the local authority. The Chairman, in summing up the discussion, said he thought it the duty of the Society to affirm the principle, without, however, making it compulsory under penalty upon the medical profession to give the sought-for information. He (Dr. Buchanan) felt persuaded that as soon as the profession found itself morally bound to do a thing, there would be no ground for suspecting any evasion of the duty even although there was no legal compulsion.

The

The Parliamentary Session of 1876 witnessed the introduction of clauses in local Acts giving the power to the local authority of prosecuting medical men who did not notify the existence of such disease to the local authority. Huddersfield introduced such a clause, which inflicted a penalty of not exceeding £10, but which was partial in its application. The subject was handled in a masterly manner at the annual meeting of the Social Science Association at Liverpool in 1876, by Dr. Francis Bond, who argued in favour of the householder being the informant under a penalty, and that medical men should make the communication to him as a moral duty.

In the following year the Town Council of Coventry passed resolutions having the same effect as indicated in the course which Dr. Bond had suggested at Liverpool, and Dr. Ransome urged the same course as essentially necessary in a paper which he read to the National Health Society in May, 1877.

About the same time the North-western Association of the Medical Officers of Health again approached the President of the Local Government Board, but this time they suggested that the householder should be the informant, and that the medical attendant should be liable to a penalty if he did not disclose the nature of the case to the householder or person responsible for the care of the patient. Memorials were also sent to Mr. Selater Booth by various sanitary authorities calling upon him to introduce a measure into Parliament for the purpose of effecting legislation in the direction thus indicated.

A further step was also taken by the town of Bolton, which obtained a clause in an Act of Parliament putting a penalty for non-disclosure upon both householder and doctor, the doctor being liable to a penalty not exceeding £10, but entitled to a fee of 2s. 6d. for notifying.

A temperate and well-written paper on the subject was read at York, in July 1878, by Mr. North, to a combined meeting of Medical Officers of Health for the Northern, Western, and York Societies, in which the difficulties to be encountered by compulsory notification were placed before the members. It did not convince the various Medical Officers of Health assembled at that meeting. They found themselves so often foiled in their endeavours to arrest disease, because foci had been conveyed to many places before information reached them as to its existence, that they still insisted upon going to the fountain-head for the information, in all those cases at least which came to the cognizance of the members of the medical profession. The advantage and saving of trouble by this course to medical officers cannot be doubted, and if all cases of infectious disease were attended by medical men as a matter-of-course, it would, if carried out efficiently, do what the medical officers require, viz., give them intelligence as to the whereabouts of dangerous infection. But no one can read the reports of the Medical Officers of Health from all parts of the kingdom without coming to the conclusion that the greatest spread of infection is brought about by those cases which are not under orthodox medical care at all, and that notification by the medical profession alone would not effect the object, but rather lead to ignorant attempts to smother up the evidence, and in the end to raise more persistent and more widespread outbursts. There was a necessity in the minds of medical officers of health for dual notification; and all the local Bills introduced into the House of Commons in this and succeeding years contained clauses requiring the medical attendant either with or without the householder to notify to the local authority under penalties.

In 1879 the Local Government Board also made a step in advance, by an order dated February 12, which imposed the duty upon all medical officers employed by them of notifying any case of dangerous, contagious, infectious or epidemic disease to the sanitary authority of the district immediately upon its occurrence; it also enabled Medical Officers of Health to obtain such information as to sickness and death among pauper patients as might be thought necessary for their guidance; and later in the year the order was made to extend to the medical officers of district schools.

I now refer to the action of the British Medical Association, and to give credit to those to whom it is due. The first note was sounded by that body soon after Dr. Ransome had moved in the matter at Manchester, for he introduced the subject to the notice of the Association at Leamington, in 1865, and procured the appointment of a Committee to consider the registration of disease. Various reports were made by that Committee, and in 1875, it was distinctly stated that the authoritative declaration of the nature of the disease must necessarily come in the first instance from the medical attendant; but the Committee also expressed their opinion that the proper individual to make return should, in the first instance, be the householder, or the person in charge of the case. I had dealt with the matter in this direction in the address upon public medicine which I had the honor to read at Sheffield in that year. The subject was then referred to the Parliamentary Bills Committee, and voluminous reports have been presented from time to time, and accepted by the Association, and the moral duty of communicating that information to the householder has been often insisted upon. The report of the Chairman of the Committee (Mr. E. Hart) upon the subject is a masterly *résumé* of the action of the Committee, and should be studied by all who take interest in the matter. A discussion took place at Ryde in 1881, when Mr. Michael, Q. C., proposed an amendment to the report, which amendment cast the duty on the medical attendant, and made its neglect a penal act, but which was lost by a large majority.

At Worcester, in 1882, the subject was brought prominently forward both in the Public Health Section, of which I was President, and in the general meeting. The result of the discussion which ensued was the overwhelming defeat of Mr. Hastings's resolution, which made neglect to report a penal act, and the following proposal was adopted—"That whilst desiring compulsory notification of infectious diseases, the Association wishes to express its opinion that the compulsion to notify should be placed upon the householder as his duty as a citizen, and not upon the doctor." The subject continued to be debated in various quarters, and on April 26, 1881, a deputation waited upon the President of the Local Government Board, which was formed by representatives of the British Medical Association, Sanitary Institute of Great Britain, Society of Medical Officers of Health, Social Science Association, National Health Society, and of the Vestries and District Boards of London, to ask the Government to legislate upon this and other subjects connected with measures necessary to guard the public health from the danger of infectious diseases.

One of the sequences of that deputation was the appointment of the Hospitals Commission to inquire respecting small-pox and fever hospitals, the extent and sufficiency of hospital accommodation, and, with other matters, "to insure as far as practicable the protection of the public against contagion." Having had the honor of being appointed one of the members of that Commission, I directed my attention especially to this part of the subject, and carefully examined the witnesses who were able to speak with authority upon the matter. The report which we presented to the Queen states very distinctly "that notification should in all cases be obligatory upon one or more of the following persons—the patient, those in charge of him, the occupier of the house in which he lodges, his medical attendant or any relieving officer (if a pauper) to whom he may apply for assistance." In effect, the report says it is only by the medical attendant (if any) that the disease can be intelligently notified, since it is only he who can be presumed to know what it is, and who has no interest in concealing it; but it is represented that to impose that duty upon him directly and unreservedly would interfere with the relation which ought to exist between him and his patient, and might prevent the aid of a medical attendant being sought for at all. If this be so, it may be sufficient that the medical attendant should be required by law to furnish to persons in charge of a patient, or the owner or occupier of the house in which he lodges, a certificate of the nature of the disease, stating whether proper isolation can or cannot be secured without removal, and when removal is necessary, stating also to what extent the case is urgent or severe. "The persons to whom this certificate is given should be in like manner required by law to forward it at once to the Medical Officer of Health. The medical attendant should, we think, in justice be entitled to claim a fee either from the patient or from the sanitary authority for every such certificate of his which reaches the Medical Officer of Health, and which he may forward himself if the patient so desires."

Evidence upon these points was obtained from various Societies—such as the Medical Officers of Health, the Sanitary Institute of Great Britain, as well as the numerous witnesses who had personal knowledge of the behaviour of small-pox and other infectious diseases.

I now come to the last phases of this important matter. Mr. Hastings introduced a Bill into the House of Commons for the purpose of putting a private medical man into the position of a criminal if he did not become a State official, whenever he came into contact with infectious disease, whether he was willing to be a State official or not. The Bill came on for second reading on June 27 in last year. The House was counted out immediately after Mr. Hastings's speech in its favour, and the Bill was not proceeded with. The Government had been previously interviewed by Mr. Hastings's followers, but they would not pledge themselves to support a general Act, although pressed to do so by some men who are notably anxious to make the medical profession occupy a secondary position in the country. In October of last year the Social Science Congress held its meeting at Huddersfield. It might have been supposed that, after the defeat of the President of their Council on this matter, that as Huddersfield was the first town which obtained the advantages or disadvantages which attach to a penal clause, and is the town in which compulsory notification has been the longest in operation, we should have had a convincing discussion as to the benefits or injury which had resulted to the town from the passing of the Act. It does not appear that a single word was said upon the subject by either side. Mr. Hastings did not raise the point, and no other person said a word about it; and although the Social Science Association had been on former occasions so very positive about its

its benefits, and were actually meeting soon after their President's defeat in the very town most capable of producing convincing proofs, if they were forthcoming, as to the advantages of the Act, there was a silence on the subject which to me is inexplicable, unless on the view that the results do not correspond with the prognostications, and that it would not have been safe to excite a discussion among those capable of proving the negative.

If towns having the compulsory clauses in operation are not able to show better things than can be shown in those places in which only a moral obligation to disclose exists, I think it must be evident to those who wish to prevent us trusting too much to a paternal Government that we had better steer clear of too much compulsion, and trust a little more to moral obligations. There is a strong feeling in the commercial world against professional men, such as lawyers, commission agents, auctioneers, or engineers, accepting a commission from both sides in a given case, and being engaged as advisers for both sides in any commercial transaction: and I fail to see any difference in the case of a man who is employed by a private and responsible individual to cure him of his disease being compelled to accept a fee for disclosing something which may be used by the local authority to the injury of his client and employer.

The object of notification is not simply a repression of disease; and if the repression is brought about, the means whereby the repression is produced is of no consequence. If the fire is put out, it would be curious indeed if the local authorities complained, or asked for the infliction of a penalty upon the person at whose house the fire occurred because they had not been informed of the fact, by the man who had put out the fire, whilst it is certain that when rewards were offered for the discovery of fires, much false information was forthcoming at the fire station. There would be reason in the application if the fire had not been put out and several other premises had also been consumed in the conflagration. It might be reasonable to ask for it, but here again there might be a difficulty if it could not be proved as to the nature of the case, and in which house the fire first appeared. I am curious to know how many certificates have been sent in, reporting cases which turned out after all to be false alarms instead of true reports. If you look into the evidence given to the 'Hospitals Commission,' it will be seen that it was not always clear that a given case was small-pox, or typhus, or scarlatina, or even infectious disease at all.

In some cases it might be important that the medical attendant should be put into the witness-box, as against the householder, but if he is made a *particeps criminis*, his mouth is closed as regards the prosecution; he cannot be called by the local authority, he cannot be made to convict himself; whilst if he has not informed his employer as to the nature of the disease (as it is possible to be alleged by that householder in his defence), he would be guilty of a moral wrong which if proved against him would be of much more serious consequence to him than any money penalty, which penalty if inflicted would be certain to be paid by his employer as part of the price of his silence, and as payment for the prosecution which had been instituted against him. If an employer is determined to break the law, and his medical attendant will acknowledge to having committed a moral wrong for the purpose of assisting in the fraud, the same attendant will not disclose, if the employer agrees to hold him pecuniarily harmless. The evil will be as great in the one case as in the other. Whilst the medical attendant cannot be called for the prosecution, he will be able to appear as a witness for the other side, and if he likes to say so, can aver that the prosecution is mistaken as to the identity of the case. To my mind it is far better that the local authority should have the moral support of the medical profession than run the risk of having a "*non omnia possumus*" set up by the passive action of a large section of the medical profession in a given town. Whilst the fear that the medical attendant is bound to directly disclose, could not be used as an argument against the employment of an orthodox medical man. If such a man be employed to treat infectious disease, and if the householder does not disclose it, it will be ten times over more to his interest to prevent the spread of the disease which he is hiding up, and in his own interests as well as for his medical attendant's sake, to use the most persistent endeavour to extinguish the disease and prevent any knowledge of it reaching the ears of the local authority in consequence of that extension.

A disagreeable Medical Officer of Health, or the fussy and interfering action of an acknowledged rival, the impropriety and the public scandal of one medical man taking legal proceedings against another, and that other possibly his superior in social position and in professional standing, ought not to be countenanced by medical men at any rate. However satisfactory it might be to some others that such proceedings should be taken, there will always be in every profession some men who will see in the opportunity of throwing dirt at a professional superior that some of it will stick, and all men are not able to see the motive for the malicious action.

Until all Medical Officers of Health consist of either consulting practitioners or men who are not in practice at all, there certainly will be some who will be able to hide for a time the malicious character of their action, and try to injure another man's reputation for the purpose of establishing their own, not seeing that if their own is not capable of being established without the other man is damaged, they are proving their own littleness, and their own incapacity to excel their neighbour in the estimation of the people simply by professional work. I am very much opposed to placing any such power in the hands of professional rivals. The method by which action may be taken is so likely to be moved by motives out of sight; men will so often try to pose as energetic and self-denying officers, and are but too often able to inflict undeserved damage upon a rival practitioner before the real motive is seen, that I for one set my face against the new departure which is being made in this direction; and I aver that we do not want too much of compulsion in our sanitary work. It does not follow that a despotic government will always be benevolent. It is found by experience that as good results have been obtained in districts in which notification is voluntary as in those places in which it is compulsory; indeed the incidence of infective disease is higher in Huddersfield, in Bolton, in Edinburgh, and in Dundee, than it is in a number of places in which there is no compulsion upon medical men, showing at once that compulsion has not extinguished the diseases which are proposed to be stamped out by it. If those towns could show that the disease had been completely arrested by the power they possess, there would be grounds for argument in favour of the extension of compulsory notification to other places, but whilst the cases continue to be nearly if not quite as numerous, whilst the mortality continues to be considerable, it is evident that there is much more to be done by the local authority in removal of the causes which promote the spread of infection, than simply by enforcing professional notification; and whilst ready to concede that the householder ought to notify as a part of his duty as a citizen of a civilized country, I think it would be much more likely to bring the whole force of the profession to bear upon the subject if it was insisted upon as a moral duty to the State, that a written notice should be given by the medical man to the householder as a *part of his prescription*. I would rather that the neglect to perform a moral duty should be dealt with by the medical licensing authorities or by the Medical Council than it should be made a penal matter to be dealt with in a Court of summary jurisdiction by those who will not always be able to see the motive for the prosecution or the medical bearing of the case, and the possible differences of opinion which will sometimes arise, and which will be best dealt with by men of high standing in the medical profession. Let us try to get a general Act which shall apply the same law as to infectious disease as does now apply to contagious diseases among animals. Let us see the result of the general application of such a law, and if after a time it is found to fail in its effect there will then be a sufficient reason for placing penalties upon a whole profession for not performing that which can only be regarded in the light of a moral duty. To place a power of prosecution, even under such circumstances, in the hands of a fellow-practitioner would be wrong, and I should urge that in such a case a prosecution should only be instituted with the consent and by the action of the Medical Council of Great Britain, so as to get rid of the possibility of professional rivalry, and vindictive or malicious action on the part of a professional brother. I am bound to say that the Medical Officers of Health have not used the power they possess against their professional brethren in the twenty towns which have now a compulsory clause, and it is much to their credit that penal proceedings have not been taken by them, but they have also to show that if it were penal on the householder only, as a citizen of the commonwealth, it would not have been so effectual as they say it has been. I think it would have been equally so, and that the same results would have been obtained in the one case as it is assumed to have been obtained with the dual notification. The fear which does arise among the people, that medical men will be informers against the patient's interest could not have any foundation, and we should not find so many cases reported which have not been recognized by orthodox practitioners, because they have not been placed under any medical man's care.

APPENDIX F.

MORTALITY ON BOARD IMMIGRANT SHIPS.

(REPORT BY MEDICAL ADVISER TO THE GOVERNMENT.)

The Medical Adviser to the Government to The Principal Under Secretary.

Sir,

Sydney, 13 April, 1883.

I have the honour to state that, in obedience to the instructions of the Colonial Secretary, I have investigated the circumstances which seemed to have occasioned the excessive mortality on board the last arrived three or four immigrant vessels, and herewith beg to furnish my report.

I have, &c.,
CHARLES K. MACKELLAR,
Medical Adviser to the Government.

Report as to the causes which have brought about the excessive mortality on the recently arrived immigrant ships.

EVEN under the most favourable conditions as regards accommodation and dietary, and the most skilful medical supervision, there can be no doubt that a large number of people crowded together within the narrow limits of an immigrant ship are specially liable to suffer severely when disease of an infectious nature breaks out amongst them; and this liability is increased tenfold when, the provision for the isolation of the sick being inadequate, it is necessary to treat such cases in their ordinary bunks amongst the healthy passengers.

On board the vessels under consideration, one of the principal causes of the large amount of sickness, and perhaps to a certain extent the great mortality, was the want of sufficient hospital accommodation; but on board the "Nerbudda" other unfortunate circumstances, not in all cases unavoidable, also contributed very largely. On the 16th December last the immigrants were sent on board that vessel at Plymouth during a downpour of rain, and in consequence the clothing of many of them got soaking wet; at daylight the following morning the ship put to sea, the weather being still very boisterous, so that the passengers could not venture on deck. Gales of wind, accompanied by frequent rain showers, were experienced for the next fortnight, during which time three-fourths of the immigrants were sea-sick, and nearly all were obliged to remain below. During this period the clothing, wet at the outset, was never thoroughly dry, and the women and children were so prostrated by sea-sickness that they lay vomiting over the sides of their bunks, and often over their bed-clothing or that of their fellows. A number of ship's buckets and other utensils were supplied by the Captain to obviate this disgusting state of affairs, but they were by no means adequate to the requirements. The usual provisions which exist for ventilation were not always available, as the wind was too strong to admit of windsails being used; and although it was not at any time necessary to close the hatches, yet both the Doctor and Captain say that the air, especially in the married people's quarters, was very foul; and I would draw attention to the fact that in the centre of this compartment is situated the room from which were issued stores and provisions of all kinds, the distribution of which caused a constant traffic, indecent of itself because of the almost inevitable exposure of the women and children, and likewise being exceedingly unfavourable to the repose of the sick. The situation of this issuing-room, moreover, obstructed a free current of air and prevented the light reaching some of the berths, so that it was necessary to burn lamps by day as well as by night. The fore and aft ventilation through the "bulkheads" seems to have been neglected; and I would suggest that some contrivance should be devised in future which would, while admitting a free passage of air fore and aft, still prevent communication between the compartments. Dr. Dawes says, "All my worst cases came from one particular place in the married people's quarters, and in that corner there was the least ventilation."

During the third and fourth weeks the weather was very much milder, but the state of affairs above detailed had debilitated the immigrants, especially the young ones, a great number of whom now suffered from coughs, colds, and bronchitis, and at this juncture measles supervened, and unfortunately found a too suitable field for its ravages in the already weakened children. The first few cases were isolated, but others occurred so rapidly that at length it was necessary to treat the sick amongst the healthy, and in a short time all not protected by the fact of their having had a previous attack were affected. Dr. Dawes says that as many as (44) forty-four persons had the disease at one time. As might be expected under these circumstances, the death rate was very great, in all (18) eighteen, and all under three years.

During the latter portion of the voyage, although at times the weather was boisterous, the children did not suffer so much, as they had to a certain extent gained strength and become inured to the effects of the sea. The "Nerbudda" is an exceedingly commodious ship, and I am informed that she was specially built to carry "coolies" from India, but I think that she might be better ventilated.

I would invite attention to the necessity for a very strict examination of the whole of the passengers at the port of departure. It seems that the authorities rely upon the fact of the immigrants furnishing certificates of health given by surgeons quite unconnected with the Government, and that the examination immediately prior to embarkation is gone through at the rate of about 100 per hour, which shows that it must be of a somewhat perfunctory character.

The clothing is allowed to go on board without any care being taken to free it from disease, and I doubt not but that it has in past times been a fruitful cause of outbreaks such as have occurred on board these vessels. The epidemics on the "Cuterjee" and "Nerbudda" cannot be very distinctly traced to the presence of infected clothing, but the one which took place on board the "Duchess of Argyll" occurred six weeks after the vessel left Plymouth, and was therefore probably not due to personal contagion, but it is suggestive that its onset was coincident with the bringing of the clothing of the immigrants from the hold to the upper deck. Means might be taken to disinfect the baggage by hot air at Plymouth.

The dépôt at Plymouth is apparently much crowded at times, but neither the Doctor or the Captain of the "Nerbudda" seem to be very clear as to its capacity.

The food supplied to the immigrants has been of good quality, and very well suited for the consumption of the adult passengers; but as these vessels usually carry a very large number of children, I would suggest that a greater amount of care should be exercised to have a plentiful supply of nourishing broths, &c.; and further, I think that one or more cows should be carried, to provide fresh milk for the exclusive use of such infants as are being brought upon the bottle.

13 April, 1883.

CHARLES K. MACKELLAR,
Medical Adviser to the Government.

APPENDIX G.

Form of International Bill of Health proposed by the Delegates of the United States at the International Sanitary Conference of Washington, D.C., 1881.

I, (Consul, Consular Agent, or other officer empowered by law to sign), at this port do hereby state that the vessel hereinafter named clears from this port under the following circumstances:—

| | |
|---|-------------------------------------|
| Name of vessel— | Nature (man-of-war, schooner, &c.)— |
| Tonnage— | Guns, No.— |
| Apartments for passengers, No.— | Where last from— |
| Destination— | Name of Captain— |
| Name of Medical Officer— | Total number of crew— |
| Total number of passengers—1st class, ; | Cargo— |
| 2nd class, ; steerage, | |

VESSEL.

1. Sanitary history of vessel—
2. Sanitary condition of vessel (before and after reception of cargo, with note of any decayed wood). Note disinfection of vessel—
3. Sanitary condition of cargo—
4. Sanitary condition of crew—
5. Sanitary condition of passengers—
6. Sanitary condition of clothing, food, water, air space, and ventilation—

PORT.

1. Sanitary condition of port and adjacent country.
 - a. Prevailing disease (if any).
 - b. Number of cases of, and deaths from, yellow fever, Asiatic cholera, plague, small-pox, or typhus fever, during the week preceding.

| | |
|---------------------|------------------------|
| Number of cases of— | Number of deaths from— |
| Yellow fever. | Yellow fever. |
| Asiatic cholera. | Asiatic cholera. |
| Plague. | Plague. |
| Small-pox. | Small-pox. |
| Typhus fever. | Typhus fever. |

- c. Population according to last Census.
- d. Total deaths from all causes during the preceding month.

2. Any circumstance affecting the public health existing in the port of departure to be here stated.

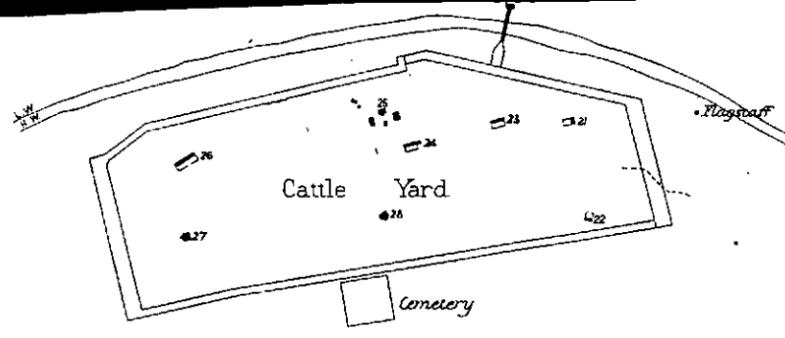
I certify that the foregoing statements are made by who has personally inspected said vessel; that I am satisfied that the said statements are correct; and I do further certify that the said vessel leaves this port bound for in the United States.

In witness whereof, I have hereunto set my hand and seal of office, at the port of
 this day of
 188 , o'clock.

(L.S.)

Consul.

[Four plans.]

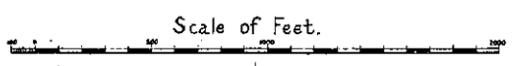


PORT PHILLIP BAY

QUARANTINE STATION

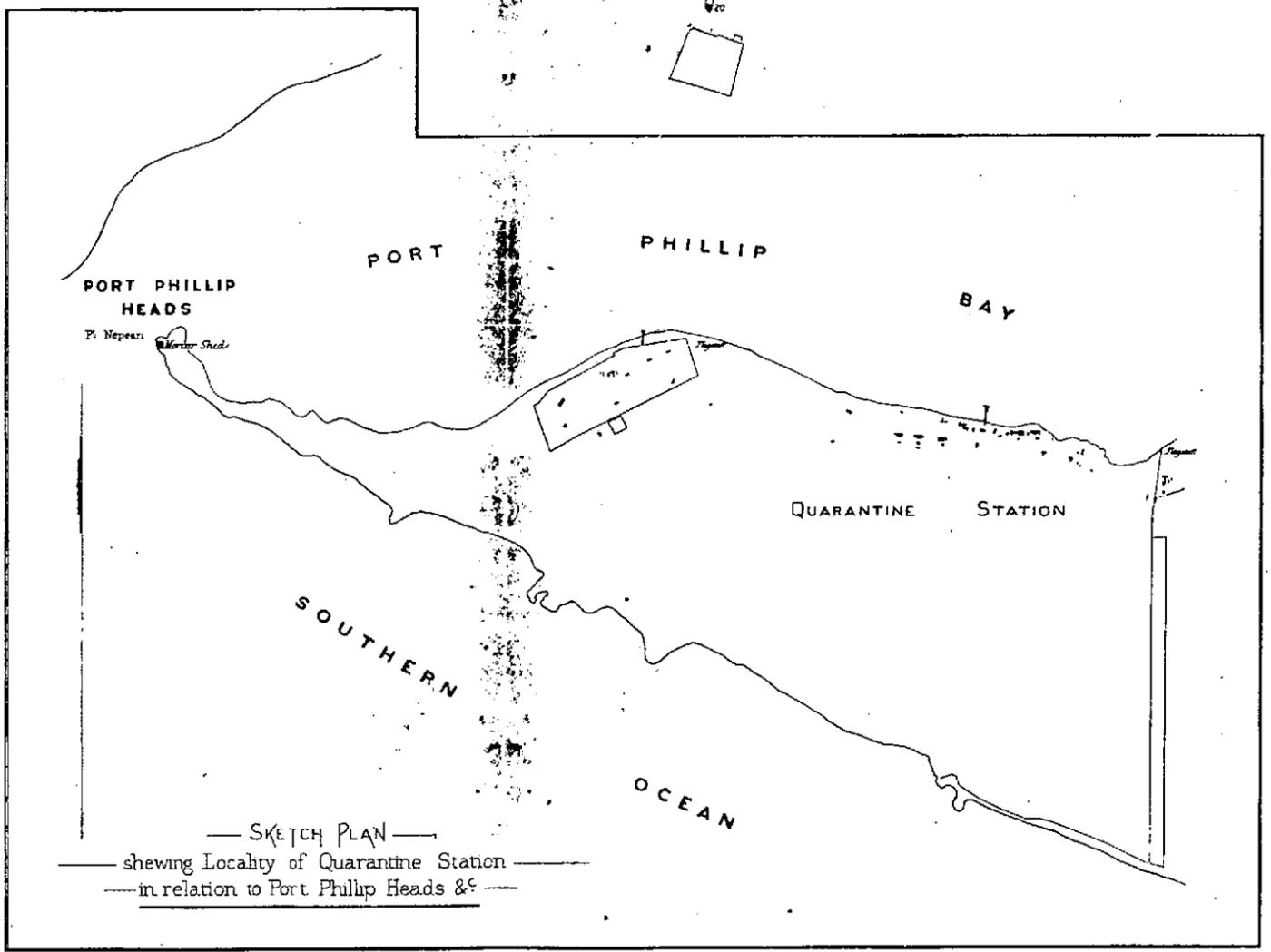
POINT NEPEAN

GENERAL PLAN



REFERENCE

- Nº 1 2 3 4 5 Hospitals
- . 6 7 Cooks Houses
- . 8 Bath & Wash House
- . 9 Wash House
- . 10 Drying & Disinfecting House
- . 11 Main Store
- . 12 Clothing & Bedding Store
- . 13 Surgery
- . 14 Workshop
- . 15 Cottage Nº 2
- . 16 Doctor's Quarters
- . 17 Storekeeper's Quarters
- . 18 Cottage Nº 1
- . 19 20 Laborer's Quarters
- . 21 22 Four Stall Stables
- . 23 24 Ten
- . 25 Quarters, Store &
- . 26 Stable, Stall, Stable
- . 27 28 Two Stall Stables



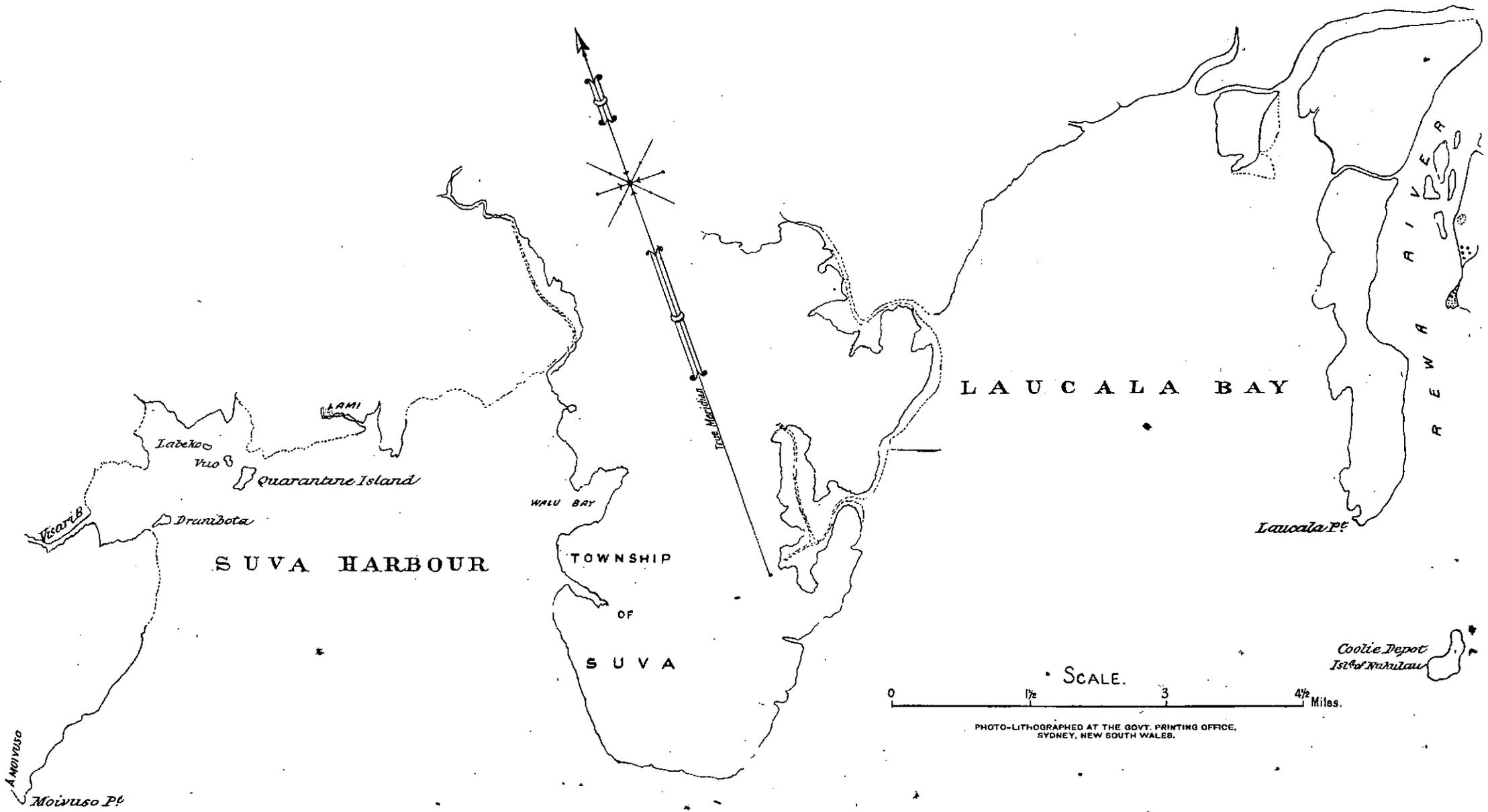
SKETCH PLAN
 showing Locality of Quarantine Station
 in relation to Port Phillip Heads &c

SOUTHERN OCEAN



Parade
 Boundary
 Fence

Boundary
 Fence



LAUCALA BAY

S U V A H A R B O U R

T O W N S H I P
O F
S U V A

SCALE.

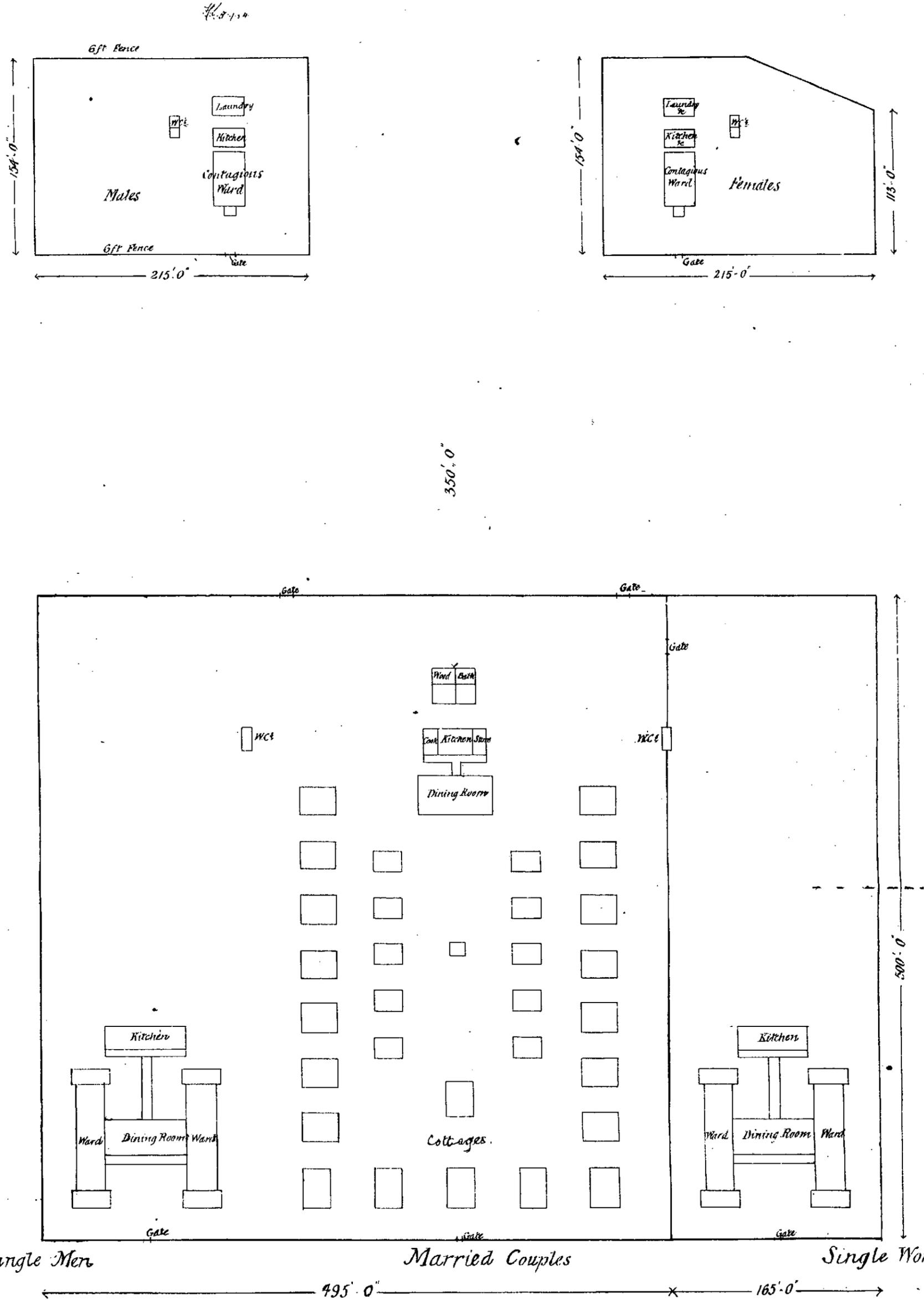
0 1 1/2 3 4 1/2 Miles.

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
SYDNEY, NEW SOUTH WALES.

QUARANTINE STATION TORRENS ISLAND

BLOCK PLAN

SCALE. 50 FT TO AN INCH



(Sig. 5.)

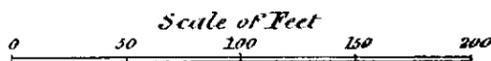
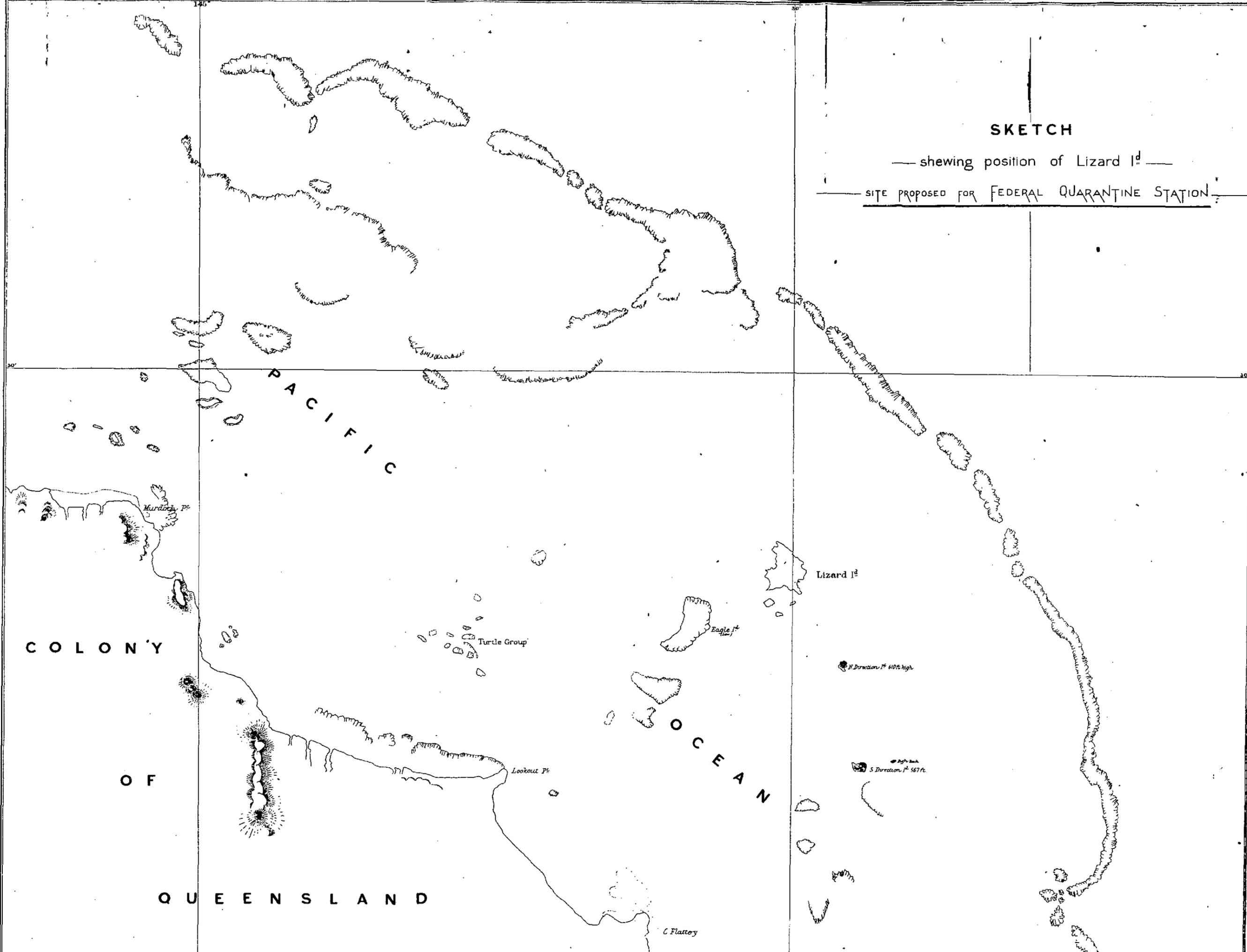


PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE, SYDNEY, NEW SOUTH WALES



SKETCH

— shewing position of Lizard I^d —

— SITE PROPOSED FOR FEDERAL QUARANTINE STATION —

COLONY

OF

QUEENSLAND

PACIFIC

OCEAN

Lizard I^d

Turtle Group

Eagle I^d

N Direction 1st 60 ft high

S Direction 1st 567 ft

Lookout Pt

C Flattery

145°

30°

1884.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

REPORT

OF THE

EXECUTIVE SECRETARY

ON THE

BORDEAUX INTERNATIONAL EXHIBITION OF WINES,

1882.

ORDERED BY THE LEGISLATIVE ASSEMBLY TO BE PRINTED,
26 *November*, 1884.

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1884.

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[1,765 copies—Approximate Cost of Printing (labour and material), £156 15s. 7d.]

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Commission.

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen,
Defender of the Faith, and so forth,—

To HENRY EDWARD BONNARD, Esquire,

Greeting :

WHEREAS, by an instrument under the Great Seal of Our Colony of New South Wales, bearing even date herewith, We have appointed the Honorable FREDERICK MATTHEW DABLEY, Vice-President of our Executive Council of our Colony of New South Wales, a Member of our Legislative Council of Our said Colony, and one of Our Counsels learned in the Law, Our Representative Commissioner, to act on behalf of Our said Colony of New South Wales, in all things connected with an Exhibition of Wines, Spirits, and Fermented Liquors, to be held in the City of Bordeaux, in France, in the month of June now next ensuing: And whereas it hath appeared to Us to be expedient to appoint also an Executive Secretary to act in the absence of the Representative Commissioner, or in his presence under his instructions, for Our said Colony, in certain matters connected with the said Exhibition: Now therefore know you, that We, of Our especial Grace, have thought fit to appoint, and do hereby appoint you to be Our Executive Secretary for Our said Colony of New South Wales in Bordeaux, in connection with the aforesaid Exhibition: And We do hereby give unto you full power to superintend the unpacking and reception at the aforesaid Exhibition, of all Wines, Spirits, and Fermented Liquors that shall be transmitted from Our Colony aforesaid, for exposition at Bordeaux, and generally to act on behalf of such Colony, but more particularly of contributors of such articles therefrom to the said Exhibition, in all matters connected with the arrangement and display therein of all such articles and their subsequent disposal in France, or their re-transmission to New South Wales, as circumstances may require.

In testimony whereof, We have caused these Our Letters to be made Patent, and the Great Seal of Our said Colony of New South Wales to be hereunto affixed.

Witness Our right, trusty, and well-beloved Councillor, SIR AUGUSTUS WILLIAM
FREDERICK SPENCER LOFTUS (commonly called LORD AUGUSTUS LOFTUS), Knight
Grand Cross of Our Most Honorable Order of the Bath, Our Governor and
Commander-in-Chief of Our said Colony of New South Wales aforesaid, this
twenty-second day of February, in the year of Our Lord one thousand eight
hundred and eighty-two, and in the forty-fifth year of Our Reign.

AUGUSTUS LOFTUS.

By His Excellency's Command,—

JOHN ROBERTSON.

Entered on record by me, in REGISTER OF PATENTS, No. 11, pages 416-7, this twenty-third day of February, one thousand eight hundred and eighty-two.

(For the Colonial Secretary and Registrar of Records),

CRITCHETT WALKER,
Principal Under-Secretary.

1884.

NEW SOUTH WALES.

BORDEAUX INTERNATIONAL EXHIBITION OF WINES,
1882.REPORT FROM THE EXECUTIVE SECRETARY FOR THE COLONY AT BORDEAUX TO
THE HONORABLE THE COLONIAL SECRETARY

UPON

1. EXHIBITION OF NEW SOUTH WALES WINES AT BORDEAUX.
2. EUROPEAN VINEYARDS AND WINES.
3. COLONIAL VITICULTURE.

WITH ENGRAVINGS AND APPENDICES.

Report to The Honorable the Colonial Secretary by The Executive Secretary for the
Colony of New South Wales, at Bordeaux.

Sir,

I have the honor to remit to you this my final report upon the *Exhibition of New South Wales Wines at Bordeaux, 1882*, as well as upon *European Vineyards and Colonial Viticulture*, in accordance with the instructions dated February 24th, 1882, received from your Department.

Owing to the official duties I was called upon to perform for this Colony at the Amsterdam International Exhibition of 1883, almost immediately after the closing of the Bordeaux Exhibition, it is only since the beginning of the present year 1884 that I was placed again in a position allowing me to finally carry out the wishes of the New South Wales Committee, as embodied in the instructions just referred to. It is thus that I have had to visit a number of wine-producing districts in Portugal, Spain, and France, which occupied me until May last, when I left Europe, returning to this Colony in the latter part of June, since when I have had to prepare this and other reports, besides giving my attention occasionally to Colonial vineyards.

I.—OFFICIAL RECORDS OF THE BORDEAUX EXHIBITION.

The Bordeaux Exhibition of 1882 was especially International for the wines of the whole world; it was held under the management of the *Société Philomathique* of Bordeaux, a society incorporated in 1808 under the provisions of an Imperial decree, as being of public usefulness. This exhibition was further under the patronage of the Government of France—of the *Conseil Général* of the district of Gironde, and of the Chamber of Commerce of Bordeaux.

Invitations to participate at the Bordeaux Exhibition had been sent to foreign countries, through the official representatives of the French Republic, and had been accepted by the Governments of Italy, Spain, Portugal, Greece, Chili, Turkey, Cyprus, Bulgaria, Servia, Germany, Austria-Hungary, the Argentine Republic, and the Colony of the Cape of Good Hope.

Australia was represented by the colonies of New South Wales, South Australia, and Victoria.

The French wine districts of Gironde, Burgundy, Provence, Roussillon, and Champagne occupied, as was to be expected, a very large and prominent place in the Exhibition and its annexed cellars.

The President of the *Philomathique Société* at the time was Mons. A. Daney, and the Secretary-General was Mons. J. Coutanceau, Ingénieur des Arts et Manufactures.

The International Section of Wines was presided over by Mons. Eug. Larronde, wine merchant, assisted by a numerous and influential Committee, and by M. Eug. Buhon, wine merchant, as Deputy Secretary-General. The special members entrusted with the internal organization were Messrs. Fourcade and Dariet, both wine merchants, with Mons. Sallé, architect of the Department. The appearance of the building reserved to the Wine Exhibition, erected in a semi-circle shape, and elegantly decorated, was most happy and convenient for its purpose. It is my duty to mention here that, in my official capacity, I am indebted for many attentions and constant willingness to oblige us on the part of the several gentlemen abovenamed, as also to the Customs Department, to Her Majesty's Consul at Bordeaux, and to the Municipality of the city.

The Bordeaux Exhibition was officially opened on the 20th June, 1882, with great *éclat* and solemnity. The ceremony was presided over by Mons. Léon Say, Minister of Finances of the French Republic, assisted by Representatives of the Ministers for Foreign Affairs and Home Department, surrounded by

all the civic, commercial, administrative, consular, judicial, and military authorities of the city and district. The Foreign Governments Representative and other Commissioners had been provided also with reserved seats on the platform, and amongst the flags which decorated the forum, the Colonial ensign of New South Wales occupied a distinguished position.

The Colony of New South Wales was represented at Bordeaux by the Hon. F. M. Darley, Q.C., M.L.C., and a Committee of Organization had been formed in Sydney to receive exhibits, and to take such steps and measures as circumstances would require for their transmission and exhibition to Bordeaux.

The Government of the Colony granted a sum of £1,000 to the Committee for the carrying out of the participation of New South Wales; and in due course, owing to the activity displayed by Mr. Augustus Morris, hon. secretary to the Committee, exhibits were received from wine-growers and merchants. On the invitation of the Government, the Committee having recommended me for the appointment of Executive Secretary for the Colony at Bordeaux, I had the honor to receive subsequently, from His Excellency the Governor, a Commission under the Great Seal of the Colony; general instructions, drafted by the Chairman and the Hon. Secretary, were submitted by the Committee to the approval of the Honorable the Colonial Secretary, and by his Department transmitted to the Executive Secretary, for his guidance at Bordeaux.

The British Colonies represented at the Exhibition were united in one group, and occupied together the centre aisle of the wine building.

The Island of Cyprus and the Cape of Good Hope had only a very small portion, but richly decorated, the remainder being monopolised by the three Australian Colonies.

From the time of the opening until the end of the Exhibition the Australian Courts in general, and that of New South Wales especially, proved very attractive to the public.

The Colony of New South Wales limited itself to exhibit *red* and *white* wines only. The Colony of Victoria exhibited, besides its ordinary wines, some sparkling wines, fruit wines, cordials, and a remedy against the *Phylloxera*. South Australia exhibited also, besides wines, several samples of beers and spirits.

South Australia was between Victoria and New South Wales, its simplicity happily contrasting on one side, with the bright colours and the gorgeous style adopted by Victoria, on the other with the sober but *recherché* appearance of New South Wales.

The representatives of the two last-named Colonies had reserved within their respective courts small offices, neatly furnished, where they exhibited full libraries of Australian publications, collections of timbers, minerals, wools, and furs, photographic views, and likenesses of Colonial notabilities, somewhat transforming that part of the Exhibition into a museum, where the leading newspapers of Australia could also be read by the public.

In the centre of the New South Wales Court was a much remarked glass case of Australian cedar, sent by Mr. John Wyndham, of Dalwood vineyard.

The names of the principal localities of the Colony were painted on the side walls of the court; views of Sydney and Newcastle cities and harbours, from the Government Printing Office, decorated the court, and under rows of samples in bottles were full particulars conveniently placed on desks, respecting the exhibitors' vineyards; the panels under the tables were filled up by casks bearing the names of those wine-growers who had sent exhibits in wood. The general fitting up of the court was completed by Colonial flags and coats of arms, and other Colonial attributes.

On the opening day of the Exhibition Mons. Léon Say, Mr. Berger, State Councillor and late French Commissioner for the Sydney International Exhibition, Mons. de Blowitz, special correspondent of the *Times* in Paris, Mr. Lalande, M.P. for Bordeaux and President of the Chamber of Commerce, evinced a very deep interest, and had long conversations about Australia and its progress with the Hon. F. M. Darley and the Executive Secretary. On that occasion copies of the book of New South Wales in 1861 were presented to these several gentlemen.

During his stay in Bordeaux the Hon. F. M. Darley, guided by notable residents, visited the most renowned vineyards and growths of the Médoc, also the principal buildings of the city, and such establishments as could afford remarks of some interest for the Colony, and was elected an honorary member and correspondent of the Hygienic and Health Society of the district of Gironde. A few days after the opening day a number of the leading citizens, merchants, and public officials of Bordeaux, were invited by Messrs. J. H. Tandonnet and Frères, to meet the Hon. the Representative Commissioner of New South Wales at a banquet given in his honor on board the French steamer "Précurseur," then about to leave for Sydney. On that occasion the Hon. F. M. Darley spoke about Australia and New South Wales, their future relations with France, the probable importance of these relations, dealing at length upon the wealth and resources of the Colony, and the results to be expected from the Bordeaux Exhibition, owing to its international character.

On the occasion of a subsequent visit to Bordeaux the Hon. F. M. Darley had several interviews with leading merchants of the place, and also with M. P. Legrand, then Minister of Commerce of France. Advantage was taken of Mr. Darley's presence in Bordeaux, by the Syndicate of the District Wine Merchants, to bring under his notice the disadvantage under which their trade was labouring in trying to extend its connection with the Colonies, by the high-heavy Custom duties collected in Australia, on the French wines imported there.

At a later period the Chamber voted on that subject a special resolution, for transmission to the New South Wales Government, and a copy of which will be found annexed.

The Hon. F. M. Darley's reply to the semi-official or private communications on the question, to Messrs. Dubos Brothers, P. Tandonnet, and E. Roulle was, that imported wines in this Colony were considered not as a necessary of life, but as a luxury indulged in by people with large means only, and for such reason no great hope could be entertained by the Bordeaux Syndical Chamber to obtain the reduction of the duties of which it complained.

Now, there is no doubt that the present importation of French wines, mostly from Bordeaux to this Colony, is very little more for the French wine trade at large, than a drop in the ocean, our highest import for the last ten years having been in 1877 limited to 282,987 gallons; it is evident that the principle of free trade is there, more at stake than the actual result, so far as present circumstances are considered.

The duty on still wines imported in New South Wales is 5s. per gallon, or equal to one franc per bottle; but if reckoned on larger quantities, it represents per hectolitre of 22 gallons no less than

£5 10s., or per hogshead of 50 gallons, as much as £12 10s., which in most cases is considerably above the most extreme and highest value of any of the wines sent here, and constitutes *protection à outrance* in favour of Colonial made wines.

The duties charged by the French Tariff upon New South Wales wines imported direct by any ship, under any flag from an Australian to a French port, are at the rate of 4f. 50c. or 3s. 6d. per hectolitre of 22 gallons, instead of £5 10s.; if Colonial wines are introduced to France having first passed through one other European Port, even on transshipment, these Custom duties are then raised to 8 fs. 60c., or 7s. per 22 gallons; which even in this case, do not represent more than about 16s. per hogshead, instead of £12 10s. charged by the Colony upon French wines. I must add that whenever any imported wines are found to contain more than 15° of alcohol (Gay Lussac), or 26°, Sykes, the duties on spirits are collected for each degree above 15° or 26° respectively upon the whole quantity.

The Colony may say that it does not affect its trade, but this is merely owing to the misfortune that viticulture is despised, misunderstood, miscarried, or ignored by the Colonial public; if, as I fervently hope, colonists could be brought round to open the eyes of their business intellect to the large trade which Colonial viticulture would bring to them, besides many other advantages, the exportation of New South Wales wines to the continent of Europe and to France more particularly would soon prove of a very great value to them, and they would have soon to shape their fiscal policy accordingly; or else the spirit of retaliation, evinced by the resolution of the Bordeaux Syndicate, would soon compromise our international standing and intercourse.

I beg to submit that the Colonial wine-growers should find it of their interest to petition the Government for a reduction of the present Customs duties upon foreign wines of every origin and description so far as they are not above a fixed degree of alcoholic strength; the result of such a policy would not only be beneficial to them in the way of securing almost free admittance in Europe, but also through encouraging the importation in Australia of so many inferior wines, such as are now produced on various parts of Europe, the best Colonial wines, and all those properly made in any part of Australia, would at once become with Colonial people in much greater favour than they actually are, thus indirectly provoking a very healthy spirit of emulation amongst wine-growers for the greatest advantage of the Colonial wine-industry, and of the Colonies at large. I feel it my duty to state here that in the actual state of the wine market in Bordeaux and all over France no good wine with any slight claim to some modest refinement can be imported already bottled in this part of the world, at a price allowing its retail sale, and duty paid, under £2 10s. per case; even at that price it will be a very ordinary wine; but under it it cannot be more than a third or fourth class inferior ordinary wine; the Colony can give better wine at cheaper rates.

I have, however, no doubt that the Colonial Government will grant due consideration to the request of the Bordeaux Syndicate, and in course of time come to the decision which will appear to them the most justified by the interests and requirements of this country.

During the Exhibition, lectures on the Colony, with views of Sydney by electric light, have been given in Bordeaux, and the pamphlet, *New South Wales in 1881*, fully translated into French by me, with several other papers upon the Colony and its wine industry. Smaller publications in French newspapers, and a small pamphlet on the Colony, this last printed in Spanish, with maps and statistics, have been circulated to the total extent of 4,000 copies.

The *Société Philomathique*, after having experienced at first very severe criticism, and even some opposition from a large portion of the Bordeaux Wine Trade, for having provoked an exhibition of foreign wines, has had to congratulate itself upon the constant success met by its enterprise. The President of the Society expressed several times great satisfaction at the participation of the Australian Colonies. The Managing Committee exerted itself in every way to give satisfaction to all interested parties, generally succeeding in spite, very often, of the limited means at its command.

It is nevertheless to be regretted that no descriptive hand-book or notices upon the Foreign Wines Exhibits were ever published, either at the time or since the Exhibition, so that the important results looked for by certain of the exhibiting countries, in participating at that Exhibition, and which should have been naturally derived from such an assemblage of representative men and products, have not been of the extensive nature and character originally expected, not without good reasons, for the various countries which, some of them, at considerable cost, contributed to the success of the Bordeaux Exhibition.

The Exhibition has indeed been such a great success that the *Société Philomathique* did not only remit the grants in aid advanced to it by the Government and other public Bodies, but again actually realized a considerable surplus; it was finally closed on the 21st of November, 1882.

The formal ceremony was presided over by Monsieur P. Legrand, M.P., and Minister of Commerce, who handed to the Hon. F. M. Darley, a diploma of honour, awarded to the New South Wales Government for its co-operation to the Exhibition. The Minister also paid a lengthy visit to our Court, where he was properly received by the Hon. the Representative Commissioner and myself, tasted some of our best Colonial liqueur-wines, and made numerous inquiries about the Colony.

During the Exhibition, and in connection with same, a National Congress of Geography, under the Presidency of Monsieur Ferdinand de Lesseps, was held at Bordeaux, at which various matters affecting colonization were discussed; books, maps, and photographic views of the Colony were exhibited in the Congress Room, and special advantage taken of that opportunity to bring forward the resources of the Colony, and direct towards it the attention of many wine-growers and vine-dressers of the district, as well as of such other people likely to prove of service as immigrants.

At the close of the Congress, a special diploma of honour was also allowed by the *Société de Géographie* to the New South Wales Government for its valuable collection, which was subsequently divided amongst the *Société Philomathique*, the *Société de Géographie* and the Chamber of Commerce of Bordeaux, while numbers of copies of *New South Wales in 1881* were placed, on request, at the disposal of the leading Government Schools.

The Chamber of Commerce, of Bordeaux, and the Academy of Arts and Sciences sent through me collections of their records, &c., to the Chamber of Commerce, of Sydney, and to the Royal Society of New South Wales, respectively.

The general list of awards granted to the New South Wales exhibitors will be found further, together with many particulars of interest upon the Colonial vineyards having exhibited. It is only fair to mention here that Alexander Munro, Esq., owner of the Bebeah vineyards, near Singleton, obtained the very highest award granted for four different wines exhibited by him, and was the only Australian exhibitor who met such a quadruple success for the credit of New South Wales. I

I have yet to refer to an offer of a one hundred guineas prize made by the Melbourne *Argus* proprietors for the best Colonial wine exhibited at Bordeaux. This offer was accepted on behalf of New South Wales exhibitors, and samples kept apart until now for that purpose; but it has been delayed by the Victorian Representative, and so far nothing has been heard further of the proposal.

The New South Wales wines exhibits reached Bordeaux in good time before the opening of the Exhibition, and those sent from here in casks were found in good condition, none being compromised; such a result was certainly due, in a great measure, to the careful way in which these casks had been shipped from this end by the Hon. Secretary, Augustus Morris, Esq.

Due attention was paid at once on arrival to these special exhibits, by competent cellar men, under the supervision of Mons. Félix Terrier, late manager of the well known, Dr. Mackay's, Minchinbury, vineyards at Rooty Hill, who had promised the New South Wales Committee to assist me gratuitously with his experience in Bordeaux. Unfortunately, and to my great regret, ill-health prevented Mr. Terrier from remaining in Bordeaux, and even to come for the work of the jury, so the Colony was thus deprived of his most valuable services. I was however fortunate enough to get the assistance and advice of local wine-growers and cellar-masters, who attended themselves regularly to the requirements of our wines, during the whole time of the Exhibition, and until the clearing out of the exhibits, at the end of January, 1883.

With the exception of a limited number of samples the Australian wines were not in the Exhibition building, but in cellars rented and provided by the *Société Philomathique*.

The *Société Philomathique* had provided us with very spacious, convenient, and well situated cellars, where numerous tastings took place, by all who expressed any desire, or who were invited to do so, by the Hon. F. M. Darley, or by myself, in his absence.

An idea may be formed of the importance of the participation of foreign countries at the Bordeaux Exhibition, when it is said that, exclusively of the exhibits of France no less than 12,000 distinct samples of wines had to be reported upon by the foreign section of the wine jury, and that their tasting occupied no less than fifty days.

The International Jury for the Wines consisted of twenty-four members, of whom fourteen were appointed by France, and ten by the exhibiting Foreign Countries. In addition to these, eleven *jurés suppléants* had been appointed to expedite matters, and two members of the Faculty of Sciences and of Medicine, of Bordeaux, had been attached to the Jury for any chemical analysis which should have been required, of the samples exhibited.

It had been the intention of the *Société Philomathique* to allow one juror only for the whole of the British Colonial interests represented, instead of one for each Colony. I energetically objected to such a course, the result of which, as I had reason to foresee, for New South Wales in particular, would have proved very unsatisfactory. Upon the exertions of the Hon. the Representative Commissioner, and of the Hon. the Agent-General, Sir Saul Samuel, K.C.M.G., the Colonial office in London was induced to interfere with the Committee of the *Société Philomathique*, and thus each Australian Colony had the satisfaction of being represented on the Jury as follows:—New South Wales by Mr. Maurice Tandonnet, grower; South Australia, by Mr. Leon Richard, broker; Victoria, by Mr. Harry Seward, merchant. The President and Vice-President of the International Jury were respectively, Don José Soriano Plasent, Delegate of Spain, and Commander Pietro Selletti, Delegate of Italy; the Secretary being Mons. Bernard, wine-broker, and Chairman of the Syndical Chamber of Bordeaux.

II.—IMPORTANCE OF THE WINE PRODUCTION AND TRADE.

When provoking this Universal Exhibition of Wines the *Société Philomathique* proposed to bring together at Bordeaux all the vinicole produces of the world, not so much as to compare them with the wines of France as to give to the trade of Bordeaux an opportunity to judge these produces and to look amongst them for those which would prove the most likely to be of some use in helping to fill up the want increasing from year to year, now felt in the wine production of France.

It is well known that Bordeaux is the only really great market of wines in the Continent of Europe. Of all the cities of the world none possess a monopoly so well established; so may it be said with reason, that, from a Bordeaux point of view, the Exhibition of 1882 was calculated to bring the solution of one of the most interesting economical problems of the time.

The Bordeaux district, from statistics, published in 1878, produced the following quantities of wines:—Red, 50,800,000 gallons; white, 22,536,000 gallons; total, 73,336,000 gallons.

The wines exported from *Bordeaux alone* amounted to 33,559,800 gallons, valued at £4,960,000.

The wines imported through Bordeaux amounted to 463,200 gallons from foreign places, valued at £40,000.

The agricultural population of the district of Bordeaux, mostly connected with wine-growing exclusively, or the industries concerning same, amounted to 338,918 heads, on a total of 735,242 inhabitants in the whole district.

The importation and exportation trade, for the special production of the Bordeaux district in 1875, amounted to the total value of £19,540,000; the general trade, however, reaching a value of £22,600,000. In the same year (1875) when one of the best vintages was obtained in France, the exportation through Bordeaux of wines from the whole of France amounted to 84,040,022 gallons.

Although the *Phylloxera* had then already invaded France in 1875 the production of French vine yards for that year amounted to not less than 1,844,400,602 gallons, but in the year 1876 that production was reduced by more than half the above figures, and in 1879 it merely reached the total of 566,930,144 gallons. In the year 1881, however, the vintage gave 751,051,730 gallons, but there is no prospect of such improvement being likely to last permanently, for the vine-tree is blighted actually in its deepest roots, and threatened in its very existence, in France and all over Europe, by a host of formidable scourges, a single one of which would suffice to destroy all the vineyards of the world, armoured as it is against all the known preservative or curative remedies, its innumerable members, and its own extraordinary smallness in size rendering it very difficult to reach it.

This real calamity, the immediate effect of which is to reduce considerably the usual yearly production, reveals itself at the very moment when there is a marked increase of the demand; wine, as a matter

matter of fact, becomes more and more the universal beverage, the most in use and the most in favour, as being the most hygienic and the only one uninjurious to public health, besides the fact that its production contributes to the prosperity of a larger proportion of mankind all over the world.

It is thus that in 1871 France alone exported 37,748,832 gallons, valued at £9,402,550, and that in 1881 the same country exported as much as 57,648,228 gallons, valued at £10,364,045.

On the other side, the production of France has been so reduced that whilst in 1871 it imported 2,469,676 gallons, valued £122,160, in 1881 it imported 172,393,848 gallons, valued £13,630,920; and all this, notwithstanding the fact that the extent of the French vineyards was, and is yet, of 5,174,807 acres, giving employment to no less than 8,000,000 of inhabitants, and representing a production and consumption valued at about £80,000,000.

In 1882 the total production of wines in the whole world was calculated to be of 2,660,000,000 of gallons, France being still the first, both for quality and quantity, amongst the wine-producing countries; the next in importance being Italy, Spain, Austria-Hungary, Germany, Portugal, and Turkey.

Australia occupies yet the last rank, its vineyards being the smallest and youngest, and not all yet in full bearing, but already surpassing for quality the wines of North and South America and of many European provinces.

I enclose in this report the following table, showing approximately the production of wine in the world in 1881-82:—

| | Gallons. |
|---------------------------------------|------------------------|
| France | 751,051,730 |
| Italy | 572,000,000 |
| Spain | 440,000,000 |
| Austria-Hungary | 440,000,000 |
| Germany | 132,000,000 |
| Portugal | 88,000,000 |
| Turkey | 66,000,000 |
| Servia | 33,000,000 |
| Greece | 22,000,000 |
| Russia | 22,000,000 |
| Switzerland | 19,800,000 |
| United States | 26,400,000 |
| Chili | 22,000,000 |
| Australia— | |
| New South Wales... .. 4,027 acres | 513,688 |
| Victoria 4,284 „ | 484,028 |
| South Australia 4,337 „ | 501,000 |
| Queensland 346 „ | 85,455 |
| Western Australia 659 „ | ..... |
| Africa— | |
| Algiers | 11,000,000 |
| Cape of Good Hope 18,177 acres | 4,485,665 |
| General total | 2,659,321,566 gallons. |

It will be seen from the above information, which, however, is only given as approximate, and has been obtained from unofficial although of trusty source, so far as foreign production is concerned, that Australia as a whole produced in 1881-82, 1,584,171 gallons, with 10,945 acres, New South Wales being the most important producer, and averaging the highest figure per acre; but before any one Australian colony can rivalize with the smallest wine-producing country of Europe or America, and any market be influenced by Australian wines, we have much to do indeed in the way of planting new vineyards. The sooner this will be done will prove the better for these Colonies, and especially for New South Wales.

As it has already been shown, the production of wine in France was reduced by 392,000,000 of gallons for the year 1881, as compared with previous years, and this solely through the ravages of the *Phylloxera vastatrix*. The consumption of wine in France alone is 902,000,000 of gallons, and as the production of 1881 was reduced to 751,000,000 of gallons, the importance of the deficiency and of its consequences may be seen at once. As the scourges increase yearly in most progressing proportions the trade of Bordeaux was well justified in preparing itself at once to oppose and fight the effects of what threatens to be finally the fall of its large and important business.

Without going farther into statistical comparisons it may be said that the Australian Colonies, with these results of the wine trade for France, should prove unconscious of the wealth of their soil, if they neglected to consecrate such portions of their land as may be favourable to the cultivation of the vine—that “*wet-nurse of mankind*,” which has already conquered the right to appear in the coat-of-arms of New South Wales, conjointly with the corn-stalk, the miner's tools, and the sheep's fleeces.

Indeed, these Colonial wines must, in a near future, if the colonies really wish it, do more to spread the name and fame of Australia than ever did the wool, and at the same time prove a very remunerative industry and one of the best inducements Australia can offer, even to small capitalists and settlers.

The wine-growers and merchants of New South Wales have to thank the Hon. Sir John Robertson, K.C.M.G., and Messrs. J. F. Burns, M.L.A., Augustus Morris, and P. Dowling, of the *Sydney Mail*, for the participation of their industry to the Bordeaux Exhibition, and for the results secured there by the Colonial wines.

I now have the honor to give full details of the opinions expressed by the Bordeaux public and Jury upon our Colonial wines.

Report

Report (analysed) of the Bordeaux Jury on N. S. Wales Wines.

The New South Wales exhibitors were thirty-two in number, one of them exhibiting both as wine-grower and merchant. The total number of samples exhibited was 189, including the new wines of the vintage of March, 1882.

20 exhibitors, with 144 exhibits, representing the production of 452 acres, planted with wines, were from the Hunter River or other districts to the north of Sydney. 2 exhibitors, with 2 exhibits, produced on 9 acres of vineyards, were from the Hastings or Coast Districts. 4 exhibitors, with 12 exhibits, obtained from 83 acres of vineyards, were from the Camden and Nepean, or Western Districts of Sydney. 5 exhibitors, with 31 samples, owning 103 acres of vineyards, were either from the Murrumbidgee or Murray Districts, to the south-west of Sydney.

The wines exhibited from the Colony at Bordeaux were denominated mostly by the names of the vine species from which they were obtained; the samples were generally accompanied with short descriptive notices, given by the producers, in reply to a set of questions proposed by the *Société Philomatique*. From these notices it would appear that there are no less than twenty-five different species of grape vines introduced and cultivated in the Colony at the present time.

The soil of the New South Wales vineyards appears to be generally of a sandy, semi-argillous composition, with aspects mostly towards the east, from the north-east to the south-east.

The production of the vineyards exhibiting at Bordeaux was ascertained to be, on an average, of 395 gallons per acre, with a minimum of 125 gallons, and a maximum of 660 gallons, save on the Dalwood Vineyard, where it attains 800 gallons per acre.

The cost of cultivation, and of the production of the wine, was found ranging from as low as £4 per acre; but in the generality of cases it runs from £7 to £10, and even £12 per acre, the maximum figure of £20 being reached only at Dalwood.

The prices of the wines ranged from 1s. 6d. to 2s. per gallon, when new, to 10s. and 15s., save some extra liqueur wines, according to year of production or age; the years of vintage of the exhibits were from 1868 to 1882, the bulk being however of three and four years of age.

At the time of the first arrival of the New South Wales exhibits a great feeling of curiosity had been provoked in Bordeaux concerning Australian wines, and judging then from the dispositions of the people, who had evidently been taken almost by surprise at what they considered an act of boldness on the part of the Colonies, I could not help anticipating a very severe and exacting criticism.

The results of the several first tastings, which, I must say, were made by such highly qualified experts as Messrs. Merman, Mortier, Tastet, who rank first among the wine brokers and tasters of Bordeaux, were given very reservedly and measuredly; their remarks were quite in favour of the wines, so far as being raw material, which could be easily transformed or ameliorated by successive treatment; but it should be taken in due consideration that these wine experts were of those who deal in nothing but the best and most select qualities of the wines of *Médoc*, wines with which no others can, so far, stand any comparison. When later on, however, our wines were tasted by the general public, by wine growers, brokers, or merchants dealing with such wines as are more generally used, the opinions were considerably more favourable to our wines, in their good and sound state, and whatever prejudice may exist in any part of Europe against foreign ordinary wines, I have no hesitation to assure the Australian wine-growers generally that the Colonial wines, if properly made, will be welcomed everywhere, and can be sold at the present moment, in any part of northern Europe especially, without the slightest difficulty, provided, however, their price is not above, or even not much above, the selling price of ordinary small French wines, following of course the fluctuations of every commercial market.

The impression created in Bordeaux by the new wines of 1882, which arrived from Sydney late in September, was also very favourable, if not, indeed, better again than the first one; those from the Murray especially were very highly appreciated as blending wines, and those from the Hunter as really perfect ordinary table-wines, by the members of the jury, upon whose advices an important order was immediately telegraphed through me to the Colony, at the rate asked by the grower himself. Unfortunately, the wine trade of New South Wales is not yet in a sufficient state of organization, nor is the production important enough to permit commercial requirements being attended to, upon short notice, for large quantities.

Notwithstanding the encouraging remarks constantly made upon the good qualities of the New South Wales wines, there was a certain anxiety imposing itself, and growing day by day, as to the final result for us of the Exhibition. No doubt all the Australian wines exhibited in bottles were not of the first quality, and the other exhibiting countries could not be expected to allow Australia, a new-comer amongst the wine-producing regions of the earth, to *accapare* for itself the monopoly of such sympathies as could be met with in the principal wine-market of the world. I need not say much more with respect to rivalries and oppositions which must be well known by any one who ever had anything to do at any Exhibition. In such circumstances, even in presence of the strictest impartiality and of the most unsuspected integrity, there is, as well as in the ordinary course of business, more and better chances of success for those who can dispose of the best means of advertising, and bringing, almost forcing upon one's notice all objects of any branch of trade or industry. In that respect our means were by far too limited, and the interested should certainly have, in their exclusive interest, contributed as generously as the Government of the Colony had done for them. It is thus that prejudices are often caused or destroyed, and many people cannot avoid being influenced in spite of themselves for or against any particular produce, and do not always care to stand in direct opposition to what is made to appear to them as being a general opinion. Vested interests do not willingly, especially amongst a limited community or within a small sphere, retire from any contest in which they feel a damaging competition about to be created; and, finally, there is generally a prevailing idea—and it was freely expressed with respect to the best Australian exhibits—that what is sent to Exhibitions is not, as a rule, an ordinary produce, but something better than usual, the consequence being that those who dispose of influence over any trade feel shy of compromising themselves to an absolutely favourable opinion for the benefit of a new produce, coming from a new people whose experience in the matter is yet new, practice and observations hardly started, and knowledge necessarily imperfect.

The

The wine-growers of France, and more especially those of the Gironde, are very proud of their wines; they are very fond of them; their wine is almost the one and universal object of their leading business and topics of conversation at all times of day. As a matter of fact there is hardly another district of France where people are so generally thoroughly acquainted and interested in everything concerning the vine and the wine; yet the feeling is pretty general in France that French wines alone are good and can be good. Some, perhaps, may be of inferior qualities, still, better than the generality of foreign wines. There is certainly nothing to be wondered at it. Australian wine-growers themselves will certainly share this prejudice in times to come, if some do not already do so for their own wines.

It should also be said, and admitted, that the Australian wine-growers had been somewhat suddenly called upon to send their wines to Bordeaux, most of the cellars of Sydney and of the country being somewhat empty, and every preparation had to be made in haste, and therefore somewhat imperfectly, to arrive in time for the opening of the Exhibition. It must, nevertheless, be admitted also that very much has to be done in the Colony by the greatest majority of our wine-growers before they can boldly compete with their colleagues of certain parts of France and Europe. To say anything else would be misleading them; and it is much better to tell them the truth, so that they should not persevere in their present ways, more especially as it would not require insurmountable efforts on their part to obtain far better results. The art of making wine is not acquired by luck or by hazard: it must come by degrees, through time, observation, and experience; and what is more, the experience of other countries, however valuable, and in no case to be despised, is not necessarily to be followed in all others indiscriminately.

It is under such considerations that the jury appointed by the *Société Philomathique*, and selected most carefully amongst wine connoisseurs of all parts of France and Europe, had to discharge its duty.

That these jurymen showed themselves very severe judges in many cases there is no doubt; but although the verdicts may not have given the satisfaction expected by each exhibitor, it was most certainly given after careful consideration, and as honestly and impartially as could be expected from gentlemen who were called upon to give for the first time a decisive opinion upon the quality of a somewhat new and, so far, unknown produce in fair comparison, for the first time, with those of older countries. I will even go so far as to say that whenever Bordeaux people judge any wines they do it from their own standard, with the firm belief that no wine is likely to become a rival of their own famous growths, and therefore they simply interest themselves in any foreign sample in so much that it might be utilized and turned to good by a certain class of wine merchants of their place for exporting purposes; but, with respect to Australian wines, the jury is entitled to the thanks of the colonists for the unusual deep judgment and the special attention they gave to these, owing no doubt to the greater interest presented by such new and distant Colonial exhibits.

In spite of all counteracting influences the general opinion of the Bordeaux jury has most positively been expressed that, of all the foreign countries which have lately inaugurated the cultivation of the vine, Australia had done it the most successfully and in the shortest time. The best Australian red wines were not judged to have the same merits as the best or even ordinary good wines of France; they were thought particularly wanting in limpidity, but rather as above the lower ordinary wines. As to the white wines, although by far too much coloured, a number of these appeared of a very appreciable quality, the *Riesling* and the *Jerez* wines especially having a special *bouquet* and an excellent taste, although not of the same description as the wines from Germany or Spain. Such were the characteristic qualities of those wines, perfectly able to compete with many European wines.

Several liqueurs wines were very much approved, and considered as deserving to be encouraged, although not under the high-sounding names under which they were exhibited.

On reference to the list of the awards granted to New South Wales, including five gold medals, nine silver medals, eleven bronze medals, and two honourable mentions, it will be seen that out of this total of twenty-seven awards twenty were for red wines and seven only for white wines.

Amongst the twenty for red wines are included the five gold medals, every one of which went to the growers of the Hunter River. As to the other awards, the majority is still for the red wines against the white, without any further reference to the Murray or Hunter districts being justified, owing to the discrepancy in the number of exhibitors from both districts, unless it be to say that even in that class none of the white wines of the Murray River obtained an award.

From this it might be safely concluded that the Northern wine-growers are more successful than those of the Southern districts, but they should be modest in their triumph, and not jump at the conclusion that they have not much to learn yet, and indeed, they should know that many members of the jury expressed the opinion that there was some great improvement to be derived by both districts, from a yet to be discovered judicious blending of their wines.

The Hunter River wines are, strange to say, somewhat lighter in alcohol than those of the Murray, no doubt on account of their nearer vicinity to the sea, wherefrom they benefit of more moisture, and less heat than most of the far inland Murray district, which must suffer more of the westerly hot-winds. Nevertheless the Hunter River wines were found of weak colour, that is to say that their proportion of alcohol so quickly absorbed, burned and destroyed, the colouring and other matters, that a wine of two or three years of age, had the yellow appearance of a much older wine, without having kept or improved otherwise in the same proportions. The people of Bordeaux considered it as a very serious defect, which however could be somewhat cured or prevented, by improving the methods of vinification at the time of vintage, or at subsequent periods. For instance, the Hunter vigneron should allow a fair proportion of the stalks, to ferment with the berries in the vats, for increasing the solid and preserving principles, as well as the colouring matters of their wines. Next, they should have cellars so built for the receiving and keeping of their wines, both new and old, but separately, as to protect them against the influence of sudden and constant variations of the temperature, which have for effect to fatigue or disturb wines very injuriously; and then, whenever racking or fining their wines, they should do it with implements such as would avoid their wines coming in contact with the exterior air.

In some of the Australian wines fault has been found by jurymen with a peculiar flavour, vaguely putting one in mind of Eucalyptus taste, in the same way as wines grown close to pines forests, or on marly soil, will also be similarly affected. It is attributed to the soil of the vineyards being rich, thick and

and remaining impregnated with such essence, which is naturally sucked and absorbed in the sap of the roots of the vine tree; against this it is recommended that vineyards be ploughed over and over again, during each year, so as to better ventilate the ground, and also water them wherever practicable in summer, so as to allow for more evaporation. Occasionally other flavours, no less objectionable than the above, have been found in the Colonial wines, as they are indeed found in many other wines, but those must be attributed to the carelessness of the growers, in not keeping their implements in perfect state of cleanliness, cleaning them just as these are wanted, instead of washing them well immediately after using, and doing so again, from time to time, between each vintage.

A number of the Hunter River red wines have revealed a rather fine bouquet, retaining it longer than others, owing no doubt to the species of vines cultivated and employed for their vinification, and to their being better attended and cared for than others.

As to the red wines of the Western and Southern districts of New South Wales, they have been considered by the Bordeaux jury as of a very good description, also, although not as absolutely the same as those of the Hunter River; they are generally much thicker wines, with better lasting qualities and stronger colour, their natural excess of alcohol being thus somewhat neutralized, and, generally speaking, such as to considerably improve themselves with any lighter wines with which they should be properly blended. It is, indeed, very fortunate for the Colony to possess districts producing such varieties of wines, and it should be largely availed of.

These peculiarities may be caused by a difference in the species of vines cultivated in the respective vineyards, as well as in the wine-making process. Be it what it may the Murray River wine-growers should be made aware also with no less, if not more insistence than those of the Hunter, that they must not expect to ever bring their wines to the proper standard so long as they will not provide themselves with the necessary cellars and implements. From personal visits, so far as I can recollect, this necessity has been better admitted already by the leading growers of the Murray, but the measure is not general enough. Besides good cellars and appliances, constant care and daily attention are indispensable for success, and it is found in the long run much more profitable than any saving or economy in the outlay, to result from a *happy-go-lucky* neglect, indifference, or ignorance.

The jury added further that it is not enough for the wines to be treated with due deference on the vineyards; they should be no less well attended to once they are in town; and the colonial town cellars I fear, although better than the generality of those in the country, are not yet enough so, in addition to the fact that amongst the town wine-coopers, many have yet to learn their trade, especially the art of bottling wine.

The Bordeaux jury recommended also that such Colonial winegrowers as are in the habit of doing so, should henceforth abstain from fortifying their wines, unless in bad and poor years, when of absolute necessity; they added that they do not fear yet that Australia will ever produce red wines such as to compete with the famous great growths of the Médoc, but they willingly admit that the Colony may, at the present time, be brought to produce sorts of wines ranging from an ordinary St. Emilion to a common Roussillon.

Personally, I believe that if a soil similar to that of the Médoc is ever found in some well watered part of the Colony, then our wine-growers will have the means to produce the best wines of Médoc and St. Emilion, the taste of which can never be forgotten by any one fit to appreciate them, who has had a chance of getting them once. For the present our people should therefore turn their attention to the production of good ordinary red wines. I will explain to them, further, where there are many good markets for such, and I feel confident that if they keep the *phylloxera* out of their vineyards the whole world must, in time, look to Australia for wine.

With special reference to Colonial white wines in general, the jury had hardly a good word to say; the best of these were considered not necessarily as of inferior description, the species of vines being approved of, but as being of very bad make, of imperfect fermentation, and of inexperienced *manutention*. This should be so much easier understood that whatever be the difficulties attending upon the making of red wines, those connected with the making of white wines are far greater again, especially when people new to the industry will try to make these white wines with black grapes, one of the most particular and difficult operations to conduct successfully, especially under a climate like this, where fermentation is never very long to start, and the colouring matter of red grapes ready to spot the wine, both evils to be avoided as long as the *must* is not lodged in its casks.

Australian white wines are generally too yellow or brown to fully deserve their qualification, and it is conjectured that our winegrowers commit also the error of cutting their grapes intended for white wines before they are in a sufficiently advanced maturity, whilst they cut their red wine grapes rather too ripe; whether this is so or not, I submit the remark to those interested in it.

The alcoholic strength found in most Colonial wines was also objected to, and it was recommended to counteract it by several ploughings of the vineyards during the year, so as to weaken the rich soil, and by a watering of the vines, wherever practicable during summer, to increase the proportion of water in the grapes; and more especially for red wines, to proceed to the vintage if not before at least as soon as the grapes are ripe, and not more than ripe, advancing their maturity, as much as possible, by ring-barking the vine-trees, and by removing the leaves, so that the grapes should not remain so long a time exposed to the heat of the sun, and thus not accumulate so much saccharine matter. By these means the alcoholic degrees might be slightly reduced, without impairing the wine.

As to the grapes intended for white wine, white grapes especially, owing to the different process of vinification, the grapes should be collected when far beyond maturity, and when almost reaching apparent decay and dryness, but this cannot always be done, and depends upon the seasons.

The Colonial liqueurs wines exhibited, were considered as imperfect, both in vinification and subsequent attentions, but yet as very promising; in the absence of particulars from the exhibitors as to their mode of bringing up these wines, the jury classified them simply as red wines or white wines respectively, but with very encouraging remarks for the northern wine-growers to go in for the productions of such kinds, following the examples of the people of Malaga and Oporto. From my personal visit to these places,

places, I would also conclude that the Port Macquarie, New England, Grafton, and the South-eastern districts of Queensland should adopt these specialities of wines, avoiding, however, the American grapes, such as Isabella, already introduced, *unfortunately*, in some of the Colonial vineyards.

Remarks were passed also by the jury upon the suitability of the Colonial climate, for wine-growing for distilling purposes. Most certainly a time will come when such an industry ought to be very flourishing in this country, where so strongly spirited wines as those of Inverell, containing 33% of alcohol, can be obtained; at the same time it should not be started by anyone without experience or knowledge of this special branch of agricultural trade; very large vineyards, with special kinds of grapes, in special soil, requiring special culture, are necessary as well as a large first outlay, and yet some time must elapse before disappointments are no longer experienced or satisfactory returns obtained. Considering, therefore, the slow progress made so far by the wine-industry of this country, and the extra difficulties to contend with, for the growing of brandy grapes, it is questionable whether any one should be actually advised to start in such a line. Nevertheless, the production of genuine brandy is so limited in France now, and is to remain so for a time yet indefinite, that it may prove a sufficient inducement to Colonial capitalists. In that case it should be well understood that no such *anything-will-do* way to manage it should be adopted, as has been on many vineyards; one of the first, but not easiest steps will be to find a way to introduce or otherwise obtain in the Colony the special species of vine known to produce the best Cognac Brandy under the denomination of *Folle Blanche*.

Sparkling wines were not exhibited from New South Wales, but Victoria had sent a few samples, which were not in any way so favourably reported upon as to justify any hope of their being, at the present time, successfully introduced upon any European market.

The jurymen expressed also the opinion that the same individual grower should not attempt to produce both claret and Port, or riesling and sherry, as, more especially with people having limited means, or not possessing either experience, knowledge, or proper appliances, or on vineyards having only one same climate and soil, any such attempt must always prove a failure, which any connoisseur will easily detect.

The jury advised again that every vineyard should consist of three or four different species of grapes, maturing at the same time, and mixed together for the vinification of the wines.

With respect to the species of vines cultivated in the Colony, New South Wales seems to possess less varieties than either Victoria or South Australia; twenty-five have been adopted in this Colony, in common with the two others, but in addition to ours, fourteen are to be found in Victoria and eight in South Australia. The jury was hardly in a position to pass any remark as to the preference any of these species should receive in any district; they were mentioned equally nearly by all the exhibitors in every district indiscriminately; I must say that special attention should be bestowed upon the subject, as each species require a peculiar mode of training and pruning according to the soil and climate of the vineyard.

With respect to climate and soil, the opinion of European growers has generally been from the information in hand, that any new vineyard in the Colony should not be situated further inland than 60 or 80 miles from the seaside, unless on high table-land, or on plains not sheltered against the influence of the sea-air by high mountains. The South Coast Districts of New South Wales were indicated by their geographical position as likely to prove very favourable to vine-culture, provided soil of a light, sandy, pebbly, or stony description could be found with proper aspect and in the vicinity of water-courses, either on gentle slopes or undulated plains, and well adapted species be selected, such as the *Verdot* and the *Sirrah de l'Ermitage*, which appear to be the most successful as to quality so far.

With reference to the heating of the wines by Mr. Pasteur's *procédé* the jury said that the Australian wines, judging from the way they had supported the journey from Australia, were strong enough and so constituted as not to require any other manipulation than that naturally indicated by nature and previous experience, and that after all, the great and only secret of the success of the wine-growers and merchants of Bordeaux simply consisted in the never-failing attention which they bestowed constantly and at any cost upon their wine, from the very first moment of its existence, avoiding recourse to any artificial means; that, however, Mr. Pasteur's *procédé* had become the rule in the southern vineyards of France, where the wines were generally weak and badly constituted, and yet required to be kept without alteration, a result which was always secured by submitting them to a heat of 60° centigrades.

The above remarks may lead to some improvements on the part of those Colonial winegrowers who might bring their attention on the subject, and would be desirous to produce wholesome ordinary light wines. Unfortunately the largest demand in the Colony is mostly for wines of a high alcoholic strength, and however satisfactory this may prove for immediate business, it has the bad effect, to deter Colonial growers from giving themselves to the manufacturing of wines such as might lead to a considerable trade with Europe, where even in the North a more refined taste is now being formed, and a marked preference expressed in favour of refreshing, light, and health-giving wines, against strong fortified drinks, always most injurious and detrimental in every respect. Indeed, to counteract such damaging effect to the Colony and its wine-trade industry, it might be well suggested that all wines containing above 26° or 28° of alcohol be brought under some provisions of the Distilleries Act.

In addition to the remarks and awards upon exhibits it was thought advisable to submit a certain number of samples to a scientific analysis, so as to ascertain their average alcoholic strength and other particulars, to enable comparisons being made with the wines of other countries. These analyses were made by a competent chemical analyst of Bordeaux, Monr. le Docteur Xavier Servanti, who provided me with the following information, from which it will be seen that the average alcoholic strength of the New South Wales wines has been under 26° English or 15° French, but those limits should be left for their special purposes, viz., collection of customs duties, and not taken as what wines should be. Indeed, the condition of success in Europe for Colonial wines is not to exceed 20° or 21° Sykes, or very little above; that is, for ordinary wines intended for table or dinner requirements and constant use.

The results obtained concerning Colonial wines are accompanied by similar reports having reference to wines of other countries, and whenever possible, of the same description.

Alcoholic strength of N.S. Wales Wines.

| Districts. | Exhibitor. | Wine. | Colour. | Vintage. | Alcohol in volume, per Sykes. |
|---------------------|------------------|--------------|---------|----------|-------------------------------|
| South of Sydney | J. T. Fallon | Cabernet | Red | 1868 | 26·84 |
| " | " | Brown muscat | " | " | 33·01 |
| " | " | " | " | 1882 | 28·50 |
| West | Hon. W. Macleay | Malbec | Red | 1873 | 25·96 |
| " | Dr. C. Mackay | Lambruscat | " | 1875 | 25·43 |
| North (Hunter) | P. Terrier | Hermitage | " | " | 23·30 |
| " | " | Bourgogne | White | 1876 | 21·40 |
| " (Paterson) | Lindeman | Hock | " | " | 22·10 |
| " (Raymond Terrace) | Wyndeyer | Madeira | " | " | 26·40 |
| " (Inverell) | W. Wyndham | Hermitage | Red | " | 31·50 |
| " (Hunter) | Wilkinson | " | White | " | 24·04 |
| " | J. Kelman | " | Red | " | 23·50 |
| " | Alex. Munro | Verdot | " | 1877 | 28·40 |
| " | " | Hermitage | " | " | 31·60 |
| " | " | Sherry | White | " | 30· |
| " | " | Hermitage | Red | 1879 | 21·90 |
| " | John Wyndham | Pedro Ximen | White | 1877 | 21·75 |
| " | " | Pineau | Red | 1879 | 22·80 |
| " | " | " | " | 1882 | 20· |
| " | A. Davies | Verdot | " | " | 19·30 |
| " (Port Macquarie) | G. Francis | Isabella | " | 1880 | 29·30 |
| " | Fenn | Porto | " | 1881 | 26·84 |
| " (Inverell) | A. Murray | " | Red | 1882 | 24· |
| " | " | " | White | " | 27· |
| FOREIGN WINES. | | | | | |
| | French (highest) | | Red | | 24·04 |
| | " (average) | | " | | 17·04 |
| | German | Hock | | | 19·01 |
| | Italian (Sicily) | Marsala | | | 36·05 |
| | American | | | | 24·04 |
| | Portuguese | Madeira | | | 35· |
| | " | Porto (weak) | | | 34·08 |
| | Spanish | Malaga | | | 29·06 |
| | " | Jerez (high) | | | 36·05 |
| | Hungarian | | Red | | 24·04 |

Analyses of New South Wales Wines.

| Names of Exhibitors. | Analysed Wines. | Alcohol in weight. | Density. | Saccharine matters. | Tannin. | Bitartrate of Potassium. | Acidity. | Mineral salts. | Sulphate of Potassium. | Colouring matter. | Unanalysed elements. | Total of solid elements in wine. |
|---|------------------------|--------------------|----------|---------------------|---------|--------------------------|----------|----------------|------------------------|-------------------|----------------------|----------------------------------|
| J. T. Fallon | Cabernet, 1868 | 121·60 | 0·992 | 5·18 | 0·61 | { 2·52 } { 0·23 } | 3·88 | 3·10 | 0·62 | 0·84 | 12·0 | 29·0 |
| " | Red, 1882 | " | " | " | 0·74 | " | " | " | " | " | " | " |
| Hon. W. Macleay | Malbec, 1873 | 117·60 | 0·990 | 0·82 | 0·64 | { 4·32 } { 0·48 } | 5·42 | 3·40 | 0·60 | 0·92 | 7·20 | 23·80 |
| Dr. C. Mackay | Lambruscat, 1875 | 115·23 | 0·991 | 1·14 | 0·48 | { 2·54 } { 0·81 } | 4·25 | 3·37 | 0·64 | 0·50 | 10·37 | 23·00 |
| W. Wyndham | Hermitage, 1876 | 143· | 0·991 | 6·96 | 0·88 | { 3·82 } { 0·42 } | 5·13 | 3·48 | 0·52 | 0·76 | 14·43 | 30·50 |
| J. Kelman | " 1876 | 106·50 | 0·993 | 0·98 | 0·63 | { 2·33 } { 0·32 } | 3·12 | 3·26 | 0·55 | 0·86 | 12·25 | 24·25 |
| Wyndeyer | Madeira, 1876 | 123· | 0·991 | 2·40 | 0·18 | { 3·08 } { 0·33 } | 3·76 | 3·26 | 0·48 | White wine. | 8·72 | 22·20 |
| Wilkinson | Hermitage, 1876 | 115· | 0·989 | 1·98 | 0·10 | { 2·80 } { 0·31 } | 3·20 | 3·47 | 0·44 | do. | 8·00 | 20·30 |
| G. Francis | Isabella, 1881 | 124· | 1·004 | 29·45 | 0·60 | { 2·25 } { 0·25 } | 5·20 | 3·62 | 0·54 | 0·45 | 6·04 | 48·60 |
| A. Munro | Hermitage, sweet, 1877 | 149·50 | 1·067 | 138·80 | 0·68 | { 2·06 } { 0·20 } | 4· | 3·90 | 0·61 | 0·90 | 10·85 | 100· |
| John Wyndham | Pineau noir, 1879 | 103·31 | 0·990 | 1·23 | 0·43 | { 3·06 } { 0·34 } | 4·40 | 4·46 | 0·96 | 0·48 | 10·39 | 26·25 |
| " | Red, 1882 | " | " | " | 0·45 | " | " | " | " | " | " | " |
| A. Murray | " 1882 | " | " | " | 0·78 | " | " | " | " | " | " | " |
| FOREIGN WINE. | | | | | | | | | | | | |
| Bordeaux Red (type) (average vintages, 1877 to 1881). | | 79· | 0·986 | 0·0 | 1·20 | { 2· } { 0·20 } | 2·50 | 2· | 0·30 | 1· | 10·80 | 20· |

A mere glance at the previous tables will, I presume, be enough on comparison of any New South Wales wine with such of the Foreign wines indicated as may be taken as sample, to show where are the differences and the causes of weakness, and others; it is thus that the less saccharine matter and acidity are left in the wine after fermentation, the more it contains tannin and colouring matter within certain limits, the better it is for the wine. As to the unanalysed elements they are those which are too fluid and volatile to be seized and evaporate, such as the *bouquet*, &c.

It should be added here that the numbers given in the analytic table represent French weights in *grammes*, proportionately to a quart of wine; to ascertain the alcoholic strength of a wine the alcohol is separated from it by distillation, and the volume of the alcohol within the wine is indicated by the usual measurement with any alcoholometer. The wines being constituted of two principal parts, liquid and solid, the first consisting of water and alcohol mostly, and the other of various elements constituting the physical and chemical differences between different sorts of wines, their analysis or decomposition as per the above table permits anyone to form a tolerably correct idea of any sample, and to control the appreciations of members of jury, brokers, &c., not exactly as to the taste of the wine but as to its commercial value, based upon its constitution, lasting principles, risks of degeneration, or chances of improvement. Should there have been any adulteration of the wine, by the addition of some dangerous drug, it would also be detected in that way; but for that purpose numerous *réactifs* can be used in a much less complicated way, and a conclusion arrived at within a much shorter time than by such a complete analysis. The

The General Report of the Bordeaux International Jury has, to my knowledge, not yet been published, and so far as I could ascertain there is hardly any probability of it ever being so. Beyond the official list of awards, the *Société Philomathique* did not consider proper to publish such reports, neither the notices furnished by the exhibitors in reply to the questions asked from them.

However, as I was allowed to be present at the work of the jury, the classification of the exhibits by the members, with their remarks upon same, were duly noted at once; these were embodied at the end of a preliminary or progress report, addressed to the Honorable F. M. Darley, copy of which is annexed to this report, and has been already communicated to each exhibitor, with the notices exclusively special to his own exhibits, not for general publication, but intended for his personal and private information as to the defects of such wines or their qualities, and to the remedies or developments of which he should have to direct his attention.

I have also obtained private reports upon our Colonial Wines from Dr. Méran, M.D., of Bordeaux, and Mr. Eug. Roullé, wine merchant. These reports have been carefully made and generously given for the information of colonists, and will be found also as appendices, together with one made by M. Benoit, of Rheims, member of the Jury.

A complete statement of the expenditure incurred at Bordeaux, and a statement of the sale of the exhibits in February, 1888, are annexed to this report.

LIST of Awards granted to the New South Wales Exhibitors at the Bordeaux International Exhibition of Wines of 1882.

| Exhibitors. | Vineyards. | | Exhibits—Species of vines cultivated and years of vintage. | Average alcoholic strength of Wine. | Cost of cultivation per acre. | Production per acre. | Prized Wines. | Selling price. | Progress award granted. |
|-------------------------------|--|--|---|-------------------------------------|-------------------------------|----------------------|---------------------|-------------------|-------------------------|
| | Names, extent, total production, age. | District, soil, situation, aspect. | | | | | | | |
| Anschaw, Mr. | Steinburg 10 years. 6 acres. 1,900 gallons. | Penrith | Madeira or Verdelho 1880 | | £50 | gallons. 300 | | | |
| Barker, Mrs. | Maryland..... 15 acres. 23 years. | Camden | Hermitage Red .. 1873 Verdelho | | | | White wine, 1872 .. | 6/- per gallon .. | Hon. mention. |
| Bouffier, F. J. | Marcobrunner.. 40 acres. 10,000 gallons. 23 years old. | Hunter River.. Sandy, plain. | Hermitage Red .. 1880 " .. 1890-1881 " .. 1881 Pineau White 1879 " .. 1880-1881 " .. 1881 | 22-15 | £4 to £6. | 265 | Red wine, 1881 | 6/- per gallon .. | Silver medal. |
| Brecht, Carl | Rosemount 26 acres. 12,000 gallons. 18 years old. | Hunter River.. Sandy, plain. | Muscatel | 23-42 | £6 to £10 | 461 | Red wine, 1880 | 10/- per gallon.. | Gold medal. |
| Carmichael, G. T. et J. B. | Porphyry 24 acres. 15,000 gallons. 32 years old. | Hunter River.. Alluvial, argill., plain & hill. | Hermitage | | | | White wine, 1880 .. | 10/- per gallon.. | Bronze medal. |
| Cooper, Theophilus | Oswald | Hunter River.. Rich soil, high hill, eastern. | White Wine | 21-30 | £8 to £9. | 333 | White wine, 1880 .. | 10/- per gallon.. | Bronze medal. |
| Davies, A. E. | Mount Huntley 34 acres. 15,000 gallons. 19 years old. | Hunter River.. Rich black soil, high hill, south eastern. | Verdot | 19-30 | £8 | 382 | White wine, 1881 .. | 2/6 per gallon .. | Bronze medal. |
| Doyle, James F. .. | Kaludah | Hunter River.. Red brown soil, hill, western. | Hermitage | | | | White wine, 1877 .. | 6/- per gallon .. | Silver medal. |
| Fallon, J. T. | Murray Valley. 160 acres. 40,000 gallons. 23 years old. | Albury | Hermitage Red 1877 Hermitage | | | | Red wine, 1882 | 30/- per dozen.. | Silver medal. |
| Fenn, J. J. | Fern Hill | Port Macquarie. Rich soil, east- ern. | Muscatel | 26-34 | £12 10s.. | 187 | Red wine, 1882 | 30/- per dozen.. | Silver medal. |
| Fleming, Geo. F. ... | Hauteville 8 acres. 1,400 gallons. 14 years. | Albury | Shiraz | | | | Red wine, 1876 | 9/- per gallon .. | Bronze medal. |
| Francis, George.... | Douglas Vale .. 19 years. 6 acres. 3,000 gallons. | Port Macquarie. Rich soil. | Isabella | 29-30 | | 500 | Red wine, 1880 | 6/- per gallon .. | Silver medal. |
| Greer et Co., M.M. ... | Merchants, Syd- ney. | Albury | Reisling | 26-75 | | | Red wine, 1876 | 21/- per dozen.. | Silver medal. |

| Exhibitors. | Vineyards. | | Exhibits—Species of vines cultivated and years of vintage. | Average strength of Wine. | Cost of cultivation per acre. | Production per acre. | Prized Wines. | Selling price. | Progress award granted. |
|------------------------------------|---|---|---|---------------------------|-------------------------------|----------------------|---|---|-------------------------|
| | Names, extent, total production, age. | District, soil, situation, aspect. | | | | | | | |
| Harbottle, Biddulph et Alsop, M.M. | Ettamogah 25 acres. 5,000 gallons. 15 years old. | Albury Decomposed granite, east and west. | Reisling 1876 Reisling White 1876 Reisling Red 1876 Muscat 1878 | | £6 | gallons. 200 | Red wine, 1876 | | Silver medal. |
| Hill, John | Hannahton 11 acres. 3,000 gallons. 14 years. | Hunter River Dark brown soil, hilly. | Madeira 1880 Pineau 1880 Hermitage et Shiraz 1880 Reisling 1880 Hermitage White 1881 " Red 1879 Claret 1879 Verdot 1879 Hermitage Red 1880 Madera 1881 " 1878 | | | 272 | Red wine, 1879 | 10/- per gallon.. | Silver medal. |
| Jaek, David | Fernmount 15 years old. | Inverell Dark soil, east. | Hermitage Red 1876 | 23-50 | £6 | 125 | Red wine, 1876 | 7/- per gallon .. | Gold medal. |
| Kelman, James | Kirkton 33 acres. 15,000 gallons. 43 years old. | Hunter River Silicious, high ground, east and north-east. | Claret 1878 Verdelho 1878 " 1872-1876 Hermitage White 1878 Reisling 1876 Verdelho 1876 | | | 454 | Red wine, 1876 | | |
| Lindeman, H. J. | Cawarra et Murranayana 30 acres. 16,000 gallons. | Hunter River et Albury Rich argil. soil with sand-hills. | Cauwarra-Hock 1876 Verdelho 1876 Burgundy 1875 Lachryma-Christi 1872 Muscat 1876 | 22-10 | £7 | 500 | Red wine, 1872 | 60/- per dozen.. | Silver medal. |
| Macleay, Wm. Hon. | Wolonjerrie | Murrumbidgee. | Reisling, white 1873 " 1875 Aucarot 1873 Muscatel 1874 Shiraz, red 1874 " 1876 Gonais 1873 Malbec 1873 Verdelho 1879 Reisling 1879 | | | | Red wine, 1874 | 80/- per dozen.. | Bronze medal. |
| Mather, T. | Roslyn 15 acres. 7,600 gallons. 7 years. | Inverell Rich volcanic soil, hill, north east. | Hermitage, red 1876 " 1879 Pineau, white 1878 Lambruscot 1878 Madère 1878 Liqueur Hermitage 1877 | 25-96 | £10 | 500 | White wine, 1879. | 10/- per gallon.. | Bronze medal. |
| McKay, Dr. | Minchinbury 62 acres. 16,000 gallons. 16 years. | Penrith Dark alluvial rich ground, hilly, east, north. | Hermitage, red 1876 " 1879 Pineau, white 1878 Lambruscot 1878 Madère 1878 Liqueur Hermitage 1877 | 25-43 | £10 | 258 | White wine, 1876 | 8/- per gallon .. | Bronze medal. |
| Munro, Alexander. | Bebeah 64 acres. 35,000 gallons. 18 years old. | Hunter River Dark sand alluvial, hill and plain, west and north. | Pineau 1876 Reisling 1876 Verdelho 1877 Sherry 1877 Muscat 1877 " 1878 Pineau 1878 Reisling 1880 Verdelho 1879 Shiraz 1879 Reisling 1879 Shiraz 1880 Pineau 1880 " 1881 Shiraz 1881 Reisling 1881 Lambruscot 1881 Port 1876 Hermitage 1877 Verdot 1877 Hermitage liqueur 1877 Hermitage 1878 Claret 1878 Verdot 1879 Lambruscot 1879 " 1880 Hermitage 1880 Malbec 1880 Hermitage 1881 Verdot 1881 Hermitage 1879 Hermitage 1881 Madera 1881 Saivanna et Tokay 1881 | 28-40 | £7 | 546 | Red wines, 1880— Hermitage Lambruscot Malbec Verdot, 1881 | 5/- per gallon .. 5/- " " .. 8/- " " .. 3/6 " " .. | Gold medal. |
| Murray, Andrew | Bannockburn 15 acres. 5,750 gallons. 17 years old. | Inverell | Pineau 1876 Hock 1876 Claret 1880 Hermitage 1879 Shiraz, white 1879 | 21-90 | £15 to £20 | 383 | Red wine, 1881 | | Hon. mention. |
| Rauch, T. Vivian | Merchant, 65, Pitt-street. | Sydney | Pineau 1876 Hock 1876 Claret 1880 Hermitage 1879 Shiraz, white 1879 | | | | White wine, 1876 | 5/- per gallon .. | Bronze medal. |
| Ross, Colin | Rosenstein 16 acres. 20,000 gallons. 10 years old. | Inverell Dark argil. soil hilly. | Hermitage 1878 Reisling 1878 | | £10 | 125 | Red wine, 1879 | 7/- per gallon .. | Bronze medal. |
| Stephen et Co., G.H. | Ivanhoe 10 acres. 3,500 gallons. 15 years old. | Hunter River Rich red calcareous soil, plain, north. | Hermitage 1878 Reisling 1878 | | £7 | 350 | Red wine, 1878 | 8/- per gallon . | Bronze medal. |
| Terrier, P. | St. Helena 6 acres. 3,000 gallons. 17 years old. | Hunter River Dark brown pebbly soil, argil. hill east. | Hermitage, red 1875 " 1877 Pineau, white 1875 Bourgogne Blend 1876 | 23-30 21-40 | £6 | 333 | Red wine, 1875 | 0/6 per gallon.. | Gold medal. |
| Wilkinson, John A. | Coolatta 15 acres. 5,000 gallons. 13 years old. | Hunter River Dark rich soil, silicious, high hills, east and north-east. | Pineau 1879 Madera 1874 Hock 1877 Hermitage, red 1876 Claret 1876 | | £7 | 333 | Red wine, 1877 | 8/- per gallon.. | Silver medal. |
| Windeyer John | Kinross 17 acres. 5,000 gallons. 40 years old. | Hunter River Alluvial sand, plain. | Madeira 1876 | | £18 | 300 | | | |
| Wyndham, Wadham | Buksulla 25 acres. 10,000 gallons. 35 years old. | Inverell Red alluvial soil, high hills. | Hermitage, red 1879 " 1876 " 1877 Madera, white 1877 Sherry, white 1877 | 31-50 | £10 | 240 | White wine, 1877 | 10/- per gallon.. | Bronze medal. |

comparatively new to the question. I will again merely mention the unwillingness, to say nothing else, occasionally evinced by people, to give information to strangers, from whom they fear a possible competition.

What is making matters much worse again is that when the name of Australia is mentioned, a new cause of hesitation arises at once through the consideration that what applies to a district of France, not being always suitable to another not far distant, may yet be far more unsuited to the requirements of this part of the world; finally, rivalry between neighbouring people and districts is often enough to cause absolute divergences of opinion.

I have had therefore, being aware of these difficulties, to provide against accepting, without controlling them the best way I could, the opinions and advices which people have been good enough to give.

Subsequently, and for the better carrying out of the wishes of the N.S. Wales Wine Committee, the Hon. the Representative Commissioner, F. M. Darley, Q.C., M.L.C., and the Hon. the Agent-General, Sir Saul Samuel, K.C.M.G., at my suggestion, obtained from the Colonial Government, a supplementary credit, to allow me, before returning to this Colony, and after the closing of the Amsterdam Exhibition, to visit a certain number of the principal vineyards of Europe, for the purpose of giving to Colonial wine-growers, through my official report or otherwise, as extensive information and particulars with respect to wine-growing and making, as I would thus be enabled to collect, likely to be of some service in the Colony; to do this however on a very exhaustive scale, would have required a much larger sum than the one made available, and also a much longer period of time, permitting revisiting some places whenever required.

But as it is, I have, as directed, travelled in Portugal, Spain, and France on behalf of this Colony, during the four first months of the present year, as I had done before in the South of France at a later period of 1882, and especially during the vintage season; so that I have seen the vines at their most interesting periods—the time of their pruning and that of vintage.

I do not pretend to be able, for all that, to report extensively upon all the numerous and different methods of vine-pruning and cultivation which were mentioned to me or brought under my personal notice. It would be a most complicated work, of which I can only give a general idea; for I mostly concentrated my attention upon the only two systems most generally adopted to cultivate European vines—one exclusively practised for the growth of superior and select wines, the other intended for inferior wines only, both methods being clearly distinct.

Before leaving London I had been provided by the Honorable the Agent-General with a circular letter of introduction to Her Britannic Majesty's Consuls in France, Spain, and Portugal; it is my pleasant duty to report and gratefully acknowledge that every one of these officials upon whom I had the opportunity of calling agreed cheerfully to facilitate my mission as much as they could.

Through the British Consulate in Paris, the Department of Agriculture favoured me with letters of introduction for its principal officials and many leading wine-growers in various parts of France.

The same assistance was obtained from the British Consulate at Madrid, whilst at Lisbon, Oporto, Malaga, and Jerez de la Frontera, the Consuls themselves afforded me every information they possessed, and introduced me to such gentlemen at their residences as they thought most qualified to give information of a useful, sound, and reliable character.

I must mention also here the valuable assistance proffered in Paris by M. Consul-General Louis Sentis, late Consul for France at Sydney; and also by Messrs. J. Decourt and E. Ortolan, actually Consuls for France at Sydney and Melbourne respectively, who secured for me in my official capacity the courteous and kind dispositions of the French Department of Foreign Affairs.

I purpose dividing this part of my report so as to deal wholly at one time with each species of wines, as well as the methods of viticulture applied to them in their respective countries, so far as I observed these.

The European wines to be found in general demand in Europe and elsewhere, and to be taken as models by Colonial growers, are classed into the following categories:—

- 1°. Dinner wines, for meals and daily use, divided into red and white, and subdivided into *select or superior wines*. These are mostly produced in the districts of Médoc and St. Emilion, in the vicinity of Bordeaux; in the department of Côte d'Or, including the best vineyards of Burgundy; and on the banks of the River Rhone, between Lyons and Marseilles.

Ordinary light wines.

Inferior and blending wines; each class being again considerably subdivided for the purposes of trade. These two classes are indifferently produced in the eastern part of the Bordeaux territory and most of the southern districts of France, from the Atlantic Ocean to the Mediterranean Sea, the towns of Narbonne and Montpellier being the principal centres of that production, and Bordeaux, Cette, Marseilles, being the leading shipping ports for the exportation of the same. Blending wines of inferior description are also largely produced by Spain, Portugal, Italy and Austria-Hungary.

- 2°. Liqueurs wines, containing generally a much higher proportion of alcohol and sugar than the ordinary wines intended for use at meal-times. These liqueurs wines are also called dessert wines; they are mostly produced in the South of France, on the Mediterranean Coast, near the Spanish border; also in Portugal, at Oporto, or rather some 60 miles to the east of that city, amongst the mountains through which runs the River Douro; then in the provinces of Andalusia, in the South of Spain, within the territories of Malaga, Seville, Jerez, and Cadiz; again in the Islands of Madeira, Cyprus, and Sicily, parts of Italy, Hungary, and Germany. But these last countries, however, I have had no opportunities to visit.
- 3°. Sparkling wines, submitted to special preparations, independently of their natural growth, and produced only in the old French province of Champagne.
- 4°. Finally, the wine-producing districts, wherefrom *eaux de vie* of great renown are obtained, such as the French Department of Charente, which production has been included in my instructions from the Department.

I have further included all such particulars with which I was kindly favoured both at Bordeaux and at Amsterdam, by either official representatives, or private visitors from Austria-Hungary, Germany, Italy, and Madeira.

Particulars

Particulars of various diseases of the vines, and concerning numerous insects and parasites living upon them, more especially the *Phylloxera vastatrix* and the remedies against these, will be found included also in this report, together with a few remarks having reference to wines made of dried grapes, to vinegar making, to the growing of table grapes, raisins drying, and finally, at the suggestion of some winegrowers, a *précis* of the French legislation upon the wine trade of that country.

I have added comparative tables of English and French degrees with respect to the alcoholic strength of wines, and such diagrams as I thought would be mostly of use for the better understanding of my remarks and description of pruning systems, wine-making implements, &c.

THE VINEYARDS AND WINES OF PORTUGAL.

The viticulture and the wine-making industry of Portugal cannot be said to be in such an advanced state, on any particular ground, as to suggest them in any way for model to Australian wine-growers, unless it be for two limited districts, one of which enjoys a reputation above all possible contestation amongst English communities, since the beginning of this century; a reputation which, however, is now much compromised by the progress of *Phylloxera* within the last few years, since 1872.

The wines of Portugal, as a rule, are not considered in Europe, as deserving a higher classification than that of ordinary second growths, either red or white; the special liqueurs wines, known under the name of Oporto or Port, rank much above all others, although themselves are not actually produced such as they are found in trade, but are the result of a mixture of light red wines with strong spirits. From the opportunities I have had to taste, and otherwise form an opinion, by personal inquiries and visits in that country early this year, upon Portuguese wines, the three wines which I consider above the average, or attaining a certain degree of merit, are those grown in the territories of Bucellas, Colares, and Carcavellos, in the provincia of Estramadura, round Lisbon, the capital of the kingdom, and those of the northern districts of the Douro, between the seaport town of Oporto and the Spanish Border.

The Bucellas wines which I tasted in Lisbon were white wines and labelled as *Hock*, being made also with the juice of the German Reislung; but I must say that they appear to me very similar to our Australian hock, and certainly more so than to the hock I had tasted on the Rhine.

The wines of Colares are red wines, which are so agreeable, fresh, and bright, as to be taken at times for a lighter class of French wines. As to the Carcavellos wines, they are mostly white, and possess a bouquet and savour which put one in mind of the best Marsala and Madeira.

The production of these territories is unfortunately very limited at the present time, so far at least as these best wines are concerned; whilst, on the other side, that of the *vinhos verdes* or green wines, made with insufficiently ripe grapes, attains all over the country a very high proportion.

The whole production of wine of Portugal is reckoned at the yearly average of 4,000,000 hectolitres, or 88,000,000 of gallons, of which a tenth is obtained from the Douro or Oporto districts, where the finest wines are grown on the terraces and steep slopes which form the banks of the rivers; the total area of the vineyards is about 500,000 acres, of which 100,000 are in the Douro, and it is there only that Australian visitors should go to learn what they should, and even should not do, for the good of the Colonial wine industry. I consider, after the visit I paid to Portugal, that there is nothing there with respect to viticulture or wine-making which could not be better seen and investigated upon than in the Southern districts of France, and I limited my inquiries to the Oporto district.

The wines of Colares and Setubal, in the south of Portugal, are grown in sandy ground, close to the sea-shore, and this must account both for their being free from the attacks of the *Phylloxera*, and for their lightness and freshness.

The Oporto wines are grown far away from the coast in the middle of a rough mountainous country, and where the temperature in spite of its moisture is generally very warm, and on schistous and granite soil.

This privileged part of Portugal extends along the two banks of a river which is nothing else than a strong and rapid torrent, which no ordinary river steamboat could possibly navigate. The vineyards are planted like giants' staircases in terraces, rather narrow, supported by small and feeble low rubble-stone walls, from the foot up to the top of the hills, which are so steep as to prevent any road being made otherwise than by numerous zig-zags. The nearer to the rivers is the vineyard, the better is the wine. It is difficult to give a correct idea of the steepness of these hills, and any description may convey the idea that it is impossible that any vineyards could exist in ground which is exactly of the same appearance as that of the hills amongst which runs the Middle Harbour of Port Jackson. The incline of the river is itself so strong that it constitutes a great danger in winter-time for the boats which have to convey the wine from the vineyards to the port of Oporto, near the mouth of the river, a danger aggravated by the numerous sandbanks and sunken rocks which lie all along its course, after the style of the Grose River, in the Blue Mountains of New South Wales. The principal place of the Douro District proper is the picturesque little town of Regoa, at the confluence of the rivers Douro and Corgo, which is on all sides surrounded by hills, covered with vineyards and white *quintas*. At the time I was there, the pruning of the vines was still going on, although the season seemed warm enough to lead one to expect to see the vines already blooming.

The nature of the soil is of loose decomposite granite, mixed with a little arable land, quantities of which are constantly removed by heavy storms, and therefore have to be taken back again, and the walls rebuilt, often several times a year.

The species of vines mostly cultivated are the *Verdeilho*, of Madeira, which is very abundant in this Colony, and the *Alvarilhas*; this last, however, in much lesser quantity than the first. Several others called *Tinta Francisca Touriga*, and *Mourisco*, all of which are also to be found under better known and more familiar names either in France or in Australia. *Malvoisie* and *Muscat* must be included in the list although they are not very numerous.

The modes of plantation and cultivation of the vines in that northern district of Portugal are somewhat primitive, so far as can be judged by looking at the vineyards, and yet very expensive, for they average £50 per acre, at the rate of 1,000 trees per acre, producing not more than 110 to 120 gallons.

The vines are planted irregularly about the ground by cuttings without roots, in trenches very deep and slightly recovered with earth and broken stones, leaving the stocks barely above the soil; they are then allowed to grow up for two years without any pruning or training; at the end of the second year they are cut very short, but with several branches which in summer must have a very bushy appearance. Later on, and when the vines are vigorous and begin to bear fruit for a year or two, these long branches

are

are pruned every year to four or five eyes, and even longer; there is some constant weeding and tilling, but no ploughing done; neither are the buds nipped, the shoots pinched, or the vines cut down at any time during vegetation, or the leaves removed before vintage. The tilling of the ground in all Portuguese vineyards is the same as over all other parts of the Peninsula. Holes are dug round each vine before summer sets in to collect the dew and the rain-water, the removed earth forming small hillocks between each vine and protecting them against the sun. In winter the ground is kept level and quite closed. The vintage season is generally at the end of September, or early in October, and occupied before the Phylloxera's invasion, some 30,000 people. The grapes are at that time well matured, and their "must" very rich in sugar, although the wine is not very alcoholized, its natural strength never exceeding 13° Gay Lussac, or 22.6° per Sykes' alcoholometer.

As the grapes are brought from the vineyard, they are spread with their stalks over a low and large vat made of masonry, and there left for a few hours, until the vat is almost full, which, as a rule, takes the best part of the forenoon. Immediately after the midday's meal the men, or sometimes the women, engaged for the purpose, go into the vat with naked feet and legs, and tread over the grapes, for not less than twelve or fifteen hours without ceasing, numbers of men being kept in reserve to relieve the first gangs as these get tired.

The wine-making processes of the country are improving by degrees, especially on the large estates belonging to Portuguese or foreign firms, who provide every new implement to secure cleanliness and perfection; but the small growers will still, as long as the Phylloxera will not have destroyed their vineyards, adhere to the old ways in which they were brought up, and which they consider as far superior to any newly imported. Thus it is the custom of many to sprinkle some plaster or lime over the grapes before crushing them, in order to deepen the colour of the wine, especially more so again when the vintage of the year is not considered as very good and ripe.

The tumultuous fermentation is never very long to start in the open vats, and is generally over in two or three days, very seldom longer, and occasionally much shorter; it entirely depends on the seasons, the temperature, and the maturity of the grapes.

Whenever the manager of the *quinta* deems that the fermentation of the *must* is completed, it is carried either by buckets, or through pipes, first passing through a smaller stone vat provided with a wire screen to stop the husks, into large casks kept for the purpose in an adjacent building.

These casks appear to be always kept clean and in good order, when not in use, and their cellar was very much the same; those I have visited on the Douro were, I was told, amongst the best of the district, viz., the *Quinta de Pitarella*, Santa Martha, del Senor Martinho Gonçaves, and the *Quinta of Messrs. Teage & Co.*, under the management of Señhor Borges, both some distance up the hills above Regoa. I have seen there some heavy queer wooden beam presses, which I had not noticed anywhere else before, for the purpose of crushing the grapes; but I understood that such machinery is very little used, whenever men are available to do the treading, and are utilized only for a subsequent pressing to obtain some second and inferior wine, when the husks appear very rich. However these quintas did put me in mind of some of the best chais of the South of France, although they were on a comparatively smaller scale, notwithstanding their local importance; then again, the size of the huge casks employed here balances the number of the smaller ones preferred in France, the requirements of the two trades being entirely different.

At the time the new wine is lodged in these casks a very large quantity of spirit, fully 50° Gay Lussac, is put into each of them. I understood the proportion to be of 12 gallons at least for each 100 gallons of wine, and it was said that the Douro wines would never keep any time without such fortifying from their very first day.

These new wines are retained on the vineyards until January or February following, during which time they are racked of their gross lees, and made ready for shipment to Oporto. Before leaving the mountains another addition of 5 gallons of brandy per 100 gallons of wine is again made, especially if any sweetness is detected.

It is not an easy matter to send the larger casks containing each over 100 gallons, and called pipes, from the top of the terraces down to the bank of the river, and then to ship them in the Douro cargo boats; yet the Portuguese Mountaineers, with their tamed bullocks and old-fashioned Roman waggons, manage to bring them safely by thousands, but very few at a time down the almost perpendicular stony and winding narrow tracks which lead from the *lagares* or *quintas* cellars; these tracks are so narrow indeed that two carts could never pass together, if from time to time some sidings were not provided in some way or other, and carefully availed of by the first who reaches them, for if he does not see he must hear the peculiar creaking of the wheels of the wagon coming down.

The loading of the cargo boats is not always an easy matter for want of wharves or other such accommodation; once completed and *en route* the risks of wrecks become so palpable for the looker on, owing to the irregularities and whirlpools in the river, that if he is a shareholder of any Marine Insurance Company covering the value of the shipment, he immediately makes up his mind to charge a heavier premium on the next opportunity. It is indeed a wonder, that with such difficulties and many other disadvantages in its way, the wine trade of the Douro ever reached and maintained its past and present importance, for it is only a few years ago that a railway was made from the port to the Upper Douro District, and it takes always a few days to come down from Regoa to the seaside. It appears, however, that coming down the Douro is far easier than the way up, for boats having to take up the casks of brandy intended for blending with the new wines, and the new casks intended to receive these after each vintage. I had opportunity to see some of these boats being towed up from the shore, both by their crews and by bullocks, and their progress was anything but quick; it is said that it takes often two weeks to go up from Oporto to Regoa, which is, by the river, some 80 miles inland, although only 55 by rail. Australian wine-growers must congratulate themselves upon having to contend with no such difficulties, although if nature had put them in their way they would soon reduce them to a minimum by making a better use of their railways than appears to be the case with the Douro growers and Oporto merchants.

The new wines being about four or five months old, having been racked once, or sometimes twice, and having already being much blended with spirits, are thus brought from the Douro to the picturesque suburb of Oporto, situate on the left bank of the river, and called *Villa Nova de Gaya*; large cellars are seen there in every direction, together with merchant's offices, steam cooper's yards, and kindred workshops.

Once

Once in Oporto or its suburbs, the Douro wines are generally kept in stores for at least a couple of years before being sent away for consumption. During that time, they are watched in order to stop any secondary fermentation, should any take place; but if no sign of alteration reveals itself, they are left undisturbed.

When, however, the time comes for their being shipped away, they are once more submitted to blending with other stronger or older wines as well as with brandy, in such proportions as are required by the foreign applicants, and which in many cases attains on the whole 25 gallons of brandy for 100 gallons of wine, the minimum never being under 18 or 19 gallons per 100, when the cask leaves the country, which added to the quantity of alcohol already possessed by the wine in its natural state, gives it fully a strength of 43.5° per Sykes' alcoholometer. In every business place I visited, I found that they followed the practice adopted by the merchants of Cognac, of keeping for any length of years, samples of any previously executed order, so that by a single reference, similar wine may be obtained without difficulty or uncertainty; it might almost be inferred from this and from the considerable proportion of brandy mixed with the Douro wines, that the trade of Oporto is as much of brandy as of wine, and I cannot help to say that it is in no way desirable, that such practice should ever be adopted and followed in this colony.

The natural unfortified wines of the Douro, if made more carefully and trained by experienced wine-growers would, I firmly believe, be found to answer very well as ordinary light clarets; as it is, they are so poorly constituted, that they would not stand the slightest heat nor the slightest journey, and to hasten their maturity, which would otherwise require several years before they are developed, large quantities of strong spirit are added to them with the result that they answer the tastes and wants of a certain description of consumers, the number of which on the whole is very limited and becomes more so every year.

There is again this to be said, that although there are nine distilleries in Oporto, and that Portuguese wines are distilled there for the purpose of fortifying the Douro wines, whatever quantity is distilled is not sufficient, and considerable shipments of foreign brandies are imported every year, if I am well informed, by German vessels coming from Hamburg with full cargoes, and returning to London, Antwerp, or other northern ports with cargoes of port wines; now alcohol from wine is very scarce everywhere, and if any is imported from Germany it cannot be alcohol from wine, and therefore these spirits, whatever they are, must be used for the making of port wines of the cheaper description, and such as European merchants are generally so kind as to classify as being good enough for exportation to the countries most distant and furthest away from them. These are the port wines which find mostly their way to these colonies, and are generally found much approved, which is a pity, whilst the colonies themselves could certainly give as good if not better and more genuine liqueur wines.

The whole secret of the port wine manufacturers is to transform a poor natural red wine into a mixture of wine and spirit within certain limits, but this I consider is not wine-making, and at all events, although it may prove a profitable business and answer certain wants, it is in the long run detrimental both to the producer and to the consumer. I mean to say that if the Douro growers had been thought years ago to produce a better natural wine instead of keeping sending their weak, pale, and still-born produce of the present time, they would by this time have secured as good a name and value for it as some northern Spanish wines are beginning to enjoy on their own merits; but as it is, the Douro wines are in no way asked for, whilst the mixtures concocted at Oporto, with the help of an inferior reddish wine, and some grain or potato spirits, obtain every honour and profit under the name of *Port wine* for their manufacturers; the wine-growers of the Douro are not better off than ever before, and if the imports of spirits were to fail, their vines would be actually valueless to them.

I consider that Australian growers will find it much more beneficial to them to produce none but good ordinary wines, and to secure a solid reputation as such in Europe, where people are far more anxious to obtain light wines and willing to pay a fair price for it, than to be provided with any small quantity of fortified and spirituous drinks.

If the Australian growers desire to go in for producing imitations of Oporto wines, such a trade should be limited to Colonial requirements, and then colonists will stand a good chance of having at a cheaper rate, wines far superior to those which are sent to them from London or elsewhere, as coming from Portugal, and being the very best port wines to be had on any market; our Colonial customs' tariff should be strictly enforced, and duties on alcohol should be paid by these importations, instead of the limited duties on still wines which they now pay.

I feel sure that if it was generally known on the Continent, that such wines as port wines are of current manufacture here, all Colonial wines would become suspect at once as not being naturally strong and resisting, as they proved to be. Once such an opinion or suspicion had taken root, it would be a very difficult matter to destroy it, and the Colonial wine trade would suffer much and for a long time in consequence. The only redeeming point would be in the fact, that no such wine being grown unless naturally possessing a very high alcoholic strength, such for instance as those of the Bukhulla vineyard, near Inverell, which have been found to contain as much as 30° and even more.

Under any other circumstances, the New South Wales wine-growers may well abandon the production of port wines and not enter on competition with the Oporto growers and merchants.

There is, however, another point with respect to which Australian wine-growers generally should certainly follow the examples of the Oporto trade. It is the complete and perfect organization of all that refers to the wine industry, without having to depend upon imported goods any more than can be helped.

I must say that most of the Oporto wine trade is in the hands of British mercantile firms, and that the British Consul there has so identified himself with it, as to have become some authority with respect to port wines. Through the kind recommendations of E. O. Smith, Esq., vice-consul for Portugal, in Sydney, I was shown some attention at Oporto by Messrs. Hunt, Roope, Teage, & Co., who are the oldest established English houses, and through them, as also with the kindness of Mr. Crawford, the British Consul, I was enabled to view and to observe how intelligently and fully are understood and managed the whole wine business of the place. I do not hesitate to say that better arrangements would not be found in either Bordeaux or Paris, and the chais or lodges of Oporto are far ahead of all those I saw in Spain, with

perhaps an exception in favour of Barcelona, but such is exclusively due to the enterprise of the British merchants interested in the place, for so far as I could judge, the Portuguese natives do not evince much activity or take any leading part in the foreign trade, unless as partners of British houses.

Amongst other places of importance, I visited the lodge of Messrs. Silva & Cossens, and that of Messrs. Vellozo, Tait, and Co., both on the Villa Nova de Gaia side of the Douro.

The lodge of the first-named firm is considered as the most extensive of the place, and on the newest and most improved style. It is a very long and broad hall, divided into several compartments, and the slated roof of which is supported by light iron columns and frame work, several large skylights and windows providing plenty of light. A small portable railway facilitates the circulation of the casks and other implements, and the blending apparatus is on the same principle as the one in use at the Wines bond of Bercy, at Paris. The new wines reaching the lodge from the upper Douro are emptied into a cemented well, and after being sufficiently mixed are pumped away by steam and directed through India-rubber pipes into the large-sized vats or tuns intended to keep them until their full maturity is arrived.

The casks required by the firm are made on the premises, of every shape and dimensions, with timber mostly imported from the United States or northern parts of America.

With respect to these, Mr. Tait, a British gentleman who is manager of a cask steam manufactory at Oporto, and his brother, a wine and spirit broker there, mentioned the somewhat astonishing fact that they were growing forests of Australian Gum-trees in the south of Portugal for no other purpose than utilising them for the making of casks. They said that they had already tried and found them of good service, in no way injurious to the new wines if the staves have been previously steamed. They wondered at Australian industry not having found this out before long, and made use of it for the shipment of Colonial wine. The main condition to be observed in the selection of the timber is that the trees must grow very straight up, and they do take great care to secure this end on their southern plantations. I recollected then my first impression in entering Portugal, coming from Madrid. It was one o'clock in the morning when the train reached the Portuguese border-town, and being awoke by the stoppage and noise of the customs officers rummaging the train, I landed on the platform, when, for a few seconds I wondered if I was not in Australia, for the trees overhanging the railway premises were all gum-trees, with their usual strong smell, whilst the primitive station buildings were of the same description as those to be seen here in the up country districts. This impression was a particularly pleasant and agreeable one, bringing to my mind recollections of my adopted and distant land. It was therefore with great pleasure that I heard the practical and useful discovery made by the Oporto people, from whom I learned also that a short time before me, a representative of South Australia, Mr. T. Hardy, wine-grower, had also visited the district for the same purpose as myself.

Messrs. Tait were so good as to promise to ship to Sydney a cask made of eucalyptus timber, so as to help me in convincing colonial people of a fact which could otherwise be reasonably doubted, owing to the peculiar botanical constitution of the wood, which, in the opinion of most men, would justify its discarding for such purposes as wine-cask making. Whenever this cask arrives I intend leaving it in the Technological Museum of Sydney, that it might be seen and inspected by all interested.

I must insist upon the great development given by the Oporto merchants to all the accessory industries connected with the wine trade, and strongly recommend it to the fullest attention, most favourable and prompt consideration of Australian wine-growers and merchants. If they have any desire to extend the production of Colonial wines and secure a share of the European importing wine trade, they must specially have new casks for new wines in any quantity; and it would certainly pay them, if they would form amongst themselves, as did the Oporto merchants, a steam cooperage company, utilizing their forest of gum-trees, saving them from importing casks or making use of any one they can pick up; and again, providing almost constant employment for large numbers of men. It would be so much easier, that the whole plant could be easily, quickly, and cheaply procured from leading engineering firms in England—that of Oporto having been made by Messrs. Allan, Ransome, & Co., of Chelsea.

I have had numerous opportunities of tasting large quantities and varieties of Oporto wines, and no doubt those of the highest and most expensive description were all that could be desired and expected from a liqueur wine. I believe that there is a large quantity of port made every year, with the adjunction of none but excellent *Eau de vie* extracted from wine, and with a low degree of spirit, which does not actually dry, burn, and destroy the softness and mellowness of a good blend, and leaves it its tawny bright colour. But I cannot hide the fact that the production of such wine is necessarily limited, and must be quickly absorbed by the requirements of Europe, and especially England. The price of really good port wine, not less than five or six years old, must be reckoned as follows:—When bought *new*, on the vineyards of the Upper Douro, its value averages £16 per 100 gallons, and when reaching Villa Nova de Gaia it is fully £20; after being attended, blended, and prepared in the usual way, and being made ready for shipment at the end of five or six years, that value is more than doubled, viz., £40, delivered alongside the ship's tackles, at Oporto. From the above it may be surmised that by the time a cask of port wine reaches Sydney, if it is of good but no superior description, and after the duty is paid, even as upon a still wine of under 40° per Syke's alcoholmeter, viz., 5s. per gallon, the value must be at least somewhere about £80 per 100 gallons, including all charges and profits made by the growers, merchants, brokers, and other intermediate agents.

The price of the Douro wines is yearly increasing, owing to the ravages of the *Phylloxera*, which has already considerably reduced their yearly production; most of the vineyards of the Regoa districts have been so devastated as to be beyond hopes of recovery, and the same may be said of the neighbouring territories.

The winter frosts, the *Oidium*, the *Antrachnose* or carbon, the mildew, and the *Phylloxera* seem to have a general congress among the vines of Portugal, and I am sorry to say, very little is done to get rid of them. Some legislation has been enacted, but of rather a mild character, and many small growers are giving up their plantations and endeavouring to grow wheat, tobacco, or other produces as may succeed on their ground; so that if no early change takes place, it will not be many years before the port-wine trade of old entirely disappears from the Douro districts and from the picturesque and interesting seaport of Oporto.

THE VINEYARDS AND WINES OF SPAIN.

Of all the European wine-producing countries, after France, Spain is certainly the most advanced, most progressive, both for quantities and for qualities, so far as wines for blending and such other commercial purposes are interested: the other countries, Portugal, Italy, Sicily, Austro-Hungary, or the French districts of Algiers, have not yet succeeded as well as Spain, in giving impetus to that branch of production, which must in a very limited number of years, prove sufficient to reinstate on a sound and flourishing basis, the financial conditions of this great country.

No doubt Spain has to face actually many difficulties, in the way of limited capital, scarcity of willing, energetic, and persevering labour, and perhaps also, want of easy and quick internal communications, as well as a better organisation of its fiduciary systems; the *Phylloxera* itself, with other pests, has had a footing in Andalusia destroying many of the Malaga vineyards, yet, strange to say, its progress has not been so much felt in Spain as elsewhere, not, in my belief, for having been better fought with stronger insecticides or such means, but probably owing to the well enacted law in force in that country since 1878, which came rather late, but is so much more effective that it has embodied all the wisest provisions of all foreign legislations on the subject, as well as benefiting by other people's experience. While it is yet time, those countries which are not yet invaded by the *Phylloxera*, should certainly lose no time in adopting all the principles of Spanish legislation, and carrying them out very strictly, on the strength of the old saying that "*prevention is better than cure.*"

But, above all, great credit must be given to the climate of the Peninsula and to the water schemes and irrigation systems adopted by the country, especially for the red wines vineyards on the east or Mediterranean coast, from Alicante to Valencia, Sagunto and higher up, through which, although the quantity of water available is very small, but also well protected by law against wasting, considerable areas are transformed from barren wilderness into gardens of a most extraordinary fertility.

It is only within the last few years that the progresses of Spain in viticulture have taken much extension, having undoubtedly been encouraged to do this, by the growing requirements of the wine trade of the world, and the reduction of the productive power of the vineyards of France. It may even be added that most of the leading new vineyards of Spain, in the northern, central, and eastern provinces, are almost under French management, or working exclusively for the requirements of French trade; all these Spanish districts are known to be well-adapted to the production of soft red wines, which, although very raw and inferior by themselves in their new state, become very palatable after the skilled manipulations of the French *maitres de chais*.

On the other side the south-western provinces of Spain, from Jerez, Cadiz, Huelva, to Malaga, are to a great extent under control of British trade, owing to their famed production of dry, strong, alcoholized white wines, or heady liqueurs wines.

In 1879, the exportation of wines from Spain to France was 50,356,614 gallons; in 1881 it has reached 125,890,072 gallons.

It cannot be necessary to say much more, to firmly establish the fact, that the production and consumption of wines must be considered as legitimate requirements of trade and necessities of life, amongst some of the most civilized and leading nations in the history of Europe, and that such industries must contribute largely to the welfare of these commonwealths, and would again do so more than it actually does if it was not for fiscal and municipal taxes of every degree and description to which they are submitted as is the case in France and in Spain; but it is a ruling principle all over the world to look upon viticulture as one of the best mainstays of public treasuries; yet the considerable amount of shipping, railway traffic, exchange, and circulation of money, which such large quantities of casks of wine travelling must cause between different countries secures no pity, no reduction of charges, no alleviation of the strict control under which each cask coming out from one cellar is subjected until it has actually lawfully entered another cellar, even in the same town.

Nevertheless the vine can afford to smile at its persecutors, from the *Phylloxera* to the tax collector, and year after year, vineyards are growing more numerous and prosperous.

I do not, however, wish to convey the idea that Spanish winegrowers are in any way far ahead of our Colonial growers; the balance is, I think, rather in our favour, so far as quality goes; there are very large quantities of bad Colonial wines in Australia, but it is always possible to drink an Australian wine, even of primitive make, if not actually acid, whilst I do not recollect having ever been able to drink the ordinary red wine served on the *table d'hotes* of the Spanish hotels, either in Madrid or in the wine districts. The blending wines, astringent and deep-coloured, either naturally or not, are of course out of the question. I merely allude to the best ordinary red wines intended for table use, and I am so much more justified to say so, that Spaniards themselves abstain to do more than wet their lips, at the end of their meals, with their own wines. Even with water, the taste of Spanish wines is not acceptable to any one used to drink the lowest class of southern French wines; but I have no hesitation to state most positively, and without any fear of contradiction by disinterested parties, that good Colonial wines, without pretension to any other merit than those of ordinary wines, may be daily drunk by any one in France, or in Europe, without diffidence or hesitation, although perhaps not in the same proportion as the French wines, which are, as a rule, much weaker than Australian in alcohol, and even then are always mixed with one-third of water at least when poured in the glasses.

Therefore, in visiting Spain, I knew, from my experience of the Spanish wines, both at Bordeaux and Amsterdam, that not much good, if any, could be derived for Australian growers from the cultivation of the Spanish vineyards, with the exception of those of Jerez and Malaga, against which there is no doubt in my mind that the Colony possesses all the necessary elements for creating a successful competition, provided always Colonial land-owners and capitalists may be induced not to keep their lands as bush lands, or see nothing better than to cut them up into diminutive villa sites or building allotments, and deposit the proceeds in Colonial banks. If the same narrow-minded policy had been followed in France, Spain, Italy, and Austro-Hungary, within the last few years, after the first appearance of the *Phylloxera*, and when no hopes of success in resisting it were entertained, and indeed are not yet so, there would have been nothing left for the great mass of the labouring populations of these countries but to starve, create disturbances, or emigrate to either North or South America. Agriculture must be patronised in the same way, and is as desirable as industry, if not more so indeed, since most industries depend upon agriculture for raw material, and as indispensable to commerce. If it was known in Europe that there is no agricultural land available in the settled districts of Australia, unless at prices higher than in any part of Europe, it would

most

most extensively damage the prospects of the Colony amongst the most desirable class of immigrants, and as the result of my official journey through nearly the half of the old continent, I deem it my most imperious duty to call the attention of the Colonial Government upon the necessity to do something more for Colonial agriculture than is actually done, and to let it be known in Europe, unless agricultural pursuits and population are not deemed desirable for the Colony. As to owners of waste lands I beg to point out to them the noble example of Spain, who is yearly bringing to usefulness, immense blocks which until lately had been left unproductive. The cultivation of vines is one of the best agricultural resources given by nature to Australia. The climate and other circumstances of this Colony are very similar to those of Spain, and every success now attending Spanish enterprise in that direction would equally attend Colonial enterprise.

Let it be further understood that no time should be lost in taking such a step, but that it should be, on the contrary, followed by energetic and persevering action, with the necessary means and patience, for the good of the country at large.

The leading wines of Spain are, as already stated:—(1.) The red wines of the northern, central, and eastern provinces, the best samples being those of Valencia and Alicante, Val de Peñas, Catalogne, and Navarre; and (2.) The white and liqueurs wines of the south-western province of Andalusia, including the vineyards of Jerez and Malaga. I have only been able to give a hurried glance at those last two named, and also at Sagunto-Valencia. I was however enabled at the Bordeaux Exhibition, through the courtesy of Señor Don J. Soriano and M. Darriot, to have a good insight at the viticulture of Navarre and Valencia, an advantage I enjoyed also at Amsterdam, owing to the obliging dispositions there of Señores Don de Colarte and Don Julio Romero, Commissioner-General and Deputy Commissioner of Spain, at these respective places.

THE PROVINCE OF NAVARRA possesses 99,185 acres of vineyards, producing not less than 20,195,956 gallons of red wines.

The varieties of wines cultivated there are—1. The *Grenache*, which is in the greatest proportion, and is not attacked by oidium. 2. The *Mazuela*, which, when cultivated by itself, gives much colour, and 3. The *Tempranilla*, which is, however, better adapted to the production of table grapes. Other species, such as the *Bernes Monastrel*, *Moscateles*, and *Malvoisies*, have been also introduced from France or neighbouring districts, but in such small numbers as not to affect the production.

For the cultivation of vineyards the ploughs are getting much in favour, some are made of iron for the solid and compact grounds, and some of wood for the light and sandy soils; the ploughings are generally made very deep; in addition to them, the ground is weeded twice or thrice a year, either with the hoe or the plough.

The plantations are generally in lines, with 3,000 vines per acre, trained low and pruned short; the damages mostly suffered in that province are through early spring frosts, hail-storms, and running out of the berries; the Oidium is not much felt.

The vintage season is from early in October, but as one grower starts, all the others follow, without due attention to the state of *maturation* of their grapes; the methods of vinification vary very much from village to village, but may be summarized as follows: Fermentation in covered vats for not longer than the absolutely necessary time according to some, and for as much as one month or two according to others; or fermentation in open vats, which is often over in forty-eight hours; unfortunately many people do not always wait until then, before they lodge the wine in the casks.

The practice is inclined, however, towards adopting the system of the covered vats, which is found to give wines of much deeper colour with more preserving elements; as to the quantity of stalks to be left in the vats and to the time of fermentation, no definite conclusion has yet been arrived at.

The wines of *Navarra* are ordinary red wines, rather astringent, and containing a moderate average of alcohol; it is unfortunately the custom there of adding plaster for the purpose of clarifying and preserving them, a practice which, unless limited to a very small quantity, is strongly condemned by all authorities, as such as to cause grave disorders in the health of the consumers.

The cellars or *bodegas* are now generally provided with the most improved presses, racking pumps, and all other *œnological* instruments in use in France, but as yet they retain their wines in large *foudres*, containing as much as 1,500 or 2,000 gallons, securely fixed in the cellars, which themselves are mostly partly underground, with enough ventilation to keep them cool and dry.

The distilling of wines for the making of brandy is not carried on very extensively; it is limited to utilizing the husks, and then the alcohol is intended for mere local consumption.

THE PROVINCE OF VALENCIA, on the Mediterranean Coast, includes the territories of Chiva, Lyria, Sagunto, Albaida, and Requena, producing not less than 52,571,200 gallons of red wines.

The species of vines mostly found on these vineyards are the *Monastrell*, *Bobal*, *Grenache*, *Moscatele*, and several others without any importance; these vines are planted at as much as 8 or 10 feet from each other, trained on very low stumps, and cut to two or three eyes only, without stakes; they grow very vigorously in a light white limestone soil.

It did not appear to me as if the plough was much in favour in these districts at the time I passed through; most of the work I could see being done, was by hands, and with very heavy and primitive hoes; the pruning shears are however universally seen, more so than in Portugal, where the round shaped knife is still preferred by the vine-dressers, unwilling to recognize the great expediency and strength it gives, thus facilitating to do twice as much work in the same time as would be the case otherwise.

The ground, I was assured, is frequently tilled, and in some vineyards frequently watered during summer.

The vintage season takes place early in September, and is always completed before October, whatever delay may have been brought during the month, in starting. It is usual to manage the vintage all at once, mixing all varieties of grapes together, and often, without satisfying one's-self that all the bunches are sufficiently ripe, the consequence being that many of these wines retain a degree of acidity which prevents them from keeping any length of time.

The wine-making rooms are provided as in Portugal with *lagares* or troughs, built of masonry and left open, their capacity being of 1,200 gallons to 4,500 gallons. There are some movable beams which are used to press the grapes, but generally that pressing or crushing is made with feet either naked or fitted with grass slippers, and very seldom any machinery is brought to action; in fact it is done very carelessly; it is also the custom to spread powdered plaster over the grapes at the crushing time. After

After the crushing is considered quite finished, the berries, stones, stalks, and skins are left with the liquid warm *must* in the *lagar*. It often happens, owing to the large size of these troughs, that several days are required to fill them up, and consequently the tumultuous fermentation is interrupted several times to the great injury of the wines, which remain dull, heavy, and contract a very unpalatable taste.

In some of the Valencia territories, the fermentation is allowed to last from fifteen to twenty days in open vats, taking care to dip from time to time in the liquid, the mass of the husks which raise above, so as to prevent it getting sour, but lately the practice of covering the *lagares* with boards and canvas, and to keep them shut very hermetically has been introduced, the duration of fermentation being limited from six to eight days, including the days employed in filling up the vats. I was, however, told that in the territory of Albaida there is hardly any fermentation allowed, the practice being to draw off the *must* on the day following the filling up of the *lagar*.

At Sagunto it is becoming usual to press the husks a second time after the drawing off of the first fermented *must*, and according to the quality of the juice obtained from the grapes, it is either mixed with the first wine or kept reserved for the use of the men on the establishment.

Once the fermentation is completed, the *must*, yet warm, and before getting clear, is placed into casks of oak or chestnut quite clean, and previously sulphured, containing about 176 gallons, but filled up within 5 inches from the bung-hole, upon which the bung is placed very lightly so as to allow the escape of the carbonic acid which is yet left in the wine. At the end of the fortnight, and even three weeks, the casks are filled up again, and not more tightly closed than before; the wines are thus left alone without any more care until January or February, when they are racked.

In other territories than that of Sagunto, I was informed that the new wines are not kept in wooden casks but in cemented vats, holding as much at least as 500 gallons each, but sometimes three or four times as much, which, indeed, would be enough to account for the inferiority of these wines. They are very dry and alcoholic, and without it they could certainly not support such independent treatment. In certain small localities, the growers add some burnt wine, very syrupy, to transform their wines into sweet liquor wines, and thus preserve them in stores sometimes longer; but as a rule, it is found more convenient to sell them before they are twelve months old.

A small quantity of white wines is also produced in the district, but as it requires more time, attention, and also expenses, without giving results of a very high value, that production is limited to a few houses, who, however, do not make a regular trade of it. The white wines I had opportunity to taste were also dry and generous, and very similar to many white wines of the Hunter River.

The *red wines* attain from 22° to 28° per Sykes' alcoholmeter as average, and are largely exported to France, unless a large proportion is availed of for making inferior brandy, especially with those of the territory of Albaida, which are said to contain as much as 30° of alcohol.

The Committee of Viticulture, of the district of Valencia, endeavours to point out to the growers the erroneous practices of vintaging simultaneously ripe and unripe grapes, of mixing them to ferment together, also of having so large vats instead of having numerous smaller ones, each to be filled up in a day, thus undisturbing the fermentation once started. This Committee recommends also to leave a strong proportion of husks in the vats, in the dry years only, in order that the grapes being very sugared, the proportion of *tannin* be enough to prevent a secondary fermentation later on, and further to allow as long a time as may be necessary for the intimate fermentation to follow its natural course in covered vats, so that the whole of the saccharine matter may be transformed into alcohol; finally, to abstain putting plaster on their grapes any longer.

With the exception of the last recommendation I could not help thinking, when listening to these particulars, that many would apply to more than one Colonial grower, and I must add that to give effect to these recommendations, and add the example to the preaching, a local committee of wine-growers and merchants, including fifty members, has formed itself at Sagunto and put up a *lagar* with all the necessary implements; there is every reason to hope that in some ten or twelve years, instead of producing its present strong heady wines, or passing large quantities of them every year through the alambic, the districts of Valencia and Sagunto will be in great repute for producing soft and finished light red wines, which will fetch a much higher value than that actually obtained. Indeed the similarity of the eastern wines from Spain, that is those of Alicante and Valencia, is striking with that of the Hunter River wines which have suffered from long exposure in imperfect tons or casks kept within large aerated sheds, built at the surface of the ground. Many visitors to our Court have made that remark, and I hope it will have the effect of provoking some change on many Colonial establishments.

With respect to the brandy distilled every year near Valencia, it is of very poor description, not in any way rectified; it is partly used for strengthening some smaller wines, and partly sold in the up-country under the name of *anisado*, or light alcohol. I must say here that whatever brandy is used in Valencia, if any, must in a great measure be from German origin; any one who knows what German spirit is extracted of, will never agree to drink wines suspected of containing it. Now, the Spanish wines exported to France are already naturally too strong; they are not wanted to be more so, and therefore it cannot be said that the large quantities of German casks of brandy to be seen at the railway stations and on the wharfs are intended for that purpose, although it is said to be so to a certain extent; but I ascertained that there is a large exportation of these wines to various parts of America, where strong drinks are much in demand, and this must explain the great importation trade of spirits from Germany lately noticed in almost every port of Spain and Portugal, it being either mixed with the low wines of these countries, so imperfectly made as not likely to stand any journey unless greatly fortified, or else mixed with the *anisado*.

The *bodegas* about Valencia, as also those I have visited at Barcelona, are all substantially built and well kept, and the whole country exhibits an appearance of comfort and happiness not to be noticed in the north of Spain between Madrid and the coast of the Bay of Biscay. Many small wine-growers are providing themselves with improved wine-presses, racking-pumps, flexible pipes, and commodious vats. I believed very willingly that in the last four or five years the eastern coast from Barcelona to Valencia had made great progresses, and that in another ten years, or even before, considerable changes will have again taken place for the better, so great, so unlimited, so prosperity-bearing are the wine growing and making industries combined.

I cannot help mentioning that from Valencia to Barcelona—this last place a most active commercial and progressive place, with an excellent harbour, spacious docks, and well-devised public and business buildings,

buildings, especially those of the wine merchants, guided by French experience—the Spanish railway carriages are far superior for easiness, comfort, and even cleanliness, to any other I have had to travel in over other parts of Europe, London and Paris not altogether excepted. These carriages are built on the American system, already introduced in this Colony, and which is said to have the merit to considerably reduce the risks of danger and accidents to passengers in case of collision, or of the trains running off the rails. There is, however, a dark ground in the picture; it is that in that bright, sunny, picturesque, and heroic Spain, it is not yet considered safe for railway trains to travel unless under the escort of several members of the *guardia civil*, armed to the teeth and with loaded guns always in hands, ready to meet common brigands, or to face patriotic or exalted political agitators, unless it be inquiring railway guards in charge of the luggage-vans.

Whilst crossing the whole breadth of Spain from west to east, the wine-producing province of *Ciudad-Real*, to the south of Madrid, has to be visited, owing to the special name enjoyed by the wines of one of its territories—that of Val de Peñas—the *entrepôt* of which is, however, to be found some distance away, at the station of Alcazar de San Juan, where one of the largest *bodegas* of Spain is situated.

THE VAL DE PEÑAS WINES are of a good bright red colour, and somewhat light, but with an earthy after-taste which I never could, and never met any one who ever could, put up with. At the time I was there it was not vintage time; but from what I understood, and from the information I obtained from an official report, such inferior wines can only result from careless making and keeping, and very backward system of cultivation. I do not hesitate to say that at the present time the most earthy-tasting of all Australian wines is far more agreeable than the red wines of Central Spain.

I feel sure that the wine-makers must throw a very strong proportion of plaster in the fermenting vats at the time of filling them up with the vintage's grapes.

The species of vines especially cultivated in Ciudad-Real are called *Gencibel* and *Borrachon*, both red grapes, and the *Lairen*, *Jaen*, *Moscatel*, all three white grapes, with several others occupying a secondary rank.

The vines are planted very wide apart, fully 7 feet, trained very low and pruned very short, growing without any support—methods which are pretty well followed universally from the north to the south of Spain and Portugal, so far as I could see, the district of Oporto alone adopting the long-pruning system.

The vineyards are generally tilled with a common Roman plough, a first time in winter, a second time in March or April, and a third time early in June. When the vines are young, they receive during summer, a slight digging round their trunks with the hoe, and also a slight ploughing when practicable to destroy all weeds. In February or March the pruning is carried on with the French shears, and the vintage season takes place late in September or early in October.

The grapes are collected all at the same time, placed on the pressing *trough* without any division of those which are ripe from those unripe or rotten, and powdered with plaster; these grapes are then trodden with the feet, although I have seen there wine-presses of French make and of the most improved pattern, but small wine-growers will sometimes make use of awkward huge beams which they bring down upon the boards covering the vintage, and of such weight as to crush the stones of the grapes, thus causing a very acerb and astringent taste to pervade the wine.

No precise information was forthcoming with respect to the duration of the tumultuous fermentation, for which the juice is removed from the *lagar* either by hand-buckets, or by rotatory pumps of recent importation in *cuviers* or vats made of masonry, containing about 200 *arrobes* each, or 800 gallons, one *arrobe* being equal to nearly four gallons or a little under. If the *must* is intended to become a red wine it receives an addition of 25 per 100 of husks, and 2 per cent. if for white wines; the fermentation is then allowed to go on in these vats kept tightly closed and left undisturbed.

About February or March the *must* is raked into other earthen vessels, holding fully 500 gallons each, previously washed with water and alcohol and sulphured, and thus left alone.

The wines are very seldom fined, but when this is done, it is about April or May, and always with the albumen of eggs, and is never done any more.

The progress made in that part of Spain are not to be compared with those of the sea-coast provinces, owing no doubt to less frequent communications with foreign producers, but latterly French merchants of Bordeaux have extended their business relations there as well as over Navarra and the eastern coasts, so that in a few years great progress may be realised, especially on these vineyards which are owned by gentlemen of means, of interest over the country, wine-dressers and growers, and who take interest and pleasure in pushing ahead the agricultural development of their country.

THE PROVINCE OF JEREZ DE LA FRONTERA or rather of *Cádiz*, is situated at the south-western extremity of Spain, and includes all the coast and territory extending from the southern border of Portugal to the vicinity of Gibraltar. The famous *Jerez* wines, more generally known amongst English speaking communities under the name of *Sherry* wines, are, however, grown and made within the limited space in the immediate neighbourhood of *Jerez*, between that small place and the shores of the bay of *Cádiz*.

This part of Spain is without any doubt the one where the wine-growing and making industries have the greatest importance and did secure the most extensive development; they both constitute the principal wealth of the province, causing a considerable exportation trade with England, the United States, and the north of Europe.

The area of the vineyards of the whole province is of 31,250 acres, yearly producing on an average 7,178,512 gallons of wines, representing a monetary value of £12,881,155; the limited territory of *Jerez* itself measures alone 11,330 acres, producing yearly about 3,988,182 gallons of wines, valued at £9,970,400, a trade which New South Wales might justly endeavour to derive for its own people whenever this Colony is prepared to help itself to it.

In the territories of *Jerez* and of its neighbours, those of *Puertos*, *Santa Maria*, and *San Lucar*, the vineyards are divided into calcareous, argilous, and siliceous soils, producing as many different *musts*. The vines planted on calcareous soil called *Albarizas* give the best wines, divided under three classes: (1st.) The *Blanco secco* or *dry white* which includes the *Amontillado*, the basis of all *Jerez* wines. (2nd.) The *Dulce Pajarete* or *Sweet Pedro Ximens*; and (3rd.) The *Dulce apagado*, or *mute, unfermented sweet wine*, this last generally made with the muscatel grapes. In addition to these, many other and smaller wines are produced under

under the names of *Malvoisie*, *Tintilla*, *Montilla*, *Manzanilla*, etc., but subsequently to the vintage season, and through mercantile manipulations, the wines of the district, whether refined or common, delicate or without bouquet or taste, are sent to market under many other designations and subdivisions, rendering it a somewhat complicated matter for anyone not *au fait* of this special trade.

I have not been favourably impressed with Jerez wines, owing to the tremendous importation of northern spirits which is peculiar to that place, independently of the few distilleries existing in the country, merely, I suspect, to save appearances and justify the report that no spirits but the best alcohol from grapes is added to the Jerez wines. Unfortunately, it is too well known that the production of such good alcohol of that description is almost annihilated in France, and that, as no other country can produce it, it is found cheaper and easier to make use of grain and potato spirits; it may be, however, that I am altogether wrong in my conjectures, and I must certainly say that I tasted in Jerez, dry and sweet wines, against which I did not detect any fault.

The Jerez wine *par excellence* is the *Vino Blanco secco*, which ranks first before the *dulce* or sweet. The dry wines are themselves subdivided into the *secco*, which receives a certain addition of alcohol, and the *Amontillado*, which is the natural wine, left to itself, and utilized mostly as the standard wine in the Bodegas, where it is kept for many years under the name of *Solera*, for operations or blendings which may become necessary from time to time. The *amontillado*, which is made very plainly, as any ordinary white wine is somewhat of a straw colour and very light in taste, but unfortunately it does not remain so very long, in spite of all precautions, and perhaps, in consequence of the attentions which it receives.

Almost all the Jerez wines are white wines, although a few red wines may be seen, but these do not appear in the usual course of business.

The *mists* of this part of Spain weigh generally from 13 to 21 centigrades of alcohol, that is in their natural state, and without the help of any quantity of adventitious brandy.

The *Moscatel*, the *Tintilla*, the *Pajarete*, the *Tio Diego*, the *Pedro Ximenez*, are as a rule found amongst the strongest wines, whilst, on the contrary, the *Amontillado*, the *Manzanilla*, the *Palomino*, may be ranked amongst those Jerez wines not generally exceeding 15 per cent. of alcohol, or 26° per Sykes' alcoholmeter; but it must be said that these could not keep any time if they were not much fortified at an early period, owing probably to the constant evaporation caused by the climate.

The species of grapes mostly cultivated in the calcareous grounds or albarizas, are the *Palomino*, mostly in favour; the *Mantuo de Pela* and the *Perruna*, somewhat also extensively found; and lastly, the *Pedro Ximenez* and the *Mantuo Castellano*.

The argillaceous grounds or *barros* produce the same wines as those above described, but of somewhat inferior quality, although from the same grapes; these second-class wines are classed by the Jerez merchants under the names of *Vinas de Afuera*, or *outside Wines*. In the siliceous grounds or *arenas* the wines are still good, but yet inferior again to those from the argillaceous division; they produce only dry white wines or a few unfermented sweet wines, and the vines mostly cultivated in these sandy patches are, above those already named, the *Abbillo* and the *Colona*, this last one not much for giving wine; all these species of grapes are white; a few red vines are to be found here and there, named the *Tintilla*, *Meloneira*, *Ferra*, and the *Corazon del Cabrero*.

Much care, attention, and labour are bestowed by the wine-growers upon their vineyards, so as to secure well-matured grapes very rich in alcohol.

In October of each year a first cleaning of the ground, especially round the roots and trunks of the vines, is generally made; in November the ground is open round the foot of each vine, so as to retain the water. Early in December the vines are pruned, taking away the fruit-bearing branches of the previous season, leaving only on each vine, four or five shoots with two or three eyes each, selecting and leaving at the same time such branches as appear fit to fill up successfully any vacancy which may happen in the lines; further, before finishing vine-pruning, all the old and rejected wood thus cut, is carefully packed and removed from the vineyard so as to leave it perfectly clean.

In January the layering or sinking of the long branches left for the purpose, is carried on, leaving those connected with the mother vine until the following year, when, if of vigorous constitution, these *provins* or *mugrones* are cut and left to grow by themselves.

In February or March the ground is made perfectly level.

In April the vines are relieved of all the shoots which appear feeble and tender; this is done again in May, and is called properly by the French growers *bourgeonnement*, or nipping of the buds; in the month of May also the ground is maintained level by a general tilling with the hoe.

Further, in that same month, the vines are powdered with sulphur, as a precaution against the *oidium*.

In June and July, the two last labours, intended to keep the ground absolutely free of weeds, are carefully gone through.

The good effects of regular and persevering attentions are easily seen; through them, the roots of the vines feel at all times a soft soil, possessing the degree of moisture necessary to their extension; the ground is constantly aerated, receives many nutritive principles which are not absorbed by useless plants or weeds, of which the vineyards are freed at all times.

The growers of Jerez have no desire to substitute the use of the plough for that of the hoe, although the first is far more economical as to cost of manual labour and lapse of time; but they say that with the hoe, they can grow much more vines than they could on the same extent of ground, and secure a much more perfect work as well as a larger production, besides the fact that manual labour is cheap and plentiful in the country; thus the whole cost for tilling an *aranzada* of vines, equal to 1½ acre, is about £9 or £10 per year between twelve or fifteen men.

The vintage takes place from the middle or later part of August until the middle of September. Being in Jerez in the early part of the year I could not see it; but I am indebted for the following particulars to Her British Majesty's Consul, W. G. Suter, Esq., who, amongst other gentlemen, kindly proffered every practical information he could think of, and expressed much interest in the progress of Colonial viticulture, to the original starting of which I understood he had contributed, which means fully fifty years ago.

At the time of vintage, the grapes and their juice are first attended to on the spot within the wine-making house called *casa de lagares*, near which is also to be found a small *bodega*. I visited several of these, all built on the same model.

The

The wine-press itself, or the *lagar*, consists of a large table of oak, about 6 yards square, standing some 2 feet high above the ground, from which an open wooden pipe leads the juice into the casks placed to receive it; in the centre of the table there is a huge wooden beam, and gear for bringing it down upon the husks. The number of these presses in each place is in accordance with the importance of the vineyard and its production.

In front of the pressing-house is found a small paved yard, somewhat on an inclined plan, in which are brought the boxes or baskets containing the newly vintaged grapes, where they are left exposed to the sun the necessary time for the evaporation of their watery part, remaining thus for two days when intended for dry wines, and four days or more if intended for sweet wines.

While the vintage is going on, the greatest care is taken to get none but ripe and sound berries; all those unripe, damaged, or rotten, are put aside. This is strictly done on the leading vineyards, but cannot be expected to the same extent from many small growers, who will not admit or understand the importance of it. Nevertheless, their grapes or wines are bought at nearly the same value as others, owing to the production of the vineyards becoming more limited every year, in consequence of the ravages of insects and diseases of the vines.

The grapes are not separated from their stalks, unless when it is intended to produce superior wines. Towards the evening of each day, seventy baskets of grapes—this quantity constituting the mode of measurement for the purchase of grapes, as equal to a load and producing one cask of *must*—are thrown on the top of the *lagar* or wine-press, being at the time slightly powdered with plaster, although this practice seems to become abandoned by degrees. Some men with wooden shoes, having heavy nails in the soles, ascend on the table of the wine-press, and from the first moment of the night begin to tread over the grapes, and continue to do so until no more juice is seen to run off; they then pile the husks together, cover it with some square boards, and bring down the beam on the top. The juice is now left to run out for two or three hours, being collected in casks at once, and is called *pie de yema*—literally, "foot of the vine," meaning, however, "head of vintage."

The husks are then brought together and submitted to a second pressure, after being wetted with two or three tubs of fresh water. This second juice is intended for inferior wines only, and never supposed to be mixed with the first.

The grapes are a second time wetted with several tubs of fresh water, and pressed again for a third time as before. This third *must* is called "wine of the tail."

When the *musters* are intended for sweet wines, a small quantity of alcohol, weighing 39° or 40° centigrades, is put in the casks, to stop the tumultuous fermentation. These wines are then designated as *apagados* or mute wines.

Immediately after being lodged into casks, the new wines are sent without delay to the cellars in Jerez, or in the neighbouring villages. These cellars, when on a proper footing, include always a training store, a *soieraje* or keeping cellar, and a *toneleria* or cooperage. The casks on arriving are always placed in three lines, one above the other, not kept quite full, to allow overflow of matter, with the bungs removed during the fermentation. The cellar-master, after a few days, classifies the *musters*, and no further operation follows until February following, time at which the fermentation is completed.

The clarification or fining of the *must* is then made through a siphon with two branches, drawing it from one cask into another, where a specified quantity of alcohol has been previously placed, the filling up stopping as soon as the new wine appears somewhat thick. The dregs or lees are collected in some other casks until they form deposits, which are fined in their turn. The residue left in the casks after this second fining is then pressed, and the juice reserved for distilling purposes.

Once the new wines are in casks they are allowed to rest, sometimes for three or four years before being ready for sale.

The wines which are obtained from the heads of vintage, have two distinct tendencies; they will either become pale and refined, with an excellent bouquet, becoming thus classed as *Palmas*; or they will turn of a very dark brown colour, strong and pleasant to taste; these last are called brown brands, or *palos cortados*. Both classes of wines, during their first training years, are equally submitted to blendings, finings, and rackings, as the cellar-master deems fit; it does not appear that there is any other fixed rule than his appreciation, resulting from long experience.

For the fining of the wines, nothing is considered better or more universally adopted, than the albumen of eggs, and seldom only, the isinglass, or ichthyocolle.

A leading feature of the Jerez wine trade is, that whatever description of the local wine is required, such is always easily obtained according to the samples kept from previous invoices, owing to the preservation for many years, in the keeping cellars, of casks of wines maintained perpetually, as it is represented, in their original conditions. When a wine is found of superior quality it is put aside, and used only to fill up casks of superior wines from previous years. Whenever these have to be partly emptied for making some shipment, the comparatively new casks, from which wine has then been drawn and used to refill up the soleras or old kept casks, are themselves filled up again with some newer wines selected also for the purpose, and so on, from year to year, until a cask reputed to contain wine fully fifty or sixty years old, has very few drops of such, if any at all. It is however a positive fact that the old Amontillado retains much *arome* and taste, and that a very small quantity of same in any cask, is enough to impart it to the new comer, even though a large proportion of brandy of inferior description be also added to it; this alone constitutes a superiority not easily lost by the Jerez wines, so much more so that it cannot be replaced by any other wine of lower quality, which would very likely damage the shipment, instead of improving it, and be soon detected. Their limpidity and brightness is again to be praised, and these qualities are so perfect that they are seen almost at once after long journeys, or after a very few days of rest.

The colour of the Jerez wines is ascertained in a closed dark room, in which a small light placed on a tripod, is kept burning at all times; the wines are put in tall straight glasses, and the eye of the expert cellar-master is his only guide for the classification or degree of blending to be allotted in each case; indeed, here more than anywhere else, practice has it all to itself, and it seems as if the art of wine-making was transmitted by unwritten traditions, for treatises or essays upon the subject are not very numerous in Spain.

The Jerez wines are all kept in casks of 36 arrobes, equal to 144 gallons; those casks are mostly made with wood imported from the United States; the staves are nearly burned inside, to avoid any taste being imparted to the wine, and the coopers claim to be the most skilled workmen of the world in fixing these casks. The

The price of the Jerez wine, of the finest description, reaches as much as £200 per butt, but some may be had at about £16, and no doubt these are those mostly exported from Europe, for the quantity of superior wines is itself very limited, and seems to be decreasing every year. The demand for the strong Jerez of olden times is still large, and to compensate for the want of the raw material, and preserve the original *Soleras* some time longer, the discrepancy of *Amontillado* must be made somehow, and generally with spirits.

The *Manzanilla* wine is treated somewhat differently from the leading dry white wines to which Jerez is indebted for its fame and wealth.

At the time of the vintage, when pressing the grapes, the casks receiving their juice are left nearly one-third empty; this wine is generally made with the *Listap* or *Palomino* grapes, and its fermentation is over more quickly than that of other wines, but it often happens that much of it is lost through the action of the air within the empty part of the casks. The characters of the *Manzanilla* are that it is a white wine, without any colour, perfectly clear and transparent, with much bouquet, easy to drink, very weak, and yet warming the body; but on the whole, it is not wanted by the Foreign Export Trade, as it would not likely stand any journey in its natural state, or should have to be transformed into a variety of fortified Jerez wine. As it is, it is very largely consumed at all hours of the day in small long narrow glasses of which a dozen would fill an ordinary colonial tumbler.

THE PROVINCE OF MALAGA is situated at the extreme south of Spain, some 80 miles to the east of Gibraltar, and on the shores of the Mediterranean, the city itself being about fifteen hours by rail from Jerez; it is one of the brightest spots of Spain, and enjoys much intercourse by sea with foreign ports, its harbour being very commodious and well sheltered.

The principal vineyards are in the hills which surround the city, and extend some distance inland and along the coast; they have had, much more than those of any other part of Spain, to suffer from the *Phylloxera* which invaded them in 1875, and is still devastating them, without any steps being adopted by the growers to resist it, owing to difficulties of various sorts in the way, mostly through the want of easy access, and through the inability of the country growers to second the city merchants and the provincial committee of viticulture in their endeavours.

The early season of the year during which I was in Malaga, limited my opportunities to study the wine-making and growing process, to a glance at the mode of pruning and cultivating the grapes; but owing to the most obliging and courteous assistance afforded by H. Bidwell, Esq., H.B.M. Consul, and by the firm of Messrs. Heredia Hermanos, I have been enabled to ascertain the leading peculiarities of the Malaga wine trade, and grapes preserving.

The ground round Malaga and in the plains is a sandy rich loam, but on the hills appears as a whitish sandstone mixed with a very small proportion of arable land and some decomposite granite.

The species of vines cultivated there, are very numerous, but five only are considered as giving satisfactory results by the Malaga leading growers, viz., the *Lairen*, which gives red wine, then the *Pero-Ximen*, the *Listan*, and the *Jaen Doradillo*. The first of these three is the leading of all for the making of either sweet or dry wines, but the two others are often mixed to obtain larger quantities of similar wines of a merit somewhat less *recherché*.

The *Moscatel fino* are the grapes especially grown for drying purposes.

The mode of cultivation of the vines and the attention paid to the vineyards are not much differing from those given in Jerez; but I understood the people were not so particular lately in their frequent tillings, and felt somewhat despairing of the future of their vineyards owing to the progress of the *Phylloxera*.

The vines are planted generally 7 feet apart, trained on three, four, or five branches, kept very near the soil, and pruned to never more than two eyes. At different periods of the year the ground is alternately raised in heaps from and round the roots of each vine and then levelled again; the plough is not of general use, owing to the steep hills and slopes upon which the vines are planted.

The production may be calculated at 200 gallons per 1,000 vines.

The vintage takes place always in September. The majority of the growers do it all at one time; but the most careful amongst them will do it in three different times, collecting only such berries as are ripe.

The grapes are brought in baskets to a yard in front of the wine-press, and there left exposed to the sun for four or five days when intended for sweet wines; but in case of dry wines they are put on the lagar at once.

It is not usual to stalk the grapes, yet there are several firms who insist upon it being done before crushing them, neither do they allow any mixtures of the successive juices obtained from several crushings or pressings, although, as to this, the men of the country will generally satisfy themselves with feet crushing, even where a properly made wine-press is within reach.

Once the grapes have been crushed, their juice is collected, for fermenting, into vats of wood in Malaga, or made of masonry, when any distance from the city, and holding from 200 to 300 arrobs, or from 300 to 1,200 gallons.

It is recommended to the men not to disturb or stop the tumultuous fermentation once it is started; but this is rarely obtained from them as they ignore, or will not admit, the consequences, and they add new *must* to that already in full fermentation. However, as soon as this seems subdued, the country growers, after slightly fortifying them with some alcohol, bring at once their new wines to the city merchants.

I was told also that these last gentlemen abstain, as a rule, from going themselves far in the vineyards for selecting, tasting, or buying wines, unless under armed escort, as there are still, in that part of Spain, unruly inhabitants, who occasionally object to the free return of visitors from the city, before these have largely contributed to the revenue of the mountaineers.

The first fermentation lasts generally from the vintage to end of November or early December, but occasionally, is not over until March following. As a rule, however, most of the new wines are brought to town during the early part of the year, and I have seen large quantities being brought in skins upon mules' backs at the time of my visit there.

The Bodegas or cellars of Malaga are not altogether of as good appearance as those of Jerez, but they are much cooler and darker, which is always better for all sorts of wines, whatever be the alcoholic strength; they will be found provided also with all the improved implements to be found in any part of France.

The wines, on reaching Malaga, are blended with a small addition of arrope, which is a similar *must* previously burnt to evaporation of a third of its volume in a copper basin; when they are intended to make the sweet red Malaga wine, a further quantity of alcohol is added again, and after one or two rackings and an occasional fining, they are sold and exported as *wines of the leaves*.

As to the dry white wines, there is no addition of arrope and they are left to ferment freely, thus losing all their sweetness.

In times gone by, the vintage was not done until all the grapes were perfectly ripe. They were thoroughly dried before being brought to the wine-press, and then a very slight first pressure was given. In that way the excellent *lagrima* or *Tears* were obtained from the uncrushed grapes. Subsequently the sweet wines came with a very moderate, yet stronger pressure, and finally an inferior *must* which was useful as a dry wine. Under such conditions, the two first wines could be kept and exported without any addition of alcohol nor of arropa, and merely required no other manipulations than the usual fining with eggs and timely rackings, leaving it to the time to give them their colour. But to advance the work of time, the present custom of many leading merchants is to concentrate the new juices by burning them and fortifying them with alcohol, stopping their fermentation with sulphur, blending them with wines made from table-grapes, and increasing their colour when necessary, by *must* burnt several times until reduced to a thick *caramel*. Other firms go much further, and instead of adding good vinous alcohol, they use spirits of grain or potatoes and arrope made with figs.

Each *bodega* is always provided with a stock of the following liquids:—

Alcohol of wine, if it can be procured in quantities at low price, otherwise spirits of grains are employed; the rum extracted from the sugar-cane is occasionally employed, but not much resorted to, as being liable to disturb and spoil the wines. *Vino-maestro*, or preserved wine, which is a mute wine, the fermentation of which has been stopped by an addition of 20 per cent. of alcohol, and consequently has preserved all its natural sweetness. *Sulphured* wine, preserved as the previous one, but by the mixture of sulphur, or rather burning of sulphured wicks, in the casks, so as not to ferment and retain all its saccharine matter. *Vino tierno* or limy wine, the thickness or density of which attains fully 36° obtained from the *Pero-Ximen*, and an addition of 20 per cent. of water. *Arrope*, or syrup of wine, obtained by over-boiling the *must* of *Pedro-Ximen* or *Moscatel* until it attains sufficient thickness and a dark brownish color like treacle. *Coloring* matter, which is the result of the arrope or syrup above described, reburnt in smaller quantities, until reduced to the half of its own volume, and then mixed with a proportion of wine equal to that of the evaporated arrope; this is employed for giving color to the wines. *Liquor*, which is a mixture of syrup (arrope), coloring matter, and alcohol.

The quantity of alcohol mixed with new wines when these reach Malaga is generally from 3 to 6 per cent. of 40° in strength. If the new wines are weak, or if they are not required for immediate use, the whole of the alcohol is put all at once; otherwise such addition is divided into periods corresponding with each fining and racking.

The principal and special wines to be procured from Malaga are the sweet white wine of *Pedro-Ximen*, called *Lagrima*, and the sweet red wine called *Malaga* proper.

There is also a dry ordinary wine made from a mixture of grapes and prepared without much care, and a dry, fine, and aromatic wine of the same description as the previous one, but having received several additions of alcohol at different times.

The sweet white wine of *Pedro-Ximen* is made of grapes exposed to the sun during four or five days after their vintage and before being crushed. After fermentation, a quantity more or less important of alcohol is added to it, generally more than for the ordinary wine, and to increase its natural sweetness, a further addition of 6 per cent. of treacle, limy, and preserved wines.

The sweet red wine of Malaga proper is also made of grapes *Pedro-Ximen*, but instead of increasing its natural sweetness with treacle wine, it is done with syrup, coloring matter, or liquor, and then, to render it clear, a small quantity of sulphured wine.

An inferior sweet wine called *Moscatello*, is also procured in Malaga, from the Muscatel grapes, much reduced by exposure to the sun. This wine is unfermented through addition of alcohol, and is nothing else than a blending of preserved wine with fermented *Pedro-Ximen must*.

All these wines are mostly exported in small casks containing 4 arrobes or 15 or 16 gallons each, mostly to North and South America and to the north of Europe.

The several operations such as racking, fining, sulphuring, blending, are carried on at somewhat fixed times, and in certain defined proportions, altogether with many other details of importance to anyone connected with the trade, but the heads of firms in Malaga have to depend, to great extent, upon their cellar-men or *capatazes*, and, as indeed everywhere in Spain and some other countries, it is rather difficult to obtain much or precise information from these men, who, for instance, will object to the use of the saccharimeter or any instrument of the kind to ascertain the state of fermentation, for fear that in course of time, their services may be dispensed with if the theoretician or *savants* were to discover what they consider as the secrets of their practice, but which, after all, are nothing else than the hackneyed paths or tracks of the people who came before them. Further, as I have already remarked, scientific publications or reports upon *oenology* are scarce or incomplete, and foreign visitors or strangers of every description must not expect to find out by a mere stay of a few days all the particulars they might desire.

At all events, I believe I have seen enough to feel justified in saying, that this colony in particular has the required soil, climate, and grapes for the production of liquorous wines naturally much superior to those actually produced in the South of Spain, without having recourse to the many culinary processes now in use there, and which certainly belong more to the confectioner's trade than to the wine-grower's art. I confidently recommend the land-owners of the New England District, and from Port Macquarie even to Brisbane, to plant vines of the kind described, on those lands, now not more utilized than at the time Captain Cook sighted Port Jackson, and in a very few years hence, these colonists would have benefited themselves and the country to a considerable extent.

From analysis made of Malaga wines, it has been ascertained that their alcoholic strength varies between the minimum of 16° Gay Lussac, or 27·8° Sykes, and the maximum of 22° Gay Lussac, equal to 38·3° Sykes. These wines thus prepared will keep for many years, and I have tasted some which were said to be over 100 years old, under this reservation, however, that as is the case for the *Soleras* of Jerez, the casks containing these wines had been so often filled up without ever being emptied since the beginning of the century, that the number of drops of the original contents cannot be very extensive.

The

The Malaga wine trade has not been very prosperous lately, although the production in 1882 was estimated at over 3,000,000 arrobes, equal to 1,200,000 gallons, representing a value of £5,000,000, divided between 200,000 acres.

The distillation of wines used to be carried on a very important scale years ago, but the cheaper production of grain and potato spirits has lately much affected it. Yet there are a few local mercantile firms who still produce limited quantities of a much appreciated *añisado*, or small light brandy, the consumption of which is limited to Southern Spain.

Many of the vineyards which existed in the flat suburbs of Malaga, have lately given way to extensive sugar-cane plantations, which appear to grow there very successfully. I have had opportunities to visit some of these, managed on the most recent and improved principles, with perfect methods of irrigation, steam ploughs, portable railways, steam mills, and distilling apparatus, and every new invention likely to reduce manual labour and facilitate prompt and effective work, dispensing with the necessity for capitalists of having to risk their liberty or their lives to superintend the cultivation of their estates.

THE VINEYARDS AND WINES OF FRANCE.

SUPERIOR OR SELECT RED WINES.

DISTRICT OF MÉDOC, BORDEAUX.

The *Médoc* is that part of the French Department of Gironde, which extends between the river Gironde or Garonne and the Atlantic Ocean, in the shape of a narrow triangle, about 25 miles in length, and 6 miles wide in the middle, being, however, 10 miles broad at the lower end of the triangle and only 4 miles at the top; thus, this extent of land is much over the influence of the Ocean's temperature and winds. The River Garonne is almost an arm of the sea for a long part of the way, the ebb and flow being felt far above Bordeaux itself, a long distance further than the limits of the *Médoc*, the city and port of Bordeaux being at about the basis of the triangle, fully 30 miles from the sea. The whole of the *Médoc* is a high undulating country, with slopes towards the banks of the river, near which there are flat lands with a north-east or due east aspect. The soil consists of a stony pebbly formation, white round clear stones mixed with pure sand upon a substratum argillaceous in some parts, but generally of a thick sand, sometimes very hard, sometimes very soft. Geological reports say that this ground contains a strong proportion of oxide of iron, and designate it under the name of *alios*.

The species of vines mostly, if not exclusively, cultivated in the *Médoc*, are the *Cabernet-Sauvignon*, the *true Cabernet*, *Merlot*, *Malbec*, and *Verdot*.

The *true Cabernet* and *Cabernet-Sauvignon* are very much alike in every respect, but the second one is considered as the most successful and best species of all; it comes well in the ground composed of sand and *argile*, is very regular without being very abundant, and all its berries come to *maturation* at the same time. The wines which it gives, require training in casks for several years before being fit for consumption, but once they reach their finishing point, they will keep good for nearly twenty years, retaining every quality through which they have obtained the great name they enjoy.

The *Merlot*, *Malbec*, and *Verdot* appear to be considered of far less merit than the above, yet such as to contribute in some secondary manner to the firm constitution of the *Médoc* wines. The three first species come to maturity at about the same time; the *Verdot* is somewhat slower and will not succeed so well in the comparatively poor grounds better adapted to the three first. Another species of vine called *Carmenère* is occasionally found in the *Médoc*, although of good quality and improving the *bouquet* of the wines; unfortunately it is of irregular production and of slow *maturation*.

The cultivation of the vine is very elaborate and costly from the very first day. Early in the year, and especially always before starting the plantation of a vineyard, the ground is well drained to get rid of all the water lying in the substratum, and which would injuriously affect the durability of the vines-tree and the quality of the grapes.

For the purpose of a new plantation, after the draining is well established, a first ditch or trench is dug out, the earth removed from the excavation thus made being kept to fill up the last ditch to be dug subsequently at the other end of the vineyard, the depth of each ditch is of about 3 feet, or rather less; some different soil from another part of the property or of the neighbourhood, is then brought and mixed with the earth of the spot previously taken from the following ditch for filling up the first, and so on until the whole of the vineyard has been thus dug out, leaving only the necessary intervals intended for passages between the rows of vines. The ground is then left until a good rain has made it firm again, and sometimes until the beginning of April.

At about that time the planting of new vine-trees is proceeded with. In each line previously dug as above, and directed from east to west, holes are made about 1 foot deep, with the help of an ordinary iron bar. In such holes the new tree brought from the nursery ground is at once introduced, some sand placed round it, then some manure; the hole is watered with liquid manure or muddy water, and made as tight as possible. All vines are distant 3 feet 6 inches from each other in the same row; but the rows or lines are 3 feet apart, and contain no more than 100 trees, but very often only sixty to seventy, and each block of the vineyard is planted with only one kind or species, so as to facilitate the tilling and pruning as well as the blending of the whole vineyard.

As soon as the planting of the vineyard is completed, each tree is lightly fixed or tied to a small stake, and reduced to two or three eyes or buds above the ground. During the first year of the plantation the vines are ploughed six times; in the subsequent years they are ploughed four times only.

When they are two years old, they are pruned at spring time to two or three eyes; at their third year, two of the branches of each tree are spread on wire and flat stakes; for this purpose, stakes steamed in sulphate of copper or in coal tar, are fixed in the ground, one to support each new vine, as already said, and one between each vine; these stakes are a little over 2 feet long, and so fixed as to be about 1½ foot above the ground, and never removed until fully rotten. Pine forests are grown about the district for the purpose of providing wine-growers with the necessary quantities of stakes required year after year.

As the vines are becoming gradually stronger, each tree is strongly manured once, and this is found sufficient for many years.

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The pruning of the vines takes place from November to January each year; the two first years the vines are pruned very short, and to two or three eyes only in order to obtain vigorous spurs; when three years old, two branches are spread and tightly fixed on flat rails or strong wire, running from each stake to the other; each branch is following an opposite direction, in the shape of a broad Y, with three or four buds kept; these two branches should be kept growing along the wire as horizontally as possible, never allowing them to grow upwards; to secure such a result, which in time may prove difficult, as the maximum height agreed upon is less than 2 feet above the foot of the vine-tree, it is customary to reserve in the lower part of each tree, one or two small spurs with one eye intended for renewing the first upper branches when the time comes. As to the length, each arm is allowed about 16 inches. By the fourth year after plantation the vines are expected to be fairly started for the production of wine; one of the arms is selected to be especially fruit bearing branch, and called *haste*; the lowest branch is generally chosen and then curved slightly towards the ground and thus fastened to secure a better circulation of the sap to that end; also the buds at the extremity of the *haste* are taken off, so as to strengthen those which are left; all other branches are cut.

When pruning is over, and weather permitting, the vineyards are tilled or laboured four times. A plough, shaped as an S, intended to unearth the roots of the vines, and so made as to pass very near by these without hurting them, is first conducted through the lines in the first days of March; in April the same work is done, but by following an inverted direction with another plough shaped as a reversed S, and intended to recover the roots of the vines. These ploughs penetrate about 5 to 7 inches in the ground. Similar ploughings take place in May, June, July, and August. As a quantity of earth is likely to remain untouched between the rows and the trees by the other ploughs, a third one called a *décavilloncuse* is also employed following the others when at work; this third plough is provided with a shifting prong or knife, which the driver directs whenever required whilst going along. Lately, improved ploughs with the plough points allowing to do the above work at one and the same time, instead of having to go twice over the ground, have been brought into use, but are not yet usually adopted.

The blooming of the vine occurs generally in Médoc towards the middle of June; as soon as the buds are well started, all the sap-shoots are nipped or even cut away with the vine shears.

Later on, when the vintage is near, the uppermost part of the trees above the highest grown grape, is then *rogée* or *pinched*, for the purpose of hastening *maturation*, by concentrating the sap upon the lower extremities.

At about the same time, or shortly after the pinching just spoken of, the leaves are taken away gradually and systematically, but not all at once, from all round those grapes which do not appear maturing fast enough; in wet or cold years this removing of the leaves is absolutely necessary; but in hot or favourable seasons, it is only carried on with great prudence, and even then to a limited extent to avoid sunstrokes to the grapes; it is not, either, required in the same measure by all kinds of vines, those of late maturity being more to benefit by it than the early species; in any case, the leaf alone without its stalk, is to be cut away.

The peculiarity and great success of the cultivation of the vines in the Médoc is, I was told, caused by the nature of the ground which would not support high grown vines, whilst the reflection of the heat from the round pebbles or stones lying on the surface, and amongst which the vines are planted, contributes to a uniform *maturation* of all the berries of each grape at almost the same time. The numerous ploughings mentioned have for effect to keep the ground aerated, pretty free of weeds, and facilitate also the search and destruction of vermin and insects of all sorts; before the blooming of the new vines, it is customary to allow small flocks of sheep and the fowls of the place, to go about the vineyards to answer the above purpose; at a later period the search for insects is entrusted to women and children.

On some vineyards, as safer means to reach and destroy all vermin, the complete barking of the trees is adopted, or again, the trees are rubbed with a gauntlet made of steel scales so as to better get rid of every particle of mouldiness, and every mushroom or green vegetation within which insects are likely to hide.

Through such constant care, the vines of the Médoc will generally live very long, and not require being renewed. When this has to be done, it is managed through a long branch from the nearest tree being *provincé* or deeply buried in the ground, without being separated from the original trunk, and so as to allow its highest extremity to appear just above the soil, at the place previously occupied by the dead vine of which it takes the place; as soon as this branch has sprung strong roots and appears vigorous enough to live by itself, it is then cut from its own mother-vine, as near to it as possible.

In newly planted vineyards, however, such methods could not be well adopted, and the original one of bringing a new cutting with roots is resorted to, this cutting being planted as in the first instance.

The rows are made very regular as a rule from west to east, the stakes being placed in an exactly and absolutely similar position with respect to each vine.

The manure employed is that obtained from the horses or cattle belonging to the vineyard, and for the collection and distribution of which most complete and improved apparatus and buildings are provided by the largest or richest growers. The climate of Médoc is rather warm than anything else, but with plenty of moisture all the year round, rain being very frequent. Oidium has proved a dreadful scourge, but is now well kept down by a not over frequent but judicious use of sulphur.

Owing to the elevation of the land and to the constant current of air resulting from the vicinity of the sea and from the ebb and flow on the river, spring-frosts are rarely experienced with any severity; hail-storms are more frequent, and always cause some damage, against which growers generally insure themselves. The direction from east to west given to the rows is also considered as much attenuating the effects of the hail-stones, for the hail-storm coming generally from the west, the first vines of each row suffer the most but protect all those behind them.

The land of the Médoc is very much divided amongst property owners; some men will possess merely two or three rows, and by attending themselves to these, derive yet an income sufficient to their wants. The most important estates, however, are entrusted to the management of learned superintendents, who have under them regular and numerous staffs of foremen, dressers, and coopers, constantly employed and living either on the estate or in the nearest village.

At the vineyard of Léoville Barton, and of Montrosé, the owners have built terraces of houses on their estate for the lodging of their vine-dressers and coopers; in the second of these properties, a regular Savings' Bank and a superannuation fund are organized, and some share in the yearly profits is allowed to the permanent staff.

The most perfect plans for the prompt and easy carrying out of the work on the vineyard are adopted to the largest extent, and these properties may well be taken as models.

I do not, however, mean that the training and short pruning methods in favour for the vineyards of Médoc should be necessarily followed in this Colony. I am on the contrary inclined to think that the climate and soil being so different, other methods would prove better adapted to Colonial vineyards even if constituted with the same kinds of species.

It is thus that a low training of the vines, close to the ground, and in rows so near to each other, would likely prove very injurious, especially in soils where loamy sand prevails; the air would not circulate freely enough, the grapes would be almost stifled, and at the time of vintage they would generally be covered with a thick dust, which would become mud in the fermentation vats, and all these causes together would simply spoil the very best chances of Colonial growers to make good wines.

But I believe that the system of frequent ploughings and weeding should be adopted at once and for ever in the colony; it would aerate the over-heated, parched, and rich soils of many vineyards, and help to produce lighter wines free of earthiness.

The vintage and wine-making process of the Bordeaux district should, however, be strictly adhered to in every particular as well as the accommodation provided for wine-making *materiel* or implements.

The Médoc vintage takes place as a rule sooner than anywhere else in the Bordeaux district, owing no doubt to the exertions made by the growers to secure an earlier *maturation* of their wines, which thus also are much lighter in alcohol than any other wines of the same district.

I must say here that the Médoc wines proper, are all red wines, the white wines being produced in a very different part of the department and some distance of Bordeaux, away to the east or south-east, and well inland, although still in close vicinity to the river Garonne.

The vintage of the Médoc starts about the middle of September, which in this colony would mean March; it is over as a rule by the 1st of October; if taking place at any time later in the year, the wine is expected to turn out of inferior value, but let it be said *en passant*, that the rule as to white wines is absolutely the reverse.

Whenever a grower has decided that the time has come for cutting the grapes, which every one is now absolutely free to do whenever he may think it best and most convenient to himself, the two conditions being that the grapes are quite ripe and the weather hot or sultry but not wet, the women and children of the place are engaged for the work and sent in proportionate number in each row of vine, where they have to cut the bunches and remove from them all unripe or rotten berries before placing them in their baskets; as soon as a basket is full it is left on the ground within the line, to be picked up by a boy who takes it to the end of the line and there empties it in a large pail. This pail itself is when filled up placed on a small cart and driven at once to the press-house, where it is emptied either in a grape-mill or on a large square clay, through which all the berries are shaken and separated from their stalks, and then fall in the fermenting vat placed underneath.

In some vineyards a small portable railway brings the vintage on trucks from the vineyard to an aperture in the upper floor of the press or fermentation house, or else the pails full of grapes are lifted by crane from the wagon or cart up to the aperture, through which they are conducted to the grape-mill cylinders or on the clay. A foreman placed there watches almost every grape passing, and rejects every one which appears to him faulty, either for want of ripeness or for being too advanced beyond maturity; he also regulates the quantity of stalks to be dropped in the fermentation vat with the berries.

As soon as the vat is filled up to the six-eightieth, which should be within the one and same day, the trap-door allowing communication from the upper floor is closed, the vat itself is tightly covered as soon as fermentation is seen to have started, and the *must* is left alone to do its natural work, in a building so arranged as to be free of all changes of temperature.

But a few days before the vintage day, these vats have been thoroughly washed and cleansed, and filled up with fresh water, although kept carefully clean from one end of the year to the other at all times, but this last washing is done to be sure of making the vats quite tight and staunch; on the eve or in the early morning of the vintage day, the inner sides of these vats are wetted with a sponge dipped in good brandy so as to make certain of all impurities or bad taste being removed from the wood.

All these vats in the Médoc are made of oak, with iron or brass hoops, and measure a capacity varying from 1,200 to 4,000 gallons; those containing 2,000 gallons are now becoming in general favour, as being easier to fill up in a day and otherwise to manage, besides being reported as better calculated to the favourable development and work of the vinous or tumultuous fermentation. These vats are supported on four stones or brick-stands, about 2 ft. or 2 ft. 6 in. high, allowing the space underneath to be kept clean, and also to empty the vats in any vessel brought near them, when the time for drawing off the wine has arrived.

The old vats are generally uncovered, and require more attention from the grower every day, especially towards the end of the first fermentation, to prevent the wine becoming acid through contact with the external air. But the new method consists in having these vats internally divided by wood gratings, in one or more compartments. As a certain quantity of grapes has fallen in the vat, the first grating is fixed so as to prevent it raising; then the second and third gratings are subsequently fixed in the same way; this is done for the purpose of keeping the skins, pulp, stones, and stalks constantly plunged in the liquid *must* during fermentation, merely allowing the liquid to rise up as required inside the vat.

This process cannot be said to be generally adopted in Médoc. On some of the highest classed vineyards it is not in favour; on others it is partly used, whilst on others again no wine is made otherwise. It is contended that such a prolonged immersion of the rasp is liable to give too much astringency and colour to the wines, and therefore must be avoided whenever the grapes are expected to give a wine sufficiently provided with those qualities by nature; otherwise such wines will lose all the brightness, mellowness, and softness which are their characteristic.

Some of the leading growers will, however, admit it, but provided no stalks are left with the berries; and then again, provided the *must* thus prepared is not left in these vats any longer than is strictly necessary after the fermentation is over, whilst other leading owners, will be found to say that it is perfectly safe to leave these wines any length of time in the vats, since their absolute seclusion from the atmospheric temperature and external air protects them against their constitutive elements being disturbed and set to work again in them.

As a rule this last opinion does not prevail in Médoc, but is very much acted upon in other neighbouring wine districts, especially in the Saint Emilion, the best wines of which can often rival those of the Médoc.

The buildings containing the fermentation vats, are generally either on a level with the vineyard, or else built on the side of a hill in such a way as to allow the upper part to be level with the ground, so that the carts or waggons coming from the vineyards with the vintage can be brought and emptied through large windows over the staking *clais* or the cylinders fixed in that upper floor.

This first story is separated from the ground floor by a thick wooden ceiling, generally plastered, so as to prevent the heat coming through the roof, to pass on to the lower apartment.

The length of such building is proportionate to the importance of the vineyard, but the width is generally of 30 to 35 or 40 feet. Only one entrance is provided from the outside, and when there are windows, they are protected by wooden shutters strictly kept closed whilst the fermentation is going on.

In this process of vating the grapes, Colonial growers may notice that no mention whatever is made of the previous crushing of the grapes; indeed, the practice is not yet given up, but the time is coming when it will be a souvenir of the past. Leading growers consider that for the first or best wine no crushing of the grapes is necessary. All that is required for the starting of fermentation is that the berries, or a good number of them, be slightly broken, just enough to allow a certain quantity of juice to run out, and this is obtained through the grapes mill or cylinders alluded to above, at less cost and in less time than was previously the case, besides absolute cleanliness being insured. Of course there are various theories at variance, but I could not well follow them, and I simply give here what is generally admitted beyond doubt by most of the growers I met, as giving them very satisfactory results.

Another question, very much debated, and much more so than the previous one, is, whether the stalks, or a quantity, or none at all of them, should be allowed in the fermentation vats with the berries. I am led to believe that the process can be dispensed with in a wine-producing country such as the Médoc, where so much care is taken before, during, and after the growing and vintage, and where none but select and well-ripened berries are thrown into the vats.

But I feel bound to transmit to Colonial growers and endorse the recommendation suggested to me by leading Bordeaux growers, that in this Colony, the grapes of which appear to be very sweet and sugared, and give therefore wines of high alcoholic strength, but fast losing their colour and body, the stalk should certainly ferment with the berries, so as to add firmness, colour, and vinosity, by causing the fermentation to be more active or to last longer, thus giving more time to the sweet elements to transform themselves into alcohol, as also to the pulps and stones, and to their own principles, to impregnate colouring and tanning matters to the new wine.

It must however be understood that the process should not be followed at random, and that each grower must study what proportion of stalks should thus be mixed with the berries, a proportion which may change and be influenced by various causes from year to year, but I feel confident nevertheless, that our Colonial growers will find it beneficial as a rule, to adopt that process at once, to be reduced or extended in various degrees as experience will show in course of time.

In the Médoc or Bordeaux districts where the mixture of stalks and berries is acted upon, the growers are guided to a certain extent by the previous testing of their ripe grapes through the *glucometer*, which, as is well-known, indicates the density of the *must*, and approximately its degree of sugar. When this matter appears in excess of the limits taught by previous experience, then a proportion more or less considerable of the stalks, is allowed to pass through and to fall in the fermentation vats.

As to the length of time for securing a complete fermentation, there is very little diversity of opinion amongst the Bordeaux growers, at least, so far as red wines are concerned.

It is admitted that the purpose of the fermentation is the formation of alcohol and the decomposition of the sugar contained in the grapes; therefore the fermentation must be allowed to last, and the new wine must not be drawn off the fermentation vat, as long as there is yet a quantity of sugar, however small, in the *must*.

The degree 0 being indicated by the *Glucometer* is the best sign to act upon; this degree is attained as soon as the whole of the sugar has disappeared or has been transformed, which means that the wine is made, and that its specific weight is equal to that of distilled water. The experience of many years has proved such indication to be absolutely correct, and as a fact, very few growers will be found to follow any other method.

There are some however who insist upon the taste and smell of the *must* being also taken as guide, but not independently of the glucometer; others again told me that no *must* should be drawn off until it is quite clear and very cold, but I am advised by the larger number that these last conditions are very unreliable, and that in spite of their being fulfilled, it will happen that the wine will again get warm and thick after fermentation is over, under many unexplained influences.

If the new wine has fermented into open vats, then it should be drawn off into casks as soon as the fermentation is over, or else it is in constant danger of becoming acid in a very short time, whilst if the fermentation has taken place in a covered vat there is no such danger to anticipate, and the wine may be left any length of time if necessary, although it may prove wiser to draw it early so as to have it softer and brighter if desired, but in this Colony a lengthened stay in the vat will rather prove beneficial than otherwise for reasons already explained.

The number of days required by the fermentation of red wines in vats, either covered or uncovered, cannot be given with any fixity. In the Médoc it varies from 5 to 12 and even 15 days, and entirely depends upon the heat of the season and the degree of *maturation* of the grapes, but in good years it is generally completed within 4 or 5 years.

Whilst waiting for the time of drawing off, the *cellier* or *chai* is made ready to receive the casks in which the new wine is to be lodged, the casks themselves are made quite staunch and clean, and wetted with some good brandy; they are then brought in and placed on moderately high stands in single file, none being placed on the top of another, and with bunghole upwards, ready to be filled up. These casks are always new, no others are admitted for new wine in any part of the Bordeaux district, neither of France. It is one of the most imperative conditions to be observed, and Colonial growers should, on this point, give up any contrary opinion they may have and follow the experience of their elders at whatever cost it may be.

Whenever it will be known in Europe that Australian wine-growers are as painstaking and careful as French growers, it will go a long way to create quickly a large demand for their wines.

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The *chais* intended to keep the new wine in casks are long buildings annexed to the *cuvier* or fermenting and press-room. They are in every way built as a cellar or cave, with the only difference that some dim light is allowed through double or single windows, in this case with frosted glasses; they must be very clean and free of dampness or of any bad smell, even of that of sour wine or vinegar.

In the new places, the old method of filling up the casks by bringing the new wines to them with basins is given up and replaced by India-rubber pipes placing these several fermentation vats in communication with a central one, where they all empty, and from which, other pipes take the wine into each cask, so that an absolutely uniform type or character is imparted to the whole vintage. Whilst doing this, strict precautions are taken to protect the new wines against any contact with the air, and to prevent any part of the rasp passing through the pipes or into the casks. Wire nettings and such other apparatus are provided to that effect at the bottom of the vats. From time to time and as frequently as may be judged necessary, the *must* is looked at, and if found to become thick, is stopped at once, the remainder being kept for a subsequent operation. The filling up of the casks must be done without any delay; two or three days ought to prove sufficient for the whole vintage of any vineyard.

After the clear *must* has been drawn off, the lower part is then collected in special casks, and there kept or used after fining for filling up the casks first filled; or again is mixed with the second and third wines obtained from the rasp removed from the fermentation vat and submitted then to energetic pressing through the well known apparatus made for the purpose, and which in the *Médoc* is part of the furniture of the fermentation-room on each vineyard, and of which an illustration with particulars as to dimensions and prices will be found annexed.

This third wine thus obtained from a second pressure is mixed with the remainder left in the fermentation vat and called second wine, without being submitted to any further fermentation.

With the residue of the third wine a fourth one called *piquette*, and intended for the use of the workmen of the vineyard, is obtained by simply covering it with fresh water for a fortnight or so in the vats.

The rasp is then removed from the vats and used for manuring the vineyard; the vats themselves are at once cleansed and kept so until the following year.

For the first month following the drawing off, the casks are carefully kept always full by being filled up again about twice a week with some of the very same wine taken from other casks. For the second month the filling up takes place once a week regularly, and then once a fortnight, until racking becomes necessary.

During the first year the wine is racked three times, viz., in February, June, and September, which in the colony would mean August, December, and March. This care is generally taken in *Médoc* by the growers themselves, who keep the wine in their *chais* until it is sold to the city merchants, who generally remove it in their own cellars in town before the following vintage, unless storage can be obtained in cellars up the country.

The second year, the wine is kept in cool dark cellars, and racked, as a rule, twice a year. When about four years old, the *Médoc* wines are then considered fit for bottling by the Bordeaux merchants, and kept again in cellars for two years longer, so that these wines are fully six years old when put in consumption or sold to private consumers.

The large Bordeaux houses have distinct cellars, or rather stores in town, for their wines in casks and those in bottles. These stores are built exactly as cellars, without any direct communication with the outside, and thus kept very dark and cool, although built on a level with the streets.

The sworn wine experts and brokers of Bordeaux classify the wines of their districts as follows. Such a classification is endorsed by the Chambers of Commerce and Trade generally, not only of Bordeaux but of the whole of France and Europe.

Classed wines are subdivided into five growths—*Chateau Margaux*, *Chateau Lafitte*, and *Chateau Latour* alone constitute the first growth, measuring 500 acres altogether.

The second growth includes only eleven vineyards.

The third growth includes twelve, the fourth includes fourteen, and the fifth, eight vineyards of the *Médoc*.

The wines of these several-classed vineyards are called *grands vins* or select wines. Their production is limited to the total amount of 1,000,000 of gallons per year, and their price ranges from £200 to £80 per ton of 200 gallons, the highest value having been as much as £320, and the lowest never under £20 per cask when new, shortly after vintage, especially now that the *Phylloxera* invading the *Médoc*, seriously threatens to reduce their production.

After the high classed growths of these select wines, come the *Bourgeois* or citizens, divided into superior, good, and ordinary, the value of which ranges from £60 to £75 per tun of 200 gallons at time of vintage.

Following the *Bourgeois* wines are placed the *paysans* or peasant's wines, from the smallest *Médoc* growths, generally found the furthest away from the river-banks or from the sea, and towards Bordeaux, their commercial value ranging from £12 to £30 per 200 gallons when yet new.

All these various prices increase as these wines grow older. Some of twenty years old, and in perfect condition, have been submitted for tasting, to the Hon. F. M. Darley and myself, in Bordeaux, quoted £4 per gallon, equal to 16s. per bottle, delivered at the wholesale house, a very small quantity being available.

The whole production of the first-class growths and of the *Bourgeois* or Citizen's growth, never exceeded 2,500,000 gallons as average yearly production. Their consumption in Europe is constant, and the demand far above the production, so that very few bottles indeed of the true and genuine great wines, ever find their way to the Antipodes; and I may confidently say that Colonial consumers anxious to have as good wines should not hesitate to encourage Colonial wine trade to the utmost, rather than paying the actually ruling high prices for clarets exported under fancy names, and especially under names of growths which never existed in any part of the Bordeaux districts, although such imported clarets, being no other than ordinary wines, may be very good and give full satisfaction to Colonial taste.

For many years, owing to the peculiarities of English requirements, none of the Bordeaux clarets could be shipped to England without first receiving an addition of stronger wines, but lately the taste for strong liquors or capitous wines has much given way, and light, refreshing wines are everywhere preferred in substitution to the alcoholized port wines of old. The *Médoc* wines left to themselves, but properly cared for, require no mixture whatever.

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The cost of production or of cultivation of the vines in the Médoc district averages £25 per acre, from the pruning of the vine to the delivery of the new wine in cask; the return of the land being generally valued at 5·80 per cent. But the price of land where the lowest classified vineyards are found is about £80 per acre, whilst the land belonging to Chateau Lafitte is calculated at fully £1,000 per acre. It must be said, also, that the luxury displayed in the management of these select growths is beyond the imagination of people who never visited them. Some cellars are kept with the most minute attentions, and it is nothing short of a favour to be admitted to visit them. At times the managers will not even come forward to meet the leading brokers and merchants of Bordeaux, so high and proud an opinion they entertain of their wine's standing in the world. I have been told that on some of these leading vineyards the cost of production reaches fully £40 per acre, and this may well be credited, when the wines are sold at such high prices as above indicated.

It must be born in mind also, that these wines are not sold from year to year, but are kept often a very long time, during which they receive constant care and attention, all things which add considerably to the risks of losses and original cost.

DISTRICT OF ST. EMILION.—SELECT RED WINES.

The red wines of the Bordeaux district next to those of the Médoc subdivision are those of St. Emilion, or Libournais, a portion of the Department of Gironde, occupying the high lands or hills on the river Dordogne, about north-east from Bordeaux, and some 30 miles distant from that city. This district is far more inland than the Médoc, and well sheltered against the strong winds and gales from the Bay of Biscay, although *resenting* them.

The soil on the upper portions is of a chalky clay, and the subsoil is rock; in the lower portions the ground consists of a loamy or alluvial sand, occasionally flooded by the river; the subsoil is reported ferruginous. The general aspect is to the south and south-west.

The species cultivated there are the *Malbec*, *Merlot*, and *Cabernet*, each equally by third.

The method of plantation of vineyards is about the same as that of the Médoc, although with less mixture of the soils and less ploughing. The first year, the vines are ploughed twice only, and no manure is used. Owing to the difference of the soil, and to being further away from the strong sea-winds, the vines are trained higher than in the Médoc, and are fixed on stakes fully 5 to 7 feet high. The rows are regular, but distant from each other about 5 feet, and the trees are equally distant on their lines.

The vines are pruned in November and December, the pruning being generally over before January. Two systems are adopted there; the first is most ancient, the second is quite new, but is getting in general favour.

The old system was to allow each vine-tree having several long high arms, tied together to the stakes, and in the shape of a high basket; but now, the vines are trained longways, upon a horizontal wire fixed at about 2 feet above the ground. The arm thus trained runs fully 2 meters, until it reaches the nearest tree; on that length it projects not less than six spurs, each of them giving a most abundant vintage. In the rich soils, well manured, each tree gives never less than one gallon. With that system there are only about 1,000 trees to the acre. The mode of fixing and attending them is rather expensive, but this is well compensated for by the abundance of production.

So far as I could judge from my knowledge of Colonial vineyards, I believe this system of pruning, known as Cazenave's method, would answer more favourably, if not better, than any other in the Colony. The Médoc training and pruning system is also being introduced in the sandiest part of the district.

The young and newly planted vines produce a large return at the end of the fourth year, and by their fifth or certainly their sixth year, they are in full bearing, and 1,000 gallons per acre may always be depended upon.

The average production of the St. Emilion district is reckoned at 700 gallons of wine per acre; most of the tilling is done by hand-work. The vines are pinched before blooming, and sometimes also just before the vintage; the leaves are generally removed at the same time, with the exception of the few highest, so as to leave some protection to the grapes.

The vintage takes place as a rule at the end of September, or early in October, on the same system as in the Médoc, with the only difference that the closed and divided vats, made of oak, and holding about 1,200 gallons, are the absolute rule, and that the *musts* are left several days, and sometimes several weeks, in the vats after the fermentation is over. The fermentation lasts generally from six to twelve days, and the stalks are left with the berries.

The wines thus obtained are firm, have a deep and lasting colour, rather strong, and improve considerably by being kept. They should, however, be bottled when they are six years old and not later, a longer stay in wood rendering them thinner, whilst they become richer again after six months in bottles.

As soon as fermentation is over, the new wine is lodged, as in the Médoc, in new casks, which are filled once a week during the whole of the first year, even after the first racking, which is done generally in March, the second in September, when the wines may then be turned bung-hole sideways, and left thus for any time without danger.

The best red wines of St. Emilion rank among the best of France; and in the opinion of many members of the International Jury of Bordeaux, and of the wine trade of France, it seems as if this Colony was particularly adapted to the production of similar wines. Amongst our exhibits, some were considered as having the character of the smaller wines of that district; and it appeared evident that if our growers would adopt the St. Emilion's means and ways in those of their vineyards similarly situated, we could produce the same wine, and easily obtain the same value for it.

The best new wines of St. Emilion are actually sold at £60 per 200 gallons as minimum; and as the district has much suffered by the *Phylloxera*, the market value of these wines is still increasing, as the quantity produced is getting less.

I was favoured with every facility to visit the best growths of St. Emilion, known as *Le Cadet*, *Pourat*, and *Chateau Maynard*, and received much information with respect to the wine industry of that district by their owner, who has lately reconstituted his extensive vineyards, in spite of their invasion by the *Phylloxera*, and has thus preserved one of the greatest glories as well as wealth of the Department of Gironde. His cellars are most particularly well kept, and some of them are in the subterranean galleries of an old Knight Templar's castle, the ruins of which can yet be seen towering on the rocky top of the hill. The

The cost of cultivating the vine in the district of St. Emilion varies with the quality of the growths which are here also classified and subdivided into three classes; but it may be reckoned at £20 per acre in the high lands or hills, and £15 in the low lands. The whole extent of these vineyards was a little less than 5,000 acres before the *Phylloxera* invaded it; since then it has been much reduced without any exact figure being however given for publication.

A small parish known as Pomcrol, and quite close to that of St. Emilion, but of far less extent, used to produce hill wines equal to those of St. Emilion, but being in rich land, it was invaded and almost completely destroyed by the *Phylloxera*. Large vineyards are now, however, being reconstituted with the help of the American vines.

DISTRICT OF GRAVES AND SAUTERNES.—SELECT RED AND WHITE WINES.

The high portion of the Department of Gironde, at the south and south-west of Bordeaux, about 10 miles in extent, and known as the Graves, is formed of a mixture of siliceous pebbles of sand and loam. The subsoil is of a varied composition, including clay, argile, and stones; ferruginous elements have also been reported to exist there. This land, like that of Médoc, is of very little use for any other culture than that of the vines, and the wines produced are in great varieties as to quality, one vineyard alone being classed as equal to *Château Lafitte*, or other great growths of the Médoc, viz., *Château Haut Brion*. As a rule, these red wines have more colour, body, and strength than those of the Médoc, and may be said to be intermediate between Bordeaux and Burgundy wines. As to the white wines, they have the peculiar taste of *pierre à fusil*, or flint stones, and are far more abundant than the red wines.

The vine is particularly successful, the *Cabernet Sauvignon*, the *Petit-Cabernet*, the *Gros-Cabernet*, the *Petit Verdot*, the *Carmenere Malbec*, and *Merlot* being the red grapes especially cultivated for the making of red wines.

The same distances between the lines and between the trees are observed as at St. Emilion; the first sometimes are larger, attaining as much as 15 feet of breadth. The mode of plantation and training is also of the same description as in the Médoc but the vines grow as high as 8 feet high. The cultivation is yet conducted mostly through handwork, but the ploughs are getting introduced by degrees. The first tilling takes place before the starting of the buds, the second before the flowering of the vine, the third when the grapes are nearing their formation, and the fourth when they are about to change colour. No pinching or cutting takes place at any time, whilst the removal of the leaves is practised during the wet years only. The vintage and vinification of the red wines is conducted as in Médoc.

The white wines of the Graves are by far their most characteristic wealth.

Before planting a vineyard the ground is always ploughed nearly 2 feet deep, and the plantation takes place in the earliest part of May, with the usual crossettes without roots. The species exclusively cultivated are the *Semillon* and *Sauvignon*, with a few plants of *Muscadelle*; the first is in the proportion of two-thirds. The trees are about 3 feet 3 inches from each other in every direction. The vineyards of the best growths of *Sauternes* are ploughed three times each year. At the end of the first year the vines are pruned very short, for the third year they are well manured and fixed upon two arms, and at the end of the fifth year they are definitively trained on three spurs. The pruning takes place from December to February, after all leaves have fallen and two or three eyes only are left on the smallest woods. A nipping of buds takes place before the flowering season, no pinching is practised, but a complete removal of the leaves is adopted for the *Sauvignon*, whilst a few are left to the *Semillon* to somewhat protect it from the sun on the southern side.

The vintage season begins sometimes in October and is not over by the middle of November. I was present at the vintage in the second week of November, 1882, at *Château Yquem*. The grapes are not collected all at once, but at three different times, none but the berries dried in the sun and almost rotten in appearance being taken each time from the bunches; if any fall on the ground before reaching that state, they are carefully picked up and placed on a leaf at the foot of the vine, and thus allowed to remain until fit for pressing. It is only thus that the best wine is obtained. The berries alone without any stalks, as soon as collected, are taken in small baskets to the crushing machine, and the juice at once placed into new casks of oak, similar in every way to those of the Médoc. I must say here that at *Château Yquem* the grapes are still crushed by men before being passed under the wine-press. As soon as the first juice is taken out, the berries are placed again under the wine-press, and as many as three times treated in the same fashion, that is, crushed by feet and pressed by machinery; when nothing but the skins are left, they are again pressed once more by machinery, and the juice collected each time is mixed with the first in same proportions in the casks where the fermentation is left to do its work alone; the filling up of the casks is strictly done once a week; the fermentation lasts generally one month, sometimes more, according to the temperature and quality of the wine; during this time all the impurity it contains, is thrown by overflow through the bung-holes, which are kept closed for the few first days after the wine is put into them.

As soon as the white wines appear somewhat clear, that is fully three or four months after vintage, a first racking takes place, viz., about February or March, a second one in June, and a third and last one in September. At every racking time, these white wines are well sulphured, especially at the first, for the double purpose to thoroughly stop fermentation and obtain a good white colour; the sweeter is the wine the more sulphur must be burned. After four years in casks, during which these must be filled up every fortnight, the *Sauternes* wines must be sized and fined, and are then fit to be bottled, when they will last for almost an unlimited time.

The *Château Yquem* is rightly considered as the first of all French wines; no other white wine enjoys the same softness, delicacy, limpidness, and bouquet, but its production is limited to about 3,000 gallons yearly; although many vineyards of the neighbourhood and next to it, give also wines of a similar character, yet there is a difference which the great majority of consumers will not notice, but which does not escape the experienced and refined organs of the *connaisseurs* and experts. The commercial value of the *Château Yquem* wine when new, attains fully £270 per ton of 200 gallons, whilst the other commoner wines may be had at £200, £150, and £120, but on an average from £120 to £60, and as low as £40. The *Phylloxera* has made its appearance in the vicinity of these vineyards, and it will only be at considerable expense that they will be preserved, but these are of no consequence to owners who can obtain such good prices.

The cost of cultivation of wine in the *Graves* and *Sauternais* is reckoned at £14 per acre on average.

The *chais*, cellars, and other buildings on the Sauternes vineyards deserve more than a passing mention; they are, if possible, better built and kept than those of Médoc or St. Emelion, and at *Château-Yquem* the steps of each visitor on the white sand which covers the floor of the cellars, are immediately erased by a rake the very moment he has passed, so that to anyone entering, the floor appears as not having ever been trodden upon by anybody before. The whole of the implements are kept strictly neat and clean, the brass hoops of the vats being always bright and new in spite of the almost damp cool air of the place.

To be admitted to tasting these great wines as a private visitor, is a privilege rarely granted, and only certain brokers or merchants are admitted to deal with them; every vintage, however, is generally sold by wholesale lots, and at such prices that none, but great capitalists with the requisite taste, can afford to really possess that wine at their command.

Some years ago, a Royal Prince of Russia bought one tun of *Yquem* for £800, or 20,000 francs, being equal to £200 per cask of 50 gallons, or over 16s. per bottle. No higher price had ever been paid before for any wine in France. The wine thus bought was twelve years old.

SELECT RED WINES OF CÔTE D'OR.—BURGUNDY.

This district of France is not less famous than that of Bordeaux for the production of great superior wines, yet absolutely distinct from those of the Médoc.

The geological constitution of the *Côte d'Or* vineyards is, in the plains or at the foot of the hills, of an alluvial, calcareous, argillaceous, and ferruginous composition; whilst in the upper parts it is mostly schistous, very easily broken, and mixing well with alluvial land.

The species of vines almost exclusively cultivated are the *Black Pineau* for the superior red wines, and the *White Pineau* for the white wines. The *Pineau gris* and the *Gamay*, especially this last one, are also much to be found, but more particularly on the inferior growths, and on the vineyards of the plains.

The *Black Pineau* is almost alone on the hills. It prefers an eastern aspect in a somewhat inclined land, on a soft ground composed of lime and oxide of iron.

Before the plantation of a vineyard is attempted, the soil is always ploughed, after which trenches are dug about 18 inches deep; in these, cuttings without roots are planted at about 18 inches distant from each other, and in lines so very close that no less than 9,000 trees occupy 1 acre. The plantation takes place in November and December, and during all the winter, until as late as May. Towards the end of April the cuttings are pruned to two eyes, and during the first year, the vineyard is ploughed three times. The production starts at the end of the fourth year, and one year later it is in fair bearing.

As a rule there is only one arm or shoot left on each tree of *Pineau*, and no stakes are used until the vines are four years old. These stakes are about 6 feet high, and removed each year after vintage and stored away during the winter. For the pruning of the *Gamai* no less than three spurs are left on each plant.

The pruning begins sometimes in January, unless the rains of the previous year render it necessary to take back from the bottom of the hill to the top of each vineyard, the soil which was carried away by the waters.

This *répartition* of the *humus* acts as well as manure upon the land. When this is done, towards the middle of February, pruning is proceeded with without interruption. According to their strength, the vine-trees are pruned to three or two, sometimes to one eye only; the best of them are reserved for replanting or being sunk. This process is carried on, on a very large scale and regularly, for the purpose of regenerating the vines; it is done every year on some portion of the leading growths, and consists in laying down in the ground the most vigorous branch of a near tree without separating them, and leaving above the ground a small issue pruned at once to three eyes, which bring fruits in abundance on the following year. This sinking of the vines is carried on with the best chances of success in March and April; it must be followed by good manuring during the second year.

A good hand-digging a few inches deep is then given to the vineyard early in May, and the stakes are brought back alongside the vines, some buds of which are submitted to the nipping. A second tilling is given to the land, by the end of which the flowering season has arrived; the new shoots of the vines are then fastened together, but slightly, to the stakes.

At the end of June, or early in July, the ground is well weeded with a hand-hook, and this is followed by a pinching, cutting, or pruning of the upper shoots, to concentrate the sap in the lower parts. This last operation is sometimes done twice during warm years accompanied with abundant rains. The last attention then required by the vine is to take it and fix it up, a fortnight before the vintage.

In good years the vintage is proceeded with from the 15th to the 25th of September, but generally early in October; if the grapes do not ripen sufficiently by then, the vintage is considered as of inferior description.

The vineyard called *Clos Vougeot* is the leading one of Burgundy, and must be taken as model or type of the viticulture of that country.

The grapes are not cut until the morning dew, if any, has well passed away, neither as soon as the coolness of the evening is felt. The number of men employed is calculated so as to provide for the filling up during the one day, of the number of fermentation vats set apart. As the grapes are brought they are placed on the trough of the wine-presses. It is only in the evening that they are crushed with the feet, and then thrown all in the vats within the last hour. As a rule the stalks ferment with the berries, unless the grapes did not mature as fully as desirable.

The fermentation, which in Burgundy lasts from four to five days in good years, but as much as ten days in cool and wet seasons, takes place in open vats, but vats covered and internally divided are gradually coming into use, although there is a strong prejudice against them, especially for the making of the best and finest Burgundy wines. Where open vats are in use, they are filled up to within a foot from the upper edges, and a lid made of a few boards imperfectly joined is placed on the top of the rasp, covering it within a few inches from the sides, so as to go up and down with the contents of the vat and allow free contact with the air. As soon as it is observed that the fermentation is becoming less active the wine is frequently tasted, and when the taste of sugar has disappeared men go in the vats and trample on the husks so as to mix it well with the wine underneath, first ascertaining that these husks have not become

become acid, and in case of any acidity being found, removing the portions so affected. The same operation is done again from six to eight hours later, and after as many hours have passed, once more the *must* is then drawn off by a siphon fixed through the rasp from the bottom to the top of the vat, and lodged into new casks, or else into old and large tuns in a well-preserved state; but new casks are generally preferred in all the new vineyards, as avoiding much work and facilitating the prompt and regular delivery of any order to the trade, besides requiring no laying out of capital for plant.

To preserve their tuns or casks, the people of *Cote d'Or*, after having emptied them, allow them to dry; then they wash and rinse them with brandy, and burn a strong sulphured wick inside. They burn a similar wick every three months, and after each burning, the casks are closed very hermetically. In this way these vessels never spoil their contents, nor give them any wooden taste.

Immediately after the wine has been emptied from the fermentation vats, the rasp is taken to the wine-press, and thus pressed three or four times; the juice obtained is then mixed in strict proportions to the wine already in casks, where it completes its fermentation. The *chai* where those new wines are kept are allowed to retain some heat, and it is only when the fermentation is over that a cooler temperature is desired for the new wines. As long as it lasts, the wines are filled up every day, so that the scum and all floating impurities are thrown out by overflow, and the bung-holes are left open, or merely covered with vine leaves, steadied by sand or pebbles. This filling up goes on at least once a week for the first month, and subsequently as it appears necessary; but no ullage is ever permitted. Three rackings take place during the first year, in March, May, and September, and two only in the following years, about March and September.

The red wines of the *Cote d'Or* are divided into five different classifications called *heads* of vattings, or *cuvées*, *first cuvées*, *good cuvées*, *round cuvées*, and *all sorts*.

The four first are considered as including none but wines of high merit, and mostly made with the *Pineau*, the fourth is a mixture of *Pineau* and *Gamay*, and although not such a fine wine, it is still considered as of special value. After these five classes, there are the smaller wines, made almost exclusively with the *Gamai*, and under the same principles as above, but with less satisfactory results.

THE WHITE WINES of the *Cote d'Or* are made somewhat differently from the red.

The grapes collected in the morning are brought at once to the pressing room, and there first crushed with the feet or heavy wooden shoes; then placed under the wine-press and pressed three times. The wine is at once placed in new casks, previously well washed with boiling water.

When the tumultuous fermentation is over, the casks are filled up and the bung-holes tightly closed. A first raking takes place in January, followed at once by a good fining, which is repeated six weeks later, and, if found necessary, in April again.

I must say here that, from what I have seen in the vineyards of Burgundy, round about Dijon, I do not recommend the adoption in this Colony of the system of training the vines, neither of pruning them to one spur only, which would cause our vines to raise very high and complicate their tilling. They are kept too close to each other, and too numerous on a very limited area, to allow the same amount of air and light which is required here; and as to the method of sinking the branches for renewing of the vines, the extensive scale upon which it is carried there would simply prove fatal to Colonial vineyards in the dry lands of the up-country districts.

The species of *Pineau* and *Gamai* have not been found successful for Colonial wines by the Bordeaux jury, who, as it has been seen, have recommended the *Verdot* and *Sirrahs* of *Ermitage* already existing here.

The process of making the wine itself, in Burgundy, does not appear either as well answering as that of Bordeaux, for, in spite of the high qualities of some Burgundy wines, it is well known that the great majority of the products of that district have occasionally very objectionable earthy or other tastes, and do not stand any journey over sea. It is further a common practice in Burgundy, owing to a want of maturation of the grapes, to add sugar to the musts in the vats; this leads also to the addition of alcohol at a future period; both practices being condemned by the experienced growers of the southern districts as well as by the laws of hygiene and those of the country.

The highest value of the finest wines of Burgundy attains occasionally £80 and £100 per 200 gallons, and the lowest wines range from £28 to £36, when not older than two years, but lately these prices have much fluctuated, and must do so more and more, as the dreadful *Phylloxera* is progressing over the country.

The cost of production of the Burgundy wines averages £10 per acre, but it is somewhat difficult to give any precise idea on that subject, as the owners and dressers work almost on joint account, or participate in the proceeds in variable proportions, besides other allowances being made in various shapes.

The production of the finest Burgundy wines, in good years and where there are no spring frosts, reaches fully 1,000,000 of gallons, but the total production, including the common sorts, is by far much higher, and constitutes a most important trade.

THE WHITE WINE OF CHABLIS.

Before leaving the Burgundy wines, reference must be made to the well-known white wine of *Chablis*, which is produced by the vineyards of a small territory to the north of that of Dijon.

The species of vine, almost exclusively cultivated at Chablis, is the *White Morillon*, a variety of *Pineau*, giving a somewhat alcoholic white wine, but not so to a very appreciable or injurious extent; this wine is full, refined of taste, with a most agreeable *bouquet*; its whiteness and limpidness are most remarkable, as well as its digestive and healthy effects upon both bodily and mental dispositions.

The soil of the vineyards is stony, and the sub-soil, calcarco-argillaceous. The vine trees are planted at about 2 feet 6 inches from each other in the lines, and the rows about 5 feet distant; the vines do not last much above twenty years, and the ground must be cultivated with some other crop for a few years before being utilized again for vines.

The first year after plantation, which is done as in Burgundy, the whole of each vine is cut down to one branch only, itself pruned to one single eye; the training is alike for the second year, only one branch being left, but pruned to two eyes; at the end of the third year, all the branches are again cut, save the best and more vigorous, and the one nearest to the ground; it is pruned to three eyes, the third one being partly cut, and its remaining part used to fasten the branch to a stake fully 4 feet high; there are many buds appearing next season on this branch, but no nipping is used; the whole vegetation

is taken up and tied to the stake, and sometimes the highest part of it cut down twice; at the end of the fourth year, all branches are again cut away altogether, save the one left from the third year, which is now pruned to three eyes, and a new one is fixed to a second stake, and pruned to two eyes; no quantity of fruit has yet been produced by that time.

On the fifth pruning season, or sixth year after plantation, the two above branches are left and pruned to four and three eyes respectively, with a third branch fixed to a third stake as the two first, and pruned to two eyes.

A vine must be fully six years old before being in full bearing, and it is considered quite young when twelve years old. Each vine branch grows very low to the ground, and from time to time is covered with new earth brought from another part of the vineyard; any other manure is rarely used.

The *Chablis* vintage usually takes place in the early days of October; the grapes are not stalked, but passed under the wine-press as soon as they are brought. The white wine must be done very quickly, and the husks left under the press for a part of the day; the juice, however, is collected at once, and lodged in new oak casks, which have been previously rinsed with warm water, and subsequently with cold water, but neither sulphured or wetted with brandy.

These casks are filled up every fortnight until the following January, and from then once a month; the wines must be racked in March and in July, and may be bottled after two years in casks, when they are in their best form, and will yet keep thus for several years.

The production of the real *Chablis* vineyards attains as much as nearly 1,000 gallons per acre in ordinary good years, the total quantity of that wine amounting to 550,000 gallons only, the value of which, for the very best quality, averages £70 to £75 per tun of 230 gallons, the lowest price being from £40 to £50; almost every vintage is secured before hand and consumed in Paris.

SELECT RED WINES OF THE RHONE.—ERMITAGE.

The great or celebrated vineyard of Ermitage is situated on the banks of the River Rhone, near the city of Valence, about half-way between Marseilles and Lyons. It is very small in extent, measuring only some 400 acres; it occupies the top and slopes of several hills, fully 500 feet high, very steep; one of these is of granite and soft schistous formation, another is entirely of alluvial soil, and the third is constituted of rolled stones, mixed with a thick, soft, calcareous sand; the wines of Ermitage are not properly constituted unless made from vines grown upon the three hills just described, and this is the absolute condition for a first growth classification.

I must, however, say at once, that the wines of Ermitage of old are no longer to be obtained, the *Phylloxera* having entirely destroyed the vineyards of the district, and reduced them from 40,000 acres to 10,000 acres in 1882; the few old ones to be seen yet, are only preserved with difficulty and at great expense, by injections of sulphur of carbon; their production, however, is so limited, that it hardly justifies its being kept under such circumstances.

When looked at from the river, the hills of Ermitage appear almost barren and the vineyards to be found there, as well as along the whole valley of the Rhone, consists of American vines upon which French species have been drafted, but do not yet produce any wine in quantities or of qualities such as to be anxiously wished for in any market.

In fact the whole of this region of France is the one which suffered the most from the effects of the *Phylloxera*. I will have occasion to speak of it again, and I may add that the growers meet every year at the school of Agriculture of Montpellier, to discuss and confer on the means to be adopted for remedying the present state of affairs, but so far hardly any progress can be reported.

The species particularly in favour for the production of the Ermitage wine were the big and the small *Sirrah* for red wines and the *Marsanne* and *Bousanne* for white wines; the big *Sirrah*, however, was far from being equal to the small *Sirrah* for the delicacy of the wine, but it was more abundant. At the present time, wherever a vineyard is discovered, the small *Sirrah* alone is cultivated.

Every plantation of a vineyard was always preceded by a deep ploughing early in the year. In March or April plain cuttings without roots were planted at the considerable depth of 3 feet, and at about the same distance from each other, both in rows and in the lines; no manure was used at the time of planting.

During their first and second years, the vineyards were tilled five times by hand work; in the fourth year the vine was trained on two arms, pruned to three eyes, and kept very low above the ground, the pruning taking place as late as February or March.

Immediately after pruning, the trees were unearthed and the soil brought in small heaps within the centre lines; the superfluous buds were then nipped and the stakes fixed. In June, the heaps above alluded to were broken down and their earth spread over the ground, the vines being then kept and tied upwards so as to advance the maturation of the grapes. In August, the earth was removed again from the feet of the vine-trees, so as to leave all grapes well uncovered; a further pinching and cutting down was also proceeded with.

The new planted vines were expected to bear fruit on their fourth year, but not to be in full bearing until six years old.

The decayed trees were replaced by the sinking methods spoken of, in the graves of Bordeaux and in Burgundy, a great deal of manure being then given to the earth.

The vintage season of Ermitage was about the third week in September, after the grapes were all quite ripe, and it closed within the same week. The production was 200 gallons per acre, the value of the land being then of £1,000 per acre for the first growth, the cost of cultivation being on the average £36 per acre.

The limited actual production of the Ermitage wines is still carried on with the same great care as previously. Red wines, white wines, and straw wines are to be had, but the red wines principally, the white being in much less demand, and the straw wines being more a curiosity than anything else, three casks of ordinary wine being required to produce one of straw wine.

For the making of the red wine, the grapes are freed from their stalks, and every rotten or unripe berry is strictly rejected. Once the fermentation vat is filled up the husks are kept plunged with the *must* twice a day, but now covered vats are coming in general use. On every first growth vineyard the vats are left full for twenty and thirty days, and, in some cases, forty days—the sweeter the grapes, the longer is the vatting. When the fermentation is quite over, when the wine is quite cold and clear, new oak casks, rinsed

rinsed with salt water and brandy are filled up and the bungs slightly fixed for fifteen days. During the first month, these casks are kept full every day and subsequently once a week; after two months they are closed very tightly and left with the bungs sideway. These wines are raked once a year only, in March or April, and are fit for bottling when four years old.

For the making of the white wines, the species of *Rousanne* and *Marsanne* alone are cultivated, and mostly in argillaceous grounds. The vintage does not take place until a very full maturation is completed, as without it the wines would not get all their characteristic qualities. None but good matured berries are thrown in the fermentation vats, and the vinification is conducted exactly as for the red wines, with this only difference, that the vintage is pressed at once with machinery; at the end of a month the *must* is drawn off and raked, and this is done again twice a year, in April and October. The Ermitage white wines cannot be bottled until five years old, and then require twelve months in bottles before being ready for consumption, but from that time they will preserve for any length of time.

The straw wines are made also with the species *Roussanne* and *Marsanne*, and constitute, properly speaking, liqueurs wines of the finest quality.

None but perfectly ripe grapes, of good quality, are employed, and exposed on straw to the heat of the sun in a well kept and dried apartment, or under glasses, until desiccated. They are then brought under the wine press and allowed to remain in a fermenting vat, as other white wines. When drawn off the *must* is nothing else than a very thick syrup, but after completing its fermentation in casks it becomes clear again. This second fermentation, however, takes a very long time, and these wines are not fit to be bottled until seven years old; they will then last for any period. These straw wines are never sold otherwise than per bottle, and at what is considered a very high price, viz., 8s. to 10s. from the grower.

The actual price of the red or white wines of Ermitage averages £20 to £30 per tun of 200 gallons, but their scarcity is such, and is so much increasing, that these prices are subject to fluctuations on a large scale. The best are most generous, very soft, and delicate, with a beautiful colour and a specially refined bouquet.

As those of other parts of France, these wines are divided into five growths, but their total production is of so little importance that these distinctions are no longer observed, often for want of the wines themselves.

In addition to the vineyards of Ermitage, the valley or the hills of the Rhone possessed many others, and hardly less famous growths, which, however, have shared, within the last few years, the common fate reserved to all those invaded by the *Phylloxera*. It is only with difficulty that any precise information can be had with respect to these, as, for the last ten years, no vintage has taken place, and the new plantations which have been tried have necessarily brought new methods and systems, without having given yet any results; in fact these districts are now going through a complete transformation and reconstruction of their vineyards, by planting American vines and grafting on these, some French species, or by planting vines in sand wherever practicable. The names of these celebrated vineyards were the growths of Tavel, of Château-neuf du Pape, and of *Côte Rôtie*.

Members of the Bordeaux Jury and others have occasionally remarked that some of the New South Wales wines had much similarity to those previously known as the Tavel wines, which were very dry, light in colour, and with much delicacy, well adapted for long journeys, and of great usefulness in blending with wines of other countries, not less good, but lacking in one or more of these particular characteristics.

The culture of the vines and the process of vinification were, however, exactly the same as those of more southern districts of France, and with almost the same species of grapes. I will give, therefore, fuller particulars as to this when speaking of the ordinary wines.

ORDINARY WINES.

The best ordinary red wines of France are produced on the hilly banks of the Rivers Garonne, Dordogne, and Gironde, on the side opposite to the high undulating lands of the Médoc; also in the lower lands extending between the Rivers Garonne and Dordogne, from Bordeaux to Libourne and La Réole, and called *Palus*, or *Entre-deux-mers*, meaning properly, nearly and alluvial low lands, between two waters.

The other ordinary wine producing districts of France deserving special attention and interest from this Colony, and which I visited accordingly, were those of the Rivers Aude, Hérault, and Gard; also the Roussillon, or Eastern Pyrénées, the whole of these including also the most famous growths of the French liquor wines.

1.—THE HILLS OR TABLELANDS VINEYARDS OF THE GIRONDE.—BORDEAUX DISTRICT.

These vineyards, I have to state, have been invaded by the *Phylloxera*, and they are fast disappearing, as those of the neighbouring districts of Charente and Cognac have already done years ago.

I have been enabled, however, to visit many of them during my stay at Bordeaux, and I regret to say, that owing to their high situation on the top of the elevated banks of the rivers, and to the nature of their soil, all the remedies, so far successful elsewhere against the insect, have either failed or proved impracticable there.

The soil is of a rather rich loamy geological formation, mixed with occasional patches of sand and calcareous stones, upon a substratum mostly argillaceous.

The species cultivated on the table lands are very numerous, and none can be said to be special to the district. The few mostly in favour, beyond those of the opposite side of the river, are the *Teinturier*, *Blanquette*, *Verdot Grey*, *Piquepoul*, *Grosse chaloche blanche*, and the *Folle Blanche*. Most of these, I believe, are unknown in Australia up to this time.

The plantations of vines are made by several lines distant of about 30 inches from each other, and separated from another and nearest cluster by 5 or 6 feet; no use is made of the vacant spaces in the intervals; the same system is somewhat used at Sauternes, and is well adapted to this Colony inasmuch as it facilitates a free circulation of air amongst the vines, and greatly enhances their capabilities of production; a few vine trees on a large space of ground give always more wine than a larger number on the same or any narrower space; much manure also is given to the soil of these vineyards.

The vine trees grow up to about 20 inches above the ground, and from there are trained upon three branches tied on stakes fully 10 feet high, and not connected with each other, as is the case in Médoc or other parts of the Bordeaux Districts; most of the tilling of the land is done by hand work
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three times a year; but where done by plough, then four times as in the *Médoc*; but in this last case the vines are trained very low near the ground, or else on lines much further apart to allow a free passage to the plough and team of bullocks or horses; the bullocks, however, are generally preferred in French vineyards as being quieter, and not so likely to break or damage the vines.

The expenses of cultivation are calculated at about £7 per acre, the value of the land being before the *Phylloxera*, fully £100 per acre.

The wine-making process are much less complicated than in the *Médoc*, the vintage is collected all at one time without any choosing or sorting of grapes or berries, and neither are any stalks removed. The fermentation vats are still the old open vats, and the wine is made all in one vatting without subsequent pressings or crushings; the wines from the table-lands are often blended later on with the wines of the *Palus*, which are made in the same way.

As soon, however, as the wines are made, they are lodged in clean new oak casks, and cared for in similar cellars, and with as much attention as those of the *Médoc*, being filled up and racked as frequently, and at the same seasons of the year.

These wines, nevertheless, are considered as small ordinary wines, although very good, and far superior to those of more Southern districts of France, of which I have yet to speak.

Their commercial value averaged in good years from £30 to £40 per ton of 200 gallons; but their production is now getting very small, and may be expected to be a thing of the past within a very few years.

THE PALUS OF THE GIRONDE NEAR BORDEAUX.

The lands of this portion of the Bordeaux Districts are nearly level with the river, and are liable to be flooded; they consist mostly of rich alluvial loam on a substratum of argillaceous sands, or calcareous and ferruginous deposits.

The vine species cultivated there are those already mentioned as adopted in the *Médoc*, *St. Emilion*, and *Graves*; the vine-trees being planted on much richer soil are kept further apart from each other, and their lines are fully 7 and 8 feet distant.

There are several modes of training and pruning the vines there; the first one is on the same principle as in *Médoc* in the shape of a wide Y, but with a third branch growing in the middle, and fully twice as high, if not more so again than in the *Médoc*, the three branches being fastened each upon a special stake. The number of stakes in a vineyard is therefore more considerable than in the *Médoc*; but this is said to be compensated by less labour being required to keep the vine in its normal grove upon three high branches than upon two low ones; each of these three branches is pruned to five or six eyes at least, and the branches tied to the stakes under the highest of the eyes.

The second method is not so general; but I have seen it at the vineyard of *Château la Touratte*, near Bordeaux; it is nothing else than the one in favour in Italy consisting in planting the vine-trees in rows, distant of 15 to 18 feet from each other, and allowing then one branch of each to grow on wires fixed at nearly 5 feet above the ground on trees kept well trained for the purpose, or on stakes provided expressly. Cereals crops are cultivated between the rows.

Under this training the vines develop most luxuriantly, the branches successively reach and twist each other, and on each bud or eye a spur is left, which spur gives several bunches. After a few years, each tree is trained to two branches, which, being kept close to each other, render the tree very strong, and so fertile that it is not uncommon for one single vine tree to produce as many as 300, and subsequently 500 and 600 bunches, so that one single plant actually gives as much as twenty growing on the same space.

This mode of training the vine is a very economical one; it requires far less stakes than any others, although those required must be much stronger; and these stakes may be replaced by fruit-trees with little vegetation and of early maturation, such as plum and apricot trees, which of course add to the returns, as well as the crops sown between the lines. It must further be said that the ground does not require then more than a limited tilling round each stock during the year, and that the vines are thus much protected against the effects of spring frost through being further away from the ground, and almost beyond reach of the reflection of the cold earth sending up above, the natural warmth of the vines. The grapes also are not affected by fogs, and ripen much quicker. This training, however, can only succeed in very rich ground and under hot climates, and even then the wines it will give, must not be expected to prove of the same quality and value as those from lower-trained vines.

The third method of training and pruning is on the already-mentioned Cazenave system, which consists in a branch horizontally fixed on a wire between two stakes, at about 3 or 4 feet or more above the ground. On this branch, fully 2 feet long, five or six eyes are left on the upper side only. From these eyes, spurs grow in due course, bearing fruits very early, and in much greater abundance than any other pruning has been found to facilitate. It must be said also that, although more expensive at first than other methods to establish, it turns out, ultimately, to be much cheaper and quicker to maintain and manage, and will last indefinitely. I speak with so much more confidence and faith that I have been favoured with the most complete explanations by Mons. Cazenave himself when visiting his own vineyard at *La Réole*, where I was able to see the excellent results he obtained. I may add that many of the leading growers of Bordeaux spoke much in favour of M. Cazenave's method, recommending it especially for rich grounds. Mons. Cazenave assured me that he obtains, as a rule, more than 1,000 gallons per acre every year with only 900 trees to the acre, and that his vines or his land do in no way suffer from such a strong production. It must be added that his land is a very rich dark alluvial, and has been once at least fattened with plenty of manure.

The expenses of cultivation in the *Palus* do not exceed £12 per acre, and the value of these rich lands is not less than £420 per acre, giving a revenue of 4½ per cent.

The making of the wines is conducted on the same wholesale method as in the table-lands, and their keeping is in no way inferior to that of the *Médoc*. The price of these wines, which are full-bodied and strong, but without the delicacy, softness, and bouquet of the *Graves*, less again of the *Médoc*, averages now £35 per 200 gallons.

The *Phylloxera*, however, has invaded the *Palus*, and progressed there with much ease and comfort until those owners whose lands are near and level to the river fought it with the energetic and beneficial process of flooding their vines and keeping them under water for forty days consecutively in the winter of each year, thus neutralizing the ravages of the *Phylloxera* by fattening their vines, if not actually driving the insect away from them, or drowning it.

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The several French districts surrounding that of Bordeaux are known also to produce good wines in numerous varieties; yet these wines are, strange to say, much inferior to those of any part of the Gironde, and there could be no interest for Colonial growers in ascertaining any particulars concerning them, unless it be for the purpose of avoiding their example.

I therefore thought proper to make the best use of the limited means at my command by visiting the other wine-producing districts situated on the shore of the Mediterranean Sea. It may be of some interest to remark here that the best vineyards of France are all to be found in close proximity to the Ocean or along some important watercourse. The same, indeed, applies to the best wine districts of Spain and Italy, and, consequently, Colonial growers might well choose for any future vineyards, some similar topographical and climatic situation, instead of looking for land, however good, some hundred miles from the sea-coast and in the far west, it being well evident that the moisture of the temperature is of more benefit to the vines than the stifling summer heat of the interior.

THE VINEYARDS OF THE AUDE, HERAULT, AND GARD DEPARTMENTS, NARBONNE, NIMES, MONTPELLIER.

These vineyards, situated near the southern border of France, occupy calcareous hills, very poor and meagre, with western and southern aspects, benefiting thus by the moisture brought by the vicinity of the Mediterranean Sea without being exposed to suffer from its strong winds, and being protected against the hot winds from the south by the Pyrenean Mountains between France and Spain.

THE AUDE.—The most favourably-known portion of the district of the *Aude* is that of Limoux.

The species of vines mostly cultivated are the *Mataro*, *Picpoule*, *Terret*, *Ribeyrac*, *Blanquette*, and *Clairette*. The vines are generally planted at about 5 feet from each other in each direction, in a ground previously ploughed to a depth of about 2 feet or 18 inches.

The vines are trained upon three branches, pruned to two eyes in December or January, and the ground tilled three times a year by hand. No stakes are used, no pinching, or nipping, or cutting is resorted to. Shortly before the vintage, the leaves are picked up and tied together in a bundle. No manure is required unless exceptionally.

When the grapes are collected, they are crushed on a platform and then thrown in the fermentation vats, where they are left for forty days without any stalks. When drawn off from the vats, the new wines are placed in new casks and thus left for eight days without any bung.

The wine mostly in demand from that district is a sort of white wine called *Blanquette*, and made almost with no other species of grapes than that of the same name. For making it, none but very ripe and sound berries are used, and after being crushed with feet, their juice is placed into new casks, filled up to the bung-holes, fermentation soon starts, and the scum appears. These casks are strictly filled up every day with some of the *must* reserved in bottles for that purpose. During the first two weeks the wines are racked twice, and once more after the tumultuous fermentation is over. After this process, they are lodged in new casks kept hermetically closed. A further racking takes place in March, and the wines may then be bottled.

These peculiar wines are not however in demand by the general trade, and their consumption is limited to the district itself. In these vineyards, the new plantations bear some fruits at the end of their third year, and by their sixth year are in full bearing.

THE DEPARTMENT OF THE HERAULT is next, but to the north of that of the *Aude*. The city of Montpellier is the chief centre of population, and is surrounded by many important vineyards, which had the merits of producing very large quantities of very fair ordinary wines before the *Phylloxera* took hold of the ground and destroyed almost all the vines of this and the surrounding districts. Their original area was 570,000 acres, of which 324,000 have been absolutely destroyed, and 237,000 are left in very bad condition. The damages were so considerable that it may be said that one-third of the vineyards only has been left. By this time, however, they have been partly reconstituted with the help of American vines, upon which French species have been drafted, but none of the wines thus obtained have secured any good name up to this day.

The geological formation of the district is mostly red alluvial, mixed with some *argile*, sand, or calcareous clay, and in some spots with round and polished pebbles.

The species generally cultivated were, before the *Phylloxera's* invasion, the *Aramon*, *Clairette*, *Mourastel*, *Carignane*, *Terret noir*, and *Piran*, all of the most fertile description.

The ground is so well adapted to the vines that no previous ploughing of the land is considered necessary before planting a new vineyard. From their second year young vines will be very vigorous, and at no time of their existence will require stakes.

On their third year, the vines are trained to grow on four and even six long branches, pruned at the early spring to two eyes close to the old wood. It is customary also to leave at the lower part of the tree a supplementary spur, intended as a precaution against the others getting injured by frosts. When all dangers from that cause are no longer expected, this reserved spur is cut off.

The distance left between the lines and each vine is from 6 to 8 feet in each direction, thus allowing a free passage to the ploughs, which are taken as many as four times a year through the vineyards. It is found that these ploughings have more than doubled the yearly production of the vintages.

Neither nipping, pinching, or cutting is resorted to, and the vines are left to grow as much as nature will make them. Nevertheless the production of fruits attain as much as 4,000 gallons per acre, but it must be said that these wines are too abundant to be of any value, and in such cases are merely used for distilling.

The vintage takes place for red wines, when the *must* of the grapes reach the minimum of 10 degrees of sugar by the Gluco-ænometer, but the climate of the district is so favourable to the grapes that it is not uncommon to obtain 15 degrees, and in some cases, according to the species, to 20 degrees and more early in August. The grapes and stalks are vatted and pressed together, and the vating lasts generally fifteen days in open vats, after which the wines are drawn off and lodged in tuns of 4,500 gallons left open for about three weeks. A first racking takes place in January and February when the heaviest lees have been got rid of; the tuns are then regularly filled up every fortnight, and the wines left thus for three years before being fined and bottled.

The red wines of the *Herauld* district were classed in several divisions, but since the reduction of their production these classifications are no longer enforced

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The white wines are mostly obtained from the *Clairette*, and are called *white wines of the mountains*.

The cultivation of the *Clairette* is the same as that of the other local species, without manure, and pruned to two or three years; a nipping of buds is resorted to, just before the flowering, and from February to July the ground is tilled every second month. That species is particularly fertile in calcareous grounds, bearing as many as seven or ten branches, and giving over 500 gallons per acre.

Dry and sweet wines are obtained from the *Clairette*, but the making of both is somewhat different.

For dry wines, the vintage must be done when the grapes attain 150 degrees Baumé; they are then pressed at once and the juice left to ferment without the husks or rasps. The following day the rasps are passed under the wine-press, and the juice is set apart, for it is much inferior to the first *must*. The dry wines are lodged in casks or tuns, and racked in April or May of the next year, and then filled up and looked at, once every month.

The sweet wines are made in the following manner:—

The vintage must be delayed until the grapes reach from 20 to 25 degrees of Baumé; the grapes are crushed, and the juice separated at once from the rasps is lodged in new casks previously sulphured. The new *must* is generally very thick, and has all the appearance of oil, with a bright golden colour. As soon as it gets clearer it is racked, transvased in another cask equally well sulphured, and left slightly closed, without any risk of getting in any way damaged.

THE DEPARTMENT OF THE GARD is to the north again of that of the *Hérault*. This department, before the *Phylloxera* invasion, was one of the largest wine-producing of France. From 35,000 acres planted in vines before the *Phylloxera*, only 7,000 are now left, and all of them more or less infected, so that it has now considerably lost of its importance, which, it is, however, endeavouring to recover by reconstructing its vineyards with American vines, or by planting new vines in sandy ground, near the shores of the Mediterranean sea.

The species of vines cultivated in the Gard for red wines are the *Mataro*, *Terret noir*, *Picpoule*, *Ugni noi*, *Grenache*, and *Aramon*. This last one is not found on the best renowned vineyards of the district, as the quality of its wine is much inferior to that of any other. The *Aramon* is mostly grown by the small owners, who look more for a large quantity than for the refined quality obtained from the *Mataro* or *Mourvedre*.

For the white wines, the species selected are the *Clairette*, *Picpoule white*, *Ugni white*, *Malvoisie*, and *Furmint*.—this last species much utilized for an imitation of the celebrated Hungarian Tokay wine.

These several grapes are mixed in small proportions to the black grapes for the making of the red wines.

For these last, the *Mataro* or *Mourvedre* is by far the most successful, giving the best refreshing and nutritive wine, and in good quantities.

The climate of the *Gard* is a warm and dry one, very well adapted to the growth of the vine. The ground is of tertiary formation, with much alluvial loam and rolled pebbles, upon bands of granitic and transitory soil.

The ground is always ploughed first, to a depth of 2 or 3 feet, according to the nature of the soil, the lightest not requiring as much aeration as the most compact.

The plantations are made with bare cuttings, in lines distant 5 feet; the same distance is allowed between each vine-tree, so that subsequent ploughings may be carried on from any direction; but many new vineyards keep their lines at 7 feet from each other, whilst their trees are brought within 3 feet.

In numerous vineyards the olive tree is allowed to grow amongst the vines, but such is not the case for the best growths.

The training of the vines from its first year is on as many as six or eight arms, with as many shoots as may come on each. The pruning is very short, to two eyes on each spur. No stakes are used, no pinching or cutting is resorted to; once the vines are pruned they are no longer touched until the vintage season.

The decayed vines are replaced by the sinking process previously mentioned.

Every year the vineyard is weeded as many as six times, of which twice with the plough. Manure is rarely used.

The vintage takes place about October, and often late in September. The grapes are first crushed with the feet, and then thrown with their stalks in the fermentation vats. The fermentation does not last very long here; it never exceeds six days, and is generally over by the fourth day; but the growers, anxious to obtain a deep colouring wine, leave it from twelve to eighteen days in the vats, with the rasps or husks constantly immersed. As soon as the first wine has been drawn off, the rasps are brought to the wine-press, and the second juice mixed at once with the first wines, all being lodged in either large tuns or in small casks, this last practice becoming more general every year.

A peculiarity of the Gard and of these several other southern districts is that the fermentation takes place in vats made of bricks or stones, recovered of cement, and measuring much larger dimensions than any other, viz., 17 feet deep by 16 feet in each direction, and holding each 25,000 gallons, instead of 1,000 or 2,000, as in the *Médoc* or other districts where the best and most delicate wines are produced. These bricks or stone vats are not so favourable to the intimate processes of vinification as those made of oak or other appropriate woods, and should not be adopted in this Colony.

The wines of the Gard, as all those of the *Aude* and *Hérault*, are good wines, but rank rather in a second-class of ordinary wines. The practice of adding plaster of Paris to these wines for giving them some preservative principle which they lack, is a very injurious one, prohibited above certain limits, by French laws, as rendering the wines unhealthy. I must insist upon this fact—to obtain from the Colonial growers that they should not follow the above example, another bad effect of which is also to cause a loss of 1 per cent. at least on the quantity. The commercial value of these southern wines, which are often wanted for no other purpose than blending purposes, ranges from 8s. to 12s. per hectolitre when new, to about 16s. or 18s. when one or two years old. To hasten their finishing, or dispense with the great care and attention these inferior wines would require if kept in stocks, it is the general practice of the country to submit them all when three or four months old, and sometimes before, to the heating process recommended by Mon. Louis Pasteur, and of which I will speak more at length in another part of this report.

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The white wines of these southern districts are of not much value by themselves, but they are utilized in a great measure for the making of inferior brandy, or again, by the merchants of Cette, for the manufacturing or imitations of the *Madeira*, *Marsala*, *Port*, *Xeres*, *Malaga* wines, and exclusively for the fabrication of *Vermouth*, an aperitive, slightly bitter-wine, much used on the Continent before meals.

THE DEPARTMENT OF THE PYRENEES ORIENTALES is the most southern of France, extending between that of the Aude and the Pyrenean mountains, which separate France and Spain.

I have been, whilst there, much struck by the great similarity of the processes of viticulture and of wine making, as well as by that of the ground itself, with those of the Douro vineyards, in the district of Oporto, in Portugal, although I must say there is no river there like the rapid and irregular Douro, and although the Portuguese vineyards are fully 60 miles on mountains inland instead of being close to the sea.

The Pyrénées Orientales produced most of the wines known under the name of *Roussillon*, characterised by a very deep natural colour, owing to which, when mixed with six times their volume of water, they are yet as dark as any Burgundy wines.

The finest *Roussillon* wines are full-bodied, very firm, solid, strong in alcohol, and can stand any journey or any variations of temperature. Strange to say, it is deemed necessary to strengthen them again with very inferior and grain spirits, and to increase their thickness by the addition of plaster.

The ordinary wines of Roussillon should be allowed to appear everywhere in the world in their own name; and I am glad to say that members of the Bordeaux jury, and some leading merchants of that city, including the head of the firm Nathaniel Johnston, spoke to the Honorable F. M. Darley of new wines of 1882, sent in bulk by Mr. Fallon, of Albury, as realizing in every particular the qualities of the best *Roussillon* wines, and prophesied a very good future for them on European markets, if sent in quantities large and regular enough to be depended upon year after year, not however for general use in their natural state, for alimentary purposes, unless when blended with inferior wines of Burgundy or Bordeaux, or else in small quantities as is done for good liqueurs wines.

The climate of the old province of Roussillon is somewhat warmer, although very much like that of the neighbouring districts of Gard, Hérault, and Aude. It helps to produce wines far more generous, sweeter, more coloured, and much more lasting, and generally fetching a higher price.

The ground is formed of red calcareous strata, and, as a rule, less favourable than that of the Hérault to the fertility of the wines, which are found growing in terraces on numbers of small round hills or undulating country, which renders its cultivation rather complicated; each terrace has to be supported by small walls, which are not always sufficient to retain the earth, and put one in mind also of the *Ermitage* growths in the valley of the Rhône.

There are also vineyards existing in the flats, on alluvial and schistous soil, where some liqueurs wines of good fame are also obtained.

The species cultivated are the *Black Grenache* and the *Carignane*, with the *Black Picpoule*, *Mataro*, *Malvoisie* and *Clairette*. The *Aramon* has been given up as giving wines too watery, too poor of alcohol, colour, and body.

The vineyards of Rivesaltès and of Banyuls for liquorous wines, and those of Perpignan for ordinary wines, must be taken as types of all Roussillons; there are some slight differences in the several ways of cultivating the vines in each, but the wine-making process does not differ to any great extent.

In the territory of Banyuls, no preliminary breaking of the ground by ploughing is deemed necessary; to dig it more than a few inches would even be considered as likely to delay the production of the new vines. These are mere cuttings planted as deeply as 18 inches, and then well secured with some good soil round it without any manure. The trees are planted in each direction at $3\frac{1}{2}$ feet from each other. During the first and second years the ground is tilled four times, starting after the plantations, which generally are made in December; the second tilling is proceeded with in March, the third just before, and the fourth immediately after, the vintage seasons. From the third year of plantation, two tillings, one in January the other in April, are considered as sufficient.

When any vine has decayed and must be replaced it is done, as a rule, by sinking some branch of one of the nearest trees, as already described; it is not usual to plant a new cutting, or to graft, except on trees of inferior quality, and this grafting is done just before the sap is about to push out the new leaves.

The vines are dressed on three arms; the pruning takes place from November, as late as April, and is done to two eyes. No pinching, nipping, or cutting down are resorted to, and the vines are always left without stakes.

The vines are bearing fruit as early as from their third year, but more generally from the fourth; by their seventh year they are in full bearing.

The vintage takes place early in October, the vineyards on the hills giving 250 gallons per acre, those on the flats giving as many as 500.

For the ordinary Banyul wines, the grapes are crushed with the feet as soon as brought from the vineyard, and then allowed to ferment in the vats with their stalks. The fermentation goes on in open vats, and the *must* is left in them for fully forty days when in large vats, and only twenty days when in small ones. The new wines are then left in open vessels until the following March, when they are racked, and treated henceforth as finished wines would be anywhere else.

The *Grenache* wines are made with no other species of grapes than the one of that name. The grapes are not crushed but passed at once through the wine-press, and no fermentation is permitted, but the juice lodged immediately in new casks, with an addition of half a gallon of common brandy per 22 gallons. A fortnight later, the wine is racked, and subsequent rackings must take place at different times for the first six months. The *Grenache* wines are not considered perfectly clear and limpid until they have been over ten years in casks, when they have acquired a peculiar taste called *rancio*, meaning a sweet and perfumed after-taste.

At Rivesaltès, the ground for a new vineyard is always well ploughed, and the new vines planted in January or February. The cuttings from the year are planted without any roots, to a depth of 18 inches, always without manure. The ground is tilled four times a year for the first and second years; twice only in subsequent years, between March and December. If the grounds are ploughed, some small holes are made round the foot of each vine tree to receive as much water or dew as possible to refresh the ground, a practice which is found pretty well all over the southern districts of France, and in Spain also. These holes are thus left until July, and then filled up with the earth next to them, or better, with earth brought from another part of the vineyard. This is the only way of manuring adopted by the growers of these districts.

From its fourth year, the vine is dressed to grow with four branches or more, and pruned between December and March, to two eyes, or occasionally to three eyes.

The vintage takes place usually at the later part of September, but does not extend over to October, and gives, as a rule, no more than 125 gallons per acre.

The grapes are crushed and vatted with the stalks, and left fully a month in the fermentation vats if very dark wines are desired; for less coloured wines, the vating of fourteen days is considered enough, but in both cases some plaster of Paris is added, although no one could be found to say that it was indispensable. These southern wines are so strong that they keep perfectly well for any length of time without receiving any attention; but it must be said also that they are not used by themselves but always as blending wines, and never otherwise: their value is accordingly very low, for at twelve months they were sold at a little below 10s. per 22 gallons, before the *Phylloxera* rendered them somewhat scarce thus contributing to raise them now at their present value of 30s. to 40s. per hectolitre.

The territory of Perpignan produces very useful wines also, with a level ground, silico, argillaceous, and also calcareous, covered with rolled pebbles, and exposed to a great sunny heat. The species of vines cultivated there are the same as in any other part of the district, and the processes of cultivation and vinification much after the same style.

The vintage takes place as late as the middle of October, giving sometimes as little as 60 gallons of wine per acre; the vating lasts from twenty-five to thirty-five days. The red wines are kept in casks, and racked very frequently to reduce their bouquet and their alcoholic strength, if they are intended to grow old; the white wines, somewhat sweet, are bottled as early as the month of March following their vintage, but the wines of that district did not fetch, when six years old, more than 20s. per 22 gallons before the invasion of the *Phylloxera*, since which they are now quoted fully 40s. per hectolitre.

These several southern districts of France are those which, at the present moment, and in the immediate future, have the most to fear from the competition of Australian wines, if these were produced in any large quantities.

As long as our Colonial growers will persevere in their present ways and means they cannot expect, or at least, the great majority of them, should not labour under the delusion that they will do much better wines than those they make now, and which, although somewhat better, still are ranked by the French experts in that second-class of ordinary wines, including the Southern French wines. I must say that so far as I have had opportunities to judge, with the exception of the local training of our vines, all the other Colonial processes of wine-making are just on the same level, or about so, as those of the south of France; the consequence is that the produce must be, and actually is, of the same description, and therefore will not fetch higher prices than those now to be obtained and already quoted.

From my visit to the vineyards of the Aude, and of the Hérault, the two points which I would recommend to the adoption of Colonial growers, especially those with limited means and of limited experience, would be (1) the training and pruning methods for their vines, which will prove much cheaper and simpler, saving the costs of stakes and wires at least; (2) the heating or pasteurizing of every Colonial red wine, as soon as practicable after vintage, thus securing themselves against most risks of alteration or damages. This heating process might also be well adopted by our best growers, but they could dispense with it, if they would adopt the same careful and expensive modes of treating their vines and wines as are in favour with the people of the Médoc, St. Emilion, Graves, and Sauternes territories, in the Bordeaux districts.

Colonial growers may depend upon getting very high prices for their wines from French people when they will send them wines deserving it; it entirely remains with themselves alone to do so. Personally, I have an absolute faith that before many more years have elapsed, our best Colonial wines will leave far behind them, the Southern wines of France, and rivalize with certain and well-known growths of Burgundy, Graves, Palus, and Libourne, provided always there is no delay in investing the necessary capital, and spending the required amount of work and attention.

By the low commercial value of the inferior and blending wines of the south of France, Colonial growers may judge for themselves that it cannot pay them to grow no better wines, and this question of pecuniary interest, together with the knowledge that they have the means of producing better and getting a higher name for Australian wines than that enjoyed by French wines of the southern districts, should prove sufficient inducements to Colonial capitalists for giving full scope to the Colonial wine-making, and bring it to its proper rank amongst the Australian industries.

VINS DE LIQUEURS.

The *Liqueurs wines* of France are exclusively produced by the few southern districts, to the vineyards of which this report has just been alluding.

These Liqueurs wines are: (1) the *Muscats* of *Frontignan*, of *Lunel*, of *Espagnac*; and (2) the *Muscats* and *Malvoisies* of *Rivesaltes*.

These wines are to the districts of Hérault, and of the Pyrénées-Orientales, what the *Médoc*, the *Cote-d'Or*, and the *Ay* are to the districts of Burgundy, of Bordeaux, and of Champagne. These liquorous wines cannot be so far, and at all events are not actually produced anywhere else in the world, for to succeed in the making of them it is not enough to be a good œnologist; the grape's juice must further have been converted through natural heat into an exquisite liquor. Before the grapes are brought to the wine-presses they must have become gradually ripe under a burning sun; each berry must be roasted and condensed to such an extent that when vintage comes, they hold none but matter so sweet and sugared as to stick in the throat, and to require a most energetic and crushing pressure to be extracted from the skins; under such conditions only, is a truly good Muscat wine to be obtained, and if it can be done so successfully in the south of France, surely it can also be done in the bright and sunny land in which we live.

The Hérault's vineyards, exclusively consecrated to the production of *Muscat* wine, under the name of *Frontignan*, are situated mostly on small hillocks or undulated country, on a calcareous soil, mixed with oxide of iron and rolled pebbles.

Two varieties of vines only are cultivated there, *the red and the white muscat*, their color being the only difference between them.

Before planting a vineyard, in the territory of *Frontignan*, it is usual to let the land selected for it rest a few years without any production whatever. The ground is then broken and ploughed to fully 18 inches deep. Holes, deep to the same extent and about 12 inches wide, are then made to receive the new plants, at a distance of 4 or 5 feet from each other, as well as between the lines. No manuring is resorted to until the second or third year after plantation, and the manure used is exclusively that of stables or dairies

During

During the first two years, the new trees are constantly attended, and the ground tilled not less than four times, and even six times. When the vine is three years old, it is trained upon three arms, and then pruned between November and February, to two eyes. Should any tree require being replaced, it is done by sinking one or two of the best branches of the nearest tree, and laying it in the soil. Once the pruning is over, the ground is tilled three times by hand until June. Some growers will nip superfluous buds about April or early in May. The cutting down of the highest shoots is seldom resorted to, and then only to hasten maturation. The new plantations of *Muscat* will generally bear fruit when four years old, but will be found in their fullest strength when twenty years old and even more. The older the tree, the better is the *Muscat* wine.

The grapes are generally ripe about the 15th of October at the latest; but no vintage takes place until the berries are paunchy and converted by the sun almost to dried raisins. They are then collected, crushed by feet, and taken to the wine-press, where the remainder of the juice is extracted.

The *Red Muscat* is vatted without any stalks, for a period varying from twenty-four to forty-eight hours, and the *must* lodged into new casks, in which a sulphured wick has been previously burned. As long as the wine ferments in the casks, the bung-holes are left open, and the casks are not filled up.

A first racking is made about three weeks after the vintage, a second one three weeks later, and a third one, one month after the second. These three rackings are enough, as a rule, to clear the wine of its lees, and stop fermentation. Another month after the third racking, a fourth and last one takes place, and is followed by sizing and fining with gelatine. The *Muscat* wine thus made, may be bottled eight or ten months after vintage.

The *White Muscat* is cultivated and treated as the red, with the only exception that the *White Muscat* is never vatted at all, but is pressed at once with its stalks when coming from the vineyard.

As may well be understood, the production of such wines is very small indeed comparatively with the other and commoner wines of the district. It is reckoned that not more than 60 gallons are obtained per acre, and the market value is now about £20 per hogshead of 50 gallons, a price which, of course increases with the age of the wine.

On the territory of *Lunel* the ground is argilo-calcareous, stony, and somewhat undulated, with a southern aspect.

The *White Muscat* is mostly cultivated alone. Before plantation the ground is broken and ploughed; the plantation takes place by rooted slips, from December to February, in rows distant about 6 feet in each direction. No manure is given at the time, but during the two first years the vineyard is ploughed four times a year. At the third year the vines are trained to three or four arms, according to their apparent strength, and pruned in January or February to two or three eyes. If any renewing of decayed vines has to be made, it is done before pruning time.

When the pruning is completed, the vineyard is always ploughed, and then no less than three times a year; once before the buds are out, once after the vine is flowering; and once again shortly before maturation of the grapes. These various ploughings are not made all in the same direction, but crossways. After the first ploughing, round holes are made at the foot of each tree.

The new vines may give fruits at the end of their third year, but they are ten years old before being in full bearing, and will last so fully thirty years.

The vintage takes place in the third or fourth week of October; not all at once, but only of such grapes as are perfectly ripe.

The bunches collected are not stalked, and from the wine-press, the juice is at once taken into casks, and racked at the end of the first month after vintage; the bung-holes are left open until the following March, when there is no more fermentation to fear, and the wine is well cleared of its lees; a second racking is then resorted to, and again in September for the first two years; but the wine is always bottled when three years old.

The *Muscats*, red and white, of *Espagnac*, are obtained exactly as those of Frontignan and Lunel; the commercial value of all these wines is about alike, and is rather increasing as the *Phylloxera* has considerably reduced the previous production. It must be said further, that the growers are inclined to grow other wines, which can be obtained in greater abundance, with less work and expense, although sold at a much lower rate.

Colonial growers should take notice of such disposition, and direct their attention to the production of such fine liquorous wines, which ought to be easily obtained in the vineyards of Port Macquarie, and others near the northern coast of N.S. Wales, as far as the borders of Queensland, and even as far as Brisbane.

The *Muscat* grape, grown at Rivesaltes, is slightly different of the one cultivated at Frontignan; in addition to that species, two others, the *Maccabeo* and the *Malvoisie* are found on this territory, and not mixed with those others intended for commoner wines, on the same properties; the systems of training and pruning them are however similar, with this only difference that on each plant, a branch of the year is left about 18 in. long, for the bearing of the fruits, whilst the other pruned branches give vegetation only.

The Rivesaltes *Muscat* wine is obtained from the *Muscat* grapes, left on the vine-tree, or laid upon screens, exposed to the sun, until the skin of the berries is quite shrivelled, and until these look as dried raisins; these grapes are then passed through a grape's-mill without stalking them, and then taken into the wine-press. The *must* thus obtained shows as many as 25° Baumé; it is nothing else than a thick syrup, and is left alone in new or old casks well cleaved. These casks do not require being kept filled up, but when the fermentation appears very slow or over, the wine is then racked; when it reaches its second year, this wine becomes more limpid, and its fine qualities go on developing themselves year by year, until it is ten years old; it is then quite fit for consumption.

The wines from the *Maccabeo* and the *Malvoisie* are made somewhat differently, both from the *Muscat* and from each other. Their grapes are cut when they reach the normal state of maturity; the *Maccabeo* is then crushed and pressed, and heated until boiling; the juice is allowed to cool, and then lodged into casks, with an addition of low brandy; this wine is now racked once a month until the following March, and afterwards kept in wood for any time.

The *Malvoisie* grapes are carefully brought from the vineyard to the wine-press; the juice is lodged into casks with an addition of low brandy, and left to ferment as long as it will do so; when fermentation is over, the wine is racked and fortified again with spirit, and during its first year, it is racked twice before the following vintage; it may then be left in wood without any further care.

A dry wine is sometimes made with the Malvoisie grapes, by vating it without stalks, for a period of five or six days, and then treating it as any ordinary red wine.

The total production is very limited, although there is a good and constant demand for them, from every part of Europe; they constitute a fine dessert wine, and the *Muscat de Frontignan* especially is considered as a rival of the liquorous *Constancia* wine from the Cape of Good Hope.

There is again another French dessert or liquor wine, already mentioned, and of which some particulars must be given here as likely to be useful to colonists.

I refer to the *Tokai-Princesse*, grown and produced in the district of Gard. The special species which gives it, is the Hungarian white plant *Furmint*, from which the *Royal Tokay* is obtained; the soil where it is grown is calcareous, siliceous, somewhat ferruginous, and mixed with rolled pebbles, having a southern aspect.

The cultivation is the same as that of all others species of the district, and the grapes are of very early maturation, whilst in their native place they are almost green in November. The vintage is made early in October, when some of the berries are also paunched. These are collected separately in a small bag, and thus well crushed, their juice giving the perfume peculiar to the *Tokay* wine.

The other part of the grapes, which is the mass, is treated like those intended for any other good white wine; they are first crushed by feet to get their first juice, and then submitted to a most powerful pressing by machinery, absolutely necessary for the extraction of every drop of the intimate liquor yet secreted in them.

The *must* thus obtained, as it drops from the wine-press, is lodged in a new oak cask, within which as many sulphured wicks as could burn in it have been so burned to fill it up with sulphurous gas; once filled up with the *must*, the bung is tightly fixed and the cask left at rest for three or four days. Through this process no fermentation takes place owing to the sulphur in the cask, the whole of the lees or other matters foreign to the *must* are precipitated together at the bottom, and the wine may then be racked perfectly clear, and placed into another cask with the addition of a small glass of good brandy.

This wine keeps very well, and for many years; during the two first years it is racked twice, a first time about Spring time, and a second time during the Autumn; subsequently it is racked once a year only.

As limpness is a quality indispensable to a white wine for French consumers, these rackings are not considered as sufficient to give it to this wine, and to better secure it, several sizings and finings are resorted to at such periods as the *Maitre de Chai* deems proper. The older is the wine, the better it tastes, and it must fully be ten years old before being fit to be appreciated; its value then is never less than 10s. or 12s. per bottle, but the quantity available is always very limited, and in spite of all care the quality is not equal to that of the Imperial and Royal Tokay of Austria-Hungary.

The climate of this Colony is so warm and dry that there could be no difficulty in growing successfully the several wine grapes mentioned, one of these, the *Muscat*, being already easily obtainable from many Colonial vineyards actually existing.

I am not aware than any one of our Colonial growers, or any other in Australia, has made it a speciality of making liquorous wines of the above description as those from the south of France; but it should certainly be undertaken, and if well conducted after the methods above described, must secure good remuneration.

There is again a special kind of liqueurs wines, more generally known under the name of *burnt*, *cooked*, or *boiled wines*, now produced in less quantity than in former times in the south of France.

These boiled wines have been submitted to every degree of fermentation like all others; but subsequently, their concentrated grape's juice has been mixed in certain proportions with brandy and spices.

For making these wines, the finest, best smelling, and most ripe berries of *Malvoisie* and *Muscat* are collected during the warmest hours of the day only, so that they may be entirely freed from dew or any dampness; these are taken with great precautions on screens, and there left for five or six days exposed to the sun; on the sixth day they are crushed and vatted in the same way as any other vintage, and allowed to ferment for four or five days only. The *must* is then removed from the vat by the upper part so as to take none but the most clear juice, and left in a boiler under which a bright clear fire is constantly burning.

This juice must be boiled until reduced to one-third of its original volume, carefully skimmed and lodged in new clean casks, which, when the wine has cooled, are tightly closed; at the time of its boiling some good strong brandy, and such spices as aniseed, coriander, cinnamon, are mixed with it in moderate quantities, but proportionate to that of the wine, and the whole is thus left undisturbed for four months. Immediately after winter, these wines are racked, filtered, and bottled; they have an agreeable amber transparency, are somewhat strong, yet delicate and pleasant to the palate; and often sold as *Malaga* wines, of which they are more than an imitation, as will be seen by reference to my report upon the liqueurs wines of Spain.

WINES MADE FROM RAISINS or dried grapes.

In the same southern districts of France, and in many others, as also in Paris itself, there is another description of inferior wine upon which I must say a few words.

I beg to say at once, that such a process as the one now under report, should not receive any encouragement in countries where good natural new wines may be obtained, as the result of this new manufacture is little more than a *piquette* or small wine just above the degree of acidity which would classify it amongst sour wines, but it may do some good to our Colonial wine industry as it must show to Colonial growers that there must really exist a great want of something to drink under the name of wine in Europe, when people there, and I may say, the mass of the people with limited means, are found to accept it to such an extent as to induce others to bring out a liquid as the one referred to for consumption, and for sale in competition with natural wines.

The recent and constant deficiencies of the French vintages have given to the fabrication of the dried grape's wines an impulsion always increasing and which can have no other limits than the quantity of currants to be produced every year by the limited vineyards of Greece.

It is thus that in 1875, the importation of Greek currants in France was merely attaining 8,220,000 kilogrammes, whilst for the first six months of 1881 it reached 35,752,000 kilogrammes.

In

In the neighbourhood of Paris, at Marseilles, and various other places, there are centres of production of such wines, and the process is as follows:—

One hundred kilogrammes, or a little more than two hundred English pounds weight, of dried raisins or rather currants, are placed in a fermentation vat, after having been previously crushed through a cylinder or grape-mill; on these currants, eighty kilogrammes of distilled or even ordinary fresh water are thrown, and the whole mass is kept by steam at a temperature of 25° and 30° centigrades. After two days the fermentation being over, the liquid is drawn off, and eighty more kilogrammes of hot water at 30° centigrades are added upon the husks; these are drawn off also shortly after and mixed with the first juice. This fermented liquid is found to contain 7 per cent. of alcohol per Gay-Lussac alcoholmeter or 12°·2 o.p. per Sykes. This alcoholic strength may be increased by reducing the quantity of water, or by what is more generally the case, by an addition of low spirit of wine, or of grain.

If this liquid was sold for what it is, nothing could be said by the purchaser, but, unfortunately, the dried grapes *piquettes* are blended by half or a little more than by half, with the strongest and most astringent red wines of the south of France or of Spain, and after being sized and filtered, are sold as natural blending wines, and with some more refined industry, a quantity finds its way for exportation to distant countries under more pretentious names.

The General Syndicate of the wine trade of France has protested most energetically against the abuses resulting from that industry. The Courts of Law have passed numerous severe verdicts, and I was personally present at a regional meeting of the wine-growers of the Hérault at Montpellier, when strong comments and bitter criticisms were freely indulged in by every one present against the manufacturers of dried grapes wines, accusing them of damaging and ruining the honest and genuine wine industry of France to an irreparable extent. A resolution was even adopted and transmitted to the representative of the Government, asking that high duties and other steps be adopted by the Republic to prevent the development in France of the manufacture of these wines.

It is to be feared that, if the manufacturers are not interfered with, these currants wines will become more and more introduced in the trade, inferior and worthless as they are, for it is estimated that the production of currants in Greece and Minor Asia attains the figure of 225,000 tons per year, from which as many as 27,000,000 gallons of wines may be obtained, weighing fully 15° of alcohol per Sykes. The only remedy against such a damaging production would be a homœopathic invasion of the *Phylloxera* amongst the vineyards which contribute so much to damage the good name of the vine-tree and of its juice.

As however, it is an ill-wind which blows good to no one, it may be said that Australia should come at once to the rescue, by planting numerous large vineyards over its territories and produce natural wines which will be gladly welcomed by all the civilized people who have been brought up to appreciate this only healthy and beneficent beverage.

SPARKLING WINES OF CHAMPAGNE.

The District or Department of the Marne is the only one in France producing the renowned and celebrated French sparkling wines of Champagne. This district is in the north-eastern portion of France, between Paris and the German Border on the Rhine. The wines produced, include ordinary red and white wines, which as such do not possess either high or many acknowledged merits outside of their respective territories. The territories of Epernay, Ay, Dizy, Mareuil, Sillery, Bouzy, Cramant, Rilly, and Rheims, monopolizes the speciality of the famous Champagne vineyards. Their total production is, however limited, and never exceeded 10,120,000 gallons, a large proportion of which is not utilized for the preparation of sparkling wines.

The Hill of Rheims, and especially the Clos Saint-Thierry, one of those vineyards which I visited, produce red wines which have the colour and the bouquet of the best wines of Burgundy, and yet have the peculiar lightness of the Champagne wines, notwithstanding their alcoholic strength. The white wines considered as of the highest qualities are those grown near the villages or small towns of Ay, Mareuil, Dizy, and Sillery; those wines are very refined, light, and pleasant.

It must be said that the Champagne *still* wines, possess the advantage of maturing so much sooner than those of other parts of France, that both red and white are fit for bottling when two years old, and will keep good for eight and ten years.

The vineyards of Champagne are mostly on calcareous and lime substrata, recovered with a thin layer of vegetable ground; sand and *argile* are also included, but in small proportions, in the geological formation of the territories, as well as oxide of iron.

The black or red species in favour, are exclusively the *Franc* or *True Pineau*, the *Vert-Doré*, the *Grey Pineau*, these two last in the proportion of a tenth in some renowned growths, also the *Meunier* and *Gouais*, these two for inferior wines, and the *Epinette* or *Chardenay* sometimes called *White Pineau*.

The grounds intended for vine plantations, always on the slopes of hills, are first broken to a depth of 2 feet; holes about 1 foot deep are then made to receive the plants, which have generally been previously trained in a nursery or vinery for two or three years. These new trees are placed at about 2 feet from each other, in rows separated by nearly 3 feet; the plantation takes place from November to March.

The regularity of a new plantation is not retained very long, for the system of sinking the vines every year has soon destroyed any appearance of symmetry; the new vineyard is weeded four times, in May, June, July, and September, by hand hoe. The following year, first after date of plantation, the plants are pruned to one eye only, or two if very vigorous, and the ground is weeded again in March.

At the end of the second year, it is not uncommon for new branches or spurs to have grown strong enough to be used at once for sinking purposes and extend the number of vines; this, however, is always done fully by the third year. At such time, plenty of manure is provided to all the layers in the trenches dug for receiving them; all work for the tilling of the ground is done by hand; the ploughs have not yet been introduced, and cannot well be used in vineyards which are not planted in regular lines, but as it is called, *in crowds* or *foule*. The principle of the training is to keep the vines rather low, on stakes not more than 2 feet high, but as a rule limited to 1 foot, or very little more, the consequence being that spring frosts are very much dreaded, and cause much damage when they occur; yet it has been customary to train it in that way for past centuries, and it is feared the vines would not be so successful if the vines were trained differently, so that no change is attempted in that direction.

After

After pruning is over, the ground is dug about March or April, and in some parts of the district growers actually cover most of the vine with earth, so as to protect it against inclemency of the weather. Early in May, the stakes are fixed about the vineyards, and as soon as the shoots begin to appear, the ground is weeded again during May or June.

Towards the end of June, and early in July, all the superfluous buds are nipped, the tendrils pinched, and the vines tied together. During the month of August no attendance is considered as required by the vines, and people avoid walking through them.

In September, new pinching and nipping are made if deemed necessary, and the whole ground is carefully tilled and the grapes cleared from the soil to reach maturation.

The vintage usually takes place about the third week of September, and should not be delayed later than the first week of October. If grapes have not attained full maturity before then, the year is considered as a bad one. Immediately the vintage is over, the stakes are removed from the vines and stored about the ground in triangular piles. From November to December, the weeds are again removed, and the soil, which may have fallen down to the foot of the hills, is taken up and brought back to the various spots wherefrom it is found missing, which is always a very important work, especially after years during which much rain has fallen. From January to December, manure is spread about the vineyards, and after a week or two, pruning and sinking of the vines is again carried on as described, until the end of April, when the series of operations above mentioned is started again.

The making of Champagne wines, especially those for sparkling, is nothing short of a special industry to which most of the wine-growers and dressers are generally perfect strangers. These merely provide the raw material to the owners of cellars, who then attend to the numerous and delicate operations intended to transform the natural wines into the well-known liquor.

The red wines of Champagne have become very scarce owing to the almost exclusive demand for white wines, which are made, however, with black and white grapes in certain proportions.

From the vineyard, the grapes are brought at once to the wine-press, great care being taken during the transit to avoid any beginning of fermentation. The red or black grapes are the more numerous, and considered as giving wines full bodied and stronger, although not so light, refined, or likely to become sparkling as the white. They are, however, mixed in the proportion of one-fourth of white grapes to three-fourths of red, and thus a far superior wine is obtained to any which a single species would give.

The wine-presses used in Champagne are very powerful machines, and so made as to act very quickly and most energetically to prevent any starting of fermentation, as this would unavoidably damage or spot the wine. The grapes are pressed several times successively according to the quality, sweetness, transparency, and firmness of the first must. The three first pressures, and sometimes the fourth one, constitute the best wines. The juice subsequently obtained is not actually red, yet already so impregnated with the colouring matter of the skins that it is not considered of any use for white wines, but merely utilised for small and cheap wines intended for immediate consumption amongst country people, as otherwise it would not keep longer than twelve months.

The *must* running from the wine-press is first lodged into large vats for about twenty-four hours, in order to allow the heaviest dregs to separate themselves from it and remain at the bottom. As soon, however, as any husks are seen to float on the surface, the wine is racked and placed into casks previously well sulphured in the usual manner.

The new wines ferment in these casks for a period from two to three months. If the *must* is very rich in sugar, the fermentation is much longer than if the grapes had not reached the fullest maturation at the time of vintage.

In the latter part of December, a racking is resorted to, whatever may be the condition of the atmosphere or of the weather at the time, and immediately after, the necessary general blending takes place amongst the various wines from the several territories of Champagne. It is known that the wines from the Hill of Rheims bring body and firmness; those from the Valley of the Marne contribute softness; those from the slopes of Avize give whiteness, lightness, and much readiness to froth or sparkle. Again, a mixture of wines from the territories of Billery, Verzenay, Bouzy, Marcuil, and Dizy, or another of the wines from Ay, Pierry, and Cramant will constitute the Champagne wines *par excellence*.

Each of these single growths would not give any satisfaction by itself, but their produces, properly blended, complete each other. There is no well defined precise rules for the proportions to be observed. Each grower uses his own judgment and acts according to the requirements special to the countries or people with whom he more particularly deals.

There is, however, a strict rule observed at every cellar. It is to exclude from the blendings any wine which happens to be tainted with the slightest earthy taste, or which is not absolutely neutral in colour.

The casks containing the newly blended wines are kept in a building moderately warm—say about 75° Fahrenheit—and there the wines are sized and fined and racked again, sometimes not less than three or four times, according to their state of limpidity, within the first three or four months of the year following their vintage.

About May the new wines recognized as sound are bottled; the bottles are carefully examined one by one before being filled up, so that their solidity and regularity as to shape and contents are strictly found correct. At this time, a small quantity of sugared wine is by most growers introduced in each bottle, unless new sweet wine has been mixed beforehand in the casks from which the bottles are filled; the bottles are then brought down to a lower cellar, where the temperature is somewhat moderated, so that the fermentation inside them do not break them through too much heat, and so that the formation of froth be not interfered with through too much cold. The froth is the result of the carbonic acid gas produced by the fermentation, which has originated in casks and is continued in the bottles.

About six or eight months later, or even twelve months only after this bottling, deposits should be seen inside each bottle, indicating that the effervescing cause of the wine is constituted; the bottles must then be removed to a lower and cooler cave, and then placed on inclined stands in the shape of an A. They are first laid down horizontally; subsequently they are slightly inclined, the cork downwards, until they reach an almost vertical position. Each time these bottles are so inclined, by degrees from an horizontal to a vertical position, they are shaken halfway round from right to left, and back from left to right. This is done every day, until the bottles are vertical, or nearly so, and it takes generally three weeks to bring them to that position; by that time the various shakings of the bottles, and their constantly inclined position,

position, corks turned downwards, have caused a deposit to be formed on the corks near the mouths of the bottles. The wines are then very clear, but dry and acid, and they require to be freed from this deposit. For that purpose, each bottle is carefully taken from the stands in its vertical position, cork downwards, by a skilled workman, who quickly removes the cork and allows the deposit, with a small quantity of wine, to run away. The bottle is thus *dégorgée*, or cleared from its last lees; it holds nothing else than a perfect and limpid liquid, and must now be filled up again, as at the time of bottling.

This filling up can only be done with the liquor special to each firm, and prepared in accordance with the requirements of their particular trade; it is in fact in that liquor that lies the cause of success of any mark. It is always made with a dry white wine of the best quality, a quantity of good sugar-candy, and a small addition of very good cognac, ten years old at least. This last is the only one of which the proportion varies, ranging from 8 to 18 per cent., according to the prevailing taste in the countries for which the wine is intended. In France the Champagne wines are expected to be neither too alcoholic, neither too sweet, and for such trade the liqueur added to the wine contains not more than 12 per cent. of cognac; whilst for Spain, Italy, or Southern America, where the Champagne wine must be sweet, it contains only 8 per cent. of the liqueur; but for England, Russia, and the United States, where the taste for strong drinks prevails, the Champagne wine receives a liqueur of fully 18 per cent. of cognac. These wines thus prepared are called *Crémant*, *sweet*, and *dry*.

It would never do to fill the bottles otherwise than within the maximum and minimum proportions indicated, as with too much liquor the bottles may break, and with too little, the required degree of sparkling would not be obtained.

After this last preparation the wines are tightly corked, and kept for a few months or weeks in temperately warm stores. If no leakage is detected, through defective corks or otherwise, the labelling and packing takes place as the wines have to be sent away. As a rule no wines are placed on the market or exported until fully two years old at the least.

The Champagne wine merchants have to exercise much discrimination in the purchase and employment of the bottles and corks required by their industry. The bottles are calculated to hold a quart of wine, and must be made free of such chemical acids which would cause breaking of the glass or spoil the contents. Bottles which are not perfectly smooth inside are likely to retain some of the deposit on their inside surface, and thus prevent the wine getting perfectly clear. The opening must also be very regular, or difficulties are experienced for the quick overflow of this deposit, and must cause a much greater loss of wine than is necessary.

As to the corks, they must be sound, rather larger than the bottles, and not too hard or too soft; as in the first case they break the bottles, in the second they permit leakages. They must be always free of any previous taste, and, especially after the cleaning of the bottles, before the liqueur is put in, these corks must be always absolutely new.

For the conservation of these fermenting wines, special cellars are indispensable. The geological formation of the district of Marne is peculiarly favourable to these, owing to its calcareous substratum. In this, caves two or three stories high, and fully several miles in length, are dug, and found well-adapted as their temperature is always maintaining itself at 55 to 65 degrees Fahrenheit. Nowhere else in France are so magnificent and extensive caves to be seen.

No sign of the *Phylloxera* has so far been detected in any part of Champagne, although it has reached Burgundy, which is next to Champagne. It is presumed that the nature of the soil and the dampness of the climate will prevent its progress in that part of France. I sincerely hope it will be so, for however painful it is to see the magnificent southern district of France ruined and devastated, there is yet a hope that the wines they used to produce may be reproduced by some other more fortunate country, either of the old or of the new world, including Australia. But if Champagne was to be invaded and suffer to the same extent as the districts of Hérault and of the Charente, for instance, no other country in the world, under the same or any other latitude, is known to possess the same capabilities of producing similar great and refined wines, and the loss would then be irreparable for the district, and for France, and for the whole world.

The sparkling wines of Champagne are divided into five classes, as follows:—

1. The *grand mousseux* or highest sparkling.
2. The *mousseux ordinaire* or ordinary sparkling.
3. The *demi-mousseux*, or *crémant*, or half sparkling.
4. The *non-mousseux*, or still wine.
5. The *Tisane de Champagne*.

The highest sparkling wine is that which, when poured out, from the lower part to the top of the glass is white with a thick froth, and necessarily very light.

The ordinary sparkling wine does the same, but to a less extent, and is always more heady than the first.

The *crémant* is the very best quality of Champagne wine, and hardly any other is ever asked for on the continent, or especially in France. This wine sparkles very little, and the light froth at the top of the glass is soon evaporated. It is considered as the finest, the most delicate, and is the most expensive of Champagne wines. It is rarely sold before it has been kept four years in bottle, so that it is fully six years old before it is fit for market or consumption.

The highest and the ordinary sparkling are considered finished after their third year in bottle, and if well made from the first will keep perfect for ten or twelve years.

The *Tisane* is a light small wine, very agreeable, and rather sweet than vinous. Its value is about the half of the *crémant* wine, and it is generally sent away a few months after being bottled.

The best *Tisanes* are used for sparkling wines of second quality; the second and lower *Tisanes* constitute the fifth and other inferior classes.

The *still Champagne wines* are either red or white, and made in the usual manner for ordinary wines, with this difference that some liqueur is added to them at some racking time, and then allowed to rest for some length of time.

There is also a variety of Champagne sparkling wine which is made slightly colored, with a small addition of red wine. This, however, is not generally found in trade, and must be, as a rule, specially ordered.

The total quantity of Champagne sparkling wine exported in bottles is reckoned to be not less than 35,000,000, as an average for the last several years, in addition to which, fully 10,000,000 of bottles are used for consumption in France. The

The wines of Champagne, to be properly appreciated, must be drunk only at the latter part of meals, or shortly after. They are reckoned to be very healthy and digestive. Reasonable quantities may be absorbed by aged and weak people without any inconvenience and danger, under such circumstances; but drunk at any other time is almost a profanation, and can only be done by people whose taste and custom for strong drinks have almost annihilated the faculty of enjoying a really good, cheerful, and cheering beverage.

Independently of the true, good, genuine Champagne sparkling wines, many other sparkling wines are manufactured in several parts of Europe and fraudulently exported under an assumed name, to distant parts of the world, where no means of control are supposed to exist, and whose people are considered of so good nature as to justify any imposition being made upon them.

It may be that the sparkling wines thus fraudulently exported under assumed names answer the purpose and give satisfaction. Would it not be better and more honest then to ship them for what they are, under their own names? Unfortunately, if such was the case, people would not be found so willing to pay the high prices which are actually fetched by these imitations.

The cost of production of the wines of Champagne can hardly be given with any fixity; the raw material itself has within the last few years attained very high figures owing to the constant increase of the demand, but not in consequence of any scarcity of labour or of production; it may, however, be said that the expenses per acre are about £20 to £25, whilst those per bottle may be valued at about one to two shillings in addition, until the wine is ready for *expedition*; the best qualities of wine would of course require extra care and more skilled attention, for which higher cost would naturally follow.

In 1882 and 1883 some new wines of the best territories of the Marne were freely sold at £150 per tun of 200 gallons. Lower wines would of course be obtained at much smaller figures, but it may be reckoned that at the present time, no passable good Champagne sparkling wine, with any pretensions to quality, can be obtained under 3s. per bottle in cases delivered at Rheims or Epernay ready for shipment; this with the Colonial duty added at the rate of 10s. per gallon, equal to 30s. per case of 12 quarts, and the freight and accessory expenses from Europe to Sydney, would bring the wholesale cost here at about 8s. per bottle, or fully £6 per case retailed; this let it be well understood for wines of very common quality. High wines of any merit could not be had under 4s. or 5s. per bottle in Rheims or Epernay; certain marks ranking amongst the highest, would not be found at anything nearing such low figures, so that their value when reaching Sydney would be so much increased that very few people indeed would be found willing to pay as much money for such wine, however good.

For exportation purposes, however, the Champagne wine merchants have had to provide wines of an inferior type, which, with the exception of the sparkling or froth, cannot be considered as belonging to Champagne wines proper. Competition has also had for effect to reduce these doubtful produces at very low prices, and thus sparkling wines are now constantly exported from France and other countries under the name of Champagne wines, at a very low cost to the original exporters, whatever may be the price given for them by the consumers whose taste they please. High Customs duties are much in the way of the importation of good and true high class wines; in that respect the wine trade of Rheims and Epernay has more reasons than that of Bordeaux for complaining of Colonial tariffs.

In concluding this chapter I must warn Colonial growers against any attempt to produce sparkling wines of any description; that industry is one of the most difficult and delicate, and any one venturing in it carelessly and presumptuously without the most extensive and practical knowledge concerning same, may depend upon losing considerable sums of money before reaching anything like even a most qualified and limited success, if any at all.

One of the frequent causes of loss of the wine during its *manutention*, is the proportion of breakage which under certain temperature will attain as much as ten or twelve per 100, and sometimes as high as twenty per centum; in any case it is never under 3 per cent., and in such a warm country as this, where the necessary kind of cellar could not be obtained unless at very high cost, owing to the manual labour required, the loss through breakage would never be under the maximum figure given above, and could be reckoned even at twice as much as I have been informed by a Colonial grower of long experience in France, owner of one of the best vineyards of the Hunter district, and who had been trying to produce some sort of Champagne on a limited scale, for several years, never experiencing less than 40 per cent. of breakage in a good underground cellar.

THE SPARKLING WINES OF THE CENTRE OF FRANCE.

I must mention here that on the banks of the River Loire, between the cities of Blois, Tours, and Angers, some white wines obtained from *white Pineau* varieties, and naturally very liquorous and rich in sugar, are utilized for making sparkling wines of an inferior character.

The white vines producing them are treated very primitively, without stakes, and trained on two eyes about 1 foot above ground, but the land is well tilled and manured, as a rule, not less than three times a year; the vintage season happens about the end of October or early in November; the grapes are pressed as they are emptied from the basket in which they are brought from the vineyard, and the juice is immediately after, lodged in casks well rinsed with fresh water, regularly filled up once a week for two months, and then racked twice a year, in March and April.

There is again another comparatively new and very little known method of training vines upon which my attention has been especially called at Bordeaux, as being much in favour in the French colony of Algiers, although it originated and is still carried on in a district of France, between Paris and Bordeaux, on the banks of the river Loire. I refer to the *cultivation des vignes en chaintres*, or culture of the vines in chains creeping along the ground, as carried on in the neighbourhood of the old city of Blois and not far from Amboise.

I visited this district purposely on my way to Charente and Cognac early this year, and visited at the same time the important manufacturing establishment of agricultural implements of Messrs. Mabile Brothers.

This training of the vine is very much similar to that used for table grapes with this great difference, that instead of the vines growing upon walls with a trellis work it simply creeps along the ground without the help of stakes and iron-wire, and permits to do away with all other modes of tilling the soil than by ploughing it, for which purpose the whole of the branches of the vines laying on the ground are simply removed from right to left, or *vice versâ*, as the case may require, until the plough has passed. It will be

seen

seen at once that such a system would prove very simple and economical in this country, where manual labour is not available, or so expensive that small growers cannot well employ it. Now, this point would, it appeared to me, be its best recommendation, for I was told that it could only be resorted to upon flat ground with either rich or stony soil and not sandy.

I fear that in this Colony, where the slopes of hills are wisely preferred for wine-growing purposes, and where the heat of the sun is much stronger than in the middle of France, the effects would often prove disastrous to the grapes, which would either be burnt or scalded before maturation. The quantity of wine obtained after five years' plantation from the vines thus produced, is said to have been as much as 1,000 gallons per acre, out of ten plants only to the acre, each plant occupying fully 5 square inches or 25 feet; but the wines, either red or white, neither those obtained from the same method followed in Algiers, are such as to be taken as models.

I have been told that the vegetation of that vine is admirable in summer, when, for preventing the bunches of grapes from being covered by earth the branches are somewhat raised above the ground by small wooden forks.

I have mentioned this system of training merely *pro formâ* and on account of its cheapness, which may recommend it to small growers; but I leave it to leading vigneron to decide whether they should not try and experiment it.

WINES FOR DISTILLING PURPOSES.

COGNAC.

Wine is the raw material, *par excellence*, for the production of good alcohol, the spirituous liquor more generally called *Eau-de-vie*, *Cognac* or *Brandy*, but since the vines have been so severely affected by various diseases, especially the *Phylloxera*, the spirits distilled from wine have become somewhat scarce.

The production of *Eaux-de-vie* in France was in 1875 of 11,660,000 gallons; in 1880 it had decreased to 485,364 gallons, for the only reason that the wine-producing districts of France, such as the Hérault and the Charente, whose special industry was that production, have been entirely devastated by the *Phylloxera*.

The actual production of *Eaux-de-vie* is still very large even in France, since it attained in 1880 34,676,466 gallons, but of that quantity 34,191,102 gallons are obtained from molasses, beetroot, grains, ciders, and potatoes.

It is hardly necessary to say that this description of alcohol, although giving much employment and constituting a large trade, is not one which should be approved or willingly developed wherever alcohol may be obtained from nature, as is the case in this country, should the necessary capital and inclination to agricultural pursuits be found amongst the Colonial population.

The *Eaux-de-vie* of *Cognac* are still known all over the world, and also, to a lesser degree, those from Montpellier, more generally found in the continental trade under the name of *Trois-six*.

I have visited especially the district of Charente, the chief city of which is Cognac, for the purpose of ascertaining such information as I could give on my return here likely to be of use to Colonial wine-growers with respect to the growing of wines for distilling purposes.

The best *Eaux-de-vie* of *Cognac* are exclusively obtained from the white wines grown in the surrounding territories of that small town, and more especially between Jarnac and Cognac, on the slopes of a hilly country known as Champagne, along the banks of the river Charente. These best *Eaux-de-vie* are sold under the name of *fine Champagnes*; those of a second quality under the denomination of *Champagnes ordinaires*; and the third as *Bon-bois*; the fourth merely known as *Eaux-de-vie des bois*.

The geological formation of these grounds is tertiary, calcareous, argillaceous, and siliceous.

The species of vine almost exclusively adopted is that known as *Folle-Blanche*, occasionally mixed with such as *Colombar*, *Chalosse*, *Sainte Pierre*, *Gros Blanc*, and *Balzac*. None of these however are as good and fertile as the *Folle-Blanche*, which in good years, gives as much as 400 gallons per acre, and grows successfully on the tops of the hills, as well as on the slopes or in the flats, and always healthy and vigorous everywhere.

The mode of cultivation is very primitive and does not require as much care and attention as are given to the high refined wines of the neighbouring district of Gironde.

For the plantation of a new vineyard, the ground is first broken open and ploughed to a depth of nearly 2 feet; after a short period has elapsed, holes are made with a common iron bar to receive the new plants, which are bare cuttings without any roots, and cut from other vines at the time of pruning. The distance between each plant in every direction is about 4 feet. This plantation takes place as a rule from November to March, and sometimes as late as May. Once the cuttings are planted, they are cut down to two or three eyes, and no further pruning is considered necessary for the next two or three years. When the plants appear very strong at the end of their second year, they are then trained to grow with four, five, and six arms, each to retain only one spur, upon which as many as four and five eyes are left, in some parts as many as ten arms are left on each stalk, with a spur upon each, the spurs being pruned to three eyes, and it is said that the production of these last vines attains fully 1,000 gallons per acre. I have been advised, however, that this pruning would prove fatal in France to the species of *Cabernet*, *Pineaux*, *Ermitages*, and such other delicate vines.

It is customary here to alternate several lines of vines with a similar space occupied by crops of cereals; this may account to a certain extent for the fertility of the vines, and also for the unfitness of the vines for anything else than distilling purposes.

The whole of the tilling is made by hand within the vines; these are trained to grow up without the help of stakes, although in the best growths, stakes and wires are now introduced. The various operations of nipping, pinching, and cutting down the highest vegetation are not generally resorted to.

Should any old tree require being replaced, it is done by planting a new one in its place, but the sinking of a neighbouring branch is rarely adopted.

The vineyards planted with *Folle-Blanche* are tilled not less than four times a year, and manure is only applied at distant periods.

The vintage happens generally at the end of September.

The grapes, as soon as collected, are partly crushed and then submitted as many as three times to the wine-press. The juice is at once lodged in casks, or in large vats, holding as much as 4,000 gallons, and

left open. The fermentation goes quickly enough, and is completed within four or six days. If the *musts* are found to contain more than 7 per cent. of sugar, they are at once reduced to 6 per cent., by addition of water to secure a better and more complete transformation of the sugar into alcohol.

When the fermentation is over, and with as little delay as practicable, the distillation is at once carried on in the old-shaped *alambic*, with a large boiler and a long retort connected with the worm of the condenser. This apparatus is to be found almost on every vineyard, however small; its capacity is of about 100 gallons, and does not give any good *Eau-de-vie* until after two distillations, and this is considered indispensable by the local trade, although improved apparatus are now to be seen here and there, permitting to do much more work in a much shorter time. Yet, the smaller the apparatus, the better is the spirit, which, it is said, will, when made thus, retain its high degrees much longer.

The season for distilling is not particularly fixed; it starts immediately after fermentation is over, a few days after vintage, and ceases generally some time in January. The sooner and the quicker it is done, the better, as the longer the wines are left in their vats, the more they evaporate, and therefore the less alcohol is to be obtained.

With the *Adam* apparatus now generally used by the most important growers, 1,100 gallons of wine may be distilled at one time in two hours, giving then about 15 or 16 gallons of *Eau-de-vie*, weighing 66° centigrades, per Gay Lussac alcoholmeter; so that with one of these apparatus, conducted by one man only, the average quantity of *Eau-de-vie* obtainable per day would be some 70 or 80 gallons, representing no less than from 5,000 to 6,000 gallons of wine, for ten casks of wine would not give more than one cask of brandy.

It must be remembered that the raw material itself is very poor in alcohol, but the result would be quite different so far as quantity with Colonial wines which, as a rule, are very strongly alcoholized; the quality, however, is not without importance, and it would not be advisable to venture large capitals in that industry without having first ascertained by several experiments with the actually cultivated species of vines in hands, and having kept them in stores for a few years, whether the result of such distillation would fetch on the European market a commercial value in any way more remunerative than the production of ordinary wines, and would successfully compete with the alcohol distilled from molasses, grain, and potatoes.

For the distillation of alcohol from wine, I have seen in some of the magnificent leading establishments of Cognac, distilling apparatus with water bath, and of a much more complicated description than the one abovementioned; but although these may answer the purpose of mercantile or industrial firms on a large scale, they are not adopted by any association of growers, nor by any of them individually; the primitive old *alambic*, with perhaps a few superficial modifications, will yet be found in favour all over the district for many years to come. There is no doubt that it does not require as much capital to lay out at first, nor in its subsequent management, and can be placed almost in any corner of any *Chai*; some of these small apparatus are also fixed on wheels, and are taken from place to place by their owners, who contract with each grower for the distillation of his wines.

When newly made, the alcohol of wine at Cognac contains, as a rule, 66° Gay Lussac, but the limit of the French market is 60°. Any sample above this limit is paid 5 per cent. extra for each supplementary degree on the value agreed upon; and in the same way a similar diminution of 10 per cent. is consented for every degree of which it is short per hectolitre or 22 gallons; but once in trade, *Eaux-de-vie* are at once reduced to the average of 50 to 53 per cent. of their volume. The growers themselves are never implicated in any operation other than the distilling of the *Eau-de-vie* they sell; anything else than a careful distilling is injurious to *Cognac*; time alone should improve it.

As soon as they are taken out of the *alambic*, the *Cognacs* of every description are lodged into good new casks containing oak shavings, in a dry place, and as little aerated as practicable to avoid evaporation. During its first year, the *Eau-de-vie* is called new, in the second year it is called settled; but from the third year it is classified amongst the old. When quite new the *Eaux-de-vie* are without colour, but they gradually acquire, their well known bright yellow, by being left in contact for years with tanniferous oak casks or vats; their peculiar bouquet also develops itself, and remains as long as they are protected against external influences.

The *Eau-de-vie* or *Cognac* will evaporate more or less according to the casks, vats, and buildings in which it is stored; it gets old much sooner in new casks and in a warm store than if placed in old casks and a cool cellar. On the average, it is calculated to lose 5 per cent. of its strength every year; but this loss is only in appearance, for in reality it is made up by the extra value which it acquires, as for each year after the third or fourth, the price gets higher also by fully 5 per cent., if not more, especially now that the ravages of the *Phylloxera* have so considerably limited the production; and indeed when any good *Cognac* is above ten years old, its increased value is no longer limited by an extra 5 per cent., but in some cases will reach as much as 20 per cent. The casks containing *Cognac* or *Eaux-de-vie* are always made of oak with iron hoops, and holding fully three *hectolitres*, or about 68 gallons; these casks are sold with the *Cognac* without any extra charge, unless they are made of a capacity limited to 110 litres, when a surplus charge of 5s. is always made.

The actual state of the *Cognac* trade is far from being very active, for very small quantities of wines are available from any vintage; so that the prices which have been ruling for the last few years are not likely to become reduced.

The *Cognacs* of 1883, weighing 60°, are those now sold at £13 per 22 gallons; those of ten years old fetch easily £16, and those twenty years old obtain as much as £30 for the good qualities. The cheapest *Eaux-de-vie* of the 1883 vintage are offered at £8 or £7 10s. per 22 gallons; those known as *Fin Bois* are quoted at £11; and the same only a few years old cannot be had at any figure under £9 per 22 gallons delivered at Cognac.

The special qualities intended for exportation are valued at prices ranging from £7 to £40 per hectolitre in wood, and from 15s. to £5 per case of 2 gallons, the whole delivered from the store at Charente, so that with the Colonial Customs' duties of 10s. per gallon, equal to 1s. 10d. per bottle, no *Cognac* of the highest merit could be had in Sydney under £7 or £8 per case, or 13s. per bottle; but many marks of one, two, three, or four stars, may be had from numerous exporters at 30s., 35s., 45s., and 60s. per dozen, leaving it at the wholesale price of £3 to £5, duty paid, and delivered in Sydney; at any figure below £3 per dozen, no *Eaux-de-vie* worth being classified could be obtained from Cognac at the present time, although some of those at cheaper and lower prices may be found very acceptable by many consumers.

I must say here that, as for the wines, there is any amount of fraud and adulteration practised in the *Eaux-de-vie*, and with so much skill, that it is very difficult to detect it, for any one else other than expert analysts; the good *Eaux-de-vie de Cognac* is itself so rich in *bouquet* and *arôme* that a very small quantity in a cask of potato spirit will be enough to mislead many buyers of experience. To protect the outside public, there exists at Cognac a Committee of Viticulture, as well as a Chamber of Commerce, who carefully watch and report publicly upon any fraud brought under their notice.

The French system of ascertaining the strength of any spirit mixed with nothing else than water, or left by itself, is far less complicated and somewhat more accurate than the old system known under the name of Sykes.

The French alcoholmeter, invented by Gay-Lussac, consists of a small glass tube, weighted with quicksilver, and bearing a graduation running from 0 to 100, calculated so that the floating line of same when dipped in the liquid indicates most precisely the degree of alcohol it contains, at a temperature of 15° centigrades, the whole process taking hardly one-half minute. In the event of the temperature being above or below 15° centigrades, tables have been prepared to show the corresponding strength of the liquid, and a mere glance is enough to obtain the information required.

TROIS-SIX OF MONTPELLIER.

The districts of Hérault, Gard, and Aude, already mentioned with respect to their production of ordinary, inferior, and liqueurs wines, are also noted for the special kinds of brandy or common *Eaux-de-vie* distilled from the same wines or from their husks.

These *Eaux-de-vie* are known in the Continental trade by the name of *Trois-Six of wines*, or *Trois-Six of marc*. The first-named are necessarily the best, and are termed *bon goût*, or of *good taste*, when made from white wines which were then in good condition. The *husks alcohol* are much inferior in quality, and generally sold at a considerably lower rate, although the production is by degrees becoming so limited that the difference in the commercial value of both products is by degrees fast disappearing.

The distilling apparatus generally in use in the southern districts is the one known as the *Derosne system*; it works continuously as long as there is wine to distil, without requiring being filled at intervals, every time any given quantity has been distilled. Such an apparatus, working twenty-four hours, may give 500 gallons of spirit at 86° centigrades out of 7,400 gallons of southern wines, containing from 7° to 10° of alcohol per hectolitre.

The distilling season is generally from October to the end of the year, and according to the importance of the vintage; the newer are the wines, the better is the spirit extracted from them.

The alcohol from the husks or *marc* is obtained by distilling through water or steam the husks removed from the wine-presses; special cylinders are provided for the purpose and annexed to the Derosne apparatus which, for twenty-four hours' continuous work, will collect 140 gallons of spirit out of 2,600 lbs. of husks.

The value of these spirits of wine is now far higher than in times past, averaging £4 10s. per 22 gallons for the *Trois Six of wines*, and a little below £4 for the *Trois Six of marc*. They are mostly used for fortifying poor wines, or else for many industrial purposes, both in France and abroad.

The residues of the husks left after these several pressings, fermenting, and distilling, are yet utilized for manure in the vineyards.

If the Colony will ever patronise the making of good *Eaux-de-vie*, the district of Charente should certainly be taken as a model, and a most complete and special study of the industry be gone into by anyone investing in it. A visit to the establishment of Messrs. Hennessy & Co., at Cognac, will give a perfect idea of the importance of the work, and of the experience required in the blendings of *Cognacs produces*, and other manipulations before success can be attained, for it should be known that good *Cognac* is not more common than real *Chateau-Margaux*, *Lafitte*, or *Yquem*.

VINEGAR MAKING.

The vinegar making industry, so closely connected with wine-growing, deserves a few words in this report.

It is well known that wine, left to itself, and in contact with the external temperature, especially when very high or warm, becomes sour and acid within a time more or less extended. The high price now ruling in Europe for wines has induced many people to manufacture vinegar with the help of other raw materials, but all of these have proved, to some extent, injurious to public health.

The vinegar made from wine is by far the best and most hygienic of all others. It is limpid, of yellowish or reddish colour, and has a true taste without acridity. The vinegar made from red wines has more body, is less dry, and keeps better than the vinegar made from white wines, but the colour of the first not being generally in favour, the white wine's vinegar is, as a rule, in greater demand.

In almost every district of France manufactories of vinegar may be seen, but the principal are those of Orleans.

In the southern districts of France, vinegar is obtained from wine by pressing a quantity of the rasps or husks after fermentation without any other operation. This vinegar is rather weak and the quantity small, but is found to answer well enough for home purposes.

In the north of France, either Champagne or Burgundy, sour wine is employed for transforming it into complete vinegar. Some wine is thrown into a standing up cask, the top of which has been removed and so fixed as to allow the access of the air to the wine, whilst preventing the dust falling into it. After a day or two, one-half of the wine is drawn off from the cask and other wine thrown again on the remaining half. The next day, part of this wine is withdrawn and the cask partly filled up again, as previously, and the same is done as long as may be found necessary, either by the quantity of wine to be transformed into vinegar, or to reach the degree of acidity desired. As a rule, after the first filling up, which should be allowed to remain two days, twenty-four hours are found sufficient to obtain a good vinegar.

The large vinegar manufactories of Orleans are conducted, however, on quite scientific and extensive basis. In a shed, the temperature of which is kept from 25° to 30° centigrades, several lines of casks are disposed horizontally above each other. Casks which have already contained vinegar are preferred to new casks. In the front part of each, two small holes are bored, one to introduce the wine, the other, somewhat smaller, to allow the free passage of the air and gas.

A certain quantity of boiling vinegar is first thrown into each cask, and then they are nearly filled up with ordinary wine at least one year old, and not over two years.

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This wine, however, must first have been filtered in a special vat, through shavings of beech tree for not less than a week. From that preparatory vat, it is taken to the casks above mentioned, and left there for another week or ten days, when the transformation is found completed, and the operation started again with other wine.

I have seen near Paris, another system in use, and known as the German system. It consists of two or four casks, placed above each other so that the liquid of one may fall in the one below. These casks are open from the top, and the air is introduced through the lower part by round holes bored some 10 or 12 inches above the bottom, from where it is taken to the surface of the cask by glass tubes. Above these holes, and some 30 inches from the lower end of the cask, a platform, bored all over with holes, is fixed on the sides of the casks, and supports a quantity of beech tree shavings or of wheat, almost up to the top of the casks there. Another platform, also bored with holes, covers these shavings. In each of these holes are small pieces of *corde* fixed by a knot, the end hanging underneath above the shavings. The wine is then emptied on the upper platform, and goes through, along the *cordes*, but drop by drop, and has to pass through the shavings and holes of the lower platform to reach the underneath part of the cask, where it is again in contact with the air introduced by the air-holes, bored 10 or 12 inches above the bottom. As soon as that underneath part is full, the vinegar is drawn off by a tap and allowed to run into another cask similarly prepared and placed somewhat below the first described. As soon as the wine has reached the underneath part of the second cask, the vinegar is considered as made.

I must say that before using the casks and shavings for the first time, they are always impregnated with strong vinegar, almost boiling, and thus kept well closed for a day or two.

This process is found to answer not only for vinegar to be made from wine, but may also be used for beer or malt vinegar, and at a very low cost.

Mons. Pasteur is also the inventor of a process, much quicker and more perfect in its results than any of the above, and is found also well adapted to small factories.

It consists in sowing small mushrooms, known as *Mycoderma*, on the surface of the liquid, a mixture of wine and water, or wine and vinegar, to which are added alcohol, in the proportion of 2 per cent. and acetic acid in the proportion of 1 per cent.; the *Mycoderma* itself is obtained by leaving for a few days, exposed to the external temperature, a small quantity of wine and water in equal proportions.

The liquid intended to be transformed into vinegar may be simply water containing 2% of alcohol and 1% of vinegar, to which a small quantity of potassium, calcium, and magnesium is added; but to limit it to wine, such additions are in no way necessary.

The wine is placed in circular vats kept closed, but with holes to facilitate a current of air inside; the *Mycoderma* are dropped on the wine through a small tube or pipe, and soon cover the whole surface whilst the liquid itself gradually becomes acid.

The vinegar making industry ought to be pushed forward in this Colony much more than it is; at the recent Amsterdam Exhibition, Colonial exhibitors of Australian made vinegar have received medals in acknowledgment of their efforts, and there can be no doubt that success in the shape of large business would soon result with proper management.

For the years 1880, 1881, and 1882, the importation of vinegar in the Colony has been respectively 128,073, 132,936, and 196,734 gallons, valued at £11,501, £11,783, and £20,118 sterling, whilst the exportation of N.S. Wales made vinegar has been limited to 23, 28, and 170 gallons, the principal ports of destination being Queensland and New Caledonia.

TABLE GRAPE VINES.

Although not instructed specially to report upon this interesting production, I thought my report would appear incomplete, if I did not include some observations with respect to the cultivation of the species of wines especially intended for use as table-grapes; the territories of Fontainebleau and Thomery, in the district of Seine-and-Marne, not very far from Paris, are those where this cultivation is carried to perfection, but without going there, correct ideas may be formed concerning it, in any other part of France, wherever wine is growing.

The species most in favour for the table requirements, are the *Chasselas* and the *Frankenthal*, both of which have been introduced long ago in this country, the first however being almost exclusively cultivated in every part of France.

The way generally adopted in the French gardens, for growing table-grapes, is upon low walls built for the purpose, about 6 feet high, washed with lime, and with upper edges made of tiles somewhat projecting from the side of the walls, so as to protect the buds and shoots of the vines against spring-frost and against dampness, as well as securing them some shade from the midday sun; upon those low walls, wooden trellis works are fixed, and supported by hooks, standing some distance from the side of the wall, so that leaves and tendrils may pass between both, thus avoiding a strangulation of the branches, and all interruption to the internal circulation of the sap.

When about planting, the ground is dug some 4 feet in front of the wall; at the bottom of the trench, a good layer of vegetable earth and manure is spread; a cutting, healthy and vigorous, selected from a good bearing vine tree, and having already started some roots in a nursery-ground, is then fixed in a hole previously made for it, without any addition of manure, earth, or sand; these cuttings may be expected to bear fruit at the end of their third year, but occasionally at their second year. Each new plant is placed at a distance of 18 inches from the nearest, and gradually brought by growing from year to year along the ground, to the foot of the wall; in front of each stock, should be a post of the trellis-work, intended to serve later on as a stake would do in open ground. The trench is then filled up with its original soil, and only one eye of the cutting can be seen above ground; a small stake must be fixed next to it, to support it.

During the first year, the cutting gets about 18 inches high; it is then slightly cut down and its shoots are nipped or pinched as they grow to some length. In summer, the ground near the root is weeded three or four times, and as winter comes near, a deep layer of stable dung is thrown all along the trench in which are the roots.

At the end of the second year, the cutting is pruned to three eyes, and a higher stake is provided. Whilst green vegetation is lasting, no shoot is allowed to grow beyond the three, expected from the three eyes left at the time of pruning, and as they grow up, they are tied to the stake. When they are 4 feet high, they are somewhat cut down, the ground is tilled as previously, and ploughed superficially before winter.

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At spring time of the third year, a small trench 1 foot deep is open from the foot of the wall to the new plant, and the best branch of the three grown during the previous year, is laid down on a bed of good manure, until it reaches the wall, when it is recovered with good manure earth, and pruned to three eyes only above ground.

When these three eyes have developed three spurs, each about 1 foot in length, the one nearest to the ground is cut away, and the vine is trained for one year upon two branches, which receive regular care and attention during vegetation and bear some bunches.

At the end of that third year, the vine is reduced to one branch, the best of the two of the previous year being preferred; that branch is then pruned long enough to, by inclining it on one side, leave one of its eyes on a level with the angle thus formed, the result being that at the time of vegetation a spur will shoot from this eye, and trained to continue on the left, what the further part of the same branch will do on the right, the appearance of the vine being that of a regular T, each long side branches being secured upon the trellis work, and allowed to run several yards longways on the wall, or as far as the trunk of the nearest tree.

To avoid each vine-tree interfering with its neighbour on the same wall, everyone of these is trained to grow on a wire or rail of the trellis, situate above the one on each side and so on, until the whole wall is covered. To better explain myself, I may say that these walls are supporting a succession of capital letters T, being placed by the side of each other, and every one being higher than the one next to itself, but, as it might happen that the leaves of one would interfere with the maturation of the one immediately below, they are so arranged as to alternate a tall one with a lower one, in such a way that the spurs which will shoot from every horizontal branch of the T will have plenty of space to raise above it.

It will be inferred from the above description that many years must elapse before any fruit is obtained from the plant intended to reach the upper portion of the wall, for no fruit is given by the up straight branches, but only by those growing horizontally. Such delay is indeed the case, and admitted by all experienced growers to be unavoidable, if people wish for grapes of a quality, quantity, and regularity never varying. As a compensation, it may be said also that these vines once fixed, will last for centuries without requiring any further training, but the mere yearly pruning of the vertical spurs growing upon each horizontal branch as they gradually extend year by year. To secure that extension, these branches are pruned yearly to the nearest vertical spur, leaving only two eyes, one of which is intended to grow horizontally, and the nearest to it, but inside of it, to grow vertically.

Thus trained and grown, the *Chasselas* grapes have attained a reputation and value well-deserved, and above those of any other table grapes.

I believe the wall-growing system would be attended with the same satisfactory results in this Colony, but owing to the strong heat of the sun in summer, which would be reflected by the walls on the grapes and their leaves, the aspect would have to be selected towards the south. There is again, to be said, that the expenses of putting up these walls in a country where manual labour is very expensive, may prevent their adoption, and for that reason cheaper methods will always be adopted preferentially. I venture to recommend the table-grapes growers of Ryde and other districts surrounding Sydney, to try the *Cazenave* method of training and pruning their vines. It is somewhat on the same principle as that of Fontainebleau, and if allowing them to grow 4 or 5 feet high above the ground, they would have hardly any ill consequences to fear from such severe spring frosts as that of this year (1884).

There is also another method in favour in France for growing table-grapes; it consists to train the vines to grow alongside a wall as before, but straight up, with alternate branches like those of a tree, and fixed to the trellis work. It is by far much simpler and quicker than the first method, but does not necessarily bring the vine to bear fruit much sooner in its upper part.

As soon as the main stock is two years old, after having been brought alongside the wall, and bearing two tall branches, the most vigorous of the two is kept for training, the other is cut away as low as practicable.

The kept branch is then pruned above the eye which is most level with the lowest of the horizontal rails of the trellis-work, about 15 inches above the ground; the vine will be thus pruned to two eyes.

The following year the shoots from these two eyes are alone permitted to develop, all others being nipped and pinched, and by the time of pruning, one of these shoots is pruned to two eyes, to form the first side branch on the right; the other is pruned also to two eyes, but so calculated that the lower one should form the following year the first side branch on the left, somewhat above that on the right. The upper eye is intended for a continuation of the main stock, and so on from year to year, until the top of the wall is reached.

This last method is not so generally adopted, but wherever it is found, people consider it as equally favourable as the first one to the production of good table grapes.

Whilst on this subject I may state that the world-famed *Malaga* grapes are grown on low-trained and pruned stocks, in open ground, on somewhat sandy soil, and that for fulness, freshness, and delicacy, they are not to be compared to the table-grapes obtained in France, although for preservation purposes the *Malaga* grapes answer very splendidly, and much better than would the more northern fruits, where the sun would, further, not be hot enough to desiccate them, as is done at the extreme southern end of Spain, in close vicinity to Africa.

The Fontainebleau *Chasselas* or *Frankenthal* grapes are not dried nor submitted to the same preserving process as the *Pedro Ximenes* of Malaga or other parts of Spain; they are merely kept fresh for almost immediate use, within a few months after each year's vintage. But there are two processes which may be usefully adopted by those Colonial growers who ignore them; one with respect to increasing the size of the berries, the other referring to the packing of the grapes for long journeys.

1. When the berries have attained about the size of green peas, all those berries which are smaller than the others should be carefully removed with scissors, the result being that all those which are left will ripen quicker and grow much finer. This may be done until a day or two before vintage, and the *Frankenthal* especially will much improve by such a treatment; indeed, all bunches which appear too meagre and small, may be removed also, to the great advantage in weight and appearance of the remainder. Whenever the bunches are thus handled, it must, of course, be done with great care, and immediately afterwards some slight sulphuring should be given to them, to restore the freshness and cleanliness of the berries.

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The annular incision below the shooting of each bunch at the flowering season, as at a later period the removal of the leaves, are also much recommended according to the seasons.

The gathering of the table-grapes must take place when they are well ripe, and by dry and clear weather; if any delay occurs, the grapes must be well protected by nets, canvas bags, and otherwise, against the depredations of birds and insects, which at such time are very abundant in Europe, and, I presume, in Australia also.

To send away the grapes to short distances, each is wrapped in silk or tissue paper, or even without it, so that each bunch will fit well with the others without squashing; but the wrapping tissue paper is generally preferred for the best grapes, as it preserves them from losing their freshness, and secures their tempting neatness and appearance lasting until when brought on a table.

But for sending grapes away on a long journey, the usual way I have seen resorted to, is to place them in a new cask, solid, clean, and dried, at the bottom and all round which a deep layer of dry bran is spread; the bunches are then laid down, each separately from the other, and well recovered again with bran, and the cask is then very tightly closed. It is found that in that way grapes will travel and keep for a few months in splendid condition, and will not even lose the slight dew which is seen on them when on *treillis* before being cut away.

Another very effective method for the long keeping of table-grapes in their fresh state is to, provide a special room, somewhat dark, on the walls of which trellis-work is fixed all round. This room must be kept well closed, even with double windows, retaining always a temperature never less than 45° Fahrenheit in winter, and not much higher. No dampness should be felt either; and in case of frosts or cold wind reducing the internal heat, it should be warmed by a moderate fire, but not so as to rise above the degrees already indicated, as it would be likely to wrinkle the skins of the grapes.

At the time of cutting these, a portion of the wood should be retained with each, and then placed at once in small glass bottles, wide mouthed, full of water; these bottles are then taken to the fruit room and hung on the trellis-work. The water inside the bottle will keep the sap of the stalk and wood, and prevent the grapes from drying. The old systems of hanging grapes in bags to the ceilings of open rooms, of laying them on straw or on screens, are no longer followed by the professional table grape growers.

The growing of table grapes in the colony is a branch of *horticultural agriculture* which almost every small settler or land-owner could well undertake. It does not require much capital nor labour, and with ordinary care is always very remunerative. It seems to be already very successful in New South Wales, judging from the statistical registers, as their production is now more than double as compared with that of eight years ago, in 1874, when it reached 620 tons, whilst in 1882 the total was 1,440 tons, the Central Cumberland district alone producing 474 tons out of 307 acres, or more than one ton and a half per acre, representing, at the wholesale price of 2d. per lb., a revenue of some £28 per acre.

I firmly believe that a time will come when this colonial revenue will be much increased (1) by a more practical and experienced training of the vines; and (2) by the production of dried grapes equal to those of Malaga, as soon as there will be willingness and capital available to develop the industry.

The dried grapes of Malaga constitute a very important trade for that place, valued actually at over £400,000 per year. They are divided in three qualities, viz.: *Moscatel*, *Sun or Flower grapes*, and *Ashes grapes*. The first quality is the best in the world. The grapes are cut when quite ripe, and at once laid down on thick beds of sand or of small gravel and pebbles built of bricks on an inclined plane in the shape of a desk, and exposed to the west or south-west. The grapes are, by some, removed gradually from day to day; others leave them alone until equally ripe all round, and to prevent them from getting wet and from the night's dews, numbers of large boards well fitting together, are always close by and placed over the grapes every evening before sunset and removed in the early morning.

The *Sun's or Flowers grapes* are the ordinary grapes other than the *Moscatel fino*, but are prepared exactly in the same way.

The *Ashes grapes* are also ordinary wine grapes, but of good size and shape, and well matured. All imperfect berries are strictly removed, and each bunch is dipped in a thick, almost compact boiled, ashés-wash. As soon as the skin of the grapes shrivel, they are withdrawn, hung to drop the wash, and then laid down upon pebbles or gratings as for the *Moscatel*.

In all cases, ten consecutive fine clear hot days are necessary to obtain good dry grapes.

Much care is taken by the Malaga people to secure perfect results. Expert men alone are employed for the packing and sorting of these grapes, the production of which is found more profitable than that of the grapes for wine-making purposes. Yet these table grapes are occasionally made use of for wine-making, but their wines would not keep any time nor be of any value if a strong addition of sugar was not made in the fermenting vat at the time of vintage, or if they were not blended soon after being made with fortified and sweet wines of other description.

THE WINES OF AUSTRIA-HUNGARY.

Austria-Hungary produces yearly 440,000,000 gallons of wines, both red and white, valued at £112,000,000, out of 1,581,102 acres, or at the rate of 264 gallons per acre.

It is only within the last fifteen years that the wine production and trade of that country have made any great progresses, and more especially so after the invasion of the *Phylloxera* in France, from where, however, it has also invaded Austria itself. Numbers of grapes from France have been imported and cultivated there according to the best methods of French growers, and the wines already obtained are far superior to the majority of Spanish wines, and equal to many wines from hill-sides of the south of France.

Hungaria is the leading wine-producing province of the Empire. Large model vineyards and cellars, numerous professors of agriculture, and an official staff have been originated and appointed by the Government, and have much contributed to the development of viticulture.

The leading grapes cultivated are the *Furmint*, the *Hars-Leviti*, *T. kay*, *Petraho*, *Monock*, *Kiraly*, *Barko*, and *Kyrvostryan*. The soil of the vineyard districts is mostly of decomposite granite reduced to a very fine dust, free of all sorts of stones or gravels.

The vintage season lasts generally from the end of September to that of October, but the grapes intended for making the Imperial Tokay wine are never gathered until the first week of November. The ordinary wines are made by putting the berries into bags and then crushing them with the feet, and then letting

letting them ferment in open wooden vats. Much care and attention are bestowed by the people, both in the cultivation of their vineyards and in the keeping of their wines, which, although yet of an inferior description, are progressing in quality every year. Most of the Hungarian wines are white wines.

The most interesting production of Hungarian wines is that very limited of the world-famed liqueur wine known as the *Imperial Tokay*, intended only for the use of the Emperor of Austria and the highest personages of the country. The grapes intended for that wine are those of the *Purmint* species, collected only after they have been desiccated by the heat of the sun, somewhat like those of Sauternes for the *Château Yquem*, and when they appear to have lost all their watery part. The best berries alone are selected, placed on a table with raised edges and a hole in the centre, through which the juice of the grapes, slightly pressed, run into earthen jars, being called then *essence of wine*. The husks are subsequently wetted on the table with the *must* from other but not desiccated grapes, crushed separately; their juice, obtained by pressing them, either with boards or feet, twice or thrice, is mixed with the essence for fermenting in various proportions. During fermentation, which is generally over within thirty-six or forty-eight hours, the *must* is often agitated. The Tokay wine is never fined, as it would damage its quality; it is allowed to clarify itself by undisturbed rest, in casks of 20 gallons, but it never gets very limpid and retains always a certain amount of limy dregs, which, however, do not mix again with the wine when *transvased*. This wine is never fit to drink until three years old, but it will keep a very long time.

The Government Oenological Register divides the Austro-Hungarian wines into four classes:—

1st. The *Aszu* wine, made from old wine thrown over desiccated berries.

2nd. The *Maslas* wine, made by emptying good ordinary wine on the husks of the *aszu* wines.

3rd. The *Smazorodin* wine, made from a mixture of fresh and desiccated berries, put together in bags and then trodden over with feet in vats; a second pressure is resorted to, and the two juices are left to ferment together.

4th. The *Dessert* wine, is a white wine made from refined grapes, with a good bouquet and much alcoholic strength.

5th. The *Family* wine is a white wine, made from a general mixture of grapes, somewhat alcoholized, and intended for ordinary use.

6th. The *Red* wine is made from blue and black grapes of special kinds, leaving the *must* much longer on the husks, to wash away more tannin so as to harden the wine, and more colouring matter so as to deepen its colour.

7. The *Siller* wine is an ordinary wine of a common description, made by crushing together black, and white grapes. This wine does not last, and it loses its colour very soon.

The Government Register, published by the authority of a Ministerial Commissioner for Viticulture, does not contain more precise description or particulars as to the vinification of the various above wines, but it indicates the name of the producer, his residence, the nearest post-office, and nearest steamer, coach, or railway station, to the cellar; and as an appendix, the regulations of the model cellar established at Budha-Pesth.

THE VINEYARDS AND WINES OF GERMANY.

THE wine production of Germany is far below the requirements of its population, and a good market for Australian wines should certainly be secured, via Antwerp or Hamburg. The importation of foreign wines in Germany has been valued for 1879-80 at £36,405,000; in 1881 the exportation of wines from France to Germany amounted to 5,928,362 gallons, but as many were imported from Spain, Italy, and Austria-Hungary, besides the local production.

The vineyards of Germany produce a yearly average of 131,098,000 gallons of either red and white wines, but mostly white wines, these being by far superior to the red wines, the best of which enjoy also some good name but are in too small quantities to influence any market.

The leading white wines of Germany, and indeed the only German wines for which any demand exists, and even then to a limited extent in Europe, are obtained on the banks of the Rhine and of the Moselle. Those of the Rhine, near Mayence, of the district called Rheingau, are generally classed amongst the best white wines of Europe, whenever the yearly seasons have favoured the maturation of the grapes and their vintage, circumstances which, however, are not very frequent.

The vineyards of the Rheingau are mostly to be seen on steep hills or tablelands, formed of *schiste* and decomposite matters, having much similarity with those of the banks of the Rhône and of the Douro the topographical position being also somewhat of the same kind.

The species of wines most successful are the well-known *Riesling* and the *Klingerberger*, considered as of the same family as the *Pineaux* of Burgundy. The *Riesling* is generally cultivated on rocky and steep hills, and requires very high temperature to reach full maturity, giving then very good wines, of long-preserving and improving qualities. The *Klingerberger* is principally cultivated in the low lands at the bottom of valleys, gives larger quantities of wine, sweeter than that of the *Riesling*, but with less bouquet, and not lasting so well.

The leading vineyards of the Rheingau are those of *Johanisberg*, *Budesheimer*, *Hockheimer*, and *Markobrunner*, the gold-coloured wines of which do not require any praise of their well-known and well-established refined qualities, which I had opportunities to appreciate at Bordeaux, Amsterdam, and on the banks of the Rhine, although I could not inspect these various localities, to my great regret. I was, however, told that these vineyards are kept with the greatest care, cleanliness, frequent and constant tillage and manuring. The vines are planted in holes filled up with the sand of the river, and at about 4 feet from each other, trained rather low above the ground and on stakes.

The vintage season takes place late in October, and then only when the grapes are perfectly ripe, they being left on the vine trees as late as possible for that reason, and as long as they are not to suffer from the autumnal rains; as a rule, if the season is fine and favourable, the bunches are not touched until they are ready to fall by themselves.

The best wine-presses of France are adopted all over the wine districts of Germany. The *musts* once obtained, are lodged in casks of 300 gallons, a tenth part of which is left empty, and slightly closed until the tumultuous fermentation is over. In the bad and cold seasons it is not unusual to help the fermenting work by heating the buildings where the casks are placed. The new wines average from 12° to 14° of the gleucometer, in good years, and only 10° or 11° for the inferior vintages.

Some

Some of the casks are provided, instead of bungs, with self-acting valves, during the fermentation. These allow the carbonic acid to pass out, and immediately after keep the bung-hole quite closed.

Once the tumultuous fermentation is over, the casks are filled up every fortnight until March following, when a first racking is then resorted to. This operation takes place three times during the first year, and in May and October of each following year. The casks used on these occasions are always scrupulously cleaned and well sulphured each time.

When five or six years old, these wines are *faits*, and ready for bottling, but they are often kept in casks, receiving then much attention, and constant filling up.

The vinification of the more ordinary German wines is not so carefully carried out as for the best wines; thus—the grapes are first all collected, for two or three days, or even more; they are then pressed together and the juice lodged at once in large vats, without their husks and stalks. As soon as there is a beginning of fermentation this *must* is immediately drawn off into ordinary casks, and there the fermentation is allowed to complete itself. In the month of March, a racking into clean and well-sulphured casks is then made, and it takes generally two or three years before these wines have lost their natural acridity and harshness; but from that time they turn out somewhat more palatable and quite good and tonic.

The climate of Germany is so different from that of Australia, and especially from that of New South Wales, that it is not likely the Colony will ever produce *Riesling* wines similar to those of the banks of the Rhine, but that is in no way to be regretted, for the *Riesling* transplanted here does yet retain the peculiar original tastes, and further improves it again, giving, however, to Colonial wines a taste *sui generis*, which H.R.H. Admiral Prince Albrecht of Prussia, approved very unreservedly when tasting New South Wales *Rieslings* in our court at the Amsterdam Exhibition.

There is also to be said that the Colonial *Riesling* wines may be made far more nourishing and substantial than the *Rhenish* wines, which, like the *Manzanilla* wines of Spain, are for the greater part considered not as table or dinner wines, but as *petits vins d'agrément* of limited value.

THE VINEYARDS AND WINES OF ITALY.

Italy as a wine producing country is making very fast progress, the quantities exported yearly have been kept increasing since five or six years past, and it is actually in advance of the production of Spain.

The quantity of the average Italian wines imported into France is not above that of the lowest blending wines; but as such, is much appreciated, and fetches the same value as most of the wines from the Southern Districts of France. It is well known that very highly classed wines, especially liqueurs wines, such as the *Lachryma Christi* and the *Marsala*, which has fully 30° of alcoholic strength, and mostly monopolized by the British trade, are obtained from Italy or Sicily; but these are in very limited quantity, and the qualities are not uniform every year; these wines, however, cannot be taken as samples of the generality of Italian wines.

The north of Italy seems to progress more than any other part, owing no doubt to its more frequent relations with the neighbouring French growers or merchants who visit it regularly, and point out the defects of actual process of wine-growing and making there.

I was told that the species of vines mostly cultivated are the *Red Muscat*, *Malvoisia*, *Bonarda*, and several others varying either in names or descriptions from district to district; the records of viticulture in Italy are not very extensive, nor yet on a comprehensive basis; it is only lately that the Italian Government, fully understanding the importance of that agricultural industry and to check emigration, has organized official systems of encouragement, and the spreading of means and information amongst its rural populations; syndicates have also been formed to better fight out the *Phylloxera vastatrix*, which has also made its appearance there.

The wine making process generally adopted in Italy is very primitive, and the good qualities to be found in the wines are more due to the natural causes of soil and climate than to man's industry, which alone can develop the lasting qualities without which there is no value in wine.

The vines are grown very high amongst fruit trees and cereals crops, which affect considerably their produce in quality as well as in quantity; this is valued at about 308 gallons per hectare, or 125 gallons per acre.

The vintage takes place generally at the end of September or early in October, and sometimes as late as November; spring frosts in May and droughts in August are very frequent. The ordinary Italian wines contain an average of 11° to 14° Gay Lussac of alcohol, or about 24° Sykes.

The use of improved wine-presses, fermenting vats, racking-pumps, the sulphuring of casks, etc., are by degrees getting more generally adopted; but unfortunately many growers will still persevere in plastering their *musts*, fortifying their new wines with alcohol, or colouring them artificially.

On the whole, Australian wine-growers have nothing to learn from their Italian competitors; but it will not be so, much longer, for schools of viticulture, and special delegates of the Ministerial Department of Agriculture, are now instituted all over the kingdom.

Such organization, or rather official protection of the wine industry, is fully justified by the export statistics, which show that the exportation of Italian wines which was in 1877 limited to 2,332,000 gallons valued at £121,057, had reached in 1880 as much as 40,160,780 gallons valued at £1,861,558.

The value of common Italian wines ranges actually from 32s. to 64s. per hectolitre of 22 gallons, delivered in casks free on board steamer for the ports of France.

THE VINEYARDS AND WINES OF MADEIRA.

The species of vines mostly adopted on the Island of *Madeira* are the *Malvoisia* for sweet wines, and the *Sercial* for dry wines; but both qualities may be said to be *liqueurs wines*.

For the sweet wines, the grapes are vintaged when thoroughly ripe only, and then pressed without being crushed; the first *must* thus obtained is reserved as first or superior quality; it ferments, and is kept in small casks, but requires no less than ten years before it possesses all its refined characteristics.

The second quality of *Malvoisia* wine is the result of the crushing of the grapes, but without their stalks; this wine has more body than the first, but it is somewhat more harsh, and requires much longer time to develop its full qualities.

Both these wines are sweet or liquorous, spirituous, very aromatic, and of great value.

The dry *Madeira* wines are made with *Sercial* grapes, and at first are very astringent; but after eight or ten years are very agreeable; the making process is the same as for the *Malvoisia* wines with the only difference that the stalks are pressed and crushed both times with the grapes; the *musts* of each operation are mixed together subsequently. The

The white wines of Madeira are very slow to get their maturation, and it has become the custom lately to submit them to a high temperature in the cellars, so that in six months they *vicillissent* of five or six years; but as a matter of course these wines have not the *bouquet* to be found in those which develop themselves naturally.

The soil of the Madeira vineyards is a mixture of sand, alluvial deposits, volcanic lava, stones and ashes, and some *argile*. The vines are planted on steep slopes, cut and walled like terraces, and water is brought in pipes to water them when necessary; they are generally trained to grow low, not above 3 feet from the ground; the vintage takes place late in August of each year, and in several times, the most ripe grapes alone being brought to the wine-presses for the superior wines.

For the lower qualities, and especially some red wines, species called *vidognc*, *ferral*, and *bastard*, are planted in the most unpropitious parts of the island, and grow amongst orange and other fruit trees; the wines thus obtained are fortified with much alcohol, and as a rule are not exported from the island.

The Madeira wines will keep for over fifty years without losing any of their peculiar bouquet and refinement, but I have had opportunities of tasting samples dating as far back as the end of the eighteenth century, and I must say that at that age there was hardly any other taste than that of strong alcohol to be perceived. Yet these are very much praised and fetch very high prices.

The *Phylloxera* has caused much ravages in the Island of Maderia, yet new plantations have been made and the production averages yearly as much as 176,000 gallons, valued at £80,000.

THE VINEYARDS AND WINES OF CYPRUS.

The ground in which the Cyprus vineyards are planted is that of gentle slopes, very stony and black, which help the maturation of the grapes, and are said to much increase its saccharine proportions.

The principal species of vine is the *Comandaria* which is generally ripe early in August, when the vintage takes place for the making of ordinary wines, but for the wines intended for exportation the vintage is delayed until October. The grapes are first exposed to heat so as to get rid of their watery portion, and are then taken to the wine-press.

The grapes are pressed and crushed in the usual way, and the *must* collected in earthen vats half-buried in the ground; the husks are also pressed after the first juice has run and the results are mixed together. The fermentation takes place in these open vats and lasts fully one month or forty-five days; when it is over, the vats are closed and sent to the merchants' stores where the wines are regularly attended to, and kept for six or seven years before being shipped.

The Cyprus wines do not turn sour, although they are kept almost always in ullaged casks, and without ever being racked or fined; but the vats containing them are so made that they communicate to the wines a taste of coal-tar or pitch which renders them absolutely unfit for any Continental market.

I have been told that the superior Cyprus wines are exempt of such taste and deserve to be classed amongst the best European wines; no samples of such, however, were sent to the Bordeaux Exhibition, or at all events I have had no opportunity of tasting them.

Russia, Greece, the Republic of Chili, the Argentine Republic, the Cape of Good Hope, the Transvaal, and Persia, were also amongst the wine exhibiting countries at either Bordeaux or Amsterdam, but no report could be obtained with respect to their wine industry, neither were the Representative Commissioners in a position to communicate any practical information upon same, beyond some commercial statistics, as to importation and local production, etc., etc. I am therefore unable to afford any particulars concerning the viticulture of these various countries.

I may, however, confidently say that no special benefits could be derived from the practices adopted by their growers, who themselves gravitate gradually towards the systems mostly successful in France.

I deem it proper, however, to call the attention of Colonial growers upon the steady progress of vine culture in Chile, where, within the last few years, the importation of European wines has almost ceased, owing to the numerous vineyards planted there, the wine of which is certainly of inferior description yet, but must be expected to improve before very many years, as well as its quantity is likely to increase yearly owing to constant immigration of vinedressers from the south of Europe.

So far as I could ascertain, there is more to expect from the Chilian vines than from those of California or other parts of North America. Chilian people themselves are large consumers of wine, and the time cannot be very far distant when they will produce enough to export to Europe, their yearly production being now of 22,000,000 gallons, which is considerably more than the whole present yield of the whole vineyards of the Australian Colonies put together.

DISEASES AND INSECTS OF THE VINES.

During my stay in Bordeaux and subsequently on the occasion of my visits to several other vineyards of France, I have had many opportunities to be shown the symptoms of numbers of diseases as well as many insects, of which the European vines have to suffer, as also to be taught their preventive and curative remedies.

I do not mean that I have been made acquainted with every one of these diseases or insects or their remedies in a practical way, but I have been favoured, however, with at least theoretical information and demonstration concerning most of them. For these, I am mostly indebted to Professor Ferdinand Schrader, of the Technological College of Bordeaux, to Mons. Jouct, Government Examiner of Vineyards for the district of Gironde, to Doctor Jolicœur, Professor of the Faculty of Medicine of Rheims, both entomologists of some repute, and further, to numerous other gentlemen, most of them wine-growers, who made such remarks on these subjects as circumstances brought the opportunities forward.

The diseases and insects affecting the vines of Europe may not necessarily follow these to Australia; but some other special to this country must reveal themselves occasionally, and, as it is almost always the case that once a disease or an insect has made its appearance in any particular vineyard for the first time, it is sure to spread itself through all the other vineyards of the country, it is of the utmost interest for

for wine-growers to observe every one of them, and they should provide themselves with means of communicating their discoveries to each other for their mutual benefit; or, if there is any public interest at stake in the welfare of the wine-growing industry, such communication should be made a special duty of the Agricultural Societies or of some such association, if not of a public official.

I should suggest here that collections should be made by some wine-growers of all the insects discovered in any Colonial vineyard, with such particulars as to their peculiarities as might be found practicable. Specimens of diseases should also be treated in the same way, both for special studies and researches of preventive and curative remedies, by either the Director of the Botanical Gardens, some learned Professor of the University, or other specially competent person with or without any official character. Until, however, such steps are adopted, wine-growers individually should not wait, doing nothing or trusting to other people. Their industry in the Colony is so heavily handicapped by unpatriotic prejudices, want of capital, or other narrow-minded bias, that they must help themselves, and depend upon no one else for several generations, during which very common and damaging insects, not including the *Phylloxera*, may multiply themselves to the extent of 1,250 individuals per year for each original couple unless the modest birds introduced in the Colony within the last few years come to the rescue, and with other natural causes, put a limit to the reproductive capabilities of such noxious species.

DISEASES.

The diseases of the vines are not very numerous and are limited to the following in France:—

Jaundice, Reddishness, Rust, Rotting or Pourridié, Morille.

Oidium, Mildew, or Péronospora, Anthracnose or Carbon, Sterility, Extra Vegetation.

The *Jaundice* manifests itself upon the leaves, having the appearance of the yellow spots seen in vineyards actually invaded by the *Phylloxera vastatrix*. The yellow colour of the vine leaves, suffering of *Jaundice* is however much lighter than that resulting from the bites of the *Phylloxera*, but the difference is not such as to be recognised at once by inexperienced persons. The result of that disease is to stop at once the vegetation and prevent the grapes, if any, to reach maturation, or else these are burnt or scalded by the sun, owing to the leaves falling off, thus leaving them unprotected. The *Jaundice* is caused by an insufficient nourishment from the ground, and therefore the remedy should consist in fattening and manuring the soil, mixing it with other earth, and watering more particularly the diseased vines with a solution of 10lbs. of sulphate of iron in 22 gallons of water, at the rate of half-a-gallon per vine.

The *Reddishness* or *Rougin* causes the vine's leaves to become quite red, either wholly or partly, and is attributed to inclemency of the weather, sudden changes of temperature, and poorness of the soil. In any case, the vines have become very weak and require appropriate manuring and pruning. Vines which have been pruned very short until then, must in future be trained and pruned longer. The *Rust* is limited to the leaves alone, and is caused by parasitic mushroom growing on them and causing them to become brownish underneath. To prevent its spreading, there is nothing else recommended than to remove every leaf and burning it.

The *Rotting* or *Pourridié* of the vine is not without some analogy with the external appearance of *Phylloxeric* disease. At first several vines, which have previously appeared very fertile, are seen suddenly fast deperishing, their leaves become yellow, they cease growing as well as the branches. The following year the number of vines thus diseased has much increased, and keeps fast increasing, whilst nothing *anormal* is noticed upon the leaves or branches. If the roots are looked at, they are found to bear some round thick tuberous marks, which differ from the *phylloxeric* nodosities, in that they are round whilst the latter are rather long. Inexperienced persons may well take the first for the result of an invasion of the *Phylloxera*, none of the insect being seen upon either, but by opening the roots of rotten vines they are seen to contain a white cryptogamic vegetation. The effect of the *Pourridié* is also much faster than that of the *Phylloxera*, for in less than two years any vineyard, however large, may be destroyed. The vines, once dead, may be very easily and without any resistance removed from the ground, and when looked at, their bark is found very dark, as soft as a sponge, and full of moisture.

This disease will be experienced by vines planted in damp soil, and is caused by a mushroom growing at first upon the external parts of the roots, until it gradually penetrates the whole system of the vine, and destroys its sap producing elements. As soon as the disease is ascertained, the vines suffering from it should receive immediate attention. A deep hole should be dug round the roots; the lower parts of the trunk washed with a thick mixture of 40 or 50 per cent. of sulphate of iron in water, and the ground all round watered with a similar solution, or one of sulphide of potassium, which would act also as a manure.

It has been ascertained that the first cause of the *Pourridié* is in the oaken stakes used for the vines, as the disease is known to affect more particularly the oak tree, and has been traced in many spots where plantations of oak-trees have been known to exist. Therefore, stakes made with wood from the oak are to be avoided by Colonial growers. Care should be taken also, when attending to the roots, to remove all the small radicles and even shoots which should be infected and to burn them away from the vineyard.

The *Morille* is another disease very similar in its appearance and effect to the *Pourridié*, but is localised to the northern districts of France. The same remedies and precautions are recommended against its development.

The *Mildew* or *Péronospora* is first seen under the appearance of white spots on the inferior side of the leaves, which soon become decomposed and fall to the ground, leaving the vines unprotected; the wood ceases to grow, and the grapes are seen to decay at once. This disease is mostly caused by excessive dampness in the soil and in the temperature; rain, fogs, and sea winds have much to do in its spreading. The remedy mostly recommended against it is the washing of the lower parts of each vine with a solution of sulphate of iron.

The *Anthracnose* or *Carbon* is a cryptogamic disease, revealing itself by black or dark brown spots appearing upon the vine's wood, branches, and veins of the leaves, and on the young grapes. These black spots go on constantly increasing in number and in size until they actually form an uninterrupted line. The plant becomes very dry, a very slight wind is enough to break the new branches, the grapes get torn, and soon desiccate entirely without ever getting ripe, the leaves lose their dark green colour and become full of cracks or holes surrounded with black lines. This disease is comparatively new and not yet well-known, but it is found to generate itself in damp soils or under the influence of wet seasons.

The

The only remedy which, so far, has been found in any way successful is to sulphur the vines early after the flowering, and to continue doing so if necessary every fortnight, by mixing as much as two-thirds of quick lime with the sulphur. During the following winter, the trunks and main branches should be washed or painted with a solution of sulphate of iron, taking care not to touch the buds or eyes; and at the time of pruning, all the diseased parts must be strictly cut and burnt away.

The *Antrachnose*, if left alone, would surely and quickly destroy any vine it attacks, but prompt and energetic application of the above treatment will restore the vines to health, or protect them against the disease, if resorted to at the very earliest moment.

The *Oidium* is already too well known in the Australian Colonies to render necessary an extensive description of its effects. It affects mostly the green parts of the vines, covering them with a white dust exhaling a strong smell of moisture; these white spots, which are cryptogamic, soon extend, and the vines exhibit symptoms much similar to those provoked by the *antrachnose*, from every part of the plant, and at an early stage of its yearly development.

The remedies against *Oidium* have been, and are still very numerous, as indeed against all other diseases, and all insects damaging the vines; many of these remedies have often done more harm than good to the vines, and as many again have been perfectly harmless, unless to the purses of confident vine-growers; sulphur alone is recognised by the most competent and qualified authorities to be of any beneficial influence; yet, a good minority is also of a different opinion. At all events, up to this day, none of the patent compositions, brought forward by their authors, have proved as successful as powdered sulphur, and Colonial wine-growers should abstain from resorting to such patent remedies, unless as experiments, and on a very limited scale.

It is recommended to apply three sulphurings yearly to the vines suffering of *Oidium*; the first one in May, about the European flowering season, corresponding here to October or November, in the proportion of 12 lbs. per acre; a second sulphuring should follow towards the end of June, or rather December here, in the proportion of 24 lbs. per acre; and the third, about July or August—that is, January or February in Australia, at the rate of 40 lbs. per acre, equal to 75 lbs. per year and per acre. The sulphuring operations should be conducted by dry and warm weather, when the leaves are free from moisture; a light breeze blowing at the time would also help to the dispersion of the sulphur amongst the vines. The sulphur should be projected both above and underneath the leaves and grapes, and from each direction; and sulphured waters are often found as beneficial and always more economical than the powder, and when used should be thrown over each vine in such a way as to reach every leaf, just as would be done for flowers, and in large quantities at a time. For this last way of applying the remedy, a quantity of 20 pounds of sulphide of potassium, dissolved in 220 gallons of water, will be found sufficient to water 2 acres of vines. Sulphur and lime distributed at the foot of each vine, on the ground, will be found also a preventive remedy for the seasons following those during which the *Oidium* would have been noticed in any vineyard. Bellows are now in general use for sulphuring the vines, and should certainly be found on every vineyard properly appointed.

Number of species of vines are known to resist to *Oidium* better than others in various countries, and some observations on this point should certainly be started by Colonial wine-growers with a view to their being more generally adopted in this Colony.

The *Oidium* will be found spreading much more in the vicinity of the sea, and in all damp parts of the country, than in those districts enjoying much heat and dryness. The vines growing high will also be found more liable to be caught by it than those trained low; yet, as the high growing vines and the vicinity of the sea are very beneficial in many other ways to the vines, and on the whole, more so than otherwise, new Colonial vineyards should nevertheless be planted in the coast districts, but slopes well exposed to the sun and protected against sea winds would have to be selected by growers. In any case, vines discovered as suffering of *Oidium* should not be neglected, but attended to at once, more especially if their grapes are intended for wine-making, as the wines thus made would never be of any value; the latest sulphuring should also be made long enough before vintage, so that no sulphur should remain on the grapes or berries at the time of their being pressed, for fear of its damaging the wines.

INSECTS.

The various insects mostly known as noxious to European vineyards are found amongst the four following classes:—

1st. The *Coleopteran*, or beetles whose two superior wings, hard and thick, cover the inferior wings, which being membranous, fold underneath when at rest. Amongst these are to be included the *Cockchafer*, the *Euchloris*, or green beetle, the *Attelabe*, or golden beetle, the *Othiorhynque*, the *Lumolpus*, and the *Altise*.

2nd. The *Orthopteran*, or beetles with four wings, the two inferior of which fold longway, such as the grasshoppers.

3rd. The *Lepidopters*, or insects which pass through several states and forms, such as eggs, larvas, caterpillars, worms, butterflies and moths. The most damaging to the vines amongst these is the *Pyralis*.

4th. The *Mollusks*, or grubs without vertebræ, such as the snails, lonches, &c.

5th. The *Hemipteras*, or beetle whose mouths are either provided with, or shaped as suckers, and whose wings are partly protected by sheaths, such as the *Cochineal* and *Phylloxera*.

A description of every one of them cannot be complete without engravings, but these I had not the means of obtaining. I am not aware, however, that as yet any number of these European insects have found their way to Australia, so that any interest which may be attached to their identification is not altogether immediate, and I hope will never be so, although wine-growers should be prepared nevertheless to meet them should they ever appear.

It must be said also that the smaller are these grubs, the more dangerous they generally are, and the more difficult it is to get rid of them. Neither is any Act of Parliament to be relied upon to prevent their landing in any country. Thus a Colonial Act was passed in 1867, against the introduction of *Oidium*, and in 1868-9 petitions were presented by Colonial growers to obtain a more stringent Act to prevent, not its introduction, which was an accomplished fact, but its spreading in this Colony.

In

In every wine-growing district, at each School of Arts and Technological College and Museum, a systematic inquiry and collection should certainly be made of those insects known and seen about Colonial vineyards, so as not to lose one's time in investigating about species not already existing here, nor as to the means of destroying or driving them away, unless they have the character of a scourge, as it might lead to disappointment, and perhaps frighten many people from investing either time or capital in an industry left exposed to so many small and sometimes invisible enemies, against which they would be practically unprotected, unless by suggestions of means used against other insects of other countries, and possibly of no use in Australia.

Against the *Coleopterans* there are very few effective remedies known in Europe. These insects, once fully developed, are almost beyond reach of man, and have only to fear the hostility of the small birds such as the sparrows, the swallows, &c.; but it is when yet in the state of larvas or worms that these beetles may be easily destroyed, by often ploughing the vineyards before springtime, and allowing the fowls, ducks, &c., to follow the plough, when they will soon detect any larva. Frequent ploughing, or other tilling, of the ground have also an effect to prevent insects of every description to select such spots for their nests.

The *cockchafer* is I believe unknown in Australia. I have occasionally seen green and golden beetles, but I am unaware whether the *Othiorhynque*, more generally known as the *grey weevil*, has ever made its presence felt. As to the *Eumolpus* or *Gribouri*, and as to the *Altise*, I am in doubt.

The *Attelabe*, or golden beetle, selects the new vine leaves for their residence, twisting them like paper rolls, or cigars, and depositing their eggs in it, and they occasionally attack also the grapes themselves to pump their juice out. The best means to check the progress of this insect, is to watch frequently the vines, and immediately remove the leaves which appear suffering from its bites, burning them at once. A few plantations of hempseeds here and there between the vines or about the vineyards are said to drive away the golden beetles, the smell of that plant being reported objectionable to them; but as soon as the hemp has grown some height, it should be removed, as it is likely to have had its effect, or, if left, would absorb much of the nourishment intended for the vines alone.

The *Othiorhynque* is a *black weevil* about half an inch in length and very hairy; it attacks the vines at night only, about the flowering season of the new buds. During the daytime, it hides itself either in the ground or in the holes of the trunks or stakes of the vines.

The best way of reaching it is to dig small holes round the roots of the vines, where they will likely be detected, and may then be easily destroyed with a small stick or any tool. It is recommended also to spread naphtha oil about the ground, mixing it with water, or again, to paint the lower part of the vines under the roots with a thick mixture of lime and coal-tar, the smell and limy nature of which will both drive away, or prevent the insect from creeping up, to the green stuff.

The *Eumolpus* or *Gribouri* is a black beetle, hardly a quarter of an inch in size, appearing with the late spring, after the flowering of the vine, but it has then caused considerable damage to its roots as a larva before being fully developed. When the *Gribouri* goes about the leaves and grapes, it leaves upon them lines and cuttings very peculiar in shape and very numerous.

To protect the vineyards against this insect, the best remedy is to spread in the ground, at the time of ploughing or tilling, small quantities of a fine powder of colza-oil cakes, which should be at once pushed deeply underneath the surface.

It is also recommended to hunt the insect and pick it away, but the insect is very quick to escape by dropping at once from the tree and disappearing in the earth.

The *Altise* or *Blue Puceron* is a beetle, about a quarter of an inch or even less in size, somewhat bluish and very smooth. This insect is one of the worst which can be found on a vineyard and most difficult to reach owing to its instincts of any danger.

Beyond the means of destruction suggested for the insects already described, it has been found that by placing under each vine a sort of wide hand-shovel or dust-pan made with a long cutting so as to take in the trunk and stake, and coated with coal-tar or pitch, the *Altise* will seek to escape from its pursuers by dropping at once from the tree and falling in the coal-tar, from which it cannot get out. Two persons must for that purpose go together from vine to vine, avoiding projecting any shadow, and, whilst one places the dust-pan under the vine, the other, with a small stick, must shake the vine in order to cause the beetles falling and dropping. A few days of such process will generally be found enough to free any vineyard from the presence of that most damaging insect.

The *Orthopterans* include the *grasshoppers*, and with these the *wasps*. Both insects are well known in the colony. The first may be easily seized and burned without danger. As to the second it would more likely prove rather dangerous. No special means of destruction have been communicated to me against these two insects, the damages of which are somewhat limited in European vineyards. Swallows and sparrows are considered as their best destroyers, in common with all other small birds.

The *Lépidopters* may be said to include all grubs or worms and butterflies, the number of which is considerable, the most dangerous to the vines being the *Cochylis* and the *Pyralis*.

The means of destruction of these insects are different according to their state of caterpillars or moths.

Against caterpillars, it is recommended to rub the vine trees with a thick limy mixture of quick lime, naphtha oil, and water. As most of these grubs will hide in the day-time and creep to the vines at night, this paint will prevent them from either going back to the earth or reaching again the new leaves, and if they are killed as soon as they are seen, their number must necessarily soon decrease and disappear.

It is also thought advisable to dig round holes at the foot of each vine, and fill these with a mixture of naphtha oil, coal-tar, and water to reach the larva of these grubs in the grounds. As they are likely to have left their eggs in the stakes and under the bark of the vines, these should be well scalded with boiling water, so as not to hurt the shoots, or else impregnated with the limy mixture above described at least once a year, shortly before the spring. For that purpose also it is customary to steam stakes into a boiling solution of sulphate of copper, or to replace them whenever practicable by wire stakes.

Against the *Butterflies* or moths the means of destruction consist in seizing and killing them at once during the day-time, but at night a few lamps should be kept burning amongst the vines, and left in the middle of a dish filled up with any sort of oil. The butterflies are caught by the light, and through knocking themselves against the glasses will fall in the oil and remain there. Occasionally, fires are lit about vineyards at night in order to bring the moths into it and thus burn them.

The

The *Mollusks*, *snails*, *loaches*, etc., which are very voracious and destructive, and also very numerous and in great varieties amongst European vines, must not be allowed to multiply themselves. People should be directed to seize and destroy them whenever they see them. Winegrowers do, however, find it a very effective and preventive remedy to water the vines with a solution of water and quick-lime, and also to throw some powder of quick-lime about the vines early in the morning from time to time.

Some small quantity of essence of *thérébenthine*, put on the stakes and vines, near the ground, will protect the grapes from any damages by the *white ants*.

The *Hemipters*,—Among these the *Cochineal* and the *Phylloxera vastatrix* are the two species mostly known as much to be dreaded for vineyards in Europe.

The *Cochineal* is a small beetle, about $\frac{1}{4}$ of an inch in size, somewhat elliptical or oval in shape, rather flat, and of dark red color, with some black spots. The specimen generally seen on vines appears unable to move about, unless very slowly; they remain almost all their life-time on the same leaf or grape, surrounding themselves with a white solid secretion, in which they leave their eggs.

The damage done by these insects is in proportion to their number, which sometimes happens to be very considerable, destroying not only the leaves and grapes of any vintage, but actually killing the plants themselves.

Against these, the recommendation is to rub the trunks of each vine with a mixture of soft black soap, essence of turpentine and water, besides removing each individual and destroying it at once, whenever any of them is seen.

PHYLLOXERA.

The *Phylloxera vastatrix* is a very small beetle, very weak and soft, measuring not more than $\frac{1}{2}$ of an inch. It is provided with four wings and six legs, and a sucker, which it dips in the vines to absorb their sap. It is rather oval in shape, and has two horns on its head. Its color is greenish yellow, and it is not very easy to distinguish it with the naked eye, until quite familiarized with its appearance; even then a strong magnifying glass is generally required.

A description of this insect cannot, however, be given in a few lines, for it takes four or five distinct forms successively: first that of an egg; then, when quite young, it has the above and first appearance of an ordinary puceron, oval and yellow. When it becomes a chrysalis, it is somewhat larger and more yellow, and when a perfect insect it has wings and reaches almost $\frac{1}{2}$ of an inch in length. It has two kinds of existence, one under ground and the other aerial, and possesses wonderful powers of multiplication of its species, as well as of spreading itself over large extent of ground, and travelling long distances in very short time, although it remains in a perfectly absolute immobility as long as the roots of the vine, upon which it is fixed at the time, give him a sufficient nourishment.

On the leaves of certain vines the *Phylloxera* causes small galls, which it fills up with eggs. These, however, have never been frequently detected on European vines, but seem exclusively reserved to species of American origin.

The damage caused by the *Phylloxera* to the vines, is found exclusively on its subterranean portions. The insect provokes, early in the season, on the fibres of the vines, some long, irregularly shaped, and transparent swellings, or *nodosities*, which disappear after a few weeks, generally towards the middle of the summer, causing then the rottenness of the larger roots. The vines thus and then lose their roots and die through exhaustion.

The double power of dissemination of the *Phylloxera* exercises itself as follows:—

1. When, either through first and unexplained circumstances, or as remnants of the previous seasons, the *Phylloxera* has invaded a vineyard, if roots are examined with a microscope in the early part of the year, during the winter months, a quantity of young insects will be detected on the roots. They are generally all about the same size, very small, of dark brownish color, and their developments or movements are evidently stopped by the cold and damp weather. But as soon as the warm weather returns, about spring time, these insects change their dark skin against a brighter yellow one; they slightly increase in size; they moult twice more, merely increasing in size but not transforming in structure, nor becoming winged. They then may be observed, without any coupling, and whilst at their destructive work of sucking the sap of the vines, to lay a very large number of eggs of very diminutive size, which will hatch eight or ten days later, producing many quick young insects, which, themselves, twenty days later, after the same number of sloughs as their predecessors, will turn out to be layers, and issue eggs which also will follow the same course, and so on for the whole nine months following, so that, from calculations made, an original single individual unwinged *Phylloxera*, does produce in less than twelve months some 25,000,000 of eggs, which will give birth to so many more insects with the same destructive power. These, during the warm weather, circulate freely, underneath the ground as well as in the cracks of the soil or at the surface, whenever they require emigrating from one vine or from one vineyard to another. And thus they travel and devastate district after district, country after country.

2. The other mode of dissemination of the *Phylloxera* is by winged insects.

This peculiar sort of *Phylloxera* has been detected to proceed from the one above described. A certain number of the first issues, by the time the *nodosities* of the fibres or roots disappear, as explained, towards the middle of summer, appear as chrysalis, and are suddenly provided with four wings. Before these are fully developed, the beetles crawl up to the surface, and as if the open air strengthens them at once, they open their wings and are carried away by the winds, sometimes as far as 15 or 20 miles, and even more.

These insects are still all of the female or egg-laying sort; and after having reached their new settlement, they lay eggs again, in less numbers than in their first stage, but of somewhat more oval and larger shape, and whitish. They generally lay these eggs at the junction of the veins of the leaves, sometimes in the bark, or occasionally in the ground, they being influenced by the temperature and state of the weather.

These same eggs are not all of the same size, and produce, very soon, most diminutive insects without wings, which have been ascertained to be deprived of suckers and of digestive organs, and intended for procreation only, the smaller being the males, the larger being the females, and they do not live longer

longer than very few days; but it is long enough for their coupling to take place. The males die and disappear almost immediately after, but the female lays one egg, which it deposits in the bark on the lower part of the vine-tree, exposed to the air. The female then dies, and this egg, known as the *winter's egg*, will not hatch until the following spring, giving birth to new swarms of *Phylloxera*, which will go on through the various and complicated ordeals just mentioned, some of them reaching at once the subterranean roots, some others seeking the leaves of certain species of vines. It is said that without this *winter egg* this species of *Phylloxera* would soon be extinct.

To facilitate the identification of this imperceptible insect, I have brought with me dead specimen of same in microscopic preparations, for which I am indebted to Mons. le Professor Schrader, of Bordeaux. I have also obtained, through the assistance of Mons. Barral, Secretary-General to the Society of Agriculture in France, painted reproductions of the insect on glass, intended for illustration and demonstration by lantern readings; so that at any future time, I shall be ready to submit these to the observation of interested parties. I have also provided myself or been furnished with, official and descriptive reports bearing on the subject, and which no doubt would prove of great assistance in case of need. For these official reports I am mostly indebted to Mons. Tisserand, State Councillor and Director-General of Agriculture of that ministerial department at Paris, who further kindly promised to regularly address in future, similar yearly documents of his department to the New South Wales Government.

As to the effects of the *Phylloxera* upon the vine, they are not noticed at once; there is no sensible alteration in the external vegetation during the first year; indeed the vines seem more fertile and more luxuriant than ever. The second year will not always reveal the invasion nor provoke any anxiety; but during the third year, the vines will be noticed to deperish, the leaves will be fewer, and soon lose their dark green appearance, which will be replaced by a pale green or yellow tint; there will hardly be any grapes at all, if any, and by the fourth year the vineyard will be completely and irreparably destroyed, nothing remaining to be done but to uproot and burn every vine.

To be quite certain of the invasion by the *Phylloxera*, a careful examination of the roots must be made through a strongly magnifying glass. The insect itself will not always be seen, for by the time the damage is done and seen, it will have very likely left the diseased tree to emigrate on some healthier one. I recollect having seen as many as ten vines being uprooted in some vineyards near Bordeaux, without any insect being found on them. However, when it is seen, no doubt can remain; but should it not be seen, traces of its passage will remain, the nodosities of the fibres and roots being *irrécusable* proofs. As a matter of fact, every grower should frequently inspect for himself the roots of several vines of his vineyard at different times of the year, to satisfy himself that there is no *Phylloxera* about; and for such inspection, the most vigorous and luxuriant-looking vines should be selected, there being for this no necessity to uproot the whole tree, nor to do any harm whatever to the plant.

As soon as there is the slightest sign or even doubt of danger, no delay, no hesitation should take place in resorting at once to the known effective remedies, and above all, a report of such invasion should at once be made public, to enable other wine-growers to protect themselves and join together in fighting the insect; this is a most important point. A general understanding should take place; without it the progress of the *Phylloxera* may be partially checked in one place, but will fast extend in another, so that any remedy, any expense, will prove perfectly useless, as has been unfortunately the case in European countries. There was there, however, the excuse that people had been taken unaware, and that the *Phylloxera* covered already and had long ago destroyed many vineyards by the time it was known, and by the time any curative remedies against it had been discovered, besides the unavoidable uncertainty which at first surrounded the scientific studies, and besides the many absurd, costly, and useless quack and empiric insecticides brought forward by many unscrupulous speculators.

There would not be, however, the same excuse for Australian growers, who should certainly avail themselves and benefit by the experience of Europe, and adopt at once protective measures of a general, national, and even federal character. If there is any faith in the future of Colonial vineyards, or if any value is attached to those actually existing, nothing short of a compulsory periodical examination of vineyards should take place, and, if deemed necessary, joint treatments under organized supervision at both public and private expense; otherwise private interests, left to do the best they may think for themselves, will surely lead to the complete ruin of many colonists in a very short time.

I will, however, deal now with the remedies known and recommended by official authorities as most effective, reserving to myself to deal later on at greater length upon administrative and protective measures to be adopted.

These preventive and curative remedies are:—

1. The destruction of the *winter's eggs*, which in itself is the very best way to destroy the species, by scalding the feet of the vines and their stakes with boiling water, and also the ground surrounding them; or again, after the pruning, by whitewashing these stakes and vine-trees with insecticide mixtures, such as the heavy oils from coal-tar mixed with warm water, which has been successfully tried in several parts of France, strict care being always taken from avoiding scalding or in any way touching the eyes, buds, or shoots of the vine.

For the same purpose, it has been suggested to remove the whole of the bark of the vine-trees shortly before the spring, or again to rub it with a glove made of steel or iron rings, or scales.

The blazing or singeing of the same with a specially made bellows has been much approved also, and would prove beneficial as well against all other sorts of insects, grubs, &c.

2. The submersion of the vineyards so situated alongside watercourses as to allow making use of it for fully forty days during each winter, the *Phylloxera* being then suffocated by drowning; but this remedy cannot be much used in this Colony.

After each submersion, the vineyard must be slightly manured.

3. The sulphuret of carbon, injected through an apparatus during winter in the ground, and at the rate of thirty grammes of sulphuret for each vine, in three different holes, bored not too close to the plants.
4. The sulpho-carbonate of potassium injected during both summer and winter by wet days, 50 grammes dissolved in a quart of water being spread in holes dug for the purpose round each vine. This last remedy I have seen giving excellent results in the Charente, especially on the vineyards belonging to Mr. S. Moullon, Chairman of the Chamber of Commerce and of the

Special

Special Committee of Viticulture of Cognac, who kindly explained himself on the spot all operations connected with same. I must add also that a large quantity of water is indispensable for the carrying out of that remedy, as well as a subsequent strong manuring.

The effects of the sulphuret of carbon and of the submersion are also undoubted in the numerous vineyards where they are adopted. The vineyards alongside the Garonne and in the south of France are all submerged every year and do not in any way suffer from the *Phylloxera*; but, besides being expensive, it is said that it is doubtful whether this remedy will not ultimately prove also very damageable by rotting the vines after a number of years.

The remedy by the sulphuret of carbon is a very costly one; it has proved very successful all over the St. Emilion district, near Bordeaux, and also in the surrounding territories of Montpellier, but has been reported as not adapted to compact soils.

However, wherever these last three remedies have been adopted, they have been found to destroy the *Phylloxera*, to save the vintage and the vines for the first year; the second year the results are much more satisfactory again; and after the third year there would not be any further reason to employ them if all the neighbouring vineyards were themselves free from *Phylloxera*.

Wherever any of the above remedies have not been followed, or have proved too expensive with respect to the quality and commercial value of the wines obtained, the European vines have been given up or either replanted in *sandy soil* or replaced by *American vines*.

I have had opportunities to see large vineyards planted in sand-hills close to the sea-shore, all along the Mediterranean coast, from the border of Spain to the vicinity of Marseilles. The results already obtained are reported upon very favourably, and there is every reason to admit that the *Phylloxera* cannot invade these vineyards, the soil of which consists of at least 70 per cent. of very fine sand; the finer the sand the more difficult it appears for the insect to find its way through it; should, however, the nature of the soil be in any way changed by the mixture of stronger earth or frequent additions of solid instead of liquid manure, it is doubtful whether the same immunity would exist, for the *Phylloxera* has been found in soil consisting of as much as 50 per cent. of sand.

THE RECONSTITUTION OF FRENCH VINEYARDS by the plantation of *American vines*, either as direct producers of wines, or for the purpose of bearing grafted European vines from which the old French wines could be had again, is the most generally adopted mean all over the southern districts of France; the same faith does not exist in it amongst the Bordeaux growers who refuse to believe that wines from American vines can ever be free from the *foxy* taste peculiar to them.

I must, however, say that extensive plantations of these vines may be seen and visited not very far from Bordeaux, the owners of which, and amongst them Made. V. Ponsot, Mon. Laliman, Mons. Piola, well known in Europe have full confidence in their new vines, and look upon them as the only chance left to the wine trade of France, whilst about Montpellier and the southern districts of France, vineyards otherwise constituted than with American vines are scarce, those most deserving notice being the properties of Madame la Duchesse de Fitz-James and of Monr. S. Bastide, who reconstituted in five years a vineyard of 250 acres solely through American vines.

It is not however every species of American vine which is qualified for the reconstitution of the French vineyards; there are many amongst them which do not resist the *Phylloxera* any more than European vines, whilst others are in no way adapted to the production of wines such as those to which European consumers have been accustomed, and others again will give different produce according to the soil and climate where they are cultivated.

I must say that, personally, I have not much hope to see the character of French wines remaining unaltered, if produced only by American vines; all those I have tasted retaining to some more or less perceptible degree, the heavy sweet and fruity after-taste designated as foxy, or imparting it somewhat slightly to the ordinary wines of Europe with which they may be blended.

Amongst the American vines considered up to this day as the most successful, both for resisting the *Phylloxera*, and for producing wines, I have ascertained that the following are the most in favour amongst the French wine-growers:—

1. For white wines: *The Triumph* and the *Noah*.

The first is reported as very fertile, giving as much as 1,200 gallons per acre in alluvial soil, of a wine free of foxy taste, and containing not more than 10 degrees Gay Lussac of alcohol.

The second species is also very fertile, but its wine is fully of a spirituous strength of 14 degrees; when distilled by itself the *must* is reduced to a very good brandy.

Both species are said further to be free from the *oidium*, *mildew*, and *antrachnose*.

For the red wines, the *Jacquez* (*Estivalis*), the *Herbemont*, the *Othello*, the *Canada* the *Black Eagle*, the *Black Defiance*, are much thought of.

The *Jacquez* is liable to suffer from the *mildew* and *Antrachnosis*; its fertility is somewhat limited, but its wine, rather alcoholic, is full-bodied, has much colour, and a neutral taste, which permits its blending with common French wines.

The *Herbemont* resists particularly well to all cryptogamic diseases; it is also very fertile, free from the foxy taste, very light in colour and in alcohol.

The *Othello* is a variety of *Labrusca*, most fertile, and of very early maturation; its wine is not very alcoholic, and is so well constituted as to cause some hope that it may in time take the place of the French species *Malbec* and *Merlot*, if these were to disappear.

The *Canada* is found to reach full maturation as early as the end of August; its fertility is somewhat small, but its wine is considered as very fine; that species is further said to resist successfully to the *oidium*, *mildew*, and *Antrachnose*.

The *Black Eagle* and *Black Defiance* give also very great expectations, as direct producers of red wines.

Amongst the species mostly recommended for grafting purposes, the *Jacquez*, the *Vialla*, the *Vitis Rupestris*, the *York Madeira* are mentioned as successful in any variety of soil; the *Riparia* should be planted in deep and rich soils only; as to the mode of grafting, the slip or flute grafting is the one generally recommended as found always successful, if short, and neatly made.

In addition to the above-named species, many others are still under observations for the various purposes indicated, viz., the *Allen's Hybrids*, the *Irving*, the *White Isabella*, the *Emily*, and the *Green* for the making of white wines; and as for red wines, mention must be made of the *Huntingdown*, the *Black July*, the *Baldwin*, the *Secretary*, the *Ariadne* not yet well-known. It

It might well be added here that the whole of the southern wine districts of France, since the ravages of the *Phylloxera* are very little better off than the Australasian Colonies, with respect to the constitution of their vineyards.

I was present at a special general meeting of winegrowers held at the Government School of Viticulture, of Montpellier, on the 10th, 11th, and 12th March, 1883, especially for the purpose of exchanging remarks, comparing results, and ultimately arrive at some conclusion with respect to any new species to be adopted in preference to others. It cannot be said that there was an unanimity of opinion on the matter, especially if it is borne in mind that no less than 1,200 persons were present at the sittings of that Congress.

Still, progresses are being made in the way of coming to a common conclusion. Experiences are conducted on a large scale by the learned director of the school, Professeur Foix, seconded by many private gentlemen upon their own properties. I must say also that this district possesses amongst other notabilities, no less *savants* than Monr. Planchon, Monr. Lichtenstein, Mons. Vialla, the Duchess of St. James, all well-known, and of great repute in Europe, as authorities on all matters concerning the vine, its diseases, and the *Phylloxera*.

The example mentioned above as given by the wine-growers of the south of France, meeting together each year at Montpellier, is worth being followed by Colonial growers, and the uncertainty yet prevailing as to the best species to be in future cultivated in France, is a reason for the colony not to despair of finding some day also for itself what best species must be in the same way generally planted here to obtain better wines. To obtain that information sooner than otherwise, it might well be decided that every vineyard now existing, and any other to be brought into existence, should henceforth be registered, with a full description of the species planted and of their origin. And at the same time, as a protection against the introduction of *Phylloxera*, no new species should be authorized to be planted unless of Colonial origin or seeds.

The danger and risk of invasion of the *Phylloxera* in Europe, according to the theories most generally adopted, was originally from America only, but the dreadful beetles have now become so numerous in Europe, that these colonies have to provide against its arrival here from Europe as well as from America. On such a question as this, unanimity of action should certainly prevail amongst the several Australian colonies, for if the *Phylloxera* once penetrates on a corner of Australian territory there is no safety for any part of this continent. I am aware that it has been said that the *Phylloxera* had been found in the Geelong district of Victoria, that by energetic and prompt measures its progresses have been prevented, and that indemnities have been paid to wine-growers whose vineyards had been destroyed for the public good. But it must be said that it has been a narrow escape, and that the insect has turned out in this case, of very easy dispositions, behaving quite differently to the way in which it does in any other part of the world.

Steps should certainly be adopted by the colonies jointly, or by every one separately, for a similar and uniform organization of a proper service and the appointment of competent men to prepare an energetic check as well as uniform means of resistance against any invasion or spreading of this insect.

There is this to be added again, that the danger for Australia is so much greater, that at the present time, vines from America as well as from Europe are in existence in these colonies. In New South Wales there are vineyards planted with no other species than American vines, and what is worst with species of the most dangerous character, as being unable to resist the *Phylloxera*; such are the *Isabella* and the *Lambruscat*.

It has, in fact, been a matter of surprise for the most learned men of Europe, that so large quantities of American vines of these non-resisting species should have been introduced and kept growing in New South Wales without any *Phylloxera* having reached this country, as has been the case with more southern parts of Australia.

No time should therefore be lost by the interested parties, in providing against such unfortunate possible event, the effects of which are not generally known until long after the harm is done, when two years at least have elapsed from the first actual landing of the insect.

As a matter of course, there are also many other insects, parasites, and diseases, special to the vines, against which protection should be obtained. But none are so injurious as the *Phylloxera*, which has been destroying as much as 250,000 acres of vineyards within each twelve months since its first *apparition* in France. To stop its progresses, against which nothing was known to be effective for years, it should have been necessary for all the growers to combine together their efforts and means. But this general action has never been found. Many people would not believe they were in any danger until their vines were almost destroyed. They hoped to be more spared and to have better luck than their neighbours, or they trusted to their own individual and separate knowledge and action, with the result that whilst remedies were resorted to in one part of a district with some success, the insect simply passed on some neighbouring territory where full liberty was left to him to multiply itself again, thus rendering void the expenditure and trouble endorsed by any other people.

WITHOUT WISHING TO CREATE AN UNJUSTIFIED ALARM, or giving any undue cause of anxiety to Colonial growers, *this report must insist* upon something being done while it is yet time, and before it is too late, towards being ready for the protection of Colonial vineyards against a possible and most probable danger.

I do not think that I can do better for convincing whoever it may concern, of this absolute necessity than to add, as appendix to this report, a translation of some documents from the Institute of France, and from the French Department of Agriculture, bearing upon the subject; also, a translation of the law now in force in Spain with respect to viticulture, a better one than which does not exist, and which could well be adopted, or even made somewhat more stringent in this Colony, owing to the fact that no *Phylloxera* is yet known to exist here; also the International Convention against the spreading of *Phylloxera*, entered into at Berne on September 9, 1878 by the Governments of France, Germany, Portugal, Italy, Austria, Hungary, and Switzerland, for their mutual protection, and to which Australia should also become a party.

The French Government in return for the large contribution of the wine industry to the public revenue, spends yearly no less than £60,000 to assist the growers in fighting and endeavouring to attenuate the ravages and progress of the *Phylloxera*.

LEGISLATION

LEGISLATION OF THE WINE TRADE IN FRANCE.

The wine trade of France is considered and treated as the most important contribution to the public revenue of the country after the stamp duties; thus in the French *Budget* of 1882, the taxes on drinks were valued in the receipts for 393,775,000 francs or £98,443,750; no other chapter of the Budget does come in any way near such a high figure, which is mostly derived from the wine-growing industry of the country itself; and let it be well understood that it exclusively refers to the tax received by the Central Government, in addition to which almost as large an amount is contributed to the Municipalities within which the wines are consumed or have simply to pass through.

At the present time, any French-grown wine, if under an alcoholic strength of 15 degrees centigrades, and not more, has to pay before being admitted from the country's vineyard within the walls of the City of Paris, combined taxes aggregating altogether to 18 francs per hectolitre, or nearly 15s. sterling per 22 gallons; as to the spirituous liquors, including naturally strong or fortified wines besides the *Cognacs* from the French Districts, the taxes amount to 226 francs per hectolitre of pure alcohol of 100 degrees, or £10 10s. 6d. per 22 gallons, equal to 10s. per gallon. All wines containing more than 21° G.L. of alcohol are taxed as spirits.

The vine-growers making their own wine on their own ground, are perfectly free from any tax or control as long as their wines do not come out of their cellars, unless these are situated in any municipality; in which case they have to declare to the quantity obtained from each vintage; but have not to pay for any license or any tax whatever; those who distil their own wines are not treated differently, excepting, however, that they have to submit to the control of the Distilleries Inspectors.

As soon as wine comes out of any cellar and appears on the public highway, a special permit must be applied for, and a tax, called a circulation due, paid for at the rate of 3s. 3d. per 22 gallons; this wine whatever be the quantity, if above half a gallon at a time, in bottles or otherwise, cannot then be taken from one district to another, not even within the same district, without particulars being provided in writing, stating fully the quantity, the hour, the means of transport, the road to be taken, the place of destination, the name of the consignee, the nature and alcoholic strength of the wine, nor without a certificate of such particulars having been delivered being provided to the person in charge of the wines to be transported, and whose name must appear on the certificate as well as the delay within which the transport should be made. In the case of a grower merely shifting his wines from one cellar to another, no circulation due is then paid, but the above formality must be gone through.

When the wines thus travelling, are sent to wholesale or retail merchants, whose stores are under bond, the certificate is given without actual payment of the circulation dues, but upon a special engagement to pay same before the wine is actually brought in the market; if these wines are sent by a grower direct to the consumer, or to anyone not having bonded stores, the circulation due must be paid at once by the sender, or else by the receiver, and no discharge for the same is granted to the grower or sender until this first tax is paid, besides keeping him liable to fines for any undue delay, or any irregularity whatever of which the draymen or other men in his employ may be guilty, without himself being in any way party to such delay or irregularity. Whenever the wines have to go through a municipality, and not to remain there, a permit or free pass is granted, but strictly returnable within the day, as just allowing a reasonable time to reach the furthest limit; failing which the due may be claimed, and fines enforced for any delay in complying with the request. Wines actually on their way to a port of shipment for exportation, are free from any tax, but their shipment must be justified in due course.

This circulation due and the formalities attending it, may seem rather vexatious, and is sorely felt by the people; but it provides the taxes collectors with a most effective way of securing its payment, and of preventing fraud.

The wholesale wine merchants of France have to obtain a special license, and to pay a fee which varies according to the importance of their place of residence. They must further be provided with approved security, or get caution for the payment of any dues, taxes, or fines for which they should become liable. Their license and the cautions must be renewed every year, and the locality and description of their stores or places of business cannot be other than that defined in the license, nor have any issue otherwise than upon any public street or highway.

If a wine merchant is also wine-grower, and receives his yearly vintage in his cellar, the new wines thus stored within the municipality are entered to his account, and he is kept answerable for all dues or taxes upon the same. An ullage allowance of 8 per cent. is made every year upon the wines, to cover all evaporations, or loss through manipulations within the cellars. All other quantities found to be missing or unaccounted, and upon which the taxes do not appear to have been paid, must be acquitted at once, and should any quantity be found stored in excess of what should be in accordance with the books of the taxes collectors, these are entered at once, and the wine-merchant liable for the dues and taxes on same as for any other quantities. In the event of losses, through breakages of casks, fire, or accidents whatever, report of same should be made without delay.

The retail wine merchants are also bound to obtain every year a special license, to pay fees for the same, and to provide cautions for the payment of any taxes or fines for which they may become indebted.

The sale of wine in quantities inferior to six gallons at a time is considered as retail sale, and anyone found guilty of selling wine, either by retail or wholesale, without license, and before payment of such fees as are authorized by laws or regulations from the Central Government, is liable to very heavy fines, independently of such accessory penalties as the seizure or confiscation of such quantities of wines as may be discovered belonging to him.

Special sworn agents are appointed for the control of the wine trade.

With respect to the alcohol trade, the laws of France are not less stringent than respecting the wine-making industry, and on the whole the Colonial Act on Distilleries is not much at variance with them.

Public opinion in France is getting much dissatisfied with the inquisitive and vexatious character of the laws concerning the matter; but the great importance of the share contributed to the public revenue renders it very difficult to substitute any better means of control than those existing. A few years ago, a general inquiry was made from syndicates, Chambers of Commerce, and administrative bodies all over France, on this question, at the request of Parliament, but the results were so conflicting and contradictory as to prevent a solution up to this day. So far as this Colony is concerned, if ever taxes were to be levied upon Colonial wine-making and distilling industries, I venture to submit that they should be calculated according to the extent and production of vineyards, rather than through an introduction of the French system. This, however, is a question into which I do not think it desirable to go more into, without a formal request to that effect.

REPORT

REPORT ON COLONIAL VITICULTURE.

THE WINE INDUSTRY.

It now remains for me to comply with the instructions of the N. S. Wales Committee, with special reference to the adaption to Colonial viticulture and trade, of the remarks I have been enabled to make during my visit to the European vineyards.

I will endeavour to satisfy these instructions, but I may perhaps be allowed to say that their scope was very wide, and to a considerable extent, of such a nature as not to be as easily or successfully carried out as the Committee evidently desired, nor as well, as personally, I would have felt happy and proud to be able to do; under the circumstances, I certainly made the most of my time and of the means at my command to be of as much service as practicable to the Colony.

Viticulture is considered in Europe almost as a regular science, the secrets of which it is not given to everyone to penetrate, to learn, and to teach to others, without a regular course of previous and persevering studies, remarks, observations, and practice extending over a very long time.

At the present moment the viticulture of the Colony is hardly better off than in 1816, when Messrs. Busby & M'Arthur introduced their first wines at Camden; there is, perhaps, not the same complete ignorance or inexperience, but there is certainly the same uncertainty, owing to a want of records having been kept of previous experience so far.

Nearly all our wine-growers have started without any previous knowledge, and some are yet to be found who actually plant, train, prune, and grow any species of vine in any ground and in any way; they make their wines very primitively, and think of nothing else than to get their money back again as soon as possible, even at the cost of the reputation of the Colonial vineyards as a whole; they trust to the people of the Colony not knowing better, owing to inferior importations, so as to pass off inferior wines, forgetting that if any sample is sent abroad it may be enough to injure for a long time, and very effectively, the good name which some growers have already acquired, or are on their way to secure, for Australian wines.

It may be admitted that the present torpid state of the wine industry, here, is due to the want of special knowledge, and to the limited means of the greatest number of those colonists engaged in wine-growing; that industry then, for the sake of the Colony, should be taken in hands at once by patriotic colonists of wealth, and it would thus soon prove the best means of settling agricultural people on this privileged land; but some lasting impulse must first come, as everywhere else, from the Colonial Government taking a special interest in it, and endeavouring to obtain and spread the necessary special knowledge.

It is certainly a pity to have recourse to the Government for so many things, and especially for an agricultural industry so promising and so unlimited as is wine-growing in New South Wales, especially when compared with the same in France; but what else is to be done, if capitalists will not embark in industries which do not promise quick, great, and labourless income?

It should not be forgotten that agriculture should, more than anything else, be the mainstay of the Colony, the only one likely to keep people settled on the land, and the principal one to bring immigrants of the right sort; therefore Government aid, patronage, and supervision are not unjustified, and it has been well understood so in Europe and in the United States, where Financial Credit Institutions have been especially created, and Bureaux of Agriculture are to be found almost everywhere; for, without information to be depended upon as coming from the State, or without a certain credit granted on acceptable terms, how can any immigrant, small farmer or wine-grower, however skilled in his speciality, carry on his first investment, more especially when the land of the settled districts costs a long price, has to be improved and tilled, implements are to be purchased and buildings put up, and yet the first income is not to be expected for four or five years?

The number of people engaged in wine-growing in New South Wales, as per census of 1881, is 256 persons, representing an increase of 64.86 per cent. upon the previous census of 1871; according to the most recent Statistical Register, at the time of the Bordeaux Exhibition, the total number of acres planted in vines and their production has been as follows:—In 1876, when the most important vintage in the Colony was made, 4,458 acres produced 831,749 gallons, and in 1881–82, if the Statistical Register is correct, there were only 4,027 acres of vines in the Colony, producing 513,688 gallons,—a production inferior by 55,000 gallons to that of 1874. Also, further, the number of wine-presses in 1874 was 367, and in 1882 is reduced to 281. The conclusion to be arrived at seems to be, that Colonial viticulture in New South Wales is fast decreasing, and must soon disappear if it is left to itself, as at present; on the other hand, progress should be much more felt, if Colonial people without previous training in Europe, had some encouragement to go into it, and somewhere to look to, within the Colony, for information and such help and assistance as they may occasionally require.

In France, Italy, Austria, Hungary, for instance, the respective Governments have appointed from time to time Boards and Commissions, and asked reports from world-known savants upon the cultivation of the vine-tree; they have, besides, permanent branches of their public service in constant charge of this important branch of agriculture, and a numerous staff is dispersed over their territories to inspect and to examine vineyards; to provide reports upon their yearly conditions; to watch constantly the diseases and insects which threaten the very existence of the plant; to organise syndicates of wine-growers and wine-manufacturers; to afford to everyone applying for same, such information or other assistance within their means, so as to develop and preserve from all dangers so important a source of revenue, so great an element of trade, prosperity, and health to their countries, and which would prove here a great factor in the bringing of agricultural immigrants.

Schools of viticulture are in existence also, and kept entirely at the expense of the Government if necessary, to centralize all studies, remarks, and comparisons upon the various species of vines already acclimated or to be introduced in these countries. Regular correspondence is exchanged between neighbouring districts and Nations upon the subject, and by all these means, a complete and extensive knowledge of the matter is possessed, extended, and communicated. Several reviews or other publications are published in each of these countries to circulate the reports, and individual men unite also their efforts to those of the Governments; and so vast is the subject, so constantly renovating itself, so stubborn is the wish to succeed, so *persévérant* is the attention bestowed, so *inépuisable* is the question, that year after year new volumes are added to those already existing.

Now, amongst other items the instructions of the N.S.W. Committee specify for the information procured being adapted to the different conditions of soil, climate, and temperature, so that the results of my inquiries may be more easily followed by Australian wine-growers and wine-makers. On

On this head I beg to say that the work is very much complicated by the want of a starting point of comparison and remarks ; no publication special to the Australian vineyards has yet been made, and it is at least doubtful if anyone in the Colonies has yet made it his business to become thoroughly acquainted with this special branch of knowledge of Colonial agriculture and industry, to the extent necessary for a full understanding, and an explanation more than superficial of the matter to be treated.

No doubt certain wine-growers, men of ability and learning, with natural dispositions for observing and studying, and feeling a great liking for their work, would be able to speak or act with respect to their own properties ; but as the instructions of the Committee point it out, the differences in the soil and climate of the colony are such, owing to its great extent, that the products of its vines differ as much amongst themselves as do the wines of France and Germany from each other.

Indeed, the extent of New South Wales is three times that of France.

This alone may possibly give an idea of the work asked, and for the carrying out of which I have been provided with very limited means.

It will thus perhaps be admitted that a very exhaustive treaty cannot be given at once upon the numerous points touched by the Committee's instructions.

I have endeavoured, by visiting vineyards, speaking with people, and observing everything connected with viticulture wherever I went, to obtain a sound knowledge of the main points, *but I respectfully submit that this present report should be considered merely as a starting document, or point de départ, to be used by future official Commissioners or private gentlemen, who may have or choose to work for the colony in the same direction.*

Indeed, such a work is absolutely required and must be started at least before our wine-growers and wine-merchants may go ahead with any reasonable certainty, or become absolutely sure of what they are doing, and of the results they may expect from their labour and capital, invested in future vineyards.

The surest means for them to provide themselves against their want of proper information would perhaps be to constitute a syndicate, the members of which should elect yearly from amongst themselves four or five members as a committee of management. This syndicate should receive from the Government a yearly grant in aid, equal to the subscriptions of the members, as is already done for other institutions.

The Government of the Colony, or else the Committee of Management, should appoint a competent person as *Examiner of Vineyards*, whose duty would be to study, observe, and report upon the vineyards of the Colony, to keep himself well informed from foreign countries upon the progress of their viticulture, upon the means of preventing the extension of disease, the ravages of insects, to afford every information he could to the winegrowers and makers, direct his searches and investigations in concert with such Government officers, or other persons acting in the same way in the neighbouring colonies, and generally act to develop the wine industry of the Colony.

The managing committee and their examiner of vineyards should receive some official recognition, and be constituted and gazetted as a Board of Advice to the Government, upon all matters connected with viticulture. A portion of the Botanical Garden or some other land might be allotted to the Board, for the treatment of various species of vines, and reports should be delivered at regular periods, as often as circumstances would require, to the Minister within whose resort this new service should be included.

The syndicate thus formed might with advantage direct its business towards the organization of large wine depôts, where the members could send their wines when in the new state after each vintage, there to be treated and brought to a uniformity of type or character, before being exported from the Colony or sent to the market ; and as the wine industry and viticulture would increase in importance, a school might very well be created and the general business of the syndicate develop itself accordingly. Further, a library should be formed, a monthly review established, and a mutual insurance fund against hailstorms, &c., be organized.

Such syndicates exist all over France, especially in the cities of the winegrowing districts, and they form themselves in sub-committees in each district for the resistance to the *Phylloxera*, or for whatever treatment may be required by their vines.

In each district there is also a special delegate of the central Government, to assist the syndicates in the discharge of their mission.

The creation of such an institution is a suggestion upon which the attention of the Government, of the Parliament, and of the winegrowers of the colony, should certainly be called. It deserves the best consideration at the hands of these various bodies, and if so allowed I would not hesitate to say that it would very quickly, if placed in proper hands and on a proper footing, bring the most beneficial results for the private interest of its members as well as for the colony at large.

In a young country like this, much more so than in any part of old Europe, a special *School of Agriculture* in general, therefore, including viticulture, with a model farm and vineyard attached, is of much absolute necessity, if not more, than a school of law or medicine, and as useful as a school of mines or a technological college, for the development of Colonial agriculture. The time cannot be very far when that necessity shall impose itself in an unreluctable way. It will certainly prove one of the most creditable and serviceable creations of which any Colonial statesman, or any successful colonist with a generous mind, might well feel very particularly proud. As to the budget of the institution, I believe it would be found in a couple of years to be fully self-supporting. Some reformatory institution for boys could be well made use of for the starting of such an agricultural farm or model vineyard, and thus prove a very little charge on the Colonial budget.

In the meantime it may not be out of place to suggest that the Government and the syndicate would find it to their interest to institute a limited number of bursaries, or scholarships, in favour of such young colonists as would bind themselves to go through the necessary course, as at the school of Montpellier, (France,) which is actually receiving students not only from France but from most of the wine countries of southern Europe.

If it is an industry of any value to the country, the time has certainly arrived when something should be done towards raising the Colonial wine industry and trade on a better footing than its present one. It would most certainly serve the interest of the Colony of New South Wales, for at this moment the New South Wales wines, when spoken of in Europe, are referred to simply as Australian wines. People in England, or on the Continent, are not as a rule aware yet of the difference existing between the colonies, and without meaning to say anything in disparagement of other Australian wines, ours would gain everything by not being always included in such a general denomination.

It is thus, for instance, that the strongly-coloured, full-bodied, and liquorous wines of a neighbouring colony, whose characters are very much similar to those of the Spanish wines, and cannot support any addition

addition of water, owing to their weak and imperfect constitution, should not be presented as New South Wales wines, for the generality of wines from New South Wales were, at Bordeaux and Paris, as well as at Amsterdam, considered as comparatively light wines, very well adapted to daily use as an ordinary beverage at meal times, and so constituted as to support a reasonable addition of water, this last being a most essential point for the generality of Continental home consumers and families.

With reference to the character of Australian wines when compared to those of Europe, it must be said that those successfully made New South Wales wines in particular have, to my personal knowledge, always been admitted as well adapted to the requirements of the Northern markets of Europe, a compliment which has not yet been paid to the wines of other and more advanced wine-growing countries, California amongst these. There is no reason why our wines should not be introduced at once in large quantities.

But the expression of *large quantities* is precisely a difficulty for the colonists. It would not be enough to send to Paris, Havre, or Antwerp, or anywhere else, especially in the South, a large number of different wines. What is required is an important large quantity of a wine having always the same type and character. European wine consumers, once induced by their brokers to buy any given produce, do not like to have to provide themselves with a new sort of wine every time their cellar is empty. This uniformity of character is not always obtainable at any given vineyard. It is often the result of well studied blendings at the time of the vintage or shortly after; certainly not at a much later period. This is a point which, to a certain extent, should explain the interest there is for the Colonial wine-growers in forming a syndicate under whose direction the new Colonial wines of each vintage should be treated and brought to the desired and unavoidable criterion before being sent to any Colonial market or exported to Europe. Should it not be possible to constitute in the colony a syndicate as the one mentioned above, several private companies ought to be formed for that purpose, which would buy the best new wines at the proper season of the year from the small winegrowers. In any case, whether such a decision is ever arrived at, either for a syndicate or a company, it would be well not to allow the wines shipped to Europe to be sold there otherwise than as wines from New South Wales, or under any other denomination than the one they should have received from a competent person at the time of leaving the colony. It would be better again if the syndicate or the company would go to the expense of large advertisements and even had their own special agents in the leading places of Europe, so as to be sure of their wines receiving proper treatment and being really sold for what they are and as no others.

Speaking of blending wines renders it necessary to specify that it is not meant to speak of wines grown up exclusively for the purpose of being exported as such. The wines usually called *blending wines* are always of very common and rough sort, grown on very large scale, and sold at a rate so very low that it is almost certain the Colonial growers would not derive any benefit from their production. The latest prices quoted in France for the blending wines of the southern districts were as low as 20f 0 0 per 22 gallons, a rate at which none of the Colonial wine producers would or could ever manage to keep a vineyard in the present economic conditions of the country.

It may in the future become possible for the colonists to produce and export blending wines to Europe, but this could not be recommended until the price of labour has greatly been reduced. Further, the production of wines of that inferior class in Spain, Italy, Hungary, Greece, Sicily, and Algiers is now receiving considerable extension, and it is not likely that the market price of that staple will raise enough to encourage anyone in Australia working in that direction and in view of exportation trade to foreign and distant ports.

What the colonists of New South Wales and Australia should decide to produce, is a wine of as high a character as possible, but at all events a good ordinary table wine fit for immediate consumption on reaching Europe, and to be sold at about the same price as those now on the markets, viz., at the present average price of 1s. 6d. to 2s. 6d. per gallon when new, and delivered in new casks of 50 gallons.

The high price asked by the Colonial exhibitors at Bordeaux was very much against them in most cases, for several were entered in the catalogues at the same price as the most famous wines of the Médoc. The cost of labour in the colony, although high, and the price of land, at times extraordinarily so, do not, still, justify such prices yet for Colonial wines; but as long as Colonial people will agree to pay it, there is no reason why the merchants should not take it. However, among our best growers, even for certain of their very best wines, some satisfy themselves with moderate prices such as 3s. per gallon. Let it be said, though, that the Colonial wines set at that value, and which obtained gold medals from the Bordeaux jury, have not in every case, and are not still, looked upon as favourably by their very producers. For all that I am not prepared to admit that the members of the jury are not the best judges, as I maintain they are, the difference of appreciation being accounted for, I suppose, in the respective leading tastes of the parties.

Be that as it may, there is no doubt that Colonial growers ought to succeed in any well directed attempt to produce good wines at the above quoted prices; but they must for a time unite their efforts in a common action to that effect, as well as to obtain a uniform wine.

At the present moment, two of the leading vineyards of the colony, comparatively close to each other, give very different produces. Whilst the samples sent to Bordeaux by one of these, were very much praised for being thoroughly well made, full-bodied, of good color, and of good preserving qualities, their bouquet and earthy tastes were such as to cause people to say that they would never be successfully imported in Europe. On the other side, the light wines of the other vineyard, considered as next to the best of New South Wales, were found fault with on account of a want of color, and as not being likely to keep long.

As a matter of course, the two owners have quite enough to do to look after their own business, but if their new wines could be bought by merchants, who would try and experiment their blending at different degrees, the joint result would soon have a very beneficial effect upon both.

The same remarks do apply quite as fully to the wines from the Hunter and Murray Rivers, as a whole.

The various combinations for the blending of wines must, however, be made only by experienced people already acquainted with the quantities which each nature of wine is to furnish, and which are those having most affinity between them; for the object in view is not so much to obtain a mixture less or more homogeneous, as it is to give it a straight taste, transforming it into a wine of good quality. By blending together two or more wines (a perfectly lawful and honest operation) a new fermentation takes place, causing the mixture to become a new liquid, which clears itself in that way, of undissolved matters, and assimilates to itself part of the qualities in which it was wanting, but which one of the two factors originally did possess. After that fermentation is over, rackings with finings must take place as often as appear necessary,

necessary, to expunge from the mixture the whole of the lees or dregs with which it may yet be encumbered. Any new wines thus treated will, at eighteen months, have the appearance and qualities of wines three or four years old, according to the number of rackings and finings, and the care with which they will have been treated.

In that manner, good ordinary wines will almost always, be obtained from nearly all the wine-growers of the colony, provided the original and raw matter has been properly attended to in its first stage.

But whose business should it be to bring such carefully made wines in the every-day use of Colonial life? At the present moment it must unfortunately be said, without dissimulation, that the wine-trade of the colony is, to a certain extent, in the hands of people who know nothing about wine, thus imposing upon their confident customers, and on the other side seriously endangering the interests of our wine-growers, and perhaps also their own credit, by allowing the wines to turn bad, yet offering and selling them when in conditions such as will disgust from buying, any man who ever tasted good wine.

The producer, no doubt, appears naturally quite enough occupied by all the cares of his land and vineyard, not to be able to act also, unless exceptionally, as the merchant or agent for the sale of his wine. The winegrower, less again than the brewer, or the brandy distiller, can act as a permanent tradesman. At the very best time of the vintage, he can only show to the consumer, wines in their new state, which are hardly fit then to be appreciated properly by the generality of people.

The merchant or *broker* is the indispensable middle man for all natural or manufactured indigeneous or foreign produces; he acts for mere speculative motives, without undue enthusiasm for one producer or for one district. Being in constant relations with the consumer, he studies his wants, and it is the grower who gives the wine best suited to his clients, who obtains the preference. It is in his own stores that the merchant properly organised, keeps, nurses, and trains for amelioration the wines which he buys at the most opportune time; it is with these same goods that he may contain the exigencies of the producer and create also for him a healthy competition.

Trade has to stand the consequences of rise and fall; but this circumstance has less influence upon merchants than upon the producer himself, who can only trade with his own produce or that of a limited district, whilst the merchant, always kept informed as to the state of the production in the whole wine producing countries, may at all times compensate selling and market prices, allowing him to establish a current price generally maintained at constant figures.

The idea of direct relations and contact between the producer and the consumer is not good for either; it would lead to embarrass at times the producer with his own goods, and to keep the consumer always depending upon the producer without satisfaction to the former, who is generally hard to please and does not always understand how it is he does not get, every time, wine of the same age, of the same quality, taste, colour, and price; he admits of no circumstances influencing its limpidity or modifying its taste—circumstances against which the expenses of providing would generally be found too heavy by most of the small wine-growers, when in excess again of those of cultivating the vineyard, whilst comparatively less onerous if divided with and supported by the wine merchant.

Then again, in a country where there is a great diversity of wines their proper appreciation is very difficult, not only for ordinary consumers but even for general, local, or foreign merchants, especially when the wines are new, time at which the business attains its greatest importance.

To meet that difficulty *wine experts* have been established in France, whose speciality is to observe attentively all the wines of any given district and to distinguish their characters.

The *wine-tasters* or *brokers* of Bordeaux are, without contest, the first in the world for the safety of their judgment and for their facility in establishing the slightest *nuances* of character of each growth and of each vintage. They taste no other wines than those of the special country which they have selected, and then only when in perfect state of health, with an empty stomach, and abstaining from smoking or inhaling any matter likely to affect their sense of appreciation.

A strict observation of all the conditions required for a good *dégustation* is so much more indispensable, that the Bordeaux experts are often called upon to adjudicate between two wines almost of same merit from two neighbouring wine-growers; yet the proportionate value and market quotation of each wine must be fixed; and this may give some idea of the full attention and soundness of judgment, as well as of honorability, of which these experts must justify.

It is thus that the wines of the Bordeaux districts are divided in the following classifications:—

1. The *grands crus* or fine growths divided themselves in five very distinct categories, the market value of the first, being about the double of the fifth class wines.
2. The *Bourgeois* or good ordinary wines.
3. The *ordinary* or *artisans'* wines.
4. The *common* or *paysan's* wines.

Then comes, but a long way behind, the last and fifth class, under the designation of low or inferior wines, or *vins de coupage*, for blending purposes, sold many of them as low as 15s. to 20s. the 22 gallons when new.

In addition to these ten categories of wines, the following qualifications have again to be applied to each, viz. :—

| | | |
|-------------|---------------------|--------------|
| select, | very liquorous, | sweet. |
| superior, | full-bodied, | fresh. |
| extra-fine, | soft, | delicate. |
| fine, | straight and round, | fragrant. |
| good, | much, vinosity, | green. |
| middling, | dry, | colouring. |
| inferior, | tasty, | bitter. |
| bad, | astringent, | alcoholised. |

Every one of these denominations is given after trial of the appearance or colour, of the bouquet, of the taste, and controlled, not generally, but whenever required, by a chemical analysis or simple alcoholic essay.

It would certainly serve the interests of the Colonial wine industry and trade at large, if a few *qualified men* were induced to take that speciality, make themselves acquainted with the various qualities of wines produced yearly in the colonies, exercise their judgment on same, and study the works and progress of every

every vineyard. After a serious practice and constant training, from now for a limited period, some of these men would be useful to the Colonial wine-growers, not only by acting as mere commercial agents, merely seeking to make money by picking up commissions upon any effected sale of wine, but as experienced *connaisseurs* or experts, able to suggest to each wine-grower whatever defects may or may not exist in his wines, or in the *cépages* of which his vineyard is constituted, and thus singularly advance the time when the happy-go-lucky ways of many, common to all the small wine-growers all over the world, will be given up.

Indeed, if a classification of vines species or *cépages*, and of the vineyards now existing in the Colony, could be availed of at the present day, it would have a great and immediate influence upon our viticulture, as every intelligent grower would at once control that classification, and soon adopt the steps which would benefit his vineyard and raise it in rank, if circumstances had so far proved against it.

The joint existence of a national syndicate, and of wine experts accredited or recognized by the common consent of the producers and consumers, or, if deemed necessary, sworn as brokers, should also have for effect to protect the Colonial wine trade against the making and the exporting of inferior and injurious wines, which to-day are so very common in Europe that their result has been to considerably indispose the general public, to such an extent indeed, that measures have been adopted on the Continent to facilitate the means of analysing any wine or other drink in the market, by the creation of special *bureaux*. In an official report, published in Paris in the year 1881, it is mentioned that out of 3,361 samples submitted for examination, only 357 were qualified as good, the remaining 3,000 being classed under different degrees of inferiority, whilst over 200, however, were found to be unhealthy.

Now this Colony imported, in 1882, from abroad, and mostly from Europe, wines, beers, and spirits to the extent of 2,971,192 gallons, valued at £874,722; but surely such official reports as the one just quoted should be a warning to people preferring to drink imported wines, rather than those produced naturally in their own country. A large quantity of the drink so imported may well be supposed to belong to the class of adulterated and injurious articles of food or drink, although unknown to the *bona fide* Colonial importer or merchant.

In fact, the Customs Department should insist upon an analytic report being provided at the time of passing any import entry; and in the event of any imported goods being considered unfit for general use, such should not be allowed to be landed in the country. Further, the police authorities should be directed to frequently obtain reports upon the beverages allowed to be sold in the Colony, and proper measures adopted to sanction such investigation. So many very easy and prompt means are now well-known to detect a natural from an adulterated wine, that no difficulty would be experienced in finding officers of Customs able to do these experiments, just as well as they at present ascertain the alcoholic degree of spirits with Sykes' alcoholmeter.

With respect to the Colonial wine trade, it would certainly have for immediate and absolute effect to protect it most efficiently against adulterated imported wines or other drinks, which have already so injured the Colonial public's taste that those in the Colony who are able to form a correct judgment as to what is or is not a good wine, must be very few indeed by this time, in any particular class of the community, at least for business purposes.

I may well add that, at the present moment, one of the strongest reasons why Australian wines should be willingly bought in Europe is the supposition that our wine-growers have no sufficient knowledge or experience to compromise these wines by injudicious mixtures or additions. It would, therefore, be considered as certain, that wines sent from the Colony by a national syndicate would be pure wines, free from all injurious chemical drugs, and after a number of analyses published to that effect, every Colonial wine, originally well-made, if in sound condition, as it certainly would be, would sell in Europe as well as any European wine, even if of an ordinary quality, and with the peculiar taste often mentioned by those who happen to taste it for the first time.

Indeed, a peculiar taste is no obstacle to the success of Colonial wines; it is rather a point in the favour of ordinary dinner wines, so long as such taste is not repugnant or grossly objectionable. No one in Europe at the present time expects to get from Australia superior wines, unless exceptionally. A limited number of years must elapse, but an increase of experience also must take place here, before that period is reached. The wine-growers should be contented to produce, as they may and ought to do, by going to the proper expenditure and taking the necessary care, most excellent *ordinary* good wines.

Amongst ordinary wines there are degrees of excellency also, and the wine-growers with limited means have as good chances to send to the markets a produce of proportionate quality, cost, and benefit to them as the wealthiest individual or company, if they will only study and learn how to do so.

For the same reasons that New South Wales wine-growers should not direct their attention to the production of inferior wines, and not look more for quantity than for quality, they should not either think of producing wine-grapes for the purpose of making brandy unless they can cultivate those of the proper species, in their proper soil, and obtain not merely alcohol, but *Cognac* or *eaux-de-vie* of fine quality. To produce one cask of inferior alcohol or spirit the wine-growers must distil or burn five or six casks—even eight casks—of wine; they would have, therefore, to plant very extensive vineyards, which means considerable advances, whilst the results would be very doubtful indeed, if it is borne in mind that the inferior or commonest brands of wine's alcohols do not fetch in Europe more than 4s. per hectol., and if they consider also that it has unfortunately become the custom, even in Oporto, to prefer grain, potatoes, and extracts of such similar produces, to the good, genuine, healthy *Cognac*, this last being now produced on a very limited scale since the destruction of the Charente vineyards by the *Phylloxera*. The competition of these spirits is such, that consignments are freely offered, to anyone prepared to accept them, of brandies shipped at 10s., 9s., 8s. per dozen in cases.

Although it would be a very valuable addition to the industries of the Colony, and would much contribute to the public revenue, I consider much better for the present time and for the generality of our vigneron if, instead of going in for brandy, they will limit themselves for some years to come, to the production of the best wines which their vineyards as now constituted can give them, abstaining from giving them any pretentious names, the least injurious effect of which is simply to disappoint the purchaser and indispose them against further business. They may rest assured that, now and at any future time, any Colonial wine well made, well trained, lodged in proper casks, or bottled at its proper time in convenient bottles, will be perfectly welcome on the European markets or elsewhere.

They must further of necessity adopt a uniform system for the storing, lodging, and shipping of their wines; and with respect to this I beg to refer them to my preliminary private report of the early part of 1883.

THE WINE TRADE.

The best European markets for the purchase of Colonial wines would not be Bordeaux or Marseilles. In Bordeaux, people are so much used to superior wines that none but these can please them; further, that market is so fully supplied by Spain and Portugal with cheap wines for operating, that wines of a middle good character like those to come actually from the Colony would suffer by the low value of the others. At Marseilles or at Cotte they require only wines of inferior quality, yet good, for the purpose of making imitations of other wines, especially *madeira*, *sherry*, &c., or for blending the imported with the commoner French wines of the southern districts, intended for northern countries. For these reasons, the prices to be obtained on these two places would not be remunerative to the colonists, although a time will come when, however much infatuated with their own wines, the Bordeaux merchants will have to deal in Australian wines.

Very different would be the results, if our wines were sent direct to Paris, Havre, or Antwerp in Belgium. The Paris trade, so far as I could ascertain, is very much in favour of Australian trade; yet there again the supply is so considerable that the market price is liable to be ruinous at times for the shippers. On the other side the requirements of Paris are almost boundless, as may be judged from the following statement, having reference to the wine consumption of Paris in 1878, the year of the last International Exhibition:—

| | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|-----|---------------------|
| Wines in wood | ... | ... | ... | ... | ... | ... | ... | Gallons. |
| | | | | | | | | 97,460,000 |
| „ bottles | ... | ... | ... | ... | ... | ... | ... | 491,150 |
| Total | | | | | | | | 97,951,150 gallons. |

Since the above date, the consumption has been increasing every year, and it has been ascertained to be actually over 5,000,000 of hectolitres, or 110,000,000 of gallons. We have seen before that the production of wine in New South Wales in 1882 was 543,596 gallons only, and that of Australia 4,400,000 gallons; in other words, the present total production of wines in New South Wales would be absorbed in about two days, and that of Australia within a week or so, by the requirements of Paris alone. This alone should show to the most *incrédule* that there must be some way to sell there the Australian wines. In the course of this report, the amount of revenue contributed in France alone by the wine trade, through a legislation somewhat similar to our Distilleries Act, will be mentioned.

Le Havre would, I believe, prove a much better market in a small way, not necessarily for the place itself but for the whole of the northern districts of France where wines are not produced but still are required in very large quantities, although brought from the South of France, and are sold at figures which would certainly admit of the competition of the New South Wales wines.

Antwerp, the coming great centre of the maritime commerce of Europe, would be again a favourable market to send our wines, as it is the most general drink of the Belgian people and of surrounding parts of Europe. The good New South Wales wines tasted at Bordeaux and Amsterdam by French, Belgian, Dutch, German, or other foreigners of Northern Europe gave always satisfaction, and would soon get a good renown, and a well established favour amongst families and the general public.

The exportation would certainly soon become important from Sydney and Newcastle for these places, it being well understood that the shipment should be direct without transshipments on the road to avoid the surplus taxes of the Foreign tariffs whenever foreign goods are not imported directly from the producing countries. Several small preliminary shipments might be tried, not necessarily to fix a current price, but to be quite sure that a steady demand is ready to come.

At the same time, it would be useless to go in for such a trade without being prepared to supply it regularly and constantly on well defined terms and modes of expedition; and this should certainly be the work of an association or of a large company, or of a general understanding amongst the Colonial wine-growers, as already suggested.

It may be of interest to communicate here a *pro forma* account of sales as now conducted in Paris for Foreign wines, by any leading houses acting as consignees, and binding themselves to dispose of the wines sent, without blending them with any others. The account herewith, refers to a consignment of *vins de coupe* or blending wines, and covers the totality of accessory expenses for cartage, storage, fire insurance, and commissions, all included in the lump sum of 3s. per 22 gallons; the charges from Sydney to Europe would not be much heavier than from Italy to Paris.

Pro forma Account of Sale of 100 casks of wine from Italy:—

| | Paris, September, 1884. | |
|--|-------------------------|-------|
| | £ | s. d. |
| To 100 casks of wine, containing 13,200 gallons (at ls. 9½d. per gallon), | 1,200 | 0 0 |
| £2 per 22 gallons = to the hectolitre or 100 quarts | | |
| Discount 3 per cent. | 36 | 0 0 |
| Value at October 31 | | |
| | 1,164 | 0 0 |
| Charges— | | |
| August 8—Ship and Railways—Carriage to Paris | 96 | 0 0 |
| Marine insurance | 12 | 0 0 |
| Customs duties, 2 francs per 22 gallons..... | 48 | 0 0 |
| | 156 | 0 0 |
| Interest at 5 per cent. on £156 from August 8 to October 31..... | 1 | 16 5 |
| | 154 | 3 7 |
| Reception, cartage, Bond dues, storage, fire insurance, repairs, delivery, brokerage, petty expenses, consignees commission..... | 84 | 0 0 |
| Lump sum agreed to cover all disbursements, in Paris, 3 francs 50 cents., or 2s. 10d. per 22 gallons ... | | |
| Guarantee commission 2 per cent. on £1,164 | 23 | 5 6 |
| | 265 | 2 0 |
| Total value at 31 October..... | | |
| | 998 | 18 3 |
| Advances— | | |
| August 4—Draft at 90 days, value 2nd November..... | 720 | 0 0 |
| Interest at 5 per cent. 31st October to 2nd November on £720 | 0 | 4 0 |
| | 719 | 16 0 |
| Balance to credit of consignor | 179 | 2 0 |
| | £898 | 18 0 |

Independently

Independently of the above places of business as good markets for the importation of our wines in Europe, England itself offers very great resources, and should already be one of the best customers of the colonies. There are business men there ready to take the trade in hands, and to push it very energetically; a Company has even been especially formed for the purpose. The Colonial wine-growers should willingly second these people by sending them none but well-fermented and finished wines, always of as much sameness of character as practicable, under names best appropriated to the produce, and at prices permitting competition with other wines from much nearer countries, and in which success is assured to our wines on account of their better qualities.

According to all reports from all parts of India, the New South Wales and Australian wine-growers generally should find there also a large and constant number of customers, and very likely the Straits Settlements and Java would also prefer these wines, once known there, to those imported from France, which reach them at a very dear cost.

The neighbouring French Colonies of New Caledonia and Tahiti are large consumers of wines constantly imported from Europe, but there is every reason why they should take the Colonial wines. Indeed, I have been assured by business men from Noumea, that an average minimum quantity of 400 casks per month could be easily and certainly disposed of in that colony, at the same price as the wines sent from France, say £6 per cask of 50 gallons, provided a regularity of supply could be depended upon, in quantity, quality, and uniformity of casks, this last to avoid the complications and delay to which any variety renders liable the wine trade, in its connection with shipping, customs officers, and consumers.

Finally, the Colonies of Australia and New Zealand should be the greatest consumers of their wines, in preference to any other drinks, and especially in preference to imported wines.

They would thus simply contribute to enrich themselves by developing that productive industry, and would follow the example of Hungary and Italy, which are fast becoming great producers of wines, and where a King lately took publicly the engagement to drink none but Italian wines at public entertainments, an exemption being made for champagne only, reserved for the toasts. The effect of such high and patriotic patronage are such, that the number of small wine-growers is fast increasing in Italy, the Italian Government fully understanding the future prosperity of that industry and its resulting trade; a special Commission is now working to advance these results; special study and searches of species best adapted to the country are being made, and published on a very liberal and expensive scale, at the cost of the Government, and should they succeed in putting a stop to the progress of the *Phylloxera*, there is no doubt that within a short time, Italy will be a serious competitor to Spain, Portugal, and Hungary, for the blending wines trade of France.

The same steps might very well be adopted in the Colony; it would certainly not prove onerous to many small land-holders in the country to plant limited vineyards; within a few years, they would have a profitable vintage, if working by themselves and family; in each village these small winegrowers should unite for the building of a common press-house and cellars, for the making and storing of their new wines, until the opportunity offers to sell them to the city merchants, or even if necessary until the next season. The main drawback of such a plan is the first outlay, which is certainly high for people who would have to wait five years before any certain revenue could be discounted. In the case of a company, the first cost of a plantation of a 500-acre vineyard, and of erecting and purchasing all necessary buildings, appliances and instruments, must be calculated at £200 per acre from the time of clearing the land until the first proceeds are obtained; it would cost much less however to do it on a very large scale, or on land already naturally cleared, but a small land-owner might afford to plant a few vines every year without feeling it, and if any number were to do the same within a district it would soon constitute a large vineyard.

It may be reckoned that a well-trained vine would easily in the Colony produce over 500 gallons of wine per acre every year, but the present average, 300 gallons per acre, selling the same at the low price of 2s. when new, would bring a sum of £30 per acre, from which a sum of £10 at the highest, must be deducted for cost of production, leaving a balance of £20 per acre.

In the Palus Districts of Bordeaux, the production is never above 250 gallons of wine per acre, where the land is the richest; the wine is sold at 1s. 6d. per gallon, thus fetching a total amount of £18 15s., but the higher cost of production, viz., £16, leaves as net profit, the small sum of £2 15s., which is far from being as satisfactory as the result quoted a few lines above, and taken from the information provided by the N.S. Wales exhibitors themselves.

Patience, unfortunately, in every new country, is not the general or leading virtue; prompt and high returns of any capital invested is mostly desired, much more so than in Europe, where people have to satisfy themselves with little, and accept a fair average revenue in exchange of a great deal of work. Enough has been said, however, to show that the growing of the vine could, in time, amply satisfy the most exacting investor in New South Wales.

From suggestions above made, that the Colony should not go in for the producing of common blending wines, but should more especially confine itself to the producing of as good dinner wines as practicable, it must not however be inferred that the New South Wales growers should limit themselves to these ordinary wines; the climate of the Colony, as is well said in the Committee's instructions, allows of attempts being made, of producing good liqueurs wines. It is thus that while the more southern and central parts of the Colony might well give light or strong wines, to be used alone, or to be blended together, the Northern and Coast district from the Upper Hunter, even from Singleton to Queensland, might work for full-bodied *port* wines, *Muscat*, *Frontignan*, *Malaga*, and *Jerez* wines.

The colonists should certainly abstain from importing so much of these wines, while they can have them of no less good quality, if not better, in their own country.

I would not, however, include in the above list the brandy grapes, as I have already said, for fear of the disappointment which are likely to be experienced at first; nor the manufacture of Champagne wines, these last, owing to the great expenditure and length of time required before any result can be obtained, and owing to the probability of these results being likely to prove unsatisfactory, not that sparkling wines cannot be produced and even admitted for use within the colony, but because they would certainly never find a market in Europe. Besides the knowledge indispensable to the making of Champagne wines, the climatic conditions are such, that one same person could not possibly attend also to the production of two classes of wines, neither would the same vineyard, unless planted on a most extensive scale, produce the required special qualities for *sparkling* and *still* wines. That opinion might possibly be found erroneous

now

now or later on, but it is the impression to which my observations have led me, and time will I think justify it in the eyes of those who may possibly think otherwise at the present moment.

I speak so much more confidently, that I have given special attention to this question. I visited the best parts of Champagne, and elicited every possible information, and the Bordeaux people for instance with all their science would never attempt to produce Champagne, Moselle, or other sparkling wines, and yet they produce very good white wines.

So much for the conditions and prospect of the Colonial wine trade. I will now submit a few remarks with respect to vine-growing and wine-making specially adapted for new South Wales.

WINE GROWING.

THE CLIMATE OF NEW SOUTH WALES is well within the limits where the cultivation of the vine-tree presents most advantages, owing to its situation with respect to the heat of the atmosphere, the space between the 25° and 50° of latitude being considered as the boundaries of the Geographical Zone suitable to viticulture for the making of wines.

I would, however, suggest that in New South Wales no new vineyard of any great importance be established in other districts than those of the coast or eastern division, giving preference to the North of Sydney, and not more than 60 miles inland; in fact the nearer to the sea-coast, to large rivers or lakes, the better, so as to benefit by the comparative coolness of the air; the vicinity of the sea, and of large and rapid water-courses, being apparently favourable, and certainly in no way injurious to the vines, as may be judged from the great growths of Médoc and others, the same often being a cause of preservation from frosts. Further, the hill sides, whenever possible, should be preferred or reserved for the best vines, and the aspect generally towards the east or south-east, so as not to be so much likely to suffer by the great heat of the summer days, or from the hail-storms or the strong winds generally to be expected from the west or north-west.

I think also that the vines should be planted not less than 3 feet apart on the same line, but that the lines should be from 6 to 7 feet distant from each other, and about 70 yards long in each direction at the maximum, running whenever possible from north-west to south-east, so as to allow the prevailing winds by which any benefit or damage may occur, to circulate well through the lines of vines, and much reduce the risks of damage by hail-stones, the length above given being that adopted in many European vineyards as allowing for a more regular and proportionate division of vineyards into blocks, to be planted with varieties of vine species, to obtain the desired quantity and quality of any particular wine in the approved proportions.

THE NUMBER OF VINE TREES PER ACRE should average 1,800, but again, people should be mostly guided by the fertility of their soil, and the more or less productive capabilities of the grapes they cultivate. I may say that the pruning of the vines has a great effect upon their fertility. An acre of very poor land with 900 or 1,000 trees properly pruned, trained, and cultivated, may produce as much as 1,000 gallons of wine without injuring the vines in any way, or forcing nature.

However, at the above rate, the vines are sure to remain healthy and vigorous, and the production ought to be always depended upon at about 400 or 500 gallons per acre, that is with the mode of culture generally adopted in the colony at the present time.

Wide foot-ways should be left at regular intervals about the vineyards, to facilitate better attention to the vines, as well as the ploughing and vintages operations of the workmen without risks of damages.

AS TO THE SOIL, it may be asserted that the vines will grow very well in almost every one; the lighter and poorer is the better, and whenever possible, stony, pebbly, clayish, or mixed with decomposite granite, or volcanic subsoil.

An information of special use in this colony is, that wherever ferns are very luxuriant, and wherever the maritime pines will successfully thrive, there the vine will also most particularly succeed in their vicinity.

As a rule, a sandy, siliceous soil will give light bright wine.

A calcareous soil will give a very alcoholic wine.

An argillous soil will produce sweetness, and also give much earthiness.

Rich alluvial soil must be expected to produce a wine somewhat deep in colour, but rather rough to the taste.

A small proportion of iron in the geological formation of the soil, will also secure good deep colour for red wines, and further contribute to provide them with lasting qualities.

The soils of the most famous vineyards are those containing oxide of iron, a small proportion of lime, and conveniently drained, yet remaining slightly wet. Finally, it should be suited to the grapes planted in it. Thus the species which are successful in the Médoc, or St. Emilion districts, are not in any way adapted to surrounding parts of the south of France, less again to the north.

Situated as has just been described, the vine will give most satisfactory results in good seasons from the fourth year of its plantation, for an average period of 25 to 30 years, or longer, if the soil is rich enough by itself, or properly and regularly manured; but when in manured soils, or in too rich a soil, the grapes if more numerous or weighty, must not be expected to be of as good a quality as if the vine is simply living by the means of nature alone, or rather of a careful cultivation in accordance with the known requirements of nature.

When speaking of the soil most favourable to vineyards, a special mention should be made here that in case of an attack of the dreaded *Phylloxera*, those vineyards are almost sure to escape destruction which are planted in grounds containing a percentage of 60 per cent. at least of sand or siliceous matter.

Many vineyards have been lately planted in the South of France in the sands of lagoons, or places very near the sea-shore, and have already given very satisfactory red wines of good marketable value, as before explained. In other parts, I have seen people bringing sand to their vineyards in large proportion for the purpose of adding it to the sand already existing.

Always with reference to a possible invasion of the *Phylloxera*, winegrowers should be recommended to avoid selecting the top of hills, with rich alluvial or argilliferous grounds for their plantation, as the best remedies so far known against *Phylloxera* could not be of any use on such places; that is, first, the injection of sulphur of carbon, or sulpho-carbonate, two different chemicals which do not develop themselves in clay, argil, or any firm solid ground; and, second, the submersion of vineyards for forty consecutive days, not becoming practicable if on elevated ground.

It is a great pity to have to state that the soil of many of our vineyards is so rich, and has been so unfortunately chosen, that should they ever be invaded by the *Phylloxera* or other parasite, it will be a most difficult, costly, and slow task to save them.

The following table of reference with respect to geographical and geological position of the principal wine-growing districts of New South Wales may be found useful.

Principal wine-growing districts, per importance of total production in 1882 :—

| N. North, S. South of Sydney. | New South Wales Districts. | Geological Formation. | Total Production in gallons. | Acres planted with vines. | Average produc- tion per acre, in gallons. |
|-------------------------------------|----------------------------|---------------------------|---------------------------------|------------------------------|--|
| N. | Hunter | Sandstone-alluvial | 146,920 | 491 | 295 |
| S. | Albury | Schistose-whinstone | 75,000 | 415 | 180 |
| N. | Durham | High land | 52,300 | 209 | 250 |
| N. | Patrick's Plains | Alluvial | 52,141 | 250 | 208 |
| N. | Inverell | Rich black soil | 37,871 | 163 | 232 |
| S. | Hume | Alluvial | 31,732 | 201 | 158 |
| N. | Hastings ..... | ..... | 25,700 | 117 | 212 |
| N. | Upper Hunter..... | ..... | 23,883 | 82 | 281 |
| N. | Morpeth | Alluvial | 17,000 | 61 | 278 |
| W. | Nepean ..... | ..... | 15,950 | 89 | 179 |
| S. | Murrumbidgee ..... | ..... | 6,750 | 68 | 98 |
| N. | Gloucester | Alluvial-sandstone..... | 5,521 | 48 | 115 |
| N. | Grafton | Sandstone | 4,840 | 20 | 242 |
| W. | Central Cumberland..... | Sandstone | 4,765 | 39 | 122 |
| W. | Bogan ..... | ..... | 4,300 | 44 | 97 |
| S.W. | Campbelltown..... | ..... | 3,600 | 12 | 300 |
| N. | New England | Table-land | 3,400 | 20 | 170 |
| S.W. | Burrowa | Limestone-slate | 3,000 | 12 | 250 |
| S. | Gundagai | Alluvial | 2,780 | 20 | 139 |
| W. | Camden | Alluvial-shale | 2,227 | 20 | 111 |
| W. | Mudgee | Alluvial | 2,220 | 20 | 111 |

From the above list it is seen that eight districts of the Colony seem better adapted than all others to the growing of the vine; these districts placed according to their fertility are :—

| |
|---|
| Campbelltown, averaging 300 gallons per acre. |
| Hunter, " 295 " |
| Morpeth, " 278 " |
| Durham, " 250 " |
| Grafton, " 242 " |
| Inverell, " 232 " |
| Hastings, " 212 " |
| Patrick's Plains " 208 " |
| Burrowa, " 250 " |

This last, in the south of the Colony, seems to constitute an exception, the next highest being : Albury, averaging 180 gallons; and the Nepean averaging 179 gallons.

It might be concluded that the west and south-west districts of New South Wales are not so well suited to the vine as those of the north. I have also been informed that as far south as Narracoorte, and Mount Gambier, in South Australia, the grapes ripen with difficulty; and in the south-eastern part of New South Wales, at Eden, no vines are reported to exist; yet wine-growing seems very promising in Victoria, but it might perhaps be said that success there is more difficult and costly than in New South Wales.

Be that as it may, for unsuitability of the climate or soil, or on account of improper mode of culture, it may be considered that, below the 34° of latitude, and further west than the 143° of longitude of New South Wales, and even in Australia, wine-growing does not meet the same success as within these limits, up to the 29° of latitude south at the extreme north of the Colony.

The next question is, *what species of wines* should be recommended in preference to others for any particular ground. It is very much to be regretted that wine-growers generally will not adhere to the most usual denominations generally adopted, or will allow these to vary and finally degenerate in names absolutely unknown previously, and sometimes absolutely incorrect. From documents in hands, it may be surmised that it has been the case very frequently in the Colony, and the growers of limited practice and experience, or who have been always familiar with wrong appellations of their vines, are necessarily in presence of serious difficulties when reading any publication special to "*Ampelography*;" that irregularity may become a misfortune, and should be one of the points upon which a syndicate, or a Government examiner of vineyards should fix their attention.

There exists almost an infinite number of species of vines, differing from each other in name and appearance as well as in taste, strength, shape, and colour. The qualities of each wine are caused to a great extent by a mixture of vine-species, but also by a great variety of other causes, such as the climate, the nature of the soil, the aspect of the vineyard, the mode of cultivation, the influence of wet or dry seasons upon the maturation of the grapes, and the process followed in the making and storage of the wine itself.

What strikes mostly any new comer in the Colony is the variety of vine-grapes cultivated, yet cultivated all alike in different soils, just as well as the primitiveness and absolute unfitness of the cellars and implements upon almost every Colonial vineyard, even including those of well-informed and wealthy owners.

The

The introduction of those vines now in the Colony, is due more to either wise or risky appreciation of the mutual fitness of land and plant for each other, than to the result of previous knowledge, trial, or experience. From the Bordeaux Jury's Reports it seems as if the *Verdets* and the *Shiraz* or *Ermitage* were the most successful and best adapted to New South Wales, whilst others are less productive, or absolutely useless.

It is certainly a great point to be sure already of success, with certain species actually to be found in the land; but would it not be advisable to introduce or obtain new sorts of grapes?

This may be answered at once by the fact that there exists in the Colony an Act of Parliament prohibiting the introduction in New South Wales of any vine-cutting, grapes, leaves, &c., as a precaution against the extension of the *Phylloxera* in Australia. No doubt it is a very wise step, for which the Colonial Government deserve the fullest approval and thanks, and very severe penalties should be strictly enforced against any one answerable at any time for such a calamity being ever brought upon Colonial vineyards.

NEW SPECIES.—So much more so, that with respect to the introduction of new species, the only and even the most safe way of introducing new species is by *seeds* or *eyes*. Both might well be introduced with every certainty of their innocuity from *Phylloxera*, so long as they are not mixed with anything else; but then the reproduction of vines by seeds is a very slow process; and further, as a rule, it has very seldom been attended with the expected results, or results in any way similar to the original kinds; it may well be tried nevertheless, but since there are in the Colony, numerous species actually cultivated, each grower, and the Botanical Garden, might with advantage to themselves and to the Colony, experiment the reproduction by seeds, eyes, and cuttings of the species at hands, and see whether the new trees will be of the same description, or in any way different, for better or worse; it will be slow, but safe. Personally, if I had to plant any new vineyard, I would feel inclined to employ no other method than that of the vine's eyes, which, although not yet general, has so far given much satisfaction wherever adopted in French vineyards; for as soon as they have started roots in the nursery, they are fit to be planted in open air, and will give results as soon, if not sooner, as *Crossettes* or *Marcotts*, and will have caused much less labour and expenses.

The following information may be given here as the rules usually followed in Europe for the selection of new vines. The species are divided in four classes:—1. The sweet grapes, such as *Muscat*, *Pineau*, *Shiraz*, giving the most alcohol, and requiring stony, volcanic, elevated soil. 2. The fermenting grapes, such as the *Gamay*, which may be placed in argilleous and rich soil. 3. The tanniferous grapes, such as *Verdot*, *Malbec*, *Cabernet*, *Mourvedre*, for which the lightest and deepest soil, on the best exposed slopes, should be reserved. 4. The watery grapes, such as the *Gouais*, *Chasselas*, requiring constant manuring of soil, and producing a weak wine never to be depended upon. Amongst these four classes of grapes, preference should be absolutely given to those known to be of precocious maturity; but limited experiments may with advantage be made, before rushing to large expenditure in plantations.

For instance, the *Chasselas* grapes, either red or white, are in no way adapted to wine-making in France, neither in Europe; but in some parts of Australia they prove rather successful, owing no doubt to the great proportion of water they contain, thus weakening the alcoholic strength and giving a lighter wine than any other species. Our climate has evidently affected that kind of vine, and made it quite suited to the Colonial wine industry.

I have prepared the following memo. for the fuller information of Colonial winegrowers with reference to the vines now cultivated in the colonies so far as I know, and to their peculiarities with respect to their precocity of maturation, and to the soil which they prefer in Europe.

SPECIES OF VINES

Cultivated in Australian Vineyards, with particulars as to their origin, their nature, stage of maturity, soil and pruning required, and other remarks.

| Species of Vines, Names, origin, nature and stage of maturation. | Soil required. | Pruning required. | General Remarks. |
|--|----------------------------|-------------------|---|
| NEW SOUTH WALES. | | | |
| <i>French species:</i> | | | |
| Red Pineau | Calcareous, dry and stony. | Middle size | Very alcoholic wine. |
| White Pineau | | Long pruning | Gives very good wine. |
| White Muscadelle | Dry and stony | Short pruning | |
| Black Shirah | | Middle size | Mixes well with <i>Roussanne</i> for wine. |
| Do Malbec | Rocky slopes | Long pruning | Very good for wine. |
| Do Cabernet | | Long pruning | Very good wine, much colour. |
| Do Verdot | Rich argilite or alluvial. | Long pruning | Mixes well with <i>Cabernet</i> , solid wine. |
| Do Mourvede | | Short pruning | Inferior wine, good for colour. |
| White Sauvignon | Dry slopes | Short pruning | Select wine, mixes well with <i>Semillon</i> . |
| Do Savagnin | | Long pruning | Yellow wine, mixes with <i>Riesling</i> and <i>Pineau</i> . |
| Do Muscat | Stony | Short pruning | Very liquorous select wine. |
| Grenache, black | Dry deep soil | Short pruning | Good producer, liquorous wines. |
| Gouais, black | | Short pruning | Inferior wine, good for blendings. |
| Burgundy, white | Any sheltered soil. | Long pruning | Inferior wine, which does not keep. |
| <i>Spanish species:</i> | | | |
| Pedro Ximenes, white | Light and sandy | Very short | Very well adapted to N. S. Wales in every respect. |
| <i>German species:</i> | | | |
| Riesling, white | Stony hills | Long pruning | Will give better wines in the Southern Districts and near the sea coast than north of Sydney. |
| <i>Portuguese species:</i> | | | |
| Verdehlo, white | Granite soils | Short pruning | Easily affected by <i>Oidium</i> , but very fertile. |

| Species of Vines. Names, origin, nature and stage of maturation. | Soil Required. | Pruning Required. | General Remarks. |
|---|---|--|--|
| NEW SOUTH WALES—continued. | | | |
| <i>Italian species :</i> Lachrima, black | Dry, hot, and stony | Short pruning | Good for liquorous wines only, fear moisture. |
| <i>Austrian species :</i> Black Hambro Tokay, white | | | |
| <i>Persian species :</i> Schiradzouli, white | Dry and stony, hot Dry and stony, open | Rather long | Good for table grapes, fear frost, and oidium. The grape does not keep, requires heat. |
| <i>American species :</i> Isabella, black Labruscat, black | ..... | Short pruning | Preferable for table grapes than for wine- making. Give very <i>foxy</i> wines ; both grapes should be avoided in the colony. |
| VICTORIA. | | | |
| <i>French species :</i> Chasselas, white Pineau Meunier, black Poulsart, black | Rich soil Rich and deep soil Argilite, calcareous | Long pruning. Short pruning Long pruning | Very fertile. Gives good wine. |
| Semillon, white Roussane, white Cabernet Sauvignon, black | Dry, poor slopes ... Hot, dry slopes ... Strong sandy soil... | Long pruning. Short pruning Long pruning | Gives the very best white wine of Bordeaux. Mixed with Marsann for Ermitage wine. Fine good wine. |
| Chenin Blanc, white Trousseau, black | Deep argilite Argilo, calcareous, wet and deep. | Short pruning Short pruning | Small light wines. Good wine of good colour, stands well against diseases and bad weather. |
| Carignane, black Ugni, white Liverdun, black | Low, alluvial High stony ground | Short pruning | Mixed with Mourvedre for dry wines. Abundant and good wine, kind Marsala. Low inferior wine. |
| <i>Spanish species :</i> Cheres, white | Hot, stony, sandy.. | Short pruning | Very good for table grapes, but unfit for wine purposes. |
| <i>American species :</i> Baxter Oporto | ..... | ..... | ..... |
| SOUTH AUSTRALIA. | | | |
| <i>French species .</i> Mauzac, white Frontignac, white | Hot sandy soil..... | Long pruning Short pruning | Very good for blending wines. Good liquorous wine. |
| Clairette, white Durebaic, white | | | |
| <i>Italian species :</i> Dulceto d'Acqui, black | Deep and wet soil | Long pruning | Resist well to diseases, good dry wines. Gives little, but good, wine. |
| Muscadine, white | Alluvial rich soil... | Short pruning | Good for blending wines. |
| <i>Madeira species :</i> Sercial, white | Dry and hot soil ... | Short pruning. | |
| <i>Spanish species :</i> Listan, white | Alluvial, sandy, or decomposite soil. | Short pruning | Good Madeira wine. |
| <i>Greek species :</i> Zante, white (early maturity). Sultanieh | Light, sandy soil... | Short pruning | Good wine, but better again for table grapes. |
| | Dry and poor soil.. ..... | ..... ..... | Good ordinary wine, very abundant. |

The names of the various species indicated above are those recognised by authorities on Vines, and as some are not used in the colony it seems advisable to give here their synonymis. Thus in New South Wales the *Black* or *White Hermitage*, which do not exist in Europe under that name, are the *Black* or *White Sirah* or *Shiraz*; the *White Burgundy* is the *Gamay*; the *Black Spanish* is the *Grenache*; the *Shiraz* as the *Schiradzouli*, or else the *White Sirah*; the *Mataro* is the *Mourvide*; the *Black Hambro* is more known as the *Frankenthal*; the *Black Chester*, if not an American species, is the *Black Cluster* or *Black Pineau*; the *Savannah* is the *Savagnin Blanc* or *White*; the *Red Lachrima* is the *Aleatico* or *Black Muscat*, or if white is the *Purple Chasselas*.

In Victoria the *Chablis* should be the *Grey Pineau*; the *Sauterne* must be the *Sémillon*; the *Riesling Pineau* is the *Pineau Meunier*; the *Yulanga* is supposed to be the *Ugne Lombardé* or the *Chenin Blanc*; the *Amontillado* very likely is meant for the *Chérès* or *Jerez*, or again the *Malvosie*, of *Sitjes*.

In South Australia the *Sweetwater* is probably the *Dolcato d'Acqui* or *Dolcato Nero*; the *Frontignae* would prove to be the *White Muscat* or *Muscat* of *Frontignan*; the *Temprano* is no other than the *Listan*; the *Black Portugal* is the *Oporto*; the *Blanquette* is the *Mauzac* or *Clairette Blanche*.

The above corrections are suggested to the adoption of any Colonial wine-grower who may have to communicate at Home with respect to these concerned species, for the irregularity or novelty of the names, unless accompanied by a very precise description of every part of the grape and vine, has and would again puzzle many of the European wine-growers or scientific men acquainted with wine-growing; and I may here express the hope that a federation of Australian wine-growers may, some day take place, to arrive at a mutual understanding on that particular and interesting question. Once possessing good species, it is seen that it becomes necessary for wine-growers to know in what soil and under which conditions of aspect, pruning, training, and tilling these species should be planted and allowed to grow. Fuller particulars as to the principal of these points may be gleaned from the previous parts of this report, where mention is made of the methods adopted in the several European wine districts visited, so far as it refers to those species already described as cultivated in the Colony. The few following brief remarks are, however, submitted here as being likely to prove of use to Colonial growers.

TRAINING.—The best methods to be adopted in this Colony for the training of the vines will prove to be (first), that of *Médoc* in sandy or poor grounds, with this difference, that they should be grown fully twice as high at least; (second), in the richest alluvial soils, the *Saint Emilion* and *Palus* training, called the *Cazenavés* system, still very high above ground, and with the turning of the branches in archways downwards, as protection against the spring frosts, by delaying somewhat the blooming, and keeping the new shoots far away from the cold earth and in comparatively warmer parts of the atmosphere.

PRUNING.—As a rule early pruning should be preferred to late pruning, and a long pruning to a short one; but also, with respect to this last detail, nothing should be taken as absolute, for each species of soil and vine has much to do with it. Opinions at Home are divided as to the wisest time of pruning in hot countries being immediately after the fall of the leaves, shortly after vintage, or else late in winter and shortly before spring, this last method being the less in favour.

The best method of training vines in view to resist *spring frosts* is to allow their branches growing and spreading fully as high as 4 feet above the ground; or for low-trained vines, a small reserved spur or branch should be left every year at the lowest part of each stalk, and kept almost buried or slightly covered in the ground, as a precaution, until the warm season may be safely depended upon. In fact there are some parts of France where the whole plants are hidden between small hillocks, raised for the purpose during winter, and levelled at a later period; but this entails much labour, time, and expense, and can only be done where the vines are kept low. In some other districts, the vines are not pruned at all until the winter is nearly over, so that the shoots will not have come out at the time spring frosts are generally expected. In the case above, should the upper shoots be frost-bitten, the reserved branch is to take their place, and provide fruits as well as pruning-wood; but should no spring frost occur, then this reserved spur should be cut off.

Against the spring frosts, but not against the winter frosts, thick smoky clouds, in the cold, early mornings, should be caused to spread with the wind over the vineyards whenever there is reason to apprehend damages from such causes; but this is not always very practicable. Straw envelopes, lightly fixed upon at least one branch of each tree, until after the spring frosts are well over, would prove far easier to manage, and of much more certain protection to the vines. Again, a later pruning, immediately after a spring frost, is likely to prove very beneficial to the current season, if the weather henceforth keeps mild and favourable to the maturation of the grapes, which may be hastened by an annular incision or ringbarking made in the lower part of the tree.

It may be said also that without anything being done by the grower, Nature will often, after spring frosts, provoke the blooming out of some additional shoots from the lower part of the vine, and thus somewhat compensate the loss which might otherwise have been expected as certain.

With respect to *hail-storms*, the late pruning suggested above will also be found of great benefit provided the season is not too far advanced, otherwise the only protection against such a loss is to be sought from insurance companies or mutual associations.

Whenever wooden *stakes* are in use, they should be submitted to one day's steaming in sulphate of copper, or else dipped and well impregnated with coal-tar oil, so as to protect them against rotteness and insects for a long period, but stakes made of strong galvanized iron-wire are now substituted to stakes of wood, in leading vineyards of the North of France.

For the cultivation of their vineyards, Colonial growers should not hesitate to provide themselves with the various ploughs, especially that known as the *Stavynski*, and other accessory agricultural implements used in Europe. Their cost would be trifling and the results many and most beneficial, both to the vines and to the growers, for constant light ploughings of the soil do much good to the vines and affect beneficially the wines themselves.

The various methods of *nipping*, *pinching*, *cutting down buds*, *branches*, *leaves*, and *tendrils*, the *annular incision* or *ring-barking*, and all other means and ways mentioned in this report, should receive the best attention of our growers, and be experimented at least upon small portions of each vineyard year by year.

I must say also that the growing of other fruit trees or of wheat, oats, lucerne, or any other cereals crops, should not be allowed amongst vines on any account by growers anxious to obtain good results for the following reasons:—

- 1st. The vines will either be planted in poor ground or in rich soil. If in poor ground, which is the best for the vines, no other trees or cereals are likely to grow well, unless with strong manure, and in any case would reduce the support necessary to the vines.
- 2nd. If in rich soil, the fruit trees and other crops will grow with much strength and vegetation, shade the vines and deprive it from the quantity of air, light and heat, without which it cannot thrive properly, especially in a warm country like this, unless actually planted on very elevated ground, where it would have then to suffer from the storms or any strong winds.

It is further well-known that in Italy and Spain, and in the south of France, where fruit-trees grow amongst the vines, the wines thus produced are nowhere classed amongst those of highest qualities and best value, but on the contrary amongst inferior wines of short duration.

Having so far disposed of the questions of species of grape-vines and cultivation, appropriate soil, training and pruning, the next matter to be treated is how should a good wine be obtained from these vines; a few words as to what constitutes a good wine should naturally find a place here.

WINE MAKING.

An ordinary red wine to be good, and successfully made to retain its qualities, and last a number of years, must be the produce of three varieties at least of well assorted grapes, and when properly analysed is found to be constituted as follows:—

- 1st. Water, which is its most considerable part, in the proportion of fully 80 per cent. of the whole.
- 2nd. Alcohol, the quantity of which varies according to the producing country and to the temperature more or less favourable at the time of the vintage. The alcohol is the result of the decomposition of the *glucose* or composite of sugared matters, during the vinous fermentation, and it is to its alcohol that a wine is indebted for its strength, its warmth, and its conservation for a long period and during oversea journeys. At the same time, an excess of alcoholic strength is just as much a danger as an insufficiency of same. It is considered that a good wine cannot have less than 12° or 13° of alcohol nor a maximum of 26°, as per Sykes' alcoholmeter, equivalent to from 8 per cent. to 15 per cent. of French measurement per Gay-Lussac's instrument.
- 3rd. A small quantity of not very soluble sugared matter, which ferments somewhat lightly, sometimes during several years, and renders finings and rackings always necessary at various times.
- 4th. Salts of potassium and other acids, such as tartar, bitartrates, tartrate, giving to the wine a fresh and agreeable taste.
- 5th. A most essential oil, contributing to provide the bouquet, the *arôme* and after-taste or *sève* special to the wine.
- 6th. An astringent rough matter, produced by the stalks of the grapes, and especially by the seeds of the berries, which is named *tan* or *tannin*, and which without modifying the taste of the wine, unless in very excessive proportions, secures its conservation to a very appreciable extent, adding also to the darkness of its colour.
- 7th. A colouring matter, more or less abundant, contained in the skins of the berries, from which it runs without any particular *pression*, other than the mere breaking of the skin when coming in contact or rubbing against the grapes.
- 8th. Parts of carbonic acid which come out at the time of the fermentation of the *must*, and of which some small portions remain suspended or combined in the liquid.
- 9th. Volatile ethers, which form themselves in the wine by the combination of various acids, and not of sufficient consistency to be analysed.
- 10th. Several not well defined acids, varying in each country, affecting the bouquet, taste, after-taste, and hygienic qualities of every wine, and resulting from various causes, mostly from the skill displayed in the *vinification*.

Whatever be the origin or quality of a wine, it will always be found to be constituted of the above various elements, given by nature. These constitutive principles are liable to be developed for the perfection of the wine by the work of man, according to his experience and his observations of various numerous conditions, amongst which are the nature of the climate, of the soil, and of the kind of grape, and of its maturity, mention of which has already been made.

Now, the art of making good wine is possessed by a few, but is not generally known by the majority of the winegrowers of New South Wales. Indeed, amongst our owners of vineyards, several have succeeded to send very acceptable wines, which have fetched good prices on the market. The *insuccès* of others, more numerous, however, than the first, is due mostly to their want of means for acquiring proper knowledge and appliances, as well as to the neglect, in many cases, of benefiting by the experience of previous years, by constant remarks and observations which should be daily registered.

For the manufacture of their wines, the majority of Colonial growers have had no European experience, no exchange of communications, with well informed neighbours or others, and often, not the best of implements. In fact many have succeeded more by good luck or happy concurrence of circumstances, or thanks to the well adapted soil and climate of the colony for the growing of the vine-tree, rather than to any special ability or personal merit.

Judging from the samples lately sent from New South Wales to Europe, the generality of competent *connaisseurs*, scientific and practical men, are of very firm opinion that Australia must ultimately succeed in producing wines of a uniform character, of a most certain conservation, and of a marked improvement upon everything which has so far been done by the universality of foreign and exotic producers. They said the country possesses every necessary element to the making of good wines, not exceptionally, but at large, whenever the Colonial people will go the right way about it, and have learned how to do.

The following principles should be adopted for general guidance in the making of wines, independently of the various ways adopted in the several districts visited and reported upon in another part of this report.

It must be said from the beginning, that the making of wine meets in Australia, as in all warm climates, with more difficulties than in France, or other parts of Europe generally more temperate. The most serious obstacle in such a climate as New South Wales is in the excess of the saccharine matter in grapes, a most certain and very influential element of weakness, as, even in the first year, at the beginning of the hot season, it renders the wines liable to get sour, and to ferment again if at all neglected.

The other causes of failure are, on the whole, secondary, and must disappear by degrees, as the winegrowers become more experimented, more attentive, and acquire larger means to assist them in the progress of their industry. These other causes are:

1. The want of mixture or the unreasoned mixture of grapes put together in the fermenting vats.

2. The want of the necessary implements, as compared with the importance of production.
3. The uncleanness of the manutention and of the vessels intended to receive the wines, during and after the first fermentation.
4. The uncertainty yet existing as to the practical means of obtaining a good and complete first fermentation.
5. And ultimately, the want of the necessary buildings, cellars, &c.

It is not meant that these causes are generally to be found with all our winegrowers, but there is no doubt that numbers of them may take note, with advantage to themselves, of the above remarks.

The five last said bad elements or adverse causes being known, remedied, and done away with, the only one yet to be fought is the first excess of glucose or saccharine matter. The experience of a few years will be enough and sufficient to any intelligent and careful grower; for reducing it to a minimum, and even to nothing at all, without using any chemical, drug, or artificial compositions.

To that end, one of the means which I have generally heard recommended by winegrowers, is to do the vintage before the maturity of the grapes is quite complete. But others have also pointed out that it may cause the wine to be of an inferior, if of a conservative quality, as no good wine can exist unless the grapes from which it is made were absolutely ripe at time of vintage. That is with respect to red wines, as for the white wines, the maturity must even be considerably passed.

A special study or knowledge of each species in a vineyard, of its qualities, and of its quantitative producing capabilities must be obtained previously to sending the grapes together to the press-house. All species of wines do not get ripe simultaneously. There is often a delay of a fortnight among them. The berries of a particular tree may not even ripen on the same day. In such cases, the vintage must be done partially only, leaving the late grapes for a subsequent day.

To secure or provoke an early maturity, it is recommended to slightly but neatly cut, as it is done for the ring-barking of gum-trees, round the stump or any branch of the vine, and preferentially round the branch left from the previous year, a circular, narrow piece of the bark, a week or so before the blooming of the vines is expected. This ring-barking of the vine-tree should not, however, take place every year, but only occasionally, and more especially during rainy seasons, unfavourable to the development and progress of the grapes. In very favourable years, the ring-barking had better be avoided, and is further unnecessary.

The taking away of the leaves, shortly before the time comes for the vintage, is a proper thing to do, as it also helps maturation, by allowing the grapes to receive the rays of the sun, and thus advance much quicker to term than otherwise. This taking away of the leaves should be done only when the grapes are almost ripe, and more especially when the ripening is late, and appears as likely not to become complete in time, an event which, however, is hardly ever likely to occur in any part of Australia, but which yet is by far too slow in the colony, owing mostly to the nature of the species now adopted. The *effeuillage*, or stripping the leaves at a period to be discovered by experience, must, therefore, be recommended to the winegrowers, especially to those of the north, to obtain an earlier maturity and thus avoid, or reduce in some limit, the high degrees of sugar and alcohol accumulated in their grapes by long exposure to the heat of the sun.

The state of perfect maturity of the grapes is known by their colour and their taste truly liguorous and sugared; if the grapes are not quite ripe the berries are somewhat of a dull dark, and their taste yet slightly acid. Many wine-growers, to satisfy themselves as to the degree of maturity of their grapes, do for a few days before they expect full maturity, press the berries of a few grapes through a moderately fine piece of linen; the juice is received in a small tin, glass, or cup of about half a quart dimension, and the density or degree of saccharine matter contained in that juice, is at once ascertained by dipping in it the *Gleucometer* or *mustimeter*, which, being left to float by itself, indicates by its scale, the quantity or degree of sugar contained in the grapes; it is as well to repeat the essay three or four days, until the instrument does not get deeper in the *must*, or when the degree required by the grower is attained; also to regulate the temperature of the juice, the instrument being prepared to act at a temperature of 55 degrees Fahrenheit and 15 degrees centigrades. Each degree indicates per 22 gallons 1,500 grammes of sugar, representing a degree or 1 per cent. of alcohol in the wine, less a deduction of 1 in 12 for other matters than sugar.

In the practice, it is admitted that 1,600 grammes, or 3½ English pounds of grape sugar will, by fermentation, transform themselves into 1 quart of alcohol. The French *mustimeter* is marked and calculated to weigh, or rather float, at 1,000 or 100 in a quart of distilled water. The upper divisions above 1,000 or 100 indicate the lower density of the liquid as compared with distilled water; the lower marks show the heavier density of such liquid, which in our case would be the juice of grapes. No absolute table or scales can be given, as some *must* will be more dense or compact than others, according to the species of the grapes, but the less deep will the instrument float in the *must* the richer in sugar will the juice be.

Any distilled *must* showing only 6° to 8° Gay Lussac, or 10° to 13° Sykes, would not turn out a good wine; from 13° to 26° it will be a light, ordinary wine; above 26° Sykes or 15° Gay Lussac the *must* will become a liguorous or strongly alcoholized wine.

The *gleucometer*, or *mustimeter* or *densimeter* or *saccharimeter* (for it is all one under different names) is not however to be depended upon absolutely, as it is intended merely, and can only show the density of a liquid, and not what that liquid may be composed of. It is thus that certain grapes having the same density, will not necessarily contain the same quantity of sugar, nor produce the same quantity of alcohol, owing to differences in their nature, but for practical purposes, the indications within the above limits will answer sufficiently; Colonial growers yet unacquainted with the use of the *densimeter* will do well for themselves by learning how to use it, and by providing themselves with it. The instrument to select should of course be one especially prepared for the weighing of *must*, and according to the scale adopted by the European wine trade to facilitate its reading and understanding. I beg to submit here a table taken from Mr. Salleron's notice on French Oenological Instruments. The quantities referred to are in both cases the French hectolitre of 100 quarts or 22 gallons, the marks start from 1,000, limit of the distilled water's density, but there is no real interest for wine-growers purposes until the tube reaches the figures 1,050, or *per abréviation* 105. The scale shows also a division of each degree in tenths, although the degrees themselves are enough for practical purposes as far as 1,150 or 115, the degrees of alcohol obtainable at these

these marks being respectively 13° and 40° per Sykes' alcoholmeter, under and above which, wine is either too weak, or ceases to be wine to become liqueur.

| Density indicated by floating line. | Quantity of lbs. of sugar in must per 22 gallons. | French weight—Percentage of alcohol per 22 gallons of Wine. | English weight—Percentage of alcohol per Sykes' u.p., per 22 gals. of wine. |
|-------------------------------------|---|---|---|
| | Approximately. | Approximately. | Approximately. |
| 101 | 5 | 1.56 | 1.5 |
| 102 | 10 | 3.05 | 2.0 |
| 103 | 15 | 4.54 | 3.0 |
| 104 | 20 | 6.09 | 4.0 |
| 105 | 25 | 7.65 | 5.0 |
| 106 | 30 | 9.14 | 6.0 |
| 107 | 35 | 10.63 | 7.0 |
| 108 | 39½ | 12.05 | 8.0 |
| 109 | 44½ | 13.54 | 9.0 |
| 110 | 49½ | 15.10 | 10.0 |
| 111 | 54½ | 16.58 | 11.0 |
| 112 | 59½ | 18.06 | 12.0 |
| 113 | 64 | 19.49 | 13.0 |
| 114 | 68½ | 20.98 | 14.0 |
| 115 | 74 | 22.54 | 15.0 |

On the other hand, should there be an excess of maturity, there is as much danger as otherwise, for in that event the skins of the berries are almost destroyed, or very reduced in thickness, and as they are a part of the grapes, which much contribute to give the *tan*, and also colour, the wine is likely to come out with less body and colour and with a taste not so true or straight.

Further, with respect to the excess of saccharine matter in the red wines of warm countries, one of the principal remedies should be found in obtaining proper species of early maturation, allowing vintage to take place in January if possible, or, again, in delaying pruning until August, so as to delay thereby the blooming of the vine, thus avoiding the grapes being so long exposed to the heat; and again, in a judicious selection of the species which are to ferment together in certain proportions; to succeed in that way, a series of observations and studies by each owner upon his vineyard is the only method.

Actually, such method is certainly not generally followed in the Colony. The grapes are thrown together in the vats just as they arrive from the vineyard, and the consequence must be that, although possessing all the elements necessary to the making of good wines, small quantities will be obtained, having really a good quality, to the prejudice of the general and larger result of the vintage.

The necessity for being thoroughly well acquainted with one's vineyard should not frighten anyone. The first care of any owner should certainly be to study the species he possesses, their actual conditions, and what they can produce both as quantities and qualities. Each species should have a speciality, one for colour, another for alcohol, another for taste or bouquet, and it is from their proper mixture in the fermenting vats that depends the success of a wine.

By a wise mixing and vatting of the grapes of the various species suited to each other, a grower will always obtain at once, that is immediately after the first drawing-off subsequent to the fermentation, what, once the wine made and distributed in casks, must be looked for through various blendings, which of course, never give very easily as good satisfaction as would a fermentation in common.

It may thus be seen how important it is, to proceed by experimentation, if it is again kept in mind that the several special characters of species are variable in accordance with the altitude of the vineyard, its aspect, the nature of its soil, and the mode of training and pruning its vines.

In the making of red wines, a certain proportion should be mixed of white grapes, (say) one-tenth of each vatting, which will give to the red wines their limpidity, softness, and brightness.

The vintage should as much as possible be taken to the vat-house in vessels or baskets, all of about nearly the same capacity, so as to facilitate exact appreciations of their contents, and of the quantity of wine to be expected; the vessels intended to receive the grapes for fermentation, should also be of a uniform capacity and size, proportionate to the importance of the vineyard. The smallest vats to be recommended on a large vineyard should be of no less than 1,000 gallons, but if found practicable, vats of 2,000 gallons or about so will prove preferable and more beneficial to the vinification, the fermentation keeping more regular and more active in large vats than in small ones.

FERMENTATION.

The fermentation of red wines should take place in vats made of wood, stone, or cement, but preference should be given to wood, first because they are much handier for shifting, especially in a country like this, where everything has to be done as it becomes wanted or convenient, and also, because the tumultuous fermentation goes on much more rapidly and deeply than in stone vats, generally cooler and thus unfavourably affecting the fermenting matters. Each vat should be filled up with grapes during the same one day if possible, but in any case not longer than within two consecutive days, to avoid putting new grapes on others already fermenting, as fermentation once started should not be in any way disturbed, less again interrupted until absolutely completed.

The more rapid is the fermentation, the more intense, the warmer, the more intimate, the better is certain to be the combination of the various natural elements left to themselves.

In New South Wales, as being a warm country, the grapes should be left to ferment with a very strong proportion of their stalks, mostly to obtain their *tannin*, which is the best element of durability for the wines. Fully one-third of the stalks and sometimes more, should certainly be thrown in the vats, but this again is a delicate point upon which experience or remarks of previous years must be the best advisers for each grower.

Always with special reference to red wines, I have to report that now-a-days, the antiquated way of pressing the grapes with the feet of men is no longer in general practice on the vineyards of the Médoc, or St. Emilion districts around Bordeaux, and that the grapes are simply passed through a double cylinder, so disposed as to allow the berries to go through without getting more than their skins broken open, and then fall direct in the vats with or without their stalks, the process of separating these being also accomplished by the double-cylinder just mentioned when required. The

The grapes are then and thus left in vats hermetically closed, sometimes surmounted by a syphon dipped in water, to allow the escape of the gas produced by the fermentation. The hermetical closing of the vats avoids the evaporation of the alcohol, and allow, besides, to let the wine much longer in contact with the *marc* or fermented grapes without any risk of it becoming acid through exposure to external temperature. In many, if not in most of these new vats, there exists a solidly fixed netting, or else a wooden or rattan grating, intended to keep the residue constantly immersed in the liquid, which is left free to raise above, through the netting or grating, without any risk of bursting or breaking the vat; thus the wines are sometimes left for a month after the fermentation is over, securing more body and colour without any ill results.

All the implements intended for the making of the wines must be free of any taste, must be of an extreme cleanliness, and well washed with fresh water before being used so as to make them also quite staunch—this washing should take place further between each vatting as much as possible, immediately after the taking away of the fermented grapes; before the vats are used, they should be slightly wetted with quarts of good *eau-de-vie*, a sponge thus soaked being passed over each board.

Before filling up the vats, small taps for getting samples of the *must* at various times, with a large one at the lower part, should be fixed to facilitate the drawing off, and it must be recommended to place, in front of the internal opening of the lower tap, a small grating in galvanised iron-wire, intended to prevent the grapes and stalks obstructing the free and constant running out of the liquid.

It must be insisted upon the importance of proportionating the size of the vats to the vintage which is to be brought to them during the day, as no new grapes should be placed on the top of others already entered in a state of fermentation.

The covered vats must not be filled up with grapes to their upper edge; a space of about 2 feet or more should be left empty, simply to avoid the accumulation and raising of the wine bursting the lid; as to the *must*, it should be retained in the middle or lower part of the vats by a rope netting or rattan grating as already explained.

The vats should be filled up in the course of the day, or not later than in the next consecutive day; the quicker the better, both for the quantity and the quality of the wine expected.

The grapes should be emptied from outside the building, passing through the crushing cylinders fixed on the top or above the vats in the upper floor of the building containing the vats; these vats, as soon as filled up, should remain closed, undisturbed, and sheltered against exterior temperature, until the fermentation is quite over. In the modern built *chais* or *cuviers*, and even in the old, every facility is now introduced to reduce labour and save both time and money, and it would prove very economic and advantageous to our growers if they would give their attention to secure such architectural arrangements, whenever having to erect such buildings for themselves.

The time during which the fermentation is to last cannot be fixed with any precision; it entirely depends upon the state of maturity of the vintage, on the heat of the *must*, and on the temperature attained during the fermentation.

In some years the wines are considered as made within five or six days, in other years not less than ten or twelve days. Occasionally more time must elapse before the drawing-off should take place, and this must be done as soon as the fermentation is well over, when the vats have not been kept hermetically closed.

It is generally admitted that such a time has arrived when: (1) the wine is found to be of neutral taste—experience alone can teach this; (2) by the clearness and low degree of temperature of the *must* and by the degree of density indicated through the gluco-œnometer; (3) by the tumultuous fermentation being absolutely finished. This last sign can be easily ascertained by placing the ear against the side of the vats, when no boiling up should be perceived.

DRAWING-OFF, RACKING, AND BOTTLING.

In most wine-producing countries, the new wines are drawn off from the fermenting vats to be sent direct in very large casks called *foudres*, where they are left to wait further operations in due course by their experienced makers; these *foudres* are not quite filled up, so as to allow the new wines being submitted to a secondary slow and sleeping fermentation.

After fifteen or twenty days, these wines are then drawn into large vats kept tightly closed and quite full, being visited and filled up once a week for the following five months; during that period, five rackings are considered as absolutely necessary, and are made during clear, bright, and still weather.

These frequent rackings are intended to render the wines fit for immediate consumption, and to clarify them from the flying dregs which, at the following blooming season of the vine, are liable to start again a new fermentation.

The wines thus trained may, with a supplementary racking and sizing, when they are about six to seven months old, be kept safely for several years, provided, however, they are looked at from time to time, if it was only to fill up the casks. From their second year, these wines are considered as not requiring more than very ordinary care and have to be kept in a cellar having a constant and uniform temperature of about 60° or 65° Fahrenheit.

In the districts of Bordeaux, Médoc, and St. Emilion, the only vineyards which Colonial wine-growers should take for models, the universal and always successful practice has and will always be to lodge the new wines at once in as many new casks of a regular size and type as may be necessary; the 50-gallons oak casks appear to be those most favourable to the subsequent self-improvement of the wine they contain.

A few days before the drawing off from the vat takes place, each cask is washed with tepid pure water, and freed of any taste likely to remain in the wood, or affect the wine; the tepid water is not left in the cask longer than about half-an-hour, and it is then replaced by cool fresh water. The day before using them, these casks are again thoroughly well cleansed and dried, and upon many of the leading vineyards they are wetted with a tumbler of good *Eau-de-vie* before they are taken to their resting place, on some wooden or stone stands slightly elevated from the ground, in order that the wood be not affected by the dampness of the cellar's floor.

Whilst a fermenting vat is being emptied of its new wine, after fermentation, care should be taken that the seeds do not pass with the liquid, and the tap should be closed the very moment the wine does not run perfectly clear.

Whatever may remain of thick *must*, should on no account be mixed with the first or top wine, but reserved for special subsequent treatment. As to the grapes which have fermented in the vats, they are

taken out, and brought under a wine-pressing machine, to obtain a wine of second class or inferior quality, generally used by the workmen of the vineyard, or when not too inferior, utilized for filling up the casks during the several months immediately following the drawing off.

To obtain a perfectly uniform type of wines, the Bordeaux growers have their fermenting vats connected by pipes, with a central and smaller one, in which the wines are emptied all at the same time, thus thoroughly mixing and blending with each other, and from that last vat, they are immediately conducted through other pipes, in the casks prepared for them, without having been exposed to the air. As soon as these casks are filled up, they should be lightly shut or closed with wooden or cork bungs, or what is better again, with glass bungs.

During the first month, the casks should be filled up twice a week—from the second month once a week would be enough, if in cellars properly constructed: at the same date, the bungs may then be pushed in, more tightly.

Three months after the vintage (say in July, or at all events in August), a first *racking* should take place for the purpose of separating the dregs or lees from the wine; these lees generally remain at the bottom of the casks, but they are liable, through changes of temperature or any accident, to rise again, mix with the liquid, and cause a new fermentation likely to spoil the wine.

Before racking, the casks intended to receive the wine should be thoroughly well cleansed, washed, and dried; further, a very small sulphured wick must be burned inside, without the burned wick remaining in it afterwards; the rackings should be managed by calm and dry weather, from time to time, as said hereafter, and, according to some practical men, in preference during the last quarter of each moon; special pumps are made for the purpose, but their use cannot be recommended for wines not already fined and cleared of previous dregs, unless very great care and constant attention are paid to the wine in course of *transvasement*, to avoid any dregs passing when the cask is getting nearly empty.

In September, just before the blooming season of the new vines, a second racking must be made; and another, third one, again in December, and a fourth, or last one, in March. Until this last racking, the new wines are left in casks with the bungs upwards, and they must be filled up not less than once a week; but after the fourth racking these casks may be placed on their sides, with the bung-holes partly downwards, and there is no necessity to fill them up any longer, provided always they are kept in well-closed cellars, free from changes of temperature.

During their second year the new wines must be racked three times, viz., in September, December, and March, and for the following years, two rackings, one in September, the second in March, will prove sufficient.

The wines intended for *bottling* must be carefully sized or clarified at the beginning of their third year; many compositions are in use for this clarifying of wines; but the one acknowledged as the best of all is pure *albumen*, or white of eggs, for the red wines. From six to ten eggs are required for a cask of 50 gallons, according to the age and strength of the wine to be sized or fined. Two or three gallons being drawn off from the cask, the eggs are well beaten together and then thrown in the cask, where they are mixed in the wine, with a very simple apparatus, kept agitated for about 10 minutes. As a rule, a rest of fifteen or twenty days should be enough to secure a good limpidness of the wine, and to clear it from all strange matters; after that period, a new racking of the wine must take place, with more precautions than on any other previous occasions.

No wine should be bottled until it is fully three years old; strong and full-bodied wines, as the Australian wines, require even four years, and in some cases five years of training in casks, before they have attained that degree of limpidness, brightness, and softness expected in a good wine. During the period these wines are kept in casks, they should not be fined more than twice; once ought to be enough, as the more finings they are submitted to, the more they are liable to lose their soft and fruity taste, and so become dry and burning.

When about to be bottled, every care must be taken to preserve them from being mixed again with any lees, and from being left exposed to the air any more than can be avoided. The bottles should be well cleaned, and be so filled as to be in contact with the corks; these last should be well chosen, as free of spots as could be practicable, rather long, and soaked for a short time in good brandy. The corks employed for the bottling of the good ordinary Bordeaux and Burgundy wines cost generally from 30s. to 40s, and even 50s. per thousand.

Bottling and corking machines of various patents are now used everywhere for bottling wines and fixing the corks; also for the tinfoil capsules now in use for the covering of the corks, in preference to wax, to protect them against the dampness of cellars.

Wines newly bottled should not be drunk for fully six months after, as at first there is a certain intimate work going on which rather unsettles the wine and prevents it being favourably tasted, and it takes fully that time to allow any improvement being felt. This period of improvement lasts generally several years, but after about seven or eight years in bottle, any wine will generally show signs of declining; from then it will go down very fast, and cannot be depended upon in any way, except, perhaps, exceptionally, and then without clearly accountable causes. It must be said, however, that cellars are not without effect upon the preservation of wines; and as to this I intend to give full particulars later on in this report.

The treatment of **WHITE WINES** from the day of vinification, at the vintage season, is somewhat different of that special to the red wines. The vintage of the white grapes, or of the grapes intended for the making of white wines, should take place much later in the year than that for the red wines—say end of April or May; and then not necessarily in full at one time, but as the grapes reach their proper state of maturation.

For the peculiar soft and delicate qualities of the great white wines of Saunernes, and especially of the *Château-Yquem* growth, it is not enough that the grapes appear quite ripe and golden; each berry must, after having attained its fullest maturity, partly dessiccate, and through the effect of the sun's heat, have reduced its watery part by half.

To secure an absolutely perfect maturation of the grapes, and to facilitate their gradual selection, the whole of the leaves should be removed from the trees; not all at once, however, but at three different times, the first being about February, when the inside leaves should be taken away; a fortnight later, or as soon as the grapes appear quite ripe, the whole of the remaining leaves might be cut.

Whenever

Whenever the vintage has been decided upon, it should be carried on only during very fine or dry weather, and after the morning dew has disappeared, leaving the grapes quite free of moisture. In addition to these rules, practical experience of a few years is necessary before any one can form a correct opinion as to whether the proper time has actually arrived for cutting the grapes intended for the making of good white wines.

As soon as the grapes are cut and collected, they must be brought to the pressing-machine, as free from stalks as possible, and be submitted several times, even for two or three days successively, according to their fulness, to very strong crushing pressure, in order to obtain the whole of their juice. The *must*, to avoid becoming coloured, should be immediately separated from the skins and stones, and taken from the pressing-machine into new casks of the same description as that given above for red wines, kept clean and prepared for receiving the wine.

At the time the white wines are placed in casks, the degree of sugar should be from 16° to 20° Baumé for the first pressed juice. This degree will of course be less for the subsequent issues; and to secure a uniform quality of wine, each cask should receive an absolutely equal proportion of each issue of wine from the pressing-machine as it comes out, the casks not being of course filled up all at once. A similar blending at a later age of the wine is generally more difficult, and seldom as successful, for obtaining large quantities of a uniform and satisfactory character.

Good white wines, very soft and pleasant, will be obtained with grapes which, through less advanced desiccation, will produce a *must* the density of which will not exceed 15° Baumé. These wines will of course be far less liquorous than those first alluded to.

Small or light, inferior, dry white wines will be secured by white grapes giving not more than 12° of density by the areometer of Baume.

These degrees of density of the *must* are ascertained, as previously described for the red wines, by pressing several grapes and receiving the juice in a large glass or cup. The gleuco-ænometer will then be dipped in the liquid, and the degree marked on the floating line will indicate the proportion of saccharine matter to be expected from the vintage.

The alcoholic strength can only be ascertained by distillation of a sample, coming out from the pressing-machine, and both operations should be made by every grower anxious to profit by experience, and to learn what best is to be done for future vintages.

The casks in which the new white wines are placed should be quite filled up with *must*, in order to allow the dregs or lees being projected out of the casks by the tumultuous fermentation, which starts within the first twenty-four hours after the wine is in casks.

As it becomes quieter and less active, the casks should be kept always full with new *must* of the same nature as the first, thus getting rid by overflow, of much matter likely to keep the fermentation longer, and securing wines much sweeter, softer, and less alcoholized than otherwise.

During the fermentation of white wine in casks, no bungs should be placed upon them, but merely a vine-leaf steadied by a small quantity of sand, or else by a small pebble, so as to allow an escape for the carbonic acid or gas emanating from the wine, as well as to prevent dust falling in the wine.

The tumultuous fermentation of white wines must be expected to last much longer than that of the red wines, and sometimes last fully two months after vintage; no fixed time can be safely indicated, because the length of the fermentation depends almost entirely on the density of the *must* and on the atmospheric temperature; the more a *must* is liquorous, the longer the fermentation is likely to be, and nothing should be spared in order to facilitate it. A special building should receive the new white wines, and the inside temperature should be kept as high as possible as long as fermentation lasts. The minimum length, however, is of about a month's time, at the end of which the fermentation still exists, but slowly and not violently, and does not prevent the wines from getting somewhat clear; for that reason, the white wines should in no way be disturbed, or else the lees will rise again, provoke more actively the fermentation, and thus increase the alcoholic strength and reduce the softening principles of the wine.

Whenever it has been ascertained that there is no longer any carbonic acid emanating from the casks, these should be hermetically closed with a tight bung, and then filled up about twice a week, if in well-closed cellars; as soon as the new white wines are found limpid and somewhat free from floating elements, they must be racked a first time, sometimes during the month of August, then again about September or October, just before the blooming of the vine; a third one about February or end of January; and a fourth or last one in April; thus four rackings should be made during the first year. Whenever racking wines, care should be strictly taken to transvase them in casks properly sulphured, and to avoid the wines being in contact with external air any more or any longer than can be helped.

Inferior white wines, intended for distilling purposes, do not require much attention other than those specified for red wines, but white wines intended to be sold as of superior quality demand very careful training, especially if not of great alcoholic strength.

Independently of the frequent rackings recommended above, these wines must (1st), be lodged in well-closed cellars, free of any change of temperature, and in strongly made casks; (2nd), to be kept at all times with the bung-hole upwards, tightly closed, and regularly filled up with similar wines; (3rd), be often tasted and kept constantly clear of any lees, by as frequent rackings as necessary, without fining or sizing them with any chemical or any other composition; they should not require, or be submitted to, any such clarification before they are fully three years old. During their second and third years, white wines should be racked not less than three times, say in August or September; then in December; and finally, about March or April of each year.

Whenever racking white wines of one or two years old, very long sulphured wicks, fully 2½ or 3½ inches long, must be burned inside the casks; this length may be reduced gradually, as the wines are getting more and more limpid and free of lees after a number of rackings have taken place; care should also be taken that no water remains in the casks after the burning of the sulphured wick, as it might entirely spoil the wine.

The lees of the white wines may be pressed again, and give a wine which is very thick, requiring much racking and fining with white of eggs or isinglass, proving very useful then for filling up the first casks.

No good white wine is fit to be bottled until it is fully four years old, has been carefully nursed as described above, and has obtained a most perfect and bright limpidness. This result may be obtained sooner by more frequent rackings and filtering, and also finings, but in such cases the quality will always suffer.

With

With respect to their bottling and corking, the same remarks apply as for red wines, as to the choice, cleanliness, and quality of the bottles and corks.

FILTERING WINES is done generally for wines somewhat inferior, which are required to be sent away within a short time, not allowing for their being fined in the usual manner.

It is a great thing for wines to be seen in their best state of limpidness; some, unfortunately, especially among white wines, will be much longer than others to reach a good appearance to the eye, and it must delay their being sent to market, or delivered for consumption. This is very frequent in these colonies where wines are left in cellars exposed to the most sudden and constant changes of atmospheric temperature, the effect of which is to disturb all their constitutive elements.

Colonial growers are also, as a rule, in a hurry to get rid of their vintages, and therefore those anxious to secure and retain a good name for their growths should adopt the best *wine-filters* known; they will find them economic, quick, and certain means of giving satisfaction to those of their customers not intending to keep these wines for any time. As to the best growths it is not advisable to filter them, unless once only at the time of the first racking, as filters are liable to retain undue proportion of matters necessary to the improvement by time, of many wines, either red or white.

DEFECTS OF WINES.

Wines well made, with good and matured grapes, kept in good casks, placed in good cellars, and regularly attended to, should, as a rule, remain good for ever; yet, in spite of every care and attention being bestowed upon either red or white wines, and more so again if at all neglected or left to unexperienced hands, all wines are liable, in different degrees, to certain *diseases*, and to become unfit for their original purpose.

The various causes of weakness or defects of wines are of two classes; (1st), those resulting from the soil, its manure, and from wrong process or imperfect attention in the making of the wine at time of vintage; (2nd), those resulting of improper and subsequent fermentations, or neglect or carelessness in the training, nursing, lodging, &c., of the wine subsequently to its original vinification.

The first-class includes those defects known as *earthiness, greenness, harshness, bitterness, sourness, weakness, colourless, thickness, and unsoundness*.

The second-class includes the following:—*Flatness, tartness, taste of cask, of mustiness, oiliness, bitterness, acridity, dregginess, and degeneracy*.

As a rule, whenever a wine is, however slightly, affected by one or more of the above diseases, although it may be corrected, it will never be as good nor as much to be depended upon as a wine which had retained its good qualities from the first day; so that the old saying, "prevention is better than cure," receives its fullest application in the wine-growing and making industry.

Earthiness is a natural defect, given mostly by the skins and stones of the grapes cultivated in low, damp and marshy soils, or in soils manured with improper matters. It is entirely different from the *bouquet* or *sève*, which are always pleasant, and go on increasing as the wine is getting older, whilst earthiness is never pleasant, but will sometimes disappear, or become weaker, as the elements given by the skins to the constitution of the wine, such as the colouring matter, for example, are getting reduced through the wines being often racked and the lees removed. Young vines give always much more earthy wines than the old; and this is explained by the fact that the old vineyards have been more aerated by ploughing, drainage, or shifting and mixing of their soil, so that such means as those are considered as proper remedies for that defect. Should there be any reason to attribute it to the manure employed, it follows that a different one should be selected in future.

Further, wines known as likely to be earthy, from previous experience, should not be left any longer than absolutely practicable with the stems and skins in the fermenting vats, but drawn off immediately the fermentation is over.

To reduce the earthy taste at any subsequent period, the wines suffering from it must be subjected to much more frequent rackings and fining than in ordinary cases, so as to avoid the formation of strong depots or accumulations of dregs, which would simply maintain the taste objected to. The sizing should be made with a very strong dose of gelatine, and an addition of alcohol of a high degree, to facilitate the coagulation of the lees.

In the case of white wines having such an objectionable taste, they must not be racked until the alcoholic fermentation is over, and after their first racking has been made, they should be sized with a heavy dose of isinglass. It is said also that half a quart of pure olive oil, well mixed in a cask of wine, will assimilate to itself most of the bad elements giving earthiness. Whenever oil is thus used, the wine, as a matter of course, must be subsequently sized and racked again in the usual way.

Greenness is caused by a want of sufficient maturity in the grapes, developing an excess of tartaric acid, thus provoking an irritating contraction of the teeth and muscles of the mouth whenever tasting such affected wines. Against this defect, no remedy, to my knowledge, can be given as absolutely efficacious. By blending the green wines with others of a better description, these last are simply sacrificed, as the greenness, after a while, takes the softness or mellowness of the good wines. It is, however, generally recommended to introduce in each cask, and well mix, not less than half a pound of tartrate of potassium after first racking, its effect being to transform the tartaric acid into tartar, which is then precipitated with the lees, or sticks to the sides of the casks, after a few days of rest. Whenever the green taste of the wines is not unbearable, they may be much ameliorated by mixing with them about half a gallon of good old *eau-de-vie* in each cask.

Harshness, or Apreté, is caused by an excess of astringency, resulting from the *tannin*, which in itself is one of the best preserving elements of any wine. When there is no other defect, harshness is not necessarily a fault, but its effect is to delay the improvement of the wine, and thereby prevent its being placed on the market for immediate consumption at the usual period. In Colonial wines, harshness would be of great benefit, as it would secure them against degeneracy during the journey to Europe, but wines for Colonial requirements should be made with a very small proportion of the stalks, if any at all, being allowed in the fermenting vats, and then by drawing off the new wines into casks at an earlier period than others. Racking and finings will also prove useful to reduce the harshness of wines; but it should be remembered that the oftener a wine is sized, the more it will lose of its colour; therefore great caution should be used in having

having recourse to that particular mean. As a rule, none of these ways are actually required for Colonial wines, which, so far, are generally found deficient in *tannin*, or colouring and preserving matters.

Bitterness is a disagreeable taste, caused, especially in the new wines, by the dissolution of some watery parts of the stalks and stones of grapes. It generally decreases as the wines have been racked several times. Whenever such a taste is found to exist at the time of vintage, the *must* should be drawn off as soon as the first fermentation is over, and in future none of the stalks of the particular grapes then fermenting, should be allowed to drop in the vats.

Sourness is the result of an excess of acetic acid, caused by the *must* having, during fermentation, been in contact with the external air. The best way to prevent such a fatal accident is to use no other than hermetically closed fermenting vats. None of the alcohol then evaporates, neither transforms itself into acetic acid; but should it happen, there is not much hope to be entertained of the wine ever recovering; it may be slightly improved, but it will not keep any time. The usual remedies are to fine and rack these wines as soon as they are drawn off from the fermenting vats, and to rack them again a second time, about two or three weeks after the first racking.

Weakness consists in a want of the necessary degree of alcohol, resulting from their grapes containing a superabundance of water and an insufficiency of saccharine matter, as generally given by young vines planted in very fertile soil. Weak wines will never last long. To improve them they should be racked twice; as soon as practicable after the lees have formed their first deposit; if still then thick, they should be moderately sized, with the help of a small quantity of good *eau-de-vie* to facilitate the action of the albumine or other clarifying matter employed. It would then further be necessary, to blend these wines with others of the same taste, but of firmer qualities and being full-bodied.

Colourless wines are those made with grapes of imperfect maturity, or else with grapes whose skins have been much reduced by the sun's heat; or again, they are wines having fermented without the skins of the grapes being immersed in the *must*. It follows, therefore, that red wines should be made only with well matured grapes, and that a system of nets, keeping the *residue* constantly immersed in the *must* within the fermenting vats, should be adopted. Wines which are found weak in colour should never be oftener sized than unavoidably necessary, and then never with gelatine of any sort, but only with the albumen or white of the eggs.

To remedy further such a defect, blending with strongly coloured wines, but of a similar taste and bouquet, is the only way which can be advised.

Thickness in wines is generally the result of a secondary fermentation, caused by want of timely rackings, or through being left in cellars or buildings unprotected against changes of temperature; or again, by being moved about before having been racked for the first time. This serious defect may also be caused by a want of alcohol or of tannin.

In such cases the *new wines* should be placed first in a properly closed cellar, and there left to rest quietly for a fortnight; if by that time they have not become clear, the usual means of fining and then racking should be resorted to. Should the *thickness* be caused by natural *weakness* as above described, then, addition of alcohol and blending with tanniferous wines must be the only remedies to be employed with any chances of success.

Should this defect of *thickness* prove very inveterate, with great weakness in alcohol and in tannin and looking dull blue, the wines are threatened with decomposition or putridity; against this, the only preventive remedy is their being blended in early and proper time with full-bodied and more solid wines, and especially with *green* wines, and subsequently being fortified as is done for the green wines themselves.

Unsoundness of new wines means a reunion in one of them of two or more of the above-described defects. Wines thus affected soon lose their red colour, retaining a yellowish appearance, and being particularly thick, acid, and of unsavoury smell. These wines may be temporarily improved by a very strong addition of *alcohol*, but even then they will never last very long, and more particularly could not stand any sea journey.

Whenever submitted to any racking and fining, the use of pumps and of other clarifying substances than the white of eggs should be strictly avoided, as these means would again reduce the colour of the wine. Such wines may well be expected from vineyards injudiciously constituted or planted in inappropriate soil. For these reasons no one should venture into wine-growing without having first obtained the opinion of a competent man as to the fitness of the ground, its aspect, and the nature of the varieties of grapes most likely to give good results.

After the vinous or tumultuous, which is the first fermentation of the *must* for its transformation into *wine*, the wine is subject to three other fermentations, viz., the alcoholic or second, the acetic, and the putrid, the results of which are equally fatal to wine, however well made, and cause the following defects, against which the best preventive remedies are constant daily attentions and proper lodgings of the wines; each of these defects may to some degree be counteracted as afterwards explained.

Flatness of wines is nothing short than a beginning and symptom of sourness; it is accompanied by the appearance at the surface of the wine, near the bung-hole, of small flowers, or rather mouldiness. Wines possessing as much alcoholic strength as Colonial wines are so constituted as to have nothing to fear of the affection referred to, unless when they are yet in their new state and have been left in casks not filled up for a week or two. In such case, the remedy consists to fill up the cask so as to cause the *flowers* to overflow, and a day or two later, this wine should be transferred into another cask, in which a long sulphured wick shall have been previously burnt; a small proportion of good *eau-de-vie*, or a few gallons of a full-bodied and strong wine of the same description, should also be mixed with the wine thus decanted. A week after, this same cask should receive an energetic sizing, and as soon as freed of the lees, be racked again.

Tartness is the acidity of the wine resulting from a prolonged contact with the external air, in consequence of which the *alcohol* evaporates and is replaced by acetic acid. Colonial wines are constantly exposed to this danger, which is much more to be feared in a warm country like this than in others more temperate, so much more so that no previous symptoms are to be gathered, the acidity occurring very quickly.

To correct such an accident there is really no satisfactory remedy. Numerous chemical compositions are recommended, and may possibly, for a short time, neutralize the defect; but it otherwise injures the wine, in spite of any number of subsequent rackings and finings; they also render the wine unhealthy and unfit for consumption.

The

The best advice to give is to attempt alleviating the loss by using the wine for making good vinegar, the price of which is often more remunerative than that of the original matter.

Taste of cask.—Whenever this occurs, it is almost impossible to relieve the wine from the consequences. However, as soon as such a taste is found to exist, the wine must be removed from the suspected cask and transferred into another known to be of good quality, where a quart of pure olive oil will be mixed with it, and then removed by filling up the cask to overflow. Immediately after this, the wine must be submitted to an energetic sizing, and then racked again a fortnight later.

Taste of mustiness is the result of using old neglected and unwashed casks to receive new wine. A quantity of microscopic mushrooms develop themselves under the influence of dampness and darkness on the internal sides of these casks, and discharge an oily matter, which affects the wines very quickly, and to an almost irremediable extent. Wine merchants and growers must therefore strictly satisfy themselves of the fitness of every cask, before using it; but when the harm is discovered, if not yet too late, the same remedy should be applied as the one previously described against the taste of cask.

The wine thus affected can never be properly cured, but may be made passable by blending it with sound wines of inferior value, although well constituted.

Oiliness must not be understood to mean softness or mellowness, but a sort of viscous and sticky fermentation, which renders the wines as smeary as oil. It mostly occurs in white wines weak in tannin.

The remedy against this defect is the addition of strong tanniferous wines; the blending should be conducted as if it was an ordinary sizing, and the wine should be racked after a fortnight's rest.

Bitterness in wines a few years old, is not due to the same cause as that found in new wines as previously described; in this case, bitterness is a starting of degeneracy of the wines. The only remedy is their wise blending with newer wines of same nature, somewhat green, but full-bodied. Nevertheless, the bitterness soon reappears, and the best thing to do is to put these wines on immediate consumption.

Acridity is also a symptom of degeneracy of old wines, caused by a development of acetic acid, through the tannin and colouring matter precipitating away from the body of the wine. Against this, $\frac{1}{2}$ oz. of carbonate of soda per cask may be used with success; but if the acridity is not yet very strong, a blending with some straight wine should be preferred, together with a regular sizing, to make the mixture more complete, and then racking should follow in the usual course.

Dregginess is the result of lees left in the wine and precipitated, being agitated and mixed again through a secondary fermentation. The best remedy against this, is to secure a good first fermentation, and to always keep the wines in proper cellars, with invariable low temperature, separating them from the dregs by timely rackings, using proper apparatus to avoid the wines becoming exposed to the air, lodging them in casks properly sulphured, and when necessary, by clarifying them.

Degeneracy is the form of unsoundness peculiar to wines already a few years old, although very weak; new wines will show signs of that defect at the end of their first twelve months. As soon as degeneracy or decomposition is detected the wines should at once be blended with newer wines of the same sort, not yet finished, but well constituted and likely to improve. If degenerated wines are in bottles, there is no help but in putting them in casks again, and treating them as just said.

In addition to the various natural remedies above indicated for the rectification of diseased wines, there are also a number of other artificial means to which constant recourse is made by European growers, and consist in the use of *emo-tannin, plaster, alum, salicylic acid, alcohol, sugar, sulphuric acid, water freezing, and heating.*

The use of *plaster, alum, and salicylic acid* are considered as rendering the wines injurious to health, and therefore Colonial growers should abstain of employing them for the clarification of their wines or the suppression of elements of secondary fermentation. These several chemicals do not naturally exist in any degree in any wine, and therefore their addition to it, is simply altering its constitution. Although it may be said that European laws and customs allow these chemical agents to be made use of in the wine trade within certain limits, fixed by men of science, yet the longer Colonial growers will abstain from resorting to these means, the better for the Colonial wine industry, its supporters, and the consumers of Colonial wines.

In the same way, the addition in large quantities of *water, alcohol, and sugar*, are also considered as considerably altering the nature and quality of wines, and in some cases treated as frauds against the public revenue, to which the wine industry contributes largely in Europe.

Emo-tannin, or tartaric acid, especially if made out of the grape-stones, is, on the contrary, considered as perfectly justified and legitimate, as it adds merely to the wine the very element of which it is constituted by nature itself, and far from causing any damage, renders it firmer and liable to be preserved for a longer period, without in any way endangering public health. It is thus recommended, for clarifying new wines or strengthening them:—To add about 6 lbs. of crushed grape-stones per 22 gallons of wine before sizing it in the usual way, either with albumine or gelatine. Common salt may also with advantage be added to the albumen or white of eggs used for the clarifying of wines.

To protect wines against risks of secondary fermentation, and even to stop the first, European growers *sulphur* them to a high degree by frequent burnings of sulphured wicks in the casks during their being filled up with wines, taking care that no particles of these wicks remain behind, and avoiding exposing the wine to contact with the outside air. But this, if carried too far, is very injurious to red wines even strong in colour, as it precipitates the colouring matter.

Other growers prefer fortifying their wines with *alcohol*; when this is done for the legitimate purpose of allowing the wines thus treated, to stand a long journey, there is no fault to be found; but it will hardly be even necessary to use such means for Colonial wines in any *bond fide* trade. As a rule, however, it is resorted to, either at the time of the fermentation in vats, or subsequently with the result of reducing the good qualities of the wine, but of rendering it more liable to provoke disorders in health and otherwise; the immediate advantage accruing to the grower is that it helps him to get a high price on account of its alcoholic strength, for a wine otherwise inferior and often adulterated; further, such fortifying is often done, now-a-days, in Europe, with spirits of grains, potatoes, beetroot, or other matters, generally acknowledged to be hurtful to the public health.

Glycerine also is not unfrequently used in Europe to sweeten a wine, and to give it a fuller body with the addition of alcohol, but glycerine, when in excess of the normal quantity allowed by nature, is not altogether unobjectionable, or exempt of danger for the consumer's health, it being known to seriously affect natural functions.

The addition of *sugar* in wine is equally objectionable, as it has the same effect as the addition of alcohol, rendering the wines more heady and capitous, and consequently dangerous and unhealthy for daily use.

Preserving the wines by *freezing* has been found a very doubtful and questionable process, especially for large quantities; but it may be said further, that the freezing ultimately proves injurious to the wines submitted to it, the more so again when these wines are of superior quality.

HEATING WINES.

I have now to refer to the important question of preserving the wines from secondary fermentation by heating them; the instructions suggested by the New South Wales Committee insisted particularly upon that point, as being of special interest to Albury wine-growers; the Committee mentioned further a desire for full information upon Mr. Pasteur's claim, that wine can be advanced in ripening and improved by aeration.

The theory of the heating of the wines reposes entirely upon a practical discovery, and scientific proof, that the alterations and diseases of wines are caused by influences or elements foreign to their constitution. Monsieur Pasteur, member of the Institute of France, stated the existence and multiplication of microscopical vegetations in diseased wines, either absorbing their vital principles for their own benefit, or producing or introducing new particles in their composition. After a series of trials, Mons. Pasteur submitted wines thus affected to the influence of a great heat, and soon was able to affirm that by heating wine, for a few seconds only, to a temperature of 140 degrees Fahrenheit, or 60 degrees centigrades, any wine would become freed of all weakening elements and secured against subsequent causes of alteration. Numerous official and learned commissions were appointed to control the discovery, which was truly welcomed by the wine trade of France and Europe generally; and it may be said that the results as a whole have confirmed and demonstrated its practical soundness; yet the wine-growers, merchants, and producers of the Médoc and Bordeaux districts, without formally contesting its accuracy, do not adopt it for their own wines, as they maintain that the heating, is to some extent, injurious to the bouquet and delicacy of their finest growths.

However, at the present moment, the fast becoming general practice of heating wines renders numerous well appreciated services; the ordinary wines, the blended wines, and those yet new, are much sooner fit for consumption, of uniform character, and quite *faits* or finished; the heating process is in great favour mostly in the Southern Districts of France, where it is carried on, on a very large scale, allowing to bring in the market, almost immediately after each year's vintage, many wines which, but for that, would have had to be kept and trained for several months in cellars; this heating process has also been adopted extensively in Austria-Hungary, in Italy, and in Spain; favourable reports upon same have also been received from California.

In opposition to the negative opinion expressed by the Bordeaux growers, the reports of official and commercial commissions have been unanimous so far, as to very precisely assert that the heating, or, as it is sometimes called, the process of *Pasteurization* of the wines, causes hardly, if any, difference whatever in their taste; that, after four or six years, and twenty-two times out of twenty-four, the heated wines had been acknowledged as superior to those finest French growths not submitted to heating; that, after a few years, these same wines are not only still free from every sort of disease, but yet improve more than the wines left in their natural state; that their colour is brighter, their bouquet higher, and that all greenness and harshness partly disappear, whilst even on ullage, many foreign wines previously heated, remain unalterable, and become fit to stand the longest sea journeys.

The wines may be heated indifferently in bottles, in casks, or in vats.

When the wines are in bottles, these, after decantation, must be filled up again, their corks being tied with wire, and then dipped in a water-bath gradually heated up to 140 degrees, or even a few degrees higher. As soon as a thermometer indicates the required heat inside one of the bottles prepared to that effect, they are removed and left for a few days in a standing-up or vertical position, the effect of this being to improve and finish them very sensibly; later on, these bottles receive new corks, and may be left alone without any further trouble, for any length of time.

Whenever large quantities of wines have to be heated, special and appropriate apparatus are in use. I have seen these almost at every wine-making establishment in the southern part of France on the Mediterranean coast. Some consist of two brass cylinders, hermetically closed with double internal partitions, connected by two pipes. The wine is first introduced from an upper reservoir in the external partition of the first cylinder; then, it runs through an upper pipe in the other cylinder, which properly is the heating apparatus, and contains a water-bath, the temperature of which is kept at 140° Fahrenheit; thermometers are fixed so as to allow their being seen and read. After passing through the heating cylinder, the wine runs again through a lower pipe into the first cylinder, and becomes refrigerated by the contact of the fresh and cool wine on its way to the heating cylinder. From the refrigerant cylinder, the heated wine is immediately conducted in its resting cask; the circulating pipes are made of brass carefully tinned; the usual dimensions of the whole apparatus are such as to contain at one time about 120 gallons, and it should take not more 5 minutes for 22 gallons to run in and out, 1 to 2 minutes in the heating cylinder being considered sufficient for the preservation of the wine. There are two other systems also in great use; one receives through a force pump, the wine direct from the cask, and after heating it sends it back direct also to its new vessel. The other is a double steam condenser, which is introduced inside the casks to be heated, thus warming the wine without removing it, a circular pipe being provided for the escape of the steam.

The degree of heat, proper to the wines, must be according to their constitution; thus wines very alcoholic will not require as high a degree of heat as sweet and deep coloured wines; the first will require about 50° centigrades, the others not less than 60°; wines which are bitter and sour will have to be submitted to fully 70°, and in case of unfermented *must*, the heat should attain nearly 100° centigrades.

In spite of all good reports in favour of the heating process, there are growers using it for their wines who will say that once heated and properly lodged, the wine stands, it is true, very little chance of becoming unsound; but that, nevertheless, it is prudent not to let it be exposed to the air any more than practicable, and for that purpose a pipe should take it from the refrigerator to the bottom of the cask in which it is intended to remain in future; this end is obtained by one of the apparatus mentioned above.

Mons. Pasteur himself recommends that each cask intended to receive the heated wine be previously carefully washed, freed from any taste, and also to burn inside of it a sulphured wick to destroy all latent germs of acidity, which might otherwise affect again the heated wines. As soon, however, as the cask is full, it will, as a rule, suffice to close it hermetically to secure a perfect and lengthy preservation of the wine.

It would, still, be unwise to allow wine to remain for any time in an open or ullaged cask, and should through some accident a wine become affected by one or more of the diseases previously described, the usual means resorted to for their remedy should be equally applied, unless it is elected to submit the wine to the heating process for a second time.

The heating process is not intended only for wines already a few months or a few years old, but is also adapted to the maturation and protection of new *musts* in vats, their fermentation being impeded or delayed by a low degree of the atmospheric temperature, an event never likely to occur in this part of Australia. For the purpose just referred to, the whole contents of a vat must pass through the apparatus as quickly as practicable, say 1,000 gallons per hour, and be submitted to a heat of 30° centigrades, equal to 100° Fahrenheit; the fermentation will then start immediately after the *must* is reintegrated in the vat, and is not likely to stop before the wine is thoroughly made.

This process is found to answer much better than those of additions of alcohol, sugar, salicylic acid, etc., or the burning of sulphured wicks.

The practice is not without some difficulty, as the wine must be heated suddenly, the very moment it is introduced in the apparatus, until replaced in the fermenting vat, as the fermentation is not supposed to have already started; if it had, then the temperature inside the room would have to be made warmer; although the apparatus described above are to some degrees adapted to the warming of new *musts*, the results secured so far have not been such as to contribute to generalize that practice for the present.

It is also expected that the same heating treatment may be utilized for the making of sparkling wines by several successive heatings at various degrees, to stop the fermentation of the white wines as often as necessary, which is of the utmost importance to that special production.

This is yet a theory which the practice has not so far confirmed; and I may say that it is certainly not yet adopted by any grower of the Champagne Districts.

Mons. Pasteur in addition to his study and solution of the question of conservation of the wines, by heating, has also considered that of improving or advancing their ripening by aeration. So far as I could learn, this question has also been successfully, but theoretically solved, there being serious difficulties in the way of its application on a large scale without numerous and constant risks of failure. Mons. Pasteur, has established and proved that the oxygen of the air is indispensable to the wine for its going through the various stages of improvement required; and that a wine sheltered from all influence from the oxygen, would not improve, whilst another in constant contact with the external air, will quickly advance in ripening and finish.

This theory is in direct opposition to the generally prevailing ideas, at least apparently; many experiences conducted scientifically by Mons. Pasteur himself have, however, decided the fact beyond all doubts, and private growers have occasionally testified to the efficiency of this new process; but it has also been undoubtedly experienced that the contact of the atmospheric air with the wine is a mean of conducting into it, the germs or principles of the numerous causes of degeneracy to which it is subject. The main practical question to be solved was, therefore, to find a way of aerating the wine quickly, without exposing it to any noxious alterations, and yet to secure its combination with the oxygen.

Different modes have been proposed to obtain the above result, and although scientifically it is a certainty, yet I am not aware that in any part of France any of them has been admitted into general or even restricted practice. Years will no doubt elapse before any progress is made in that direction by the generality of wine-growers all over the world. I have heard, however, that some Algerian and Californian growers have found their way to saturate with air their new *must* during the tumultuous fermentation, and even whilst their vats are being filled up, by letting the liquid drop first in a large basin, wherfrom a pump sends it back into the fermenting vats, doing it however at night-time, or during the coolest hours of the day, thereby securing more quickly and successfully a complete fermentation and equalisation of the saccharine matter.

Be that as it may, the only aeration now happening in France is that which operates itself, through the pores of the casks, or again at the time of fining, racking, and shifting the wines without the help of a pump. In conclusion, and with respect to Colonial wines generally, there is no necessity to advance them too soon, owing to their high degree of alcohol; and let it be well understood that, as a general rule, a wine having gone through its alcoholic fermentation in good condition, and received subsequently the necessary attentions, is not likely to suffer any defects.

So far as Colonial wines are concerned, members of the Bordeaux Jury have expressed the opinion that their alcoholic strength would suffice to preserve them. This, to a great extent, will generally prove correct, and it has already done so with most of the Colonial wines, especially the new wines of 1882, sent from this Colony to the Bordeaux Exhibition. But it should not be forgotten that until now, Colonial wines have been found very deficient in *tannin* or tartaric acid, and that consequently they are liable to degenerate much earlier than would otherwise be the case. As a fact, I stated at Bordeaux and Amsterdam, that many Colonial samples, of three or four years old, were very poor in colour and meagre in body, in spite of their alcoholic strength, and therefore a number of Colonial wine-makers might well adopt the heating process for their *ordinary* and inferior wines, as soon as they intend to produce them in large quantities for a regular supply of the European markets. In fact every Colonial grower should provide himself with a *Pasteurizing* apparatus, if only to save labour, time, and money. I should mention here some attempts at utilizing electricity for hastening the maturation of wines, the results of which, however, have not been reported upon so as to generalize it for the present, for practical purposes.

CELLARS AND THEIR IMPLEMENTS.

From the general remarks contained in the previous pages, it will have been understood that however successful any remedy or skilled attention may be for the prevention and cure of diseases of wines, it is no less important to secure their natural improvement, and help them in attaining and retaining it.

I have alluded, but somewhat shortly, to the necessity there is for the long preservation of the wines, to keep them free from contact or exposure to external or atmospheric air, as well as of the influence of changes of temperature. I mean to communicate now more extensively my special remarks upon the ways adopted in France to secure these ends.

The first is to keep the wines in casks always full, properly closed, sound, and staunch; the second is to keep the casks in buildings so constructed as to retain at all times an unvariable temperature, so that the

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wines will neither dilate or reduce their volume; in the first case, under the influence of heat, there is danger of the casks giving way and allowing some escape and loss of the wine, besides disturbing its *lees*, disturbing its limpidness, and causing some secondary fermentation; in the second case, by reducing the volume, it allows the air to occupy the vacant space of the cask, and there to provoke an acetic fermentation.

These buildings or cellars must therefore, to secure an absolute and constant sameness of temperature, be built of stones or bricks, with double doors preventing direct communication with the external air.

The fermenting room or pressing room, generally called *chai* in France, is built, as a rule, in front of another portion of the building, intended to receive exclusively the *new wines*, and called *cellier*. These two are separated by a thick wall, in which there is only one door giving access to the *cellier*. Both are surmounted by a *granary*, on the floor of which a thick layer of sand is always spread, to prevent the hot air of the granary to pass through the boards of the floor over the *cellier*. As to the granary above the pressing or fermenting room, it is also placed, whenever practicable, so as to receive the grapes brought from the vineyard, and openings are provided just above the fermenting vats, or above large pressing machines, to allow the grapes falling directly in these, after the first operation of crushing or stalking them through cylinders has taken place, either for red or white wines as already explained. In the large wine-making establishments, there are separate buildings for the reception of each nature of wines, that is, red and white wines.

The *cellar* proper, or *cave*, is a third portion of the building intended to receive the wines fully twelve months old and to keep them as long as required. This *cellar* should be always built, when practicable, at the back of the *cellier*, and against the side of a hill, being also separated from the *cellier* by a thick wall, and having an upper story with a plastered ceiling, or else a thick layer of sand on the upper floor, as already said. One entrance may be provided from the *cellier* into the *cellar*, and one issue may exist from the *cellar* to the ground; but in this case, a sort of vestibule, used as storing or working room, must be built in front of this second issue of the cellar, to avoid the external air entering it without first going through a closed building and getting partly warm or assimilated to that within the *cellar*. But in any case, and under no pretext whatever, should the two doors of the *cellier* and *cellars* be opened at the same time, otherwise a current of air would be established and destroy all the effects of previous precaution.

Whenever the cellar may be built some 4 or 5 feet below the ground, so much the better, provided, however, there is not an excessive dampness, as this would soon rot the casks; the ceiling of the cellars should also be in the shape of an arch and not square, to secure a better uniformity of temperature; no window, air-hole, or aperture of any sort should exist in the walls or doors of the *cellier* or of the cellar; and the whole building should, when possible, be surrounded by trees. The roofs should be slated, and some ventilators might be left in it, but open only at night, to cool the air of the upper story of the building; these upper stories might well be used as store-rooms for cases, new casks not in use, corks, straw envelopes, empty bottles, &c.

With these precautions, the internal temperature of a *cellier* and of a cellar should never exceed, in this Colony, 70° Fahrenheit, nor be lower than 65°; and whilst the wines would benefit by this regularity, the growers would avoid the sensible losses resulting every year from evaporation, as must be the case in the present wooden sheds used in the country districts for the storing of wines. This loss is known to be occasionally 10 per cent., but in proper cellars it ought not and would not exceed 3 or 4 per cent. per year. Should, however, by some accident, the temperature reach above the highest degree mentioned, it would prove useful to water the floor of the cellar with fresh water.

The fermenting rooms should be equally protected against changes of temperature, with this only difference, that the light may be allowed to penetrate through a few double windows, the inner one having ground-glass, or the glass being painted, so as to avoid the injurious effects of the heat and light, especially this last with respect to red wines. These windows should, in any new building, be so distributed as not to be in front of any of the fermenting vats.

Whenever it happens that wines have to be left any length of time in aerated stores, the casks should be carefully filled once a week, if not twice, and the bungs should be very tightly fixed; when practicable, they should also be occasionally racked or transferred into well sulphured casks through the special pumps, so as to avoid exposing them to the outside air.

When casks of wine have to be left upon a railway or steamer's wharf, or in any place where they remain exposed to the sun, they should be well covered during the day with tarpaulins, and these should be frequently watered. The same must be said of casks of wine travelling upon open railways trucks, or any waggons, and at the end of their journey the wines should be immediately tasted and otherwise looked at. All this applies to old wines as well as to new wines, and even to liquorous wines, produced in the Colonies, in spite of their high alcoholic strength, which in such cases, should not be too much depended upon nor considered as an absolute safety from all dangers.

Dampness in cellars will also be very damaging if in excess of the degree required.

The cellars must always be kept very strictly clean and when practicable asphalted. Nothing likely to become rotten or putrid, or to emanate objectionable smells and vitiate the air, should be allowed either within or in the vicinity of the cellars.

Any *cellier* or wine vault, to be convenient and to answer properly its purpose, must be of a width in proportion to the number of casks intended to be stored in it; it is reckoned that between each double row, that is, rows of casks, the backs of which are placed touching each other, there should be left a clear passage of fully 5 feet, so that any cask may be easily rolled and turned about before being fixed in its place. The height of the building may be of 10 to 12 or 13 feet in the centre, but no higher. As a rule, two lines or at all events never more than three lines of casks should be made one above the other; as a matter of convenience two lines will be found quite sufficient to manage, although it may render necessary to increase the length and breadth of the building.

Wooden, brick, or stone stands, should be provided in each cellar to support the casks; these stands must be about 6 inches above the ground in order to facilitate the various rackings and other operations; their width may be about 4 inches, and they should be so placed as to support the casks at each end in the whole length of the building at an inner distance of 2 feet from each other in the same row, the average length of the hogsheads not being much above 3 feet. In very long cellars, some passages might be reserved in the length to avoid going all round and to facilitate circulation.

In places where great varieties of wines have to be stored in quantities, the transversal rows of casks are preferred to those longitudinal; but this is a matter of detail which the interested parties are the best

able to decide upon, but in any case it would be unwise not to provide plenty of room for passages, so as to have very easy access to each cask, or else the filling up, for instance, becomes somewhat difficult, and neglect, consequently losses, must be expected in the long run.

The Implements and appliances of each division of the cellar must consist as follows, at least so far as absolutely necessary :—

In the first or fermenting room, fermenting-vats, made of wood, strongly bound with iron, and surmounted with a double-cylinder stemming machine; these vats should hold from 1,100 to 2,200 gallons, and be divided in two partitions by open grating or trellis works in order to divide the vintage thrown in the vats and keep it well immersed in the liquid during the whole time of fermentation; these vats should also close hermetically at the top, the stemmer being removed for the purpose, unless that machine is, as already suggested, placed above the vat, but on the upper floor, which of course would have to be shut by a trap-door as soon as the vat is filled up, in order to isolate thoroughly the fermenting room from the warm air likely to penetrate through the roof. These vats should stand fully 3 feet above the ground, being elevated upon stone or brick blocks, permitting to sweep and keep the whole place clean under the vats and about the building generally, the floor of which should also be asphalted; this elevation of the vats is necessary also for emptying them into the tubs or casks brought under them, at the time of the drawing-off after fermentation.

BLENDING.—For this last purpose, I should suggest that an extra vat or a special machine be provided, and fixed about the centre of the room and placed in communication through pipes with each vat, in order to allow a complete blending of the vintage at the time of filling up the casks, thus securing a perfect uniformity of the wine. This vat, or better, the special blending machine, should then communicate with the *cellier* or next apartment by its wine pipe passing through the wall, and being directed in each cask without having to move these from their stand for the purpose of filling them. A description of the special machine referred to will be found in the illustrated schedule.

WINE-PRESSES.—For the making of secondary wines and of the white wines, preference should be given over all others to the Mechanical Grape-crushing Machine, known as the Universal Press, from Messrs. Mabile Bros., who exhibited them both at Sydney and Melbourne International Exhibitions, and numbers of which are already in use in the colony.

CASKS.—The casks employed should always be new for new wines, and made of oak or other wood properly prepared and likely not to impart an objectionable taste to the wine. From information I have obtained in Portugal, it seems that Eucalyptus wood, if grown straight and submitted to steaming, has proved well adapted to the making of casks; so well so, that some gentlemen are actually growing forests of these trees for no other purpose, rather than importing the woods from Northern Europe; until, however, the colony can get a regular supply of these casks within its territory I would advise Colonial growers not to hesitate to import these casks already made from Bordeaux, Antwerp, or London. The price of good solid casks, with no less than six iron hoops, and containing each as regularly as practicable, 50 gallons, delivered at Sydney, will not exceed 20s., and may be reduced by utilizing them for the shipment of corks, empty bottles, with their straw envelopes, and many other implements or goods required for the wine-growing or making industries; if these casks are shipped in bundles, as well it may be, their freight will be considerably less, but then skilled coopers will be required at this end to put them together again.

RACKING-PUMPS, CORKING MACHINES, AND OTHER IMPLEMENTS will be found better described in the annexed illustrated schedule, with their prices.

As the wines are getting finished and old, they must be transferred into casks having already been used for holding wine, but kept clean and free of any taste; no casks having ever been used for brandy, rum, gin, beer, vinegar, or indeed, any other liquid, should be used under any pretext by growers or merchants desirous to retain any connection they may create with the leading wine-trade of Europe; the risk is very great in such case, and the difficulty to keep these casks clean and free from any foreign taste is so much greater, that the best remedy of all—the burning of sulphured wicks inside these casks—cannot be used without the risk of provoking explosions, with fires, and their consequences of considerable personal and material injuries and damages.

To keep empty casks in good order, and always ready for use, they should be washed several times with a great rush of fresh water; then a thickly sulphured wick should be burned inside, and subsequently left with the bung-hole downwards to allow of every drop of water left inside dropping out. A second sulphured wick should then be burned inside the cask when perfectly dry, and the bung being fixed very tightly; the casks should then be stored in a very dry place, and be expected to remain free of mouldiness, acidity, &c., as long as the external air will not penetrate in them through some defect of the wood.

BUNGS.—The bungs used for the old wines should be of oak, and fit tightly in the bung-holes; but for new wines until twelve months after vintage, glass bungs will be found preferable; they are easier to keep clean and do not require any piece of canvas or linen to protect them from acidity, as is the case with wooden bungs, these bung-clothes having to be removed very frequently in the case of new wines.

BOTTLES.—Wine-growers and merchants should also be particular in the selection of the bottles and corks they have to use; as a rule no bottle having contained other liquid than wine should be taken, as it is a well known fact that adulterated drinks, or those composed with certain chemical matters, have an injurious effect upon the glass containing them, effect which may be felt by any liquid subsequently bottled in it; the bottles themselves should be made absolutely free of alkaline sulphur, as especially white wines would be liable to become absolutely lost by their influence.

Each wine-producer or merchant should satisfy himself that the new bottles he may purchase are of good quality, by filling several of them with water and adding 10 grammes of tartaric acid to dissolve in it. If after a week has elapsed, there is no deposit or crystallization of any sort in these bottles, it may then be safely inferred that the glass is of good quality, or such as not to damage wine.

It will prove of great advantage to any grower or merchant to use none but new bottles, all of a uniform shape and size; the model adopted in Bordeaux, holding about 75 centilitres, or $\frac{3}{4}$ of a quart, is getting mostly in favour all over Europe. The bottles intended for white wines should be quite clear, and those

those for red wines somewhat darker, but not so as to prevent distinguishing the contents; to avoid breaking bottles when corking them, they should be chosen with a very regular well formed opening, with a thick and strong ring outside. The price paid in Europe for first-class bottles somewhat fluctuates, but on an average is about 8s. to 10s. the hundred.

Before being used, bottles must always be carefully washed with small glass or crystal balls, made for the purpose, and to be preferred to the lead shots, one of these last remaining in a bottle being quite sufficient to spoil the taste and otherwise affect the wine. Bottle-washing machines of different kinds have been invented and found very useful when required for large quantities of bottles; after washing, the water must be allowed to drop out from the bottles, and these are not to be used until completely dried.

Before filling them up, it is often a custom to pass a spoonful of good brandy or of a good wine of same nature through each bottle, the wine or brandy thus used being kept and transferred from one bottle to another.

CORKS.—The corks should measure from 2 inches to 2½ inches, be perfectly cylindrical, soft, and free of spots; their diameter being adapted to that of the bottles for which they are required; hard and porous corks will be found a cause of breakage of many bottles, and if very porous, dust and other matters will penetrate in time to the wine and spoil it.

Before being ready for use, the corks should be submitted the day before to a thorough steaming, in order to soften them, and then allowed to dip in wine or brandy for a short time so as to cause them to slip easier in the bottle. The *needle-corking* machine is found to answer better than any other, as it brings the cork close to the liquid without risk of breakage through the surplus of the wine escaping by the space provided to that effect with the needle. The tighter the cork and the fuller the bottle, the better, especially for wines having to travel, as there is less moving about and fatiguing, thus allowing the colouring and preservative element of the wine to remain close and compact instead of precipitating, as would otherwise be the case, and causing a thick deposit in the bottle. Further, the more vacant space is left in the bottle the greater is the danger of evaporation of the alcohol, and thereby, of the wine becoming acid and sour through the effect of the air, which, when acting for any length of time, is one of the surest causes of degeneracy and decomposition of any wine. To protect the corks against the influence of dampness, or any other cause likely to damage it, neat and clean capsules of tin-foil are now found preferable to the old system of waxing, which, in many cases, did not answer the purpose, besides being dirty. The capsuling machine, mostly used at Bordeaux, will be seen in the illustrated appendix.

The implements, appliances, and tools in use by wine-growers and wine-makers or coopers in Europe are very numerous, and a full and complete description of these could be made the matter of a separate lengthy report. I have, however, endeavoured to supply a list of those most likely to be required or most desirable here, together with the few illustrations I could obtain, description of same, and their prices in Europe. The numbers refer to the illustrations, when any, and for most of which I am indebted to Mr. Kherig, merchant, of Bordeaux:—

Vineyard Implements.

- No.
1. Vine-dressing plough, £3, £3 8s., £3 12s.
 2. Each plough-point additional—steel, 6s. 6d.; iron, 5s.
 3. Shifting hoe, for plough, £1 12s. to £1 16s.
 4. Recovering hoe, do £1 12s.
 5. Uprooter (single), do £1 15s. to £1 8s.
 6. Uprooter with scarificator, £2.
 7. Vine-dressing hoe and plough (combined), £3 to £3 10s.
 8. Additional steel plough-point, 8s.
 9. Vine plough with shifting sides, £3 to £4.
 10. Vine plough for cleaning lines, £4 to £5.
 11. Harness for vine-ploughing horse, £2.
 12. Combined hoe and harrow for vines, £3 10s. to £4.
 13. Do do uprooter do £3 10s. to £4.
 14. Do do scarificator for vines, £3 10s. to £4.
 15. Uprooter (improved model), £2 10s. to £3 10s.

The last four apparatus may be had with 3, 5, 7, and 9 points, and the last uprooter, with 3 or 5 points, to 7, 9, and 11 teeth. They are, further, so constructed as to allow their spreading or narrowing, according to the space existing between the lines of vines where they are used.

16. Sulphuring bellow for wines suffering of oidium.
17. Hole-borer for planting vines or mixing sand in vineyards, £1.
- 17 bis. Vine-pruning shears, 3s. to 8s.

Wine-pressing and Making.

Grape-crushing machine (system, Mabile Bros.)—The patent screws alone being required to be brought to the Colony, as the wooden parts may well be made and adapted anywhere by any local carpenter or joiner.

Prices according to diameter of screws intended for Wine-presses and Troughs holding:—

| | Centimetres. | Inches. | Weight in Grapes. | Gallons of Must. | £ | s. | d. |
|-----|--------------|-----------------|-------------------|------------------|----|----|----|
| 18. | 06 | 2 $\frac{1}{8}$ | 2,200 lbs. | 66 gallons | 3 | 0 | 0 |
| 19. | 08 | 3 $\frac{1}{8}$ | 4,400 " | 176 " | 4 | 8 | 0 |
| 20. | 10 | 3 $\frac{1}{2}$ | 7,200 " | 400 " | 8 | 0 | 0 |
| 21. | 11 | 4 $\frac{1}{8}$ | 8,400 " | 572 " | 10 | 0 | 0 |
| 22. | 12 | 4 $\frac{1}{2}$ | 10,000 " | 700 " | 12 | 0 | 0 |
| 23. | 13 | 5 $\frac{1}{8}$ | 13,000 " | 836 " | 14 | 10 | 0 |
| 24. | 14 | 5 $\frac{1}{2}$ | " | 1,000 " | 17 | 10 | 0 |
| 25. | 15 | 5 $\frac{3}{4}$ | " | 1,200 " | 19 | 0 | 0 |
| 26. | 16 | 6 $\frac{1}{8}$ | " | " | 21 | 0 | 0 |

A complete apparatus with all the latest improvements, screens and folding top loads, with iron-works and screws, cost from £8 to £75, delivered at factory.

27. Some of these grapes crushers are mounted on carts with two or four wheels, allowing them to be shifted about and taken from place to place as may be required, their value being from £23 to £56.

For Colonial purposes, the apparatus including the screw of 11, 12, or 13 centimeters, would prove the best adapted, their price being respectively £45, £52, £60, without wheels; but, as previously explained, there would be no necessity to order anything else than the screw itself, weighing from 13 cwt. to 20 cwt.

Wine-

Wine-grapes mills or cylinders for breaking the skins of grapes and separating the grapes from the stalks.

Prices according to length of cylinders (single) delivered at factory :—

| | Metre. centimetre. | | Inches. | £ | s. | d. |
|----------|--------------------|----|------------------|----|----|----|
| 28. | 0 | 52 | 20 | 4 | 8 | 0 |
| 29. | 0 | 71 | 30 | 6 | 10 | 0 |
| 30. | 0 | 80 | 31 $\frac{1}{8}$ | 8 | 0 | 0 |
| 31. | 0 | 90 | 35 $\frac{1}{8}$ | 9 | 0 | 0 |
| 32. | 1 | 00 | 39 $\frac{1}{8}$ | 10 | 0 | 0 |

33. { Cylinders, combined with stemmers, £8 to £16 ;
 33 bis. } and with copper wire screen, £20 to £25.
 34. Price of stemmers alone, £5 to £7.
 34 bis. Grape iron crushing-machine (complete), £25 to £70.
 34 ter. Do system Roudier do £12 to £30.

Cellar's Implements.

35. Alambics for burning or distilling wines, £8 to £50.
 36. Blocks for piling casks, £4.
 37. Bridges do with safety pikes, £1 to £4.
 38. Bottle-rinsing machines, £12.
 39. Do do £1.
 40. Crystal balls for rinsing bottles, per lb., 4s.
 41. Cork-stamping apparatus, £1.
 42. Basins for transvasing *musts* or wines, 15s.
 43. Barrows for shifting casks, 10s. to £1.
 44. Ebullimeter of Salleron for testing alcoholic strength of wine, £3.
 45. Bottles, *Demi-John*, for storing surplus wine, 2s. to 5s.
 46. Safety iron-hoops for casks, 10s.
 47. Filters, universal system, £6 to £8.
 48. Do Mesot do £1 to £60.
 49. Do Sallien do £1 to £25.
 50. Bags for filters, 2s. to 16s.
 51. Sizing whip, 3s. to 7s. 6d.
 52. Do with wheel, £1.
 53. Siphon for emptying casks when in piles, 3s. to 4s.
 54. Do drawing wine, 2s.
 55. Shifting cranes, on wheels, £10 to £30.
 56. Can for filling up casks, 5s.
 57. Baskets for carrying bottles, 6d. per bottle.
 58. Pinches, with gimlet, for drills of casks, 8s.
 59. Tin-plates for stopping cask bungs, 5s. to 16s. per 1,000.
 60. Iron bins or stands for storing 300 bottles, 15s. 6d.
 61. Do with lock, £1 12s. 6d.
 62. Blocks and bridges (combined) for piling casks, £10.
 63. Registering tapes, 10s. to 16s.
 64. Rinsing-broom for bottoms of casks, 6d.
 65. Pneumatic syphon for emptying casks, £1.
 66. Syphons for decanting bottles, 1s. to 3s.
 67. Silver cup for tasting and judging wines, £2 10s.
 68. Oak bungs for casks (according to size), 6s. to 32s. per 1,000.
 69. Cork bungs do do 10s. to 18s. per 1,000.
 70. Corks for bottles, from 4s. to 40s. per 1,000.
 71. Indian-rubber pipes with canvas inside, 6s. to 10s. per lb.
 72. Capsules (tin-foil) for bottles, per size, 7s. 6d. to 15s. per 1,000.
 73. Sulphured wicks, 12s. per 1,000.
 74. Canvass for cask bungs, 5s. to 10s. per 1,000.
 75. Filtering paper, per 100 sheets, 1s. to 2s.
 77. Enotherms, or heating apparatus, for the pasteurization of wines. System, Terrel des Chènes, £25 to £60.
 78. Reverting-gear for racking casks, 12s.
 79. Capsuling machine. System, Blanchard, 12s. 6d.
 80. Corking machine. Latest improved system, £5.
 81. Filling bottle machines, 2 to 6 bottles, £3 10s. to £9.
 82. Pump, with bellow for racking casks, £2 10s. to £3 10s.
 83. Pump for filling up vats and casks.
 84. Do System, Moret-Broquet, £12 to £32.
 85. Do £16 to £24.
 86. Blending wine apparatus, 4 to 8 vats, £5 to £10.
 87. Racking tape for casks.
 88. Chain for rinsing casks, 4s.
 89. Drying stand for washed bottles, 15s. to 40s.
 90. Bung-driver, 2s.
 91 and 92. Casks and fermenting vats, with 4 to 6 iron hoops, and with iron or brass hoops.

Their prices cannot be given, as they fluctuate with price of timber and labour; they may, however, be obtained in Bordeaux at the average following rates :—Oak casks of 50 gallons each, hand-made, 12s. to 14s.; if machine-made, 10s. to 12s.

Large fermenting vats are paid at the usual rate of 1s. to 1s. 6d. per gallon, for the largest sizes.

93. Staves, both for casks and vats, may be obtained, made of the required size, from either Bordeaux, London, or Antwerp.
 94. Self-acting glass bung.
 95. Sulphured wick-burner.
 96. Eno-tannin for red and white wines, per lb., 7s. 6d.

Alcoholmetry.

As in the course of this report, and also in any business relations with European wine-merchants, constant references are made to the alcoholic strength of wines as ascertained by the alcoholmeter of Gay-Lussac, the only one in use on the Continent, I have further annexed hereto two comparative tables showing the correspondence of alcoholic degrees between the *Gay-Lussac* and the *Sykes* or British methods of measuring same. The difference between these two methods is, that Gay-Lussac alcoholmeter is divided according to its weight in *absolutely pure alcohol*, at a temperature of 15° cent. or 65° Fahrenheit, whilst the *hygrometer* of Sykes is based upon its weight in a liquid composed of 49 parts of alcohol and 51 parts of water, at the temperature of 51° Fahrenheit, this being the *proof-spirit* used as standard; the duty on spirit being due in France upon all quantities of such, in wine exceeding 15° centigrades, and in this Colony, upon such quantities exceeding 41° of Sykes, equal to about 24° French, whilst in England the limit is fixed to 26° Sykes, or about the same as in France, whose limit is also generally adopted by all other European States, as well as the alcoholmeter of Gay-Lussac, for ascertaining the same, owing to the now established and prevailing trade practice to value wines according to their alcoholic strength.

The *Gay-Lussac* alcoholmeter consists of a narrow glass tube of small dimension, terminated with an elliptic or round ball in which some quicksilver has been introduced for steadying it; above this ball is a long neck, graduated from 0 to 100. To ascertain with this alcoholmeter the alcoholic strength of any wine, it is first necessary to extract by distillation, with a small still, to be easily bought or made for the purpose, from half a quart of wine the alcohol it may contain, the alcohol being received in a long, tall, narrow glass whilst coming out through the worm of the condenser; when about a third of the contents of the tumbler emptied in the boiler has been distilled, it may be surmised that no more alcohol is left in the wine; a quantity of distilled water equal to twice that of alcohol received in the graduated glass is then added to it, to fill the same volume as originally; the alcoholmeter, if dipped in the pure alcohol, will plunge down to 100°, but if placed in the mixture of alcohol and distilled water, it will only plunge down in proportion to the density of the water at the temperature of 15° centigrade or 59° Fahrenheit, the floating line indicating, by the corresponding figures of the scale, the exact per centage quantity in volume of the alcohol contained in one hectolitre or 22 gallons of the wine thus tested.

CORRELATION between the Alcoholmeters of Sykes and Gay-Lussac with respect to alcoholic degrees.

| Sykes. | Gay-Lussac. | Sykes. | Gay-Lussac. | Sykes. | Gay-Lussac. | Sykes. | Gay-Lussac. |
|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
| u. p. | | u. p. | | u. p. | | u. p. | |
| 1 | 0.6 | 26 | 14.9 | 51 | 29.3 | 76 | 43.7 |
| 2 | 1.1 | 27 | 15.5 | 52 | 29.9 | 77 | 44.3 |
| 3 | 1.7 | 28 | 16.1 | 53 | 30.5 | 78 | 44.8 |
| 4 | 2.3 | 29 | 16.7 | 54 | 31. | 79 | 45.4 |
| 5 | 2.9 | 30 | 17.2 | 55 | 31.6 | 80 | 46. |
| 6 | 3.4 | 31 | 17.8 | 56 | 32.2 | 81 | 46.6 |
| 7 | 4. | 32 | 18.4 | 57 | 32.8 | 82 | 47.1 |
| 8 | 4.6 | 33 | 18.9 | 58 | 33.3 | 83 | 47.7 |
| 9 | 5.2 | 34 | 19.5 | 59 | 33.9 | 84 | 48.3 |
| 10 | 5.7 | 35 | 20.1 | 60 | 34.5 | 85 | 48.9 |
| 11 | 6.3 | 36 | 20.7 | 61 | 35.1 | 86 | 49.4 |
| 12 | 6.9 | 37 | 21.3 | 62 | 35.6 | 87 | 50. |
| 13 | 7.5 | 38 | 21.8 | 63 | 36.2 | 88 | 50.6 |
| 14 | 8. | 39 | 22.4 | 64 | 36.8 | 89 | 51.1 |
| 15 | 8.6 | 40 | 23. | 65 | 37.4 | 90 | 51.7 |
| 16 | 9.2 | 41 | 23.6 | 66 | 37.9 | 91 | 52.3 |
| 17 | 9.8 | 42 | 24.1 | 67 | 38.5 | 92 | 52.9 |
| 18 | 10.3 | 43 | 24.7 | 68 | 39.1 | 93 | 53.4 |
| 19 | 10.9 | 44 | 25.3 | 69 | 39.7 | 94 | 54. |
| 20 | 11.5 | 45 | 25.9 | 70 | 40.2 | 95 | 54.6 |
| 21 | 12.1 | 46 | 26.4 | 71 | 40.8 | 96 | 55.2 |
| 22 | 12.6 | 47 | 27. | 72 | 41.4 | 97 | 55.7 |
| 23 | 13.2 | 48 | 27.6 | 73 | 41.9 | 98 | 56.3 |
| 24 | 13.8 | 49 | 28.2 | 74 | 42.5 | 99 | 56.9 |
| 25 | 14.4 | 50 | 28.7 | 75 | 43.1 | 100 | 57.5 |

CORRELATION between the alcoholmeters of Guy-Lussac and, Sykes with respect to alcoholic strengths.

| Gay-Lussac. | Sykes | Gay-Lussac. | Sykes. | Gay-Lussac. | Sykes. | Gay-Lussac. | Sykes. |
|-------------|-------|-------------|--------|-------------|--------|-------------|--------|
| Water ... 0 | U.P. | | U.P. | | U.P. | | U.P. |
| Alcohol 1° | 1.7 | 16 | 27.8 | 31 | 53.9 | 45 | 78.3 |
| 2 | 3.5 | 17 | 29.6 | 32 | 55.7 | 46 | 80. |
| 3 | 5.2 | 18 | 31.3 | 33 | 57.4 | 47 | 81.8 |
| 4 | 7. | 19 | 33.1 | 34 | 59.2 | 48 | 83.5 |
| 5 | 8.7 | 20 | 34.8 | 35 | 60.9 | 49 | 85.3 |
| 6 | 10.4 | 21 | 36.5 | 36 | 62.6 | 50 | 87. |
| 7 | 12.2 | 22 | 38.3 | 37 | 64.4 | 51 | 88.7 |
| 8 | 13.9 | 23 | 40. | 38 | 66.1 | 52 | 90.5 |
| 9 | 15.7 | 24 | 41.8 | 39 | 67.9 | 53 | 92.2 |
| 10 | 17.4 | 25 | 43.5 | 40 | 69.6 | 54 | 94. |
| 11 | 19.1 | 26 | 45.2 | 41 | 71.3 | 55 | 95.7 |
| 12 | 20.9 | 27 | 47. | 42 | 73.1 | 56 | 97.4 |
| 13 | 22.6 | 28 | 48.7 | 43 | 74.8 | 57 | 99.2 |
| 14 | 24.4 | 29 | 50.5 | 44 | 76.6 | 58 | 100.9 |
| 15 | 26.1 | 30 | 52.2 | | | | |

The following is a calculated table intended to show by a mere glance the degrees of alcohol, as above explained whenever the *melange* of distilled water and distilled alcohol is either above or below +15° centigrades.

INDICATIONS OF THE ALCOHOLMETER.

| Indication of thermometer. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| centigrade. | 10° | 11° | 12° | 13° | 14° | 15° | 16° | 17° | 18° | 19° | 20° | 21° | 22° | 23° | 24° | 25° | 26° | 27° | 28° | 29° | 30° | 31° | 32° | 33° | 34° | 35° | 36° | 37° | 38° | 39° | 40° |
| 10° | 1.4 | 2.4 | 3.4 | 4.5 | 5.6 | 6.5 | 7.5 | 8.5 | 9.5 | 10.6 | 11.7 | 12.7 | 13.8 | 14.9 | 16.0 | 17.0 | 18.1 | 19.2 | 20.2 | 21.3 | 22.4 | 23.5 | 24.6 | 25.8 | 26.9 | 28.0 | 29.1 | 30.1 | 31.1 | 32.1 | |
| 11° | 1.3 | 2.4 | 3.4 | 4.4 | 5.4 | 6.4 | 7.4 | 8.4 | 9.4 | 10.5 | 11.6 | 12.6 | 13.6 | 14.7 | 15.8 | 16.8 | 17.9 | 19.0 | 20.0 | 21.0 | 22.1 | 23.2 | 24.3 | 25.4 | 26.5 | 27.7 | 28.7 | 29.7 | 30.7 | 31.7 | |
| 12° | 1.2 | 2.3 | 3.3 | 4.3 | 5.3 | 6.3 | 7.3 | 8.3 | 9.3 | 10.4 | 11.5 | 12.5 | 13.5 | 14.6 | 15.6 | 16.6 | 17.6 | 18.7 | 19.7 | 20.7 | 21.8 | 22.9 | 24.0 | 25.1 | 26.1 | 27.2 | 28.2 | 29.2 | 30.2 | 31.2 | |
| 13° | 1.2 | 2.2 | 3.2 | 4.2 | 5.2 | 6.2 | 7.2 | 8.2 | 9.2 | 10.3 | 11.4 | 12.4 | 13.4 | 14.4 | 15.4 | 16.4 | 17.4 | 18.5 | 19.5 | 20.5 | 21.5 | 22.6 | 23.7 | 24.7 | 25.7 | 26.8 | 27.8 | 28.8 | 29.8 | 30.8 | |
| 14° | 1.1 | 2.1 | 3.1 | 4.1 | 5.1 | 6.1 | 7.1 | 8.1 | 9.1 | 10.2 | 11.2 | 12.2 | 13.2 | 14.2 | 15.2 | 16.2 | 17.2 | 18.2 | 19.2 | 20.2 | 21.2 | 22.3 | 23.3 | 24.3 | 25.3 | 26.4 | 27.4 | 28.4 | 29.4 | 30.4 | |
| 15° | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
| 16° | 0.9 | 1.9 | 2.9 | 3.9 | 4.9 | 5.9 | 6.9 | 7.9 | 8.9 | 9.9 | 10.9 | 11.9 | 12.9 | 13.9 | 14.9 | 15.9 | 16.9 | 17.8 | 18.7 | 19.7 | 20.7 | 21.7 | 22.7 | 23.7 | 24.7 | 25.7 | 26.7 | 27.6 | 28.6 | 29.6 | |
| 17° | 0.8 | 1.8 | 2.8 | 3.8 | 4.8 | 5.8 | 6.8 | 7.8 | 8.8 | 9.8 | 10.8 | 11.7 | 12.7 | 13.7 | 14.7 | 15.6 | 16.6 | 17.5 | 18.4 | 19.4 | 20.4 | 21.4 | 22.4 | 23.4 | 24.4 | 25.4 | 26.3 | 27.3 | 28.2 | 29.2 | |
| 18° | 0.7 | 1.7 | 2.7 | 3.7 | 4.7 | 5.7 | 6.7 | 7.7 | 8.7 | 9.7 | 10.7 | 11.6 | 12.5 | 13.5 | 14.5 | 15.4 | 16.3 | 17.3 | 18.2 | 19.1 | 20.1 | 21.1 | 22.0 | 23.0 | 24.0 | 25.0 | 25.9 | 26.9 | 27.8 | 28.8 | |
| 19° | 0.6 | 1.6 | 2.6 | 3.6 | 4.6 | 5.5 | 6.5 | 7.5 | 8.5 | 9.5 | 10.5 | 11.4 | 12.4 | 13.3 | 14.3 | 15.2 | 16.1 | 17.0 | 17.9 | 18.8 | 19.8 | 20.8 | 21.7 | 22.7 | 23.6 | 24.5 | 25.5 | 26.4 | 27.3 | 28.3 | |
| 20° | 0.5 | 1.5 | 2.4 | 3.4 | 4.4 | 5.4 | 6.4 | 7.3 | 8.3 | 9.3 | 10.3 | 11.2 | 12.2 | 13.1 | 14.0 | 14.9 | 15.8 | 16.7 | 17.6 | 18.5 | 19.5 | 20.5 | 21.4 | 22.4 | 23.3 | 24.3 | 25.2 | 26.1 | 27.0 | 27.9 | |
| 21° | 0.4 | 1.4 | 2.3 | 3.3 | 4.3 | 5.2 | 6.2 | 7.1 | 8.1 | 9.1 | 10.1 | 11.0 | 11.9 | 12.8 | 13.7 | 14.6 | 15.5 | 16.4 | 17.3 | 18.2 | 19.1 | 20.1 | 21.1 | 22.1 | 23.0 | 23.9 | 24.8 | 25.6 | 26.6 | 27.5 | |
| 22° | 0.3 | 1.3 | 2.2 | 3.2 | 4.1 | 5.1 | 6.1 | 7.0 | 7.9 | 8.9 | 9.9 | 10.8 | 11.7 | 12.6 | 13.5 | 14.4 | 15.3 | 16.2 | 17.0 | 17.9 | 18.8 | 19.8 | 20.7 | 21.6 | 22.5 | 23.5 | 24.3 | 25.2 | 26.2 | 27.1 | |
| 23° | 0.1 | 1.1 | 2.1 | 3.1 | 4.0 | 4.9 | 5.9 | 6.8 | 7.8 | 8.7 | 9.7 | 10.6 | 11.5 | 12.4 | 13.3 | 14.1 | 15.0 | 15.9 | 16.7 | 17.6 | 18.5 | 19.4 | 20.3 | 21.2 | 22.1 | 23.0 | 23.9 | 24.8 | 25.7 | 26.7 | |
| 24° | ... | 1.0 | 1.9 | 2.9 | 3.8 | 4.8 | 5.8 | 6.7 | 7.6 | 8.5 | 9.5 | 10.4 | 11.3 | 12.2 | 13.1 | 13.9 | 14.8 | 15.7 | 16.5 | 17.4 | 18.2 | 19.1 | 20.0 | 21.0 | 21.8 | 22.7 | 23.6 | 24.5 | 25.4 | 26.3 | |
| 25° | ... | 0.8 | 1.7 | 2.7 | 3.6 | 4.6 | 5.5 | 6.5 | 7.4 | 8.3 | 9.3 | 10.2 | 11.1 | 12.0 | 12.8 | 13.6 | 14.5 | 15.4 | 16.2 | 17.1 | 17.9 | 18.8 | 19.7 | 20.6 | 21.5 | 22.4 | 23.2 | 24.2 | 25.1 | 26.0 | |
| 26° | ... | 0.7 | 1.6 | 2.6 | 3.5 | 4.4 | 5.4 | 6.3 | 7.2 | 8.1 | 9.0 | 9.9 | 10.8 | 11.7 | 12.5 | 13.4 | 14.3 | 15.1 | 15.9 | 16.7 | 17.6 | 18.5 | 19.4 | 20.3 | 21.2 | 22.1 | 22.9 | 23.8 | 24.7 | 25.6 | |
| 27° | ... | 0.6 | 1.5 | 2.4 | 3.3 | 4.3 | 5.2 | 6.1 | 7.0 | 7.9 | 8.8 | 9.7 | 10.6 | 11.5 | 12.3 | 13.1 | 13.9 | 14.8 | 15.6 | 16.4 | 17.3 | 18.2 | 19.1 | 20.0 | 20.9 | 21.7 | 22.6 | 23.5 | 24.4 | 25.2 | |
| 28° | ... | 0.5 | 1.4 | 2.3 | 3.2 | 4.1 | 5.0 | 5.9 | 6.8 | 7.7 | 8.6 | 9.5 | 10.3 | 11.2 | 12.0 | 12.8 | 13.6 | 14.4 | 15.2 | 16.0 | 16.9 | 17.7 | 18.6 | 19.5 | 20.4 | 21.3 | 22.2 | 23.1 | 24.0 | 24.8 | |

Of all practices for the purpose of ascertaining the alcoholic strength of wine, that above described, by previous distillation, is the only one so exact in every respect as to be depended upon absolutely. But there are several other instruments now in use, which are found to give the required information much quicker, and yet exactly enough for commercial and practical purposes.

Amongst these, must be mentioned Mr. Salleron's *ebullimeter*, a very simple apparatus, with the assistance of which the strength of any ordinary wine may be rigorously ascertained within 5 or 6 minutes. It is based upon the fact that whilst water boils at a temperature of 100° centigrade, alcohol does reach ebullition at 78° centigrade. A thermometer graduated in accordance with the capacity of the instrument, dips in a small boiler, and on each side of this thermometer are found two scales prepared in views of assays of either water and alcohol, or of ordinary wines, the difference in the composition of both liquids being so as to considerably interfere with the ebullition point of either, the various salts, acids, gums, and glycerine existing in the wine lowering the boiling temperature of alcoholic liquors. This instrument's usefulness has made it now universally accepted by the French wine trade.

Another testing apparatus of somewhat greater simplicity again is occasionally used also. It is known as the *liquometer*, and is based upon the capillarity or adhesive strength of liquids in their contact with very narrow tubes. Thus it has been found that a column of pure water, is much higher than another of pure alcohol, when introduced in a capillary glass tube, and that between these two limits, the mixtures of water and alcohol reach higher or lower degrees in accordance with the proportion of either; the more there is water, the higher will the *melange* rise. The *liquometer* consists, therefore, of a capillary glass tube of very small size, especially graduated, kept vertically through a small board, so that its lower end merely touches without dipping in the alcoholic liquid or wine to be tested. By aspiration, this liquid is introduced in the glass tube, and the corresponding height at which it remains, is indicative of the quality or percentage of alcohol in the wine.

Notice, however, of the temperature of the liquid must be observed at the time of operating, for the instruments are all intended to be used at a temperature of 15° centigrades, which is the average height of the thermometer in Europe. At that degree of heat, the density of distilled water, is expressed by 1,000, and to facilitate operations at other temperatures, special corrective tables have been calculated. This *liquometer* proves useful when travelling.

Statistical Observations.

With this report, I have thought proper to annex extracts from the Colonial Statistical Registers from 1843 to 1882, showing the area and production of Colonial vineyards, number of wine-presses, quantities and value of Colonial wines exported; quantities of brandy and of table-grapes produced; also comparative tables of French and Colonial average production per year and per acre, since the origin of Colonial viticulture.

According to the "Australian Dictionary of Dates," of J. Henniker Heaton, Esq., "the first grape-vines planted in Australia were so planted near Parramatta, in November, 1791, I believe by Colonel de la Campe, a French *émigré*, who had settled at Castle Hill. The first vineyard of any importance, however, appears to have been situated at Camden Park, and belonged to Mr. Macarthur, who imported a collection of vines from Europe in 1816, as did also later on, Mr. Busby.

The Agricultural Society lent its aid to encourage the growth of the vine, which began to draw general attention in 1823. Mr. Skene Craig introduced the grape vine into Victoria in 1836, his vineyard being planted in Collins-street west, at Melbourne; and in 1839, Sir W. Macarthur brought six German vine-dressers to this colony.

In 1828 a Mr. Gregory Blaxland was presented in England with the "Gold Ceres Medal", by the Society of Arts, London, for wine produced in New South Wales, and in 1846, some wine, the produce of the Messrs. Macarthur's vineyards, was sold at Calcutta, it being the first appearance, as remarked by the Indian press, of that new Australian export in that market. In 1855 the cultivation of the vine was much advocated by witnesses giving evidence before a Parliamentary Select Committee appointed to report upon the state of agriculture. In 1860 a Mr. Blake is reported as having introduced New South Wales wine in Victoria, and in 1875 a first sample of Colonial sparkling wine was brought forward by Mr. J. T. Fallon, of Albury.

In that same year (1875) a report had been brought officially, by the Chief Inspectors of Distilleries from New South Wales and Victoria, Messrs. Lumsdaine and Moody, to the effect that the natural wines of the northern portion of Victoria developed more alcohol than natural wines of Europe have been generally considered capable of doing, and ranged much higher in this respect than the British Customs' standard of 26 per cent. of proof, the highest percentage as ascertained at Albury being 34.1 per cent.

This report has, however, been refuted by the Chief Inspectors of the British Customs Department, in a memorandum dated London, 6th January, 1875, with reference to a similar question raised by the

wine-growers of South Australia in 1874, the refutation being based upon supposed defects in the course of obtaining the samples operated upon, rather than on the real and true constitutive principles of these Colonial wines, which have since been over and over found to be of the description given by the Colonial officers above named, although the technical points raised by the London Customs House as to the mode of obtaining any samples have not been particularly attended to in any case, a form which, however, should not deprive Colonial wines of the fiscal consideration they deserve.

The cultivation of the vine and the production of wine in New South Wales appear officially for the first time in the "Colonial Statistical Register" of 1843, also the production of brandy through distillation from Colonial wines. The production of table-grapes is not mentioned until the year 1859. The number of wine-presses is given first in 1865, and the quantities and value of Colonial wines exported is shown since 1873.

In 1843 the acreage in vines was limited to 508 acres, increasing since then gradually every year. The production increased correspondingly, but the averages obtained are still far below what they should be, if the vineyards were all properly cultivated. At the present time, some growers secure as much as 800 gallons of wine per acre, but the Colonial yearly average is not above 125 gallons per acre. The yearly averages indicated in the following statements have been calculated from the production of each year, according to the number of acres existing four years previously, that number alone being considered as a proper basis of full-bearing vines. It may be, however, that no correct average can be ascertained, from the statistical registers, owing to the vineyards producing table-grapes only, being included with those cultivated for wine-growing purposes exclusively. The number of wine-presses will be found to vary also somewhat peculiarly; as to the exports of Colonial wine, they will be seen to be slowly increasing in importance and value year after year.

PRODUCTION and Exportation of Colonial Wines from New South Wales since 1843 to 1882.

| Years. | Acreage. | Number of Wine-presses. | Gallons of Wine. | Average production per acre. | Gallons of Wines exported. | Value. |
|--------|----------|-------------------------|------------------|------------------------------|----------------------------|--------|
| 1843 | 508 | ..... | 33,915 | ..... | ..... | £ |
| 1844 | 556 | ..... | 50,566 | ..... | ..... |  |
| 1845 | 611 | ..... | 54,996 | 108 | ..... |  |
| 1846 | 749 | ..... | 52,337 | 103 | ..... |  |
| 1847 | 899 | ..... | 54,035 | 106 | ..... |  |
| 1848 | 887 | ..... | 97,300 | 175 | ..... |  |
| 1849 | 963 | ..... | 95,843 | 156 | ..... |  |
| 1850 | 1,069 | ..... | 111,085 | 148 | ..... |  |
| 1851 | 1,060 | ..... | 84,843 | 94 | ..... |  |
| 1852 | 1,096 | ..... | 92,744 | 104 | ..... |  |
| 1853 | 962 | ..... | 57,491 | 60 | ..... |  |
| 1854 | 913 | ..... | 57,959 | 54 | ..... |  |
| 1855 | 1,030 | ..... | 115,614 | 109 | ..... |  |
| 1856 | 1,018 | ..... | 95,649 | 87 | ..... |  |
| 1857 | 1,128 | ..... | 108,174 | 112 | ..... |  |
| 1858 | 1,179 | ..... | 58,396 | 63 | ..... |  |
| 1859 | 1,354 | ..... | 96,100 | 93 | ..... |  |
| 1860 | 1,583 | ..... | 99,791 | 98 | ..... |  |
| 1861 | 1,130 | ..... | 85,328 | 75 | ..... |  |
| 1862 | 1,459 | ..... | 144,888 | 122 | ..... |  |
| 1863 | 1,640 | ..... | 136,976 | 101 | ..... |  |
| 1864 | ..... | ..... | ..... | ..... | ..... |  |
| 1865 | 1,849 | 96 | 161,298 | 142 | ..... |  |
| 1866 | 2,126 | 116 | 168,123 | 115 | ..... |  |
| 1867 | 2,281 | 122 | 242,183 | 147 | ..... |  |
| 1868 | 2,531 | 149 | 285,233 | ..... | ..... |  |
| 1869 | 3,116 | 154 | 412,587 | 163 | ..... |  |
| 1870 | 3,906 | 207 | 460,321 | 216 | ..... |  |
| 1871 | 4,504 | 243 | 342,674 | 150 | ..... |  |
| 1872 | 4,152 | 290 | 413,321 | 163 | ..... |  |
| 1873 | 4,090 | 303 | 451,450 | 144 | 6,405 | 3,082 |
| 1874 | 4,547 | 367 | 578,985 | 148 | 5,899 | 2,963 |
| 1875 | 4,307 | 332 | 684,258 | 152 | 5,961 | 3,271 |
| 1876 | 4,458 | 339 | 831,749 | 200 | 6,882 | 3,240 |
| 1877 | 4,457 | 276 | 799,709 | 196 | 10,591 | 4,502 |
| 1878 | 4,183 | 318 | 708,431 | 156 | 9,969 | 4,910 |
| 1879 | 4,237 | 355 | 684,733 | 159 | 17,519 | 6,965 |
| 1880 | 4,266 | 254 | 733,576 | 165 | 27,584 | 7,359 |
| 1881 | 4,800 | 383 | 602,007 | 135 | 22,377 | 7,233 |
| 1882 | 4,027 | 281 | 513,688 | 123 | 22,425 | 7,166 |

PRODUCTION of Colonial Brandy distilled from Colonial Wines.

| Years. | Gallons of Brandy. |
|--------|--------------------|--------|--------------------|--------|--------------------|--------|--------------------|
| 1843 | 751 | 1853 | 1,587 | 1863 | 2,033 | 1873 | 996 |
| 1844 | 1,018 | 1854 | 674 | 1864 | ..... | 1874 | 1,916 |
| 1845 | 1,433 | 1855 | 1,426 | 1865 | 3,077 | 1875 | 1,859 |
| 1846 | 1,333 | 1856 | 1,547 | 1866 | 1,439 | 1876 | 2,747 |
| 1847 | 1,402 | 1857 | 1,414 | 1867 | 3,176 | 1877 | 2,968 |
| 1848 | 1,163 | 1858 | 1,224 | 1868 | 3,856 | 1878 | 1,481 |
| 1849 | 1,266 | 1859 | 1,322 | 1869 | 1,888 | 1879 | 2,540 |
| 1850 | 1,953 | 1860 | 709 | 1870 | 1,687 | 1880 | 4,186 |
| 1851 | 1,641 | 1861 | 637 | 1871 | 1,847 | 1881 | 6,628 |
| 1852 | 1,581 | 1862 | 2,749 | 1872 | 1,765 | 1882 | 3,522 |

The statistical yearly registers do not refer to the distilleries working exclusively for brandy-making purposes from Colonial wines; these are included amongst the sugar-works and refineries; but from a special

special Parliamentary paper printed in 1874-75, there were then in the Colony seventy-three vineyards having licensed stills. The value of the Colonial-made brandy, nor the exportation of same, if any, do not appear in the Colonial statistics as yet.

PRODUCTION of Table-grapes.

| Years. | Tons of Grapes. | Years. | Tons of Grapes. |
|--------|-----------------|--------|-----------------|
| 1859 | 490 | 1871 | 1,046 |
| 1860 | 366 | 1872 | 508 |
| 1861 | 224 | 1873 | 573 |
| 1862 | 420 | 1874 | 617 |
| 1863 | 393 | 1875 | 679 |
| 1864 | ... | 1876 | 768 |
| 1865 | 344 | 1877 | 917 |
| 1866 | 559 | 1878 | 797 |
| 1867 | 668 | 1879 | 1,102 |
| 1868 | 700 | 1880 | 1,017 |
| 1869 | 693 | 1881 | 1,579 |
| 1870 | 955 | 1882 | 1,102 |

INFLUENCES OF SEASONS AND FLUCTUATION OF PRODUCTION.

From comparison between the yearly averages of the Colony with those of France, it is seen that both vineyards follow almost exactly the same fluctuations; so that it may perhaps be inferred, not as an absolute rule, but as a strong probability, that whenever a season is reported as being bad with much inclemency of weather for the French vineyards, Colonial growers should take here special care and give more attention to their vineyards, so as to counteract the effects of such season, since we know that our seasons follow, and do not precede those of Europe, and since we are within daily telegraphic communication. Such observations, if acted upon, will prove of great value to those who will take notice of them for the future, more especially with respect to spring-frost, rains, and storms, the effects of which upon agriculture in general, and upon viticulture in particular, cannot be doubted.

The same comparison will also show that whilst the average yearly production of French vineyards, is of 190 gallons per acre for the whole of France, the average in the Colony, for the thirty-eight years reported divides itself as follows:—20 years, between 100 and 150 gallons per acre. 8 years, below 100 gallons per acre. 8 years, between 150 and 190 gallons per acre. 3 years, from and above 190 gallons.

Thus, three years only exceeded the French production, of 190 gallons per year per acre, the others being limited to an average of 105 gallons yearly. The conclusion must therefore be that Colonial vineyards are not trained to produce as much as they can, for it is known also that those which are skilfully conducted or planted in proper soil, give much better returns than others, not so situated.

In support of these remarks, I beg to add a comparative statement showing the highest and lowest production of France for several years, with the corresponding Colonial average to each of these years, observing again that when any particular year has left an abundant vintage in France, a similar result has not always, but most generally, been secured in the Colony, and *vice versa*, in case of poor vintages, during the year immediately following, although in bad years the balance seems to be in favour of the Colony, owing probably to the vines being younger, or to the better suitability of the Australian climate, it being further kept in mind that Colonial vintage takes place in February or March following the vintage of France, which happens about October, or five or six months before that of the Colony.

The same tabular statement will show that from 1847 to 1870 the vineyards of France were steadily increasing, and also producing in spite of the *soudium*; in 1871 and subsequent years, the effects of the *Phylloxera* began to tell; in 1874 and 1875 an attempt was made to attenuate the decrease, by new plantations being made; but since then the *Phylloxera* has had the best of the fight, for, notwithstanding new plantations, there were less vineyards in France in 1881 than in 1847 and 1874.

| Years. | Acreage of French Vineyards. | French total Production. | French production per acre. | Colonial production per acre. | Years. |
|-----------|------------------------------|--------------------------|-----------------------------|-------------------------------|--------|
| 1847..... | 5,296,772 | 1,194,952,000 | 206 | 175 | 1848 |
| 1853..... | 5,482,632 | 498,557,774 | 92 | 54 | 1854 |
| 1854..... | 5,422,912 | 237,377,068 | 44 | 109 | 1855 |
| 1855..... | 5,397,785 | 333,850,000 | 62 | 87 | 1856 |
| 1856..... | ..... | 468,468,000 | 86 | 112 | 1857 |
| 1858..... | ..... | 1,029,710,000 | 187 | 93 | 1859 |
| ..... | ..... | ..... | ..... | 122 | 1862 |
| 1862..... | 5,513,272 | 816,420,000 | 148 | 101 | 1863 |
| 1863..... | ..... | 1,130,184,000 | 204 | ..... | 1864 |
| 1864..... | ..... | ..... | ..... | 142 | 1865 |
| 1865..... | 5,733,917 | 1,516,746,000 | 264 | 115 | 1866 |
| 1868..... | 5,787,115 | 1,102,409,088 | 190 | 163 | 1869 |
| 1869..... | 6,607,935 | 1,570,271,230 | 237 | 216 | 1870 |
| 1870..... | ..... | 1,177,834,724 | 178 | 150 | 1171 |
| 1871..... | 5,422,912 | 1,251,822,374 | 230 | 163 | 1872 |
| 1872..... | 5,932,825 | 1,102,699,576 | 189 | 144 | 1873 |
| 1873..... | 5,952,365 | 785,743,618 | 131 | 148 | 1874 |
| 1874..... | 6,117,155 | ..... | 226 | 152 | 1875 |
| 1875..... | 6,053,117 | 1,844,400,602 | 304 | 200 | 1876 |
| 1876..... | 5,902,085 | 920,628,456 | 155 | 196 | 1877 |
| 1877..... | 5,866,242 | 1,240,917,986 | 211 | 156 | 1878 |
| 1878..... | 5,739,972 | 1,071,852,166 | 186 | 159 | 1879 |
| 1879..... | 5,603,692 | 566,930,144 | 101 | 165 | 1880 |
| 1880..... | 5,511,147 | 652,904,384 | 118 | 135 | 1881 |
| 1881..... | 5,174,807 | 751,051,730 | 145 | 123 | 1882 |

From

From the above table, it results also that the average yearly production in France since 1871 has been 199.6 gallons, and that in the Colony of 174.1 gallons per acre, which may be interpreted to mean that Colonial vineyards have not yet fully developed, but are gradually developing their yearly fruit-bearing qualities under series of good seasons.

Yearly observations to be recorded by Colonial Wine-growers.

I would not consider my report as complete if I did not submit here, in a compact way, the several points upon which each Colonial wine-grower should be invited to provide information, or to retain the same for himself, with a view to benefit by experience and comparisons between the various vintages of successive years, as well as to facilitate any scientific or administrative researches and inquiries in the interests of the Colonial wine-growing industries at large.

These observations should be divided into two sections, as follows:—

1st. Vine-growing.

1. Date of first plantation of vineyard.
2. Extent of vineyard.
3. Nature of the soil and subsoil.
4. Aspect and topography—hills, &c.
5. Average temperature and rain.
6. Prevailing winds and weather.
7. Species of vines planted; also, their origin, whether from abroad or not.
8. Number of vine-trees per acre.
9. Cost, mode, and time of plantation.
10. Distance left between each vine and line.
11. Species found most healthy and successful.
12. Systems of ploughing or tilling of ground.
13. Manures employed, if any.
14. Systems of training the vines—free or on stakes.
15. Systems of pruning the vines, and time of pruning.
16. Nipping buds, pinching and shortening roots,
17. Annular incision, removal of leaves.
18. Degree of maturation at vintage time.
19. Usual time of vintage, and length.
20. Species which are first to reach maturation.
21. Cost of cultivation and vintage per acre.
22. Production of grapes, per vine, in weight.
23. Production of wine, in gallons, per acre.
24. Total yearly production of vineyard.
25. Number of people employed.
26. Diseases and insects upon the vines.
27. Accidents to grapes from rain, fogs, hail, frosts, &c., and how often during one season.
28. Remedies adopted in each case.
29. Appearance of the atmosphere immediately before such bad weather, storms, frosts, &c., and where coming from

2nd. Wine-making.

1. Building, extent, situation of cellars, &c.
2. Implements used for grape-pressing and stalking.
3. Number and size of vats for fermentation, closed or open.
4. State of maturation of the grapes, and
5. Degree of saccharine matter at vintage time.
6. Species of grapes and respective quantities fermenting together in each vat.
7. Degrees of sugar of each vat of white "must" before fermenting.
8. Degrees of sugar of each vat of red "must" before fermenting.
9. Degrees of sugar of each vat, white and red "must" mixed, before fermenting.
10. Colour of the "must," and of the wine, before and after fermentation.
11. Day when the grapes were vatted.
12. Day when the tumultuous fermentation started.
13. Description of wines expected to result.
14. Average temperature of vatting-room.
15. Degrees of sugar after 5 days of fermentation.
16. Degrees of sugar after 10, 15, and 20 days of fermentation if in covered vats.
17. Condition of the wine at various dates during fermentation.
18. Duration of the tumultuous fermentation.
19. Degree of alcoholic strength after same.
20. Colour, bouquet, qualities, of the wines obtained.
21. Alterations feared or detected.
22. Implements for racking, fining, bottling, and corking, filling up casks, and testing wines.
23. Pasteurization, or heating process.
24. Sugaring, fortifying, colouring, plastering, and
25. Blending, or other processes resorted to.
26. Value of new wines, in casks, at vineyard.
27. Value of wines twelve months old, in casks, at vineyard.
28. Expenses of bringing them to port of shipment.
29. Cost of cooperage and attendance in cellars.

For the recording and better keeping of these informations, bound books of printed forms, embodying the above in columns, should be procured and kept by each wine-grower, who, after two or three years of such observations would soon detect any previous mistakes, or ascertain the causes of qualities and differences they might occasionally notice in their wines of various vintages, and thus be led to permanently improve their present methods; but without some systematic method of this sort, progress will be very slow.

Immigration of European Vine-dressers.

In accordance with the wishes of the New South Wales Government, and of the Wine Committee, I have in every opportunity, and in every possible way, invited the attention of skilled capitalists and wine-growers to the boundless fields open in this Colony to their operations, and to the great advantages which it offers to them for the transferring of their enterprise to New South Wales.

I feel confident that I have succeeded in provoking much interest towards this country, and its adaptability to the production of good wines. I have received and interviewed many gentlemen of means and special knowledge with respect to viticulture, and I have also corresponded with many others at a distance, and numbers of these have taken in serious consideration whether they should not at a near future time elect to emigrate to Australia with the young members of their families and their capital, to endeavour regaining at the antipodes in their own special industry, that which has been taken from them in Europe, by the invasion of the *Phylloxera vastatrix*.

I have also been in contact and in communication with large numbers of wine-growers, vine-dressers, and coopers, and strongly endeavoured to induce them to come over to Australia, and I found many quite willing to come out; but in both classes of people, there is an energetic objection on the part of certain portions of the families to their leaving the country, for a land little better than unknown, and so far distant from Europe. There is also a lingering hope that the *Phylloxera* may yet disappear, and that French vineyards will be restored to their old value, or so reconstituted as to make up for it.

Yet, if any Colonial growers had authorized me to secure for them whilst I was in Europe, the services of competent and useful vine-dressers or wine-coopers, I believe I could have done so on very easy terms, for many men would be glad to come at once, if on reaching this country they could depend with certainty upon obtaining employment; this I could not give them, without in some way compromising the Colonial Government, of which I was the agent, so that I limited myself to recommend to those men to come here on their own hook, and to go in for wine-growing on their own account. I shall not be surprised to see numbers of them coming here by degrees; but I must say that so long as many will get 1 or 2 tons of wine from their land, and sell it as they do now, at the same figure almost as they did obtain for ten times the same quantity a few years ago, these are not likely to leave France or any other European country.

In my report in connection with the Amsterdam Exhibition, I have pointed out many reasons why the Australian Colonies do not secure a larger number of European immigrants from the old Continent. These same reasons might be summarised here as follows:—1. Great distance from Europe, as compared with America. 2. Absolute want of information, unless through London and in foreign language. 3. Difficulty of obtaining immigrants passage, unless from England.

I cannot, therefore, give much hope to see large numbers of vine-dressers or others emigrating at their own cost to this Colony until the Colonial Government adopts some means of permanent official representation on the Continent, and makes arrangements for granting immigrants passages from Antwerp, Havre, Bordeaux, Marseilles, and Naples.

But I fully expect to see a few wine-growers with capital arriving in New South Wales before very long to plant vineyards, and grow wine on a large scale. Indeed, it is even as likely that spirited English capitalists of London will soon devote their attention to this subject; a company has already been formed for the introduction of Australian wine in England, and for its production in Australia, but with too limited a capital however, to do much in that last line at the present moment; so much more so that the price of agricultural land in the settled coast districts of the Colony, the very best to be chosen for wine-growing purposes, is so high as to be prohibitive, or prevent small capitalists ever going into agricultural pursuits on their own account with any fair chances of success in a reasonable time.

As a matter of fact the introduction of numerous small vine-dressers, acting individually, with very small means, or working for others, however desirable and satisfactory, for many reasons would not answer the purpose which this Colony should have particularly in view, viz., the production of Colonial light wines on such a large scale as to enable it to ship full cargoes to Europe year after year. The main condition of success for any industry, including every branch of agriculture is, in our century, to produce cheaply and in large quantities, yet of good quality. For this no other or better way will be found than the formation of powerful companies with large means, extensive estates, and a practical business organization, both in the Colony and in Europe. Viticulture also should be placed under some sort of Government supervision or control, like many other industries, it being expected, as elsewhere, to contribute in due course to the public revenue.

It may be that years will elapse before such a plan is resorted to; I hope it will not then be too late; the present generation should in the meantime, not allow the actually existing Colonial vineyards to disappear as fast as they do, but should endeavour to retain them, and to cause viticulture to become what it should be, viz., one of the mainstays of a large proportion of the commonwealth.

Agriculture, most unfortunately, which could give plenty of constant remunerative employment to a large numbers of men and to unlimited capital, is very little in favour with the present Colonial generation. It is thus that out of a total population of nearly 800,000 inhabitants, hardly 60,000 can be said to have adopted agricultural pursuits proper; the attention of almost every one is taken, by mining or land speculations, not requiring any labour and the price of agricultural lands in the settled districts in reasonable proximity to leading centres of the population is now kept at as high or even a higher price than in Europe or America, and therefore it cannot be expected to be taken up for that purpose by any one who knows anything about such pursuits, or else it is with very limited chances of success. It should not be lost sight of that the prosperity of England and of the United States is mainly due to the development of agriculture and industry; without these, colonization and trade must suffer, and it is most unwise for any country to be satisfied with the production of one commodity or staple only, however considerable it may be—such as the wool, for instance. The culture of the vines and the making of wines would largely and permanently contribute to the general prosperity of the Colony, and this within a very few years, if taken in hands at once and with the usual energy of Colonial people.

I trust these remarks will be endorsed and acted upon by learned and influential colonists of means, as well as by the Press and the public men of this country.

CONCLUSIONS.

CONCLUSIONS.

I deem it advisable, for general convenience, to summarise the whole of this report in the following condensed paragraphs, for which I especially and respectfully solicit the best attention and fullest consideration from the Government, from the Parliament, from the wine-growers, the Colonial Press, and general public of New South Wales.

1. The New South Wales wines recently exhibited at Bordeaux, in 1882, and at Amsterdam, in 1883, have met at both places with such decided approval, and obtained such good prices from the Continental trade, as well as from the general European public, whilst the demand for them in England is so constantly increasing that the Colonial wine industry should be at once adopted and encouraged by the Government and private colonists, as one most likely to contribute largely to the general prosperity of the people settled upon this Australian land, and to the development of the foreign exportation trade of the Colony, on the same broad footing as wool and wheat are actually exported from Sydney, Newcastle, and every other leading shipping places of Australia and New Zealand.

2nd. At the present moment the Colonial vineyards seem fast decreasing, and their production of wine is reduced from 831,749 gallons in 1876, to 573,688 gallons for 1881-82, so that not only it does not afford elements of sufficient importance for a foreign trade, but yet is far from being up to the small requirements of our Colonial population, should the people here be induced to adopt light and refreshing natural wines instead of heavy and strong imported drinks, in no way adapted to this climate, but in many ways injurious to health, morality, and prosperity.

3rd. The demand for light, good ordinary red wines is yearly increasing in Europe whilst their production is seriously decreasing there, and threatened with destruction in its very roots, a casualty which may yet be averted from actually existing vineyards in Australia, and against which future Colonial vineyards could be effectively protected with the help of the Legislature and under Government control.

4th. France has had to import not less than 172,393,848 gallons of foreign wines in one year, valued at £13,630,920, representing about 1s. 9d. per gallon at port of entry, but the wines thus imported are mostly of a very inferior character, and merely intended for operations their price a few years ago averaged only 1s. per gallon.

England requires every year a quantity of wine, averaging 16,341,944 gallons, valued at £5,660,202, representing about 6s. 6d. per gallon in London.

Other countries of Europe and elsewhere import wines in some similar proportions, and have to be contented in a great measure with *anything but wholesome drinks*.

It must be said here, that the whole actual production of New South Wales wines would be absorbed in less than forty-eight hours in Paris alone, and that at the modest average of two gallons per head, would not be enough to meet for two weeks only the requirements of Sydney itself.

On the other side, the importation of foreign wines, beers, and spirits in this Colony during 1882 had reached 2,971,192 gallons, valued at £874,722. A large proportion of these various drinks, if submitted to a chemical analysis on landing in the Colony, would, as may be concluded from European official reports, be found in some way, and unknown to the importers, objectionable if not injurious to public health, or at all events far less recommendable for general use on climatic, pecuniary, and other grounds, than the light ordinary Colonial wines to be obtained in the Colony.

5th. The Colony is so favourably situated in every respect that, without recourse to any foreign wines, or operations of any sort, it can produce unlimitedly the natural quality of wine required by the great mass of European consumers; that is, *not low, inferior wines, for mere blending purposes*, but ordinary *good light refreshing wines, fit for daily use, and at the dinner-table*.

But no wine trade with Europe can be expected to spring, unless the Colony can afford to send regular yearly shipments of large quantities of these wines, so as to supply the Continental and British wants, with the same permanent uniformity in every way as has been done until few years ago. If the Colony will endeavour to do so on the proper scale before the trade supplies itself from some other direction, success can be depended upon with almost absolute certainty, and no fear of competition need be entertained, especially with respect to *quality*.

The only way to secure such result quickly, cheaply, and satisfactorily, is by the union of the wine-growers of the Colony into a National Syndicate, or else, and better, by the constitution of powerful and rich companies for wine-growing and making purposes by thousands of millions of gallons.

6th. Should such a course as this last, which appears more feasible and more likely to succeed than the first, be adopted in New South Wales, then estates as large as could be cheaply and conveniently secured, should be obtained on judiciously selected soil, and planted with proper kinds of vines, partly by the companies owning the land, partly by small farmers or tenants, whose new wines or grapes should be bought by the companies every year; the companies should further provide themselves with the necessary plants, implements, appliances, and buildings of the most recent approved description for the training and finishing of the wines up to the standard required.

The larger the scale on which any company will act, the lesser will be the first outlay, and the better the profits within certain proportions; whilst to small landholders, attending themselves to their own vines, *but not making the wine*, it would prove a very easy and inexpensive, yet very remunerative work.

7th. For a vineyard of (say) 500 acres at first, the expenditure for the purchase of suitable land, fencing, clearing, ploughing same, planting the vines, building the cellars and accessory houses, collecting the vintages, obtaining from Europe implements and appliances, paying freight, insurance, interest on capital, and expenses of management, may be calculated to amount to the maximum rate of £150 to £200 per acre (the cost of same in France being £130), but very likely would remain much under the higher figure, making thus a first outlay of £75,000 to £100,000 from the first day of existence of a company to the end of the fifth year after the plantation time, at which the first return should be expected.

The revenue at the end of the fifth year must be safely calculated as follows:—At the end of the fourth year, a first production of 100 gallons per acre, or for 500 acres, a total of 50,000 gallons, to be kept in store until the end of the fifth year, when an average of 250 gallons per acre could be depended upon, or for 500 acres, 125,000 gallons, total 175,000 gallons, which could be easily disposed of in Europe, six or seven months after the vintage, at the low rate of 2s. 6d. per gallon, thus giving a first result of £21,600, or over 20 per cent., besides the increased value of the company's estates, upon which numerous vineyards, settlements, farms, and villages might be expected to be created in course of time. Whilst

Whilst the sixth and every following year would certainly give, with very ordinary good management, a result of some 500 gallons per acre, which would produce a total of 250,000 gallons per year, at a yearly maximum expenditure of £20 per acre in cultivation, viz., a total expense of £10,000. The wines would certainly always fetch, with any moderate success, at least 2s. per gallon, a price lower than that already paid in Bordeaux for Colonial wines, the total revenue being £25,000, or 25 per cent. on the maximum capital invested.

But it may be confidently expected that the average production per acre would not be less than 300 gallons from the fifth year included, and subsequently reach 1,000 gallons through scientific training of the vines in a well-manured or appropriate soil, and that the expenses or cost of production for the yearly cultivation of the vineyard would not exceed £15 per acre (a price above the present Colonial average cost).

On the other side the wines should fetch a minimum rate of 3s. per gallon from the beginning, especially if sent to northern Europe, and there sold by the exporting company itself. However, should they not be sold for more than 2s. or even 1s. 6d. per gallon, the very lowest price to be thought of, the revenue would still be for 150,000 gallons at the respective lowest prices quoted, £15,000 or £11,250, yet a very fair return, permitting a gradual but constant extension of the plantation of vines. To undertake wine-growing and making on a more limited scale, would be a loss of time, and necessitate a larger first outlay without any equivalent compensation.

8th. As to the intrinsic value or qualities of the exported wines, Australian exporters of Colonial wines should at first send to Europe red wines rather than white wines, and these last only occasionally, and when very good. Both should reveal nothing but a light true taste of grape.

The *Red wines* exported from New South Wales should be of a bright firm clear ruby colour, and not of a deep dark red; their alcoholic strength should not be above 15° per Gay Lussac alcoholmeter but rather less, although never under 10°, as they would then be too weak to support any journey; whilst if above 15°, they would be taxed on landing as *spirits*, for each degree above that limit.

These red wines should further, when chemically analysed, leave a residue weighing not less than twenty French grammes of *extract sec*, of the solid elements by which wine is naturally constituted: under that weight, the wines would be reported by the Continental official analysts as being unsound: whilst if any undue excess existed, more especially as to *tanvin* or to *saccharine matters*, the wines would have so much colouring matter and astringency, or be so thick and sweet, as to cause their being lowered amongst *vins de coupage* or *blending wines*, or to be classed as *liquorous wines*, which would reduce their marketable value, and the demand for them.

The Colonial wine-growers and merchants should adopt at once the uniform shape and size of casks in favour on the European markets, viz., that of the *Barrigue Bordelaise* of 50 gallons.

9th. If viticulture is considered a desirable industry to retain in the Colony, then the local legislation actually in force against *Phylloxera* is very far from being adequate to expectations, and cannot successfully protect the country against the invasion of that insect and its fatal consequences. For that purpose the present number and actual state of Colonial vineyards, their diseases and insects should be first officially ascertained and reported upon, and subsequent yearly records kept in Sydney.

The whole of the Australian Colonies should become parties to the International Convention of Berne, dated September 17th, 1878.

Further, a special law, somewhat similar to those adopted by the leading European countries, and more especially to that of Spain, should be enacted without delay; also a Commission or Board of Viticulture, or some other official medium or organisation, with a model farm or vineyard if practicable, should be instituted in order to advise the Colonial Government as well as private individuals, in connection with the development and requirements of that branch of Colonial agriculture, which, in return, and in course of time, should be made to contribute to the public revenue of the Colony in fair and just proportions.

10th. If a national interest was evinced on this side in favour of those industries and several vineyards of large size started with the view stated above, the movement would be so welcome in England particularly that a fair proportion of any wine-growing company's shares could be fully expected to be disposed of in London and other principal cities. Many vine-dressers, coopers, bottle-makers, and such other skilled labourers, artisans, and other tradesmen with capital would at once immigrate to Australia. The promotion of agricultural settlements and other benefits to be derived, would prove of the most advantageous description and in many ways contribute permanently and add materially to the prosperity of a large number of the people.

Viticulture does not yet occupy the leading rank in which it ought to appear for the credit of the Colony. It is indeed amongst the least patronized branches of Colonial agriculture, but then agriculture as a whole is so little patronized by Colonial capital and enterprise, more especially in New South Wales, where not even as much as one-twentieth of the people are agricultural holders, and where the land in cultivation is limited to 789,000 acres, that is *not one cultivated acre per head of the population*, that viticulture is perhaps not more entitled to complain of neglect than any other branch.

As a last word on this subject, I beg to say that it may lead the Colony to severe disappointment within a number of years, possibly much limited, to depend any longer almost solely upon its mineral and pastoral industries. The sooner some other colonizing, populating, and productive industries are added to the very few now in favour amongst the people, the better for the Colony, more especially if preference is given to VITICULTURE, intended by nature as a special gift, and if it is supported by large land-owning syndicates, and some honest institution of credit, formed for the exclusive purpose of helping agricultural settlements and pursuits, in this bright and fertile Colony of New South Wales.

I have, &c.,

HENRY BONNARD,

Executive Secretary for the Colony of New South Wales at the
Bordeaux International Exhibition of 1882.

APPENDICES.

The Philomathic Society of Bordeaux Exhibition of 1882.

NEW SOUTH WALES COMMISSION.

Representative Commissioner :

The Honorable Frederick M. Darley, Q.C., M.L.C.,
Vice-President of the Executive Council.

Executive Secretary for the Colony :

Henry Edward Bonnard, Esquire.

New South Wales Committee for Bordeaux Wine Exhibition :

Chairman—J. F. Burns, Esq., M.P.

Honorary Secretary—Augustus Morris, Esq.

Members of Committee :

P. F. Adams, Esq.
H. J. Bouffier, sen., Esq.
F. J. Bouffier, Esq.
H. H. Brown, Esq., M.P.
J. F. Burns, Esq., M.P.
The Hon. William Busby, M.L.C.
G. T. Carmichael, Esq.
A. E. Davies, Esq.
J. P. Dowling, Esq.
J. T. Fallon, Esq.
John Hill, Esq.
Sir P. A. Jennings, K.C.M.G., M.P.

James Jones, Esq.
James Kelman, Esq.
Charles Lindeman, Esq.
R. G. Massie, Esq.
Charles Mackay, Esq., M.D.
Charles Moore, Esq., F.G.S., F.L.S.
Augustus Morris, Esq.
R. L. Murray, Esq., M.P.
T. Vivian Rauch, Esq.
George Stansell, Esq.
G. H. Stephen.
Professor W. J. Stephens.

Société Philomathique de Bordeaux, Fondée en 1808, Déclarée Etablissement d'Utilité Publique.

XII^e Exposition Générale des Produits de l'Agriculture, de l'Industrie, des Arts Industriels and de l'Art Ancien. Sous le patronage et avec le concours de l'Etat, du Conseil général de la Gironde, de la Municipalité et de la Chambre de Commerce de Bordeaux. 1882.

Exposition Universelle des Vins, Spiritueux, Liqueurs et Boissons fermentées.

(III^{me} Section de l'Exposition générale.)

à Monsieur le Consul de France à Sydney, Nouvelle Galles du Sud.

Monsieur le Consul,

Bordeaux, le 5 Octobre, 1882.

La Société Philomathique doit ouvrir le 1^{er} Juin, 1882, sous le patronage et avec le concours de l'Etat, du Conseil général de la Gironde, de la Municipalité et de la Chambre de Commerce de Bordeaux, sa douzième Exposition générale des produits de l'Agriculture, de l'Industrie, des Arts Industriels et de l'Art Ancien.

L'Espagne et le Portugal sont les seuls pays étrangers invités à prendre part à cette Exposition dans son ensemble, mais en ce qui concerne les vins, spiritueux, liqueurs et boissons fermentées, l'Exposition sera universelle et comprendra les produits de tous pays.

Pour indiquer sommairement les conditions générales dans lesquelles se présente cette entreprise, nous ne saurions mieux faire que de vous adresser ci-joint un exemplaire de la lettre que nous avons eu l'honneur de faire parvenir, le 24 Mai dernier, à M. le Ministre de l'Agriculture et du Commerce à Paris.

C'est par l'entremise des Consuls étrangers résidant à Bordeaux et par des avis individuels, que nous avons fait connaître ces décisions dans les pays dont les produits sont appelés à figurer à l'Exposition universelle, et c'est afin de nous assurer toute la publicité nécessaire que nous venons, Monsieur le Consul, solliciter votre bienveillant concours.

L'intérêt qui s'attache ordinairement à une exposition vinicole s'augmente, dans le moment actuel, des préoccupations causées dans tous les pays producteurs par la situation des vignobles, depuis que le phylloxera s'est manifesté d'une manière si désastreuse pour quelques-uns, si inquiétante pour tous. La centralisation à Bordeaux des échantillons des produits du monde entier, venant s'ajouter à ceux de la région et de la France, fournira l'occasion de constater la puissance de production de cette richesse agricole et de mesurer les ressources que le consommateur et le commerce peuvent y puiser.

Pour les spiritueux et les boissons fermentées, la réunion à l'Exposition Bordelaise de 1882 des divers produits qui se disputent la faveur des consommateurs dans tout l'univers ne peut, comme pour les vins, que favoriser l'essor de l'Agriculture, de l'Industrie et du Commerce.

Nous avons l'honneur de vous remettre sous ce pli, Monsieur le Consul, les documents publiés relativement à cette branche de l'Exposition et qui se composent de :

- 1^o Règlement de l'Exposition universelle des vins, spiritueux, liqueurs et boissons fermentées (comprenant les bières, etc.);
- 2^o Appel aux Exposants (propriétaires de vignes, négociants, distillateurs, producteurs et fabricants);
- 3^o Questionnaire et Bulletin de Demande d'admission (Série A, Form 3);

Nous vous serons infiniment obligés, Monsieur le Consul, si vous voulez bien assurer par la presse ou de toute autre manière, la publicité de ces documents dans la ville où vous résidez et dans le cercle où s'étend votre juridiction; et afin de vous mettre à même de répondre aux demandes qui pourront vous être adressées, nous vous envoyons séparément un paquet contenant 10 exemplaires de chacun de ces documents.

D'avance, nous vous offrons tous nos remerciements de l'aide que vous voudrez bien donner à la Société Philomathique et vous prions d'agréer, Monsieur le Consul, l'assurance de notre considération la plus distinguée.

Le Secrétaire général, Ingénieur de l'Ecole Centrale des Arts et Manufactures,

JULES COUTANCEAU.

Le Président de la Commission spéciale des Vins, Vice-Président de la Société Philomathique,

EUGENE LARRONDE.

Le Président de la Société Philomathique, Premier Adjoint au Maire de Bordeaux, Membre de la Chambre de Commerce,

ALFRED DANÉY.

Société Philomathique de Bordeaux. Fondée en 1808. Déclarée établissement d'Utilité Publique.
 XII^e Exposition Générale, des Produits de l'Agriculture, de l'Industrie, des Arts Industriels, & de l'Art Ancien. Sous le patronage et avec le concours de l'Etat, du Conseil général de la Gironde, de la Municipalité et de la Chambre de Commerce de Bordeaux. 1882.

Exposition Universelle des Vins, Spiritueux, Liqueurs et Boissons fermentées.

(III^{me} Section de l'Exposition générale.)

Questionnaire Spécial aux Exposants de la III^{me} Section.

Nom de l'Exposant
 Spécification sommaire des produits
 présentés à l'Exposition

Domicile

Renseignements à fournir par l'Exposant.

S'il est propriétaire de vignes (1).

1. Nom de sa propriété; indication du lieu où elle est située (en France: commune, département; à l'Etranger: district, Etat).

2. Nombre d'hectares de vignes en culture.

3. Nature des cépages et date de la plantation des vignes.

4. Importance de la production.

5. Frais de culture par hectare.

6. Prix du vin, de l'eau-de-vie ou de l'alcool produit, à l'hectolitre, en nouveau.

7. Nature des produits exposés; nom du crû; année de la récolte; prix.

8. Récompenses obtenues aux diverses Expositions et autres récompenses décernées à l'Exposant.

9. Faits particuliers sur lesquels l'Exposant désire attirer spécialement l'attention du Jury.

(1) Le Propriétaire ne peut, en cette qualité, exposer que ses produits.

S'il est négociant.

1. Raison sociale de la Maison de commerce; Sièges sociaux.

2. Date de la création de la Maison de commerce.

3. Nature des produits exposés; provenance; noms des crûs; années des récoltes, prix.

4. Récompenses obtenues aux diverses Expositions et autres récompenses décernées à l'Exposant.

5. Faits particuliers sur lesquels l'Exposant désire attirer spécialement l'attention du Jury.

S'il est rectificateur ou fabricant d'alcool de liqueurs, de boissons spiritueuses, genièvre, rhum, tafia, kirsch, etc.

1. Siège de l'établissement. Raison sociale.

2. Epoque de la fondation de l'établissement.

3. Date de la prise de possession.

4. S'il y a plusieurs usines, leur nombre et leur situation.

5. Importance de la fabrication annuelle.

6. Nombre et sexe des ouvriers employés.

7. Nature des produits exposés; leur âge; leur prix.

8. Matières premières employées.

9. Indication de celles que l'Exposant a pu employer le premier.

10. Récompenses obtenues aux diverses Expositions et autres récompenses décernées à l'Exposant.

11. Faits particuliers sur lesquels l'Exposant désire appeler spécialement l'attention du Jury.

S'il est brasseur, producteur de cidre, poiré et autres boissons fermentées.

1. Raison sociale et Siège social.

2. Date de la création de l'établissement.

} S'il est brasseur ou fabricant.

1. Nom de la propriété, indication du lieu où elle est située

2. Nombre d'hectares en culture pour les produits exposés.

} Si les produits exposés proviennent de la culture de l'Exposant.

Renseignements Généraux.

1. Outillage, perfectionnements apportés par l'Exposant aux machines et aux autres appareils dont il se sert.

2. Améliorations apportées dans l'organisation du travail.

3. Dispositions nouvelles pour l'emploi plus profitable et plus complet des matières premières, des matières auxiliaires et des déchets.

4. Dispositions hygiéniques à signaler dans les ateliers.

5. Précautions prises contre les accidents.

6. Mesures prises en vue d'améliorer la situation matérielle et morale des ouvriers (écoles, cités ouvrières, caisse de secours aux ouvriers malades, caisse des retraites).

Délibéré en Conseil d'Administration, le 28 Septembre, 1881.

Le Président de la Commission spéciale des Vins, Vice-Président de la Société Philomathique,

EUGÈNE LARRONDE.

Le Secrétaire général, Ingénieur de l'Ecole Centrale des Arts et Manufactures,

JULES COUTANCEAU.

Le Président de la Société Philomathique, Premier Adjoint au Maire de Bordeaux, Membre de la Chambre de Commerce.

ALFRED DANÉY.

Société Philomathique de Bordeaux, Fondée en 1808. Déclarée Etablissement D'Utilité Publique.

XII^e Exposition Générale, des Produits de l'Agriculture, de l'Industrie, des Arts Industriels, & de l'Art Ancien. Sous le patronage et avec le concours de l'Etat, du Conseil général de la Gironde, de la Municipalité et de la Chambre de Commerce de Bordeaux, 1882.

Exposition Universelle des Vins, Spiritueux, Liqueurs et Boissons fermentées.

(III^{me} Section de l'Exposition générale.)

Règlement.

Titre I.—Dispositions générales.

Article Premier.

La Société Philomathique de Bordeaux ouvrira le 1^{er} Juin, 1882, sa XII^e Exposition générale des Produits de l'Agriculture, de l'Industrie, des Arts industriels et de l'Art ancien.

Cette Exposition est faite sous le patronage et avec le concours de l'Etat, du Conseil général de la Gironde, de la Municipalité et de la Chambre de Commerce de Bordeaux.

Elle sera ouverte sur la place des Quinconces, du 1^{er} Juin au 1^{er} Novembre, 1882.

Art. 2.

Elle admettra les produits de l'Agriculture, de l'Industrie, des Arts industriels et de l'Art ancien, provenant de la France, de l'Algérie, des Colonies françaises, de l'Espagne et du Portugal.

Art. 3.

En ce qui concerne les Vins, Spiritueux, Liqueurs, Boissons spiritueuses et Boissons fermentées, l'Exposition sera universelle et comprendra les produits de tous pays. Les Vins et Eaux-de-Vie pourront y être envoyés par les Propriétaires de vignes et les Négociants. Les Brasseurs, Producteurs de cidre, Fabricants de liqueurs, vermouth et boissons spiritueuses, seront seuls admis à exposer les produits de ces diverses industries.

Art.

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Art. 4.

Les produits à exposer devront être renlus, en port payé, au local de l'Exposition avant le 1^{er} Mai, 1882. Passé cette date, aucun produit ne pourra plus être admis. Les colis destinés à l'Exposition devront porter, en caractères très apparents, l'adresse suivante : Exposition de Bordeaux, 3^{me} Section, Monsieur le Président de la Société Philomathique.

Art. 5.

Tout produit exposé est engagé pour toute la durée de l'Exposition et ne pourra être retiré qu'avec une autorisation écrite de la Société.

Titre II.--Des conditions d'admission.

Art. 6.

Chaque Expositant devra préalablement signer un Bulletin de Demande d'admission (formule A, série 3), qu'il recevra en même temps que le présent Règlement et qui comprend, sur la même feuille, un Questionnaire dont toutes les indications devront être remplies aussi exactement que possible.

Le tout sera retourné à M. le Président de la Société Philomathique dans le plus bref délai.

Des bulletins de Demande d'admission sont mis à la disposition des Expositants, au Siège de la Société Philomathique à Bordeaux, et chez les Consuls française en résidence dans les principales villes de l'Etranger.

Art. 7.

Les Demandes d'admission devront parvenir au Président de la Société Philomathique avant le 1^{er} Février, 1882.

Art. 8.

L'espace occupé par chaque Expositant donnera lieu de sa part à une rétribution fixée comme suit, pour l'ensemble de la 3^{me} section :

1^o Pour 6 bouteilles ou moins : 10 francs.

Pour chaque bouteille au-dessus de 6 : 1 franc par bouteille.

Ce premier tarif comprend l'installation faite par la Société, à ses frais ;

2^o Par mètre carré de surface : 25 francs.

(Il ne sera pas accordé moins d'un demimètre carré).

Ce deuxième tarif ne comprend pas l'installation ; elle sera faite par l'Expositant et payée par lui ;

3^o Les Expositions particulières, sur des emplacements choisis par l'Expositant, pourront être autorisées après entente avec la Société, tant sur l'emplacement que sur le prix.

Le Règlement de ces rétributions sera effectué dans les deux mois qui suivront l'ouverture de l'Exposition.

Art. 9.

La Société se réserve le droit de rejeter ou de faire modifier, aux frais de l'Expositant, toute installation qui ne lui paraîtrait pas compatible avec les convenances générales de l'Exposition.

Art. 10.

La signature du Bulletin de Demande d'Admission entraîne pour chaque Expositant l'obligation de se soumettre à toutes les conditions du présent Règlement, notamment en ce qui concerne l'article 8, ainsi qu'à toutes les mesures d'ordre et de sûreté qui seraient ultérieurement prescrites par la Société.

Art. 11.

Les Expositants domiciliés hors du département de la Gironde devront désigner un correspondant à Bordeaux.

Titre III.--Dispositions particulières.

Art. 12.

Les bouteilles de Vin exposées devront être revêtues d'étiquettes indiquant le nom du crû, l'année de la récolte, le nom et l'adresse de l'Expositant. Les étiquettes devront indiquer en outre si le Vin exposé est en fût ou en bouteilles chez l'Expositant.

Art. 13.

Les prix et conditions de vente des produits exposés pourront être marqués sur les étiquettes ou sur le tableau indicatif de l'Expositant.

Art. 14.

En sus des bouteilles devant figurer à l'Exposition, il devra être envoyé en même temps, pour la dégustation par le Jury :

3 bouteilles de chaque espèce et de chaque année de Vin.

2 — de chaque espèce de spiritueux, liqueurs, etc. Pour les bières; les Expositants auront la faculté de n'envoyer les produits destinés au jury que dans le cours du premier mois qui suivra l'ouverture de l'Exposition.

Art. 15.

Une salle de dégustation sera comprise dans le local de l'Exposition. Des comptoirs seront mis à la disposition des Expositants, sur leur demande, moyennant le paiement d'un prix de location qui sera ultérieurement établi. La dégustation sera gratuite ou payante à la volonté des Expositants ; ils auront la faculté de vendre des bouteilles d'échantillon à emporter par l'acheteur.

Art. 16.

De vastes caves, en dehors du local de l'Exposition, recevront les produits destinés au jury. Elles serviront, en outre, de lieu de dépôt aux Expositants qui désireront y faire déguster leurs produits et en délivrer des échantillons.

Les produits offerts à la dégustation ou livrés comme échantillons, soit dans les caves de dépôt, soit dans le local de l'Exposition, devront être les mêmes que les produits exposés.

Art. 17.

Par suite des autorisations obtenues des Directeurs des Douanes, des Contributions indirectes et de l'Octroi, les locaux de l'Exposition et du Dépôt seront assimilés à des Entrepôts. Les acquits-à-caution accompagnant les liquides devront porter la mention : Liquide devant être exposé.

Art. 18.

Grâce aux concessions obtenues des diverses Compagnies de chemins de fer, le transport des colis destinés à l'Exposition sera effectué aux tarifs spéciaux, avec 50 p. 100 de rabais, sur les lignes ci-après :

En France.—Etat, Midi, Orléans, Est, Ouest, Nord, Paris-Lyon-Méditerranée.

En Espagne.—Asturies, Galice et Léon, Tarragone à Barcelone et France. Almanza à Valence et Tarragone. *

Diverses Compagnies de navigation à vapeur ont accordé à la Société, en faveur des Expositants, les rabais ci-après, sur le taux du fret :

La Compagnie des Messageries maritimes.

30 p. 100.—Ligne du Brésil et de la Plata :

30 p. 100.—Lignes de la Méditerranée, du Levant, et de l'Indo-Chine.

La Compagnie Transatlantique.

50 p. 100.—Lignes de la Méditerranée et des Antilles.

La Compagnie Bordelaise.

50 p. 100.—Ligne de New-York.

Des demandes de réduction de tarif ont été adressées par la Société à d'autres Compagnies de chemins de fer de l'Etranger, desquelles il y a lieu d'attendre des concessions analogues.

Art. 19.

La Société prendra les mesures nécessaires pour préserver les produits exposés de toute avarie et pour qu'une surveillance active soit exercée ; mais elle ne sera, en aucun cas, responsable des incendies, accidents, dégâts, détournements ou dommages dont ces objets pourraient avoir à souffrir, quelle qu'en soit d'ailleurs la cause ou l'importance.

Art. 20.

Après la clôture de l'Exposition, l'Expositant devra faire enlever ses produits dans les délais fixés par la Société, faute de quoi ils seraient déposés en magasin à ses frais.

TITRE IV.--Jury et Récompenses.

Le Jury d'examen sera composé de Membres choisis parmi les représentants les plus autorisés de la Science, de l'Agriculture, de l'Industrie et du Commerce, en France et à l'Etranger

Art.

Art. 21.

Le Jury s'entourera de toutes les garanties qu'il jugera nécessaires à l'accomplissement de sa mission. Il aura toujours le droit d'exclure du concours tout Expositant qui aurait tenté de surprendre sa bonne foi.

Art. 22.

Le Jury appréciera la part que les ouvriers pourront avoir dans les progrès constatés. Ces ouvriers seront compris, s'il y a lieu, dans la distribution des récompenses.

Art. 23.

Les récompenses décernées par la Société consisteront en Diplômes d'honneur, en Médailles d'or, d'argent, de bronze, et en Mentions honorables.

Le titre de Membre honoraire de la Société pourra être aussi conféré par l'Assemblée générale, sur la proposition du Comité d'Administration.

Art. 24.

La séance de Distribution des récompenses aura lieu immédiatement après la clôture de l'Exposition. Le plus grand éclat sera donné à cette solennité et la plus grande publicité au programme des récompenses. Delibéré en Conseil d'Administration, le 29 Juin, 1881.

Le Président de la Société Philomathique, Premier Adjoint au Maire de Bordeaux, Membre de la Chambre, de Commerce, de Bordeaux, ALFRED DANÉY.

Le Président de la Commission spéciale des Vins, Vice-Président de la Société Philomathique,

EUGÈNE LARRONDE.

Le Secrétaire général, Ingénieur de l'École centrale des Arts et Manufactures,

JULES COUTANCEAU.

New South Wales Bordeaux Wine Exhibition Committee.

THE Committee appointed to organize a display of the Wines of New South Wales at the Exhibition of Bordeaux, earnestly invite the vine-growers and wine-makers to take advantage of an opportunity so valuable to their interests.

The Philomathic Society of Bordeaux, under whose administration, with the patronage and co-operation of the Government of France, the Exhibition will be held, is desirous that the wines of the Australian Colonies should have a place beside those of France, Spain, Portugal, Germany, Italy, Hungary, Russia, and America, so that a complete field of study and comparisons may be offered to producers and consumers.

Special interest is justly attached to the approaching Exhibition, because at the present time the *Phylloxera* having disastrously affected the vineyards of so many countries, it is of commercial importance that the resources of all the wine-producing districts of the world should be estimated.

The Exhibition will open at Bordeaux on the 1st June next, and close on the 1st November following.

The Government of this Colony, fully appreciating the advantages to be derived from taking part in the Bordeaux Exhibition, has entered most promptly into the views of the Committee, and has promised to contribute the funds necessary to aid the vine-growers in making a complete representation of their products. A gentleman who is acquainted with the French language, and has a competent knowledge of the wines of the Colony, and in whom the wine-makers themselves may have confidence, will be sent to Bordeaux in charge of the exhibits, and some distinguished colonist will be appointed Honorary Commissioner, so that the many opportunities which the Bordeaux Exhibition will present of acquiring valuable information in regard to everything connected with the cultivation of the vine, and the best modern methods of treating its products may be appropriated for the benefit of the wine interest of this country.

The Philomathic Society has made perfect arrangements for tasting the wines exhibited, and of securing correct judgments as to their merits and faults. It has also provided suitable cellars for receiving and storing the wines not displayed in the Exhibition Building.

It is proposed that the wine-makers of this Colony should send to Bordeaux, not samples of their products sufficient merely for the juries to taste, but quantities large enough to afford a test of their marketable value. While it is desirable to show matured wines in bottles, the Committee advise the sending of wines in cask, such as will meet the requirements of the French wine-makers for blending with their own products. This course has been determined upon by the producers in Victoria and South Australia, and their cordial association with the exhibitors of wines from this Colony is assured.

By the liberality of the Government the exhibits will be transported free of cost by the Railways, and will be shipped in Sydney on board one of the steamships of the P. & O. Company, which has dealt most liberally in the matter of freight, and will be delivered at Bordeaux without charge to the producer. Should any of the wines fail to find a sale they will be returned to Sydney, and there restored to their owners or agents. Further, the wines shipped at Morpeth or Newcastle, through the generosity of the Hunter River New Steam Navigation Company, and of the Newcastle Steamship Company, will be conveyed to Sydney free of cost.

It will thus be seen that everything has been done to render the venture as economical to the wine-makers as possible.

The inducements for the wine-makers to exhibit their products at Bordeaux are very great, and the Committee trust that the invitation to make a display of them worthy of the important interest involved, and of the Colony, will be generally accepted.

Schedules, to be filled up by the exhibitors with the information desired for the Bordeaux Exhibition, and labels for the cases and casks, will be forwarded in a day or two, or as soon as they are printed. The bottles should bear the distinctive labels of the exhibitors, and the casks their distinctive marks.

The printed labels furnished by the Committee should be carefully pasted on one side of the cases and on one end of the casks. So soon as the producer shall send away his exhibits he should advise the Honorary Secretary of the Committee of the number of cases or casks which he has consigned, so that they may be received immediately on their arrival in Sydney, and placed in a suitable store preparatory to shipping them. Too much care cannot be taken to cork the bottles properly, to secure the cases with iron hooping, and to send sound casks.

No exhibitor can send less than one dozen of quart bottles nor more than five dozen of each variety of wine. Nor can any exhibitor send greater quantities of wine in casks than shall be equal to twenty quarters, the number of varieties being left to his own judgment.

It is absolutely essential that intending exhibitors should inform the Honorary Secretary, without any delay, in regard to the quantities of the wines they propose to send, so that immediate application may be made by cable for the space required in the Bordeaux Exhibition for the wine of this Colony.

The latest date at which wines can be received in Sydney is the 17th February next.

The attention of Exhibitors is specially directed to the points recapitulated below :—

1. Wine-makers should inform the Honorary Secretary at once as to the number and quantity of their intended Exhibits.
2. The Exhibits must be delivered in Sydney not later than the 17th February.
3. The Railways from all parts of the Colony, and the Steamship Companies running from the Hunter River, will convey, free of cost, the wine exhibits bearing the Committee's labels.
4. Letters of advice must be forwarded to the Honorary Secretary, so that consignments may be taken care of on arrival.
5. The Schedules must be filled up with the required details, and returned to the Honorary Secretary before the 17th February.

Not an hour should be lost by intending exhibitors, for unless their wines are shipped on the 23rd February they will be shut out of the Bordeaux Exhibition; and in connection with this it is noteworthy that the sanction of the Postmaster-General has been obtained, so that all communications which require prompt attention may be forwarded to the Secretary of the Committee by telegraph without charge.

J. F. BURNS,
Chairman.

AUGUSTUS MORRIS,
Hon. Secretary.
New

Offices, 96, Pitt-street, Sydney.

New South Wales Committee for Bordeaux Wine Exhibition, 1882.

Sir, Office of the Committee, 96, Pitt-street, Sydney, 25 February, 1882. I have the honor to enclose a copy of the instructions for the Executive Secretary, prepared by the Committee, and which have been approved of by the Honorable the Colonial Secretary.

1. As referred to in the last paragraph of the instructions, I would ask you to furnish me, at your earliest convenience, with details of any special inquiries which you would desire should be addressed to the Executive Secretary. Not only will all matters affecting the general interests of the wine-growers and wine-makers of the Colony have the careful attention of the Representative Commissioner and of the Executive Secretary, but every effort will be made to obtain information on points which may solely affect yourself in perfecting your industry.

2. The Committee also desire that you should inform me on what terms you wish the balance of your wines not required for tasting disposed of; or if sales cannot be effected in Bordeaux, shall the wines be shipped to your agent in London or returned to Sydney? In the former case, be kind enough to give the name and address of your agent in London.

3. The Committee further desire to draw your special attention to the letter of Mr. H. De Castella, which appeared in the Sydney Herald of the 23rd instant, and in this day's Mail and Mercury, and to ask you to consider the practicability of forwarding to Bordeaux samples in casks of your vintage of this year.

If the suggestion is feasible, the Committee will have the casks covered with plaster of Paris, and will use every care that they shall reach their destination in good order and without delay.

I have, &c., AUGUSTUS MORRIS, Honorary Secretary.

New South Wales Committee for Bordeaux Wine Exhibition.

Memoranda of instructions for the Executive Secretary of the New South Wales Bordeaux Commission, which have been approved by the Colonial Secretary.

It is presumed that the Executive Secretary will receive general instructions from the Colonial Secretary, and that he will be accredited to the Honorable Mr. Darley, the Representative Commissioner, and to the Agent-General.

Mr. Bonnard will leave Sydney on the 25th instant, and proceed by the s.s. "Garonne," which takes its departure from Melbourne on the 2nd March. On his arrival in London he is to call on Mr. Darley and the Agent-General, receiving from them or from either of them any instructions they or either of them may give him.

The wines from this colony will be consigned to the Agent-General, and the first lot will leave by the P. & O.S.N. Company's s.s. "Assam," on the 9th March, and the last consignment will leave on the 23rd March, by the same Company's s.s. "Shannon," both going direct to London. Both consignments should reach Bordeaux as early as possible before the 1st June, the day on which the Exhibition opens. When in London the Executive Secretary will of course arrange with the Agent-General for the transhipment of the wines to Bordeaux.

Mr. Bonnard should reach Bordeaux as early as possible before the opening of the Exhibition, that he may make the necessary arrangements for the display of those wines which are to be shown in the Exhibition, and for the reception into cellars of the bulk of the exhibits which are for sale, and for any duty that may become necessary in relation to it.

The Government has telegraphed to secure five hundred square feet of space in the Exhibition Building, that having been thought sufficient for the bottles of wine to be shown, but should any miscalculation have occurred the Executive Secretary should use his best exertions to have it remedied.

It is of the utmost importance that the wines should be presented to the Jurors, and to those likely to be interested in dealing with them, in the best possible condition. All the wines in cask must be most carefully examined by competent experts immediately on their arrival in Bordeaux, and should any of them be at all out of condition everything must be done to bring them into proper form. This is a matter which will admit neither of delay nor neglect.

The principal object in sending samples of the wines of this Colony to Bordeaux is to ascertain whether sales for them in large quantities can be effected. The resources of New South Wales for viticulture are practically unlimited, and if a minimum price can be fixed on the wines sent, regard being had to their various qualities, sufficiently remunerative to justify an enlarged production, the dealers in them can be assured that in a few years their requirements can be met, how great soever they may be. On account of the great extent of New South Wales, with its different soils and climates, the products of the vine differ as much as do the wines of France and Germany from each other.

Every exhibitor from this Colony expects that his wines shall be introduced to the notice of the Jurors and others interested in the wine trade in the way most likely to secure attention to them; and it is hoped that reports will be obtained on the whole of the wines sent to Bordeaux of such a nature that their character may be specified and any defects remedied. The bulk of the wine is for sale, and the instructions of the owners on this head will be forwarded to the Executive Secretary.

In endeavouring to open a trade in the wines of this Colony with European buyers the Executive Secretary should not forget that with scarcely any exception our wines are very superior to the commoner sorts of continental growth.

It will also be well for the Executive Secretary to invite the attention of skilled capitalists whose vineyards have been destroyed by such diseases as Phylloxera to the boundless fields open in this colony to their operations. It is well known that much of the surface of France, on which the vine has been for centuries cultivated successfully until destroyed by disease, is wholly unsuitable for any other crop, while throughout Australia wine is grown on land of a far higher quality, so that the inducements for the owners, who in many instances have large capital, to transfer their enterprise to this Colony are very great. To any such the Executive Secretary should offer the freest examination of the numerous samples of the wines in bottles, which are mainly intended for consumption by those who really desire information. The Executive Secretary will fully understand that his principal relation to the winemakers of this Colony is that of a business agent intent on creating an extensive demand for their produce.

The Colonial Secretary will doubtless instruct the Executive Secretary to send his reports direct to him, and in finding useful material for them the following suggestions are considered worthy of attention:—

- 1. That copies be obtained of all the more recent and valued French, German, and Spanish works procurable, dealing with the cultivation of the vine, and the diseases to which it is subject.
2. That the Executive Secretary obtain such information in respect of the principal vineyards of France and other countries as may come within his reach, and which may be of a kind that can be utilised in this Colony, and shall make notes of any novel machinery used in grape-crushing, wine-fermentation, bottling, &c., with illustrative diagrams, whenever procurable.
3. That the inquiries of the Executive Secretary be directed to everything at the Exhibition special or noteworthy in the distillation of brandy from wine, and in the fabrication of effervescing wines, such as Champagne, Sparkling Moselle, &c., and that he should be desired to avail himself of communications with the representatives of the wine-producing industry present at the Bordeaux Exhibition, and to collect such information on all subjects connected with this industry as are likely to be of value in Australia.
4. That Reports and other documents bearing on the Phylloxera Vastatrix be in particular sought for, and that the Executive Secretary remark upon remedies suggested by those who have made the subject their special study.
5. That the Executive Secretary be specially requested to obtain information on everything bearing on viticulture, wine-making, fining, racking, blending, &c., which may recommend itself to his attention as being likely to prove of practical value in these Colonies.
6. That so far as he can the Executive Secretary shall in his reports adapt all information procured to the differing conditions of soil, climate, and its temperature, so that the results of his inquiries may be more easily followed out by Australian vine-growers and wine-makers.
7. That as several Australian wines having distinctive names peculiar to these Colonies have characteristics similar to certain European wines of repute known by other and well-known designations, the particulars in which Jurors remark that Australian wines of homogenous character to known European wines are deficient, as compared with the latter, should be specially noted for future guidance.

8. As many of the wines of this Colony are delicate, and as it is a matter of the first importance that any method which will secure them against disease and deterioration, to enable them to be transported with safety any distance, and kept in any sort of storehouse, should be practically understood, the Executive Secretary would do well to acquire practical information in regard to M. Pasteur's discoveries in this direction. M. Pasteur also claims to have discovered and proved that wine can be advanced in ripening and improved by aeration. If such be proved it will greatly facilitate the operations of the wine-makers of the Albury and other wine-growing districts similarly circumstanced.
9. That in order to elicit information in a categorical manner, to be afterwards arranged or tabulated by the Executive Secretary, he be requested to address questions based on his instructions to his brother representatives in the Wine Section of the Bordeaux Exhibition, or to such others as may be qualified to afford the necessary information on the various points contained in such instructions; and that if thought desirable these questions may be printed for the sake of convenience.
10. That the Executive Secretary be requested to learn the wholesale prices of the best corks, capsules, pumps for wine, and machinery connected with the wine business.

The above are some of the matters of general interest to the wine-growers of this Colony, but as circulars will presently be sent to them inviting communications in regard to any matter of special concernment to their individual vineyards and their products, the Executive Secretary will be instructed as to the particular points on which each exhibitor is anxious for information.

J. F. BURNS,
Chairman.

AUGUSTUS MORRIS,
Honorary Secretary.

Sydney, 23 February, 1882.

Foreign Office.

Sir C. Dilke to C. G. J. Perceval, Esq., H.B.M. Consul at Bordeaux.

Sir,

This letter will be delivered to you by Mr. F. M. Darley and Mr. Henry Bonnard, who have been appointed respectively Executive Commissioner and Secretary of the New South Wales Government to the Bordeaux Exhibition of Wines and Spirits, and I am directed by Earl Granville to instruct you to afford these gentlemen all the assistance which you can properly afford in carrying out the objects of their mission.

Countersigned—GRANVILLE

I am, &c.,

CHARLES DILKE.

23 May, 1882.

Colonial Office.

Mr. R. H. Meade to the Agent General of New South Wales.

Sir,

I am directed by the Earl of Kimberley to inform you, with reference to your letter of the 17th of February last, that Earl Granville has been requested to be good enough to instruct Her Majesty's Consul at Bordeaux to render all the assistance he can to Mr. F. M. Darley and Mr. Henry Bonnard, the Executive Commissioner and Secretary respectively of the Colony of New South Wales at the Bordeaux Exhibition.

I am, &c.,

R. H. MEADE.

20 May, 1882.

New South Wales.

Letter from the Hon. F. M. Darley, Q.C., M.L.C., Representative Commissioner of New South Wales, to Monsieur A. Daney, Président of the Société Philomathique de Bordeaux, on the appointment of the Wine Jury.

Monsieur,

Dresden (Saxony), August 23, 1882.

As the Representative Commissioner appointed by the Government of New South Wales to the Bordeaux Exhibition, in which Government I have the honor to hold the position of Vice-President of the Executive Council, I venture to address you upon the subject of the appointment of Jurors in the Wines Section.

I have been informed that the Committee of the Société Philomathique have requested the English Foreign Office to nominate one gentleman who would be appointed by the Committee as a Juror on behalf of the English Colonies. The English Foreign Office, I was informed, referred the matter to the English Colonial Office, who requested the Agents-General of the several colonies interested to join in this nomination. The Agents-General not being able to agree to a joint nomination, the matter now rests with the Colonial Office.

This being the present state of affairs, I venture to address you upon the subject, and to point out to your honorable Committee certain considerations showing that the Colony of New South Wales is entitled to the non-nomination of a Juror on behalf of its exhibitors.

That Colony has taken a great interest in the success of the Bordeaux Exhibition of wines. The Colony and its exhibitors have gone to considerable trouble and expenses in order to make the exhibition of its wines in this Section alike creditable to itself and to the Exhibition.

The Government of the Colony desiring to pay a compliment to the Société Philomathique accredited one of its own Ministers (who happened to be on a visit in Europe), by Commission under the Great Seal of the Colony, as the Representative Commissioner on behalf of the Colony; while it appointed as the Executive Secretary a gentleman of high standing, who it must be admitted, has done much not only towards the success of the Colony he so ably represents, but also towards the success of the Exhibition as a whole.

It is true that the Colony of New South Wales is most happily under the Sovereignty of England (and long may she continue so), but in all matters of domestic policy, in all matters of trade and commerce, in this matter of exhibiting wines at Bordeaux, the Colony is wholly independent. The several Colonies exhibiting wines are also, while all owing the Sovereignty of England, wholly independent of each other.

To appoint one Juror to represent these Colonies, particularly those of New South Wales, Victoria, and South Australia, would be similar to appointing one Juror to represent Italy, Spain, and Hungary. The commercial and industrial interest of these three great countries I have named is not more diverse than the interests of these three great English Colonies.

I feel confident that, while the Colony of New South Wales will be much gratified at its being permitted to nominate a Juror on its own behalf, it will look upon this concession as nothing more than that to which it is entitled, consequent upon its position and commercial importance, as well as taking into consideration the pain, trouble, and expenses it has gone to in order to assist the Bordeaux Exhibition to become the success it is; while the not being permitted to make this nomination will cause a deep feeling of disappointment to the Colony and dissatisfaction to its exhibitors.

Feeling sure that your sole desire and the desire of your honorable Committee is to do justice to all the exhibiting countries, and trusting that the Committee will take the subject matter of this letter into its anxious consideration and accede to the request therein contained,

I have, &c.,

FRED. M. DARLEY,

Vice-President of the Executive Council of the Colony of New South Wales, a Member of the Legislative Council of that Colony, and the Representative Commissioner appointed to the Exhibition at Bordeaux.

P.S.—I send this letter under cover to Mr. H. Bonnard, the Executive Secretary for the Colony, by whom it will be delivered to you.—F.M.D.

N.B.—In accordance with the above request, supported through the Hon. the Agent-General in London by the Colonial Office, the Colony obtained the privilege referred to, as explained in the course of the Report.

New

New South Wales Government Commission at Bordeaux.

Monsieur,

Bordeaux, Septembre, 1882.

L'HONORABLE F. M. DARLEY, Q. C., M. L. C., Ministre, Commissaire Général du Gouvernement de la Nelle. Galles du Sud à l'Exposition de Bordeaux, me charge de vous offrir l'exemplaire ci-joint d'une toute récente publication intitulée La Nelle. Galles du Sud en 1881.

Cette publication traite des progrès de la Colonie depuis sa fondation jusqu'à nos jours; elle comprend des statistiques se référant à l'ensemble des Colonies de l'Australasie, des renseignements sur les vignobles Coloniaux, et se termine par une notice sur la part que la Colonie prend à l'Exposition actuelle à Bordeaux.

Monsr. Darley espère qu'il vous sera agréable d'accepter cette publication, la première se rapportant à l'Australie, qui soit publiée officiellement en langue Française, et il souhaite qu'elle vous paraisse mériter tout l'intérêt et toute l'attention dont vous pourrez disposer.

J'ai l'honneur d'être, Monsieur,

votre très respectueux et obéissant serviteur,

HENRY BONNARD,

Délégué du Gouvernement de la Nelle. Galles du Sud

à l'Exposition de Bordeaux.

(Prière de vouloir bien accuser réception.)

This invoice has been acknowledged by a considerable number of high officials, Members of Parliament, Chambers of Commerce, &c.

NEW SOUTH WALES IN 1881.

Preface to the French Edition published and printed at Bordeaux.

THE Honorable Sir Henry Parkes, K. C. M. G., Prime Minister and Colonial Secretary of the Australian province of New South Wales, having had to proceed to Europe and to the United States of North America early in 1882, the Colonial Government decided, on that occasion, to publish a brief *épitome*, descriptive of all progresses made by the Colony since its foundation in 1788 until the end of 1881, and based upon the most recent official statistics.

The first edition of this work, published at Sydney on the 23th December, 1881, under the title of *New South Wales in 1881*, was due to Major Thomas Richards, Government Printer, Registrar of Copyrights, &c., who had had for co-operators, Edward Dowling, Esq., J. J. Spruson, Esq., and several heads of Public Services.

Now, on the occasion of the International Exhibition of wines at Bordeaux, the Colonial Government has directed his special delegate to that Exhibition, to publish the same work in French, and this is the translation which the writer comes to submit to the public.

This book contains, besides, several appendices, including :—

1. The Customs' tariff of New South Wales.
2. A tabular statement of weights, &c., with a list of Foreign Consulates at Sydney.
3. A diagram showing the superficies, the population, and the density of same per square mile in New South Wales, as compared to those of several other countries.
4. A statistical record referring to the whole of the Australasian Colonies.
5. A coloured map giving all particulars with reference to these districts of the Colony, more especially interested in agriculture, viticulture, horse, cattle, and sheep breeding, mineral industries, &c., &c.
6. A report upon the *Industrial progresses of New South Wales*, more especially dealing with the vineyards of the *Murray* and of the *Hunter Valleys*, compiled by Chas. Lyne, Esq., of the *Sydney Morning Herald*.
7. Lastly, the book contains a *simple notice*, from the writer of this preface, dealing especially with the part taken by the vine-growing and wine-making industries of New South Wales in the Bordeaux Exhibition, and further including most complete and precise information concerning the principal vineyards now existing in New South Wales.

The translation of the several documents above mentioned has no literary pretension; it has been aimed to reproduce the original almost literally, so as to be a faithful interpreter, whilst at the same time producing a compilation in sufficiently good French to be understood by, and worthy of any reader feeling interested in the progress of Australia; in the course of the printing a few *errata* and typographical defects may have escaped correction, but do not alter the meaning of any sentences.

The French themselves admit that they deserve the reproach usually addressed to them, of keeping themselves too much at home, of disinterested themselves of what takes place outside, and to remain unconscious of the progresses and developments of other countries. It is, indeed, to be regretted that the taste for travelling far away, that for emigrating, and more again, that for colonisation, are so little appreciated in France; it does not seem admitted there, that men can serve their country most usefully, whilst still living abroad, or by joining others in colonizing the most distant parts of the world.

In France the meaning of the word *Colony* is entirely different of that which it receives in English; it does not raise any sympathy, but hardly a weak feeling of curiosity or astonishment, and most generally, leaves the majority of Frenchmen absolutely indifferent.

In England, on the contrary, the word *Colony* receives the same meaning which it had, previously, with the Romans. The Government and the Nation never shrink at any sacrifice, for the annexion even slow and gradual, of absolutely wild and even unhealthy territories, whose actual occupiers are often very little disposed to show themselves in any way hospitable.

Be it from the point of view of national egotism, or from a broader and higher consideration for the general welfare of mankind, and the necessary progresses of civilisation, the profits to be derived from the extension of most distant dominions, are so certain, so prompt, and so important for the development of the National Trade, for the amelioration of the circumstances of many citizens, for the consolidation itself of political influence and strategical advantages, that it should be a matter of surprise that the English people be alone to understand them, and to profit by it so far as to enjoy the monopoly now a day of the whole trade with that part of the world known by the ancients.

The reason of this is, that whenever the Government of Great Britain decides that such and such territories become a British possession, it is firmly resolved as soon as the circumstances will permit it, and the sooner the better, to leave to the pioneers of that land the care, the responsibility, the freedom to govern themselves, and to administer their own local interests as to them will seem best. The British colonies enjoy, within their limits, every sovereign power; the metropolitan laws are not enforced there until after they have been adopted by Colonial legislatures, and, far from contributing any tribute, the goods arriving from the mother country are often mulcted with almost prohibitive customs duties.

One of the no less astonishing consequences of this system is that these Colonies, who, little by little form their own militia, create their own navy, raise their own fortifications, are indignant at the idea of separation from England.

They have simply grown into real small semi-sovereign States, absolutely independent, and living happily, quietly, under the protectorate of Great Britain, so far as international political relations are concerned.

The several Australian Colonies have reached that condition; their Ministers, their administrators, are true Statesmen. Their resources, the wealth of their territories, the energy of the inhabitants, the able organisation and the again abler management of the public services, of the Banks and other institutions of credit, the unity of action and of will, have already secured for their trade, comparatively, more importance than for that of many older States.

The projected federation of the several provinces of the Australian Continent, federation which is favourably viewed by the Imperial Government in London itself, will add certainly much to the vitality of the various colonies now without any political or administrative connections among themselves; each of them is an isolated unity in the Empire, and they even willingly make use of that independency to fight each other through their customs tariffs.

The capital cities, Sydney, Melbourne, and Adelaide, are finer, wealthier, and cleaner, than many a large town of second rank in France or in Europe.

In these colonies physical and moral education receive the greatest encouragements; sciences, letters, and arts are in high honour; trade and industry are in great favour.

Railways, telegraphs, posts, intersect the country in every direction, thus helping agriculture and industry to modify the appearance, the constitution of the soil, and even the climate.

The

The Public Instruction and Press penetrate as far as the wildest districts, and the leading newspapers of Sydney and Melbourne are superior to many *journalistes* of Continental European capitals.

The Australian citizen has the greatest confidence in himself, in his own people, in his country. Events have already proved him perfectly justified in doing so.

Australia has already created a most flourishing colony in the Fiji Islands in 1874.

All this does not seem to be sufficiently known by France; its influence in Oceania is not what it should be, nor what it would be, if French population, increasing instead of decreasing, any exedant was going mixing itself with the nations now in course of formation, creating sympathies, attachment, and interests, in view of the future.

It is not only in a political point of view that a French emigrant could be useful to his country, it would be again, and to a great extent, for industrial and commercial purposes. Read, for instance, this extract from the book which these remarks are introducing :—

“The emigrants which came from Great Britain to Australia have more contributed to the wealth of their mother country than if they had remained in their native places. Statistics prove that a resident in New South Wales requires now, comparatively, a larger quantity of English goods for his yearly use, than any inhabitant of the United Kingdom.”

The total trade of the Australasian Colonies reaches, to-day, the sum of £94,000,000, equal to £35 per head of a population somewhat above 3,000,000 of souls.

New South Wales imports annually far more than £14,000,000 of goods, and the value of its exports reaches £16,000,000, the proportion of its own trade being at the rate of £41 per head. It is well known that New South Wales alone possesses almost the half of the whole quantity of sheep to be found in Australasia, which means Australia, Tasmania, and New Zealand together.

The several other colonies follow closely the important commercial movement *at the head of which is their eldest sister*.

As to the actual importance of direct commercial relations between France and Australia, the official statistics of New South Wales for 1880 give the following particulars :—

Total value of direct importation from France, £37,859, of which £34,000 represent the value of cognacs and brandy.

Total value of direct exportations to France, £144.

Whilst between New South Wales and England the same figures are :—

Importation from England, £6,536,661.

Exportation to England, £7,625,637.

With respect to French shipping in Colonial waters, 20 sailing vessels only, registering 7,196 tons, and manned by 248 men, entered the ports of New South Wales in 1880, out of a total of 2,108 vessels, mostly British, of which 1,092 were steamers, registering 1,242,458 tons, and manned by 54,024 men.

It might have been presumed that direct commercial relations between France and Australia could be of more importance; perhaps the time is approaching when it will be so.

A leading Bank of France has at last opened branches in Sydney and in Melbourne, Steamship Companies are being organised between Australian and French ports. Let it be hoped that a start is made, and will not slake too soon.

Australia is open to all; nevertheless, as we say it further, and as it could not be too often repeated, it is absolutely necessary that intending immigrants in New South Wales, or in any other Australian Colony, be deeply convinced that the indispensable conditions of success are, for them to be strictly people independent of all administrative protection or assistance, sober, steady, not likely to lose their heart at the first difficulty in their way, but endowed with much activity, initiative, ready to work, depending alone upon their own energy, their individual value, in true pioneers of civilization and colonists of a new world, ruled by the principles, alone true, alone lasting, of a perfect and persevering democracy.

I beg to express here my thanks and gratefulness to New South Wales for the distinction with which it has honored me, by delegating to me the care of its interests at the Bordeaux Exhibition; and to its Minister, the Honorable Sir John Robertson, K.C.M.G., for the trust and the esteem he has been pleased to show me, by confiding to me a mission and a special study of so great interest for the whole of Australia.

I shall deem myself happy, if through my modest co-operation to this work, I have been enabled, as a Frenchman, as an Australian, by contributing to make them better known, to have rendered myself useful to the interests of Australia and to those of France.

HENRY BONNARD.

Bordeaux, 4 September, 1882.

SYNDICATE OF THE WHOLESALE WINE TRADE OF THE DISTRICT OF GIRONDE.

Resolution with respect to Customs Tariffs between France and Australia, unanimously adopted by the Syndical Chamber of the Wine-trade at Bordeaux, in its sitting of 7th December, 1882.

THE Syndical Chamber of the Wholesale Wine and Spirit Trade of Gironde having heard the interesting communications of Messieurs the Delegates of the Australian Colonies at the Bordeaux Exhibition upon commercial relations already existing between Bordeaux, New South Wales, and Victoria, and their possible considerable development within a near future, should Colonial public opinion prepare itself for such contingencies, and should, above all, Australian Governments support same by liberal measures advantageous to both countries.

Considering first, that Australian produces come free of duties in all French ports whilst French wines especially are mulcted with prohibitive Customs dues on being landed in these Colonies.

Considering further that the port of Bordeaux, so far as it is concerned, claims with perfect right, by the creation of the line of steamers of Messrs. Tandonnet, the honour of bringing forward the commercial movement legitimately expected to spring with Sydney and Melbourne.

Estimating besides that commercial transactions grow so much more in importance and prosperity that there are less barriers to fetter their expansion.

Expresses the wish that the above remarks may be practically sanctioned, if not by an absolute suppression of Customs dues at least by a considerable reduction of the actual Australian tariffs.

And resolves that communication of the present deliberation will be given to the Australian Delegates at Bordeaux to be transmitted by them to their respective Governments.

The President,
BERNIARD.

Report to the Honorable F. M. Darley, Q.C., M.L.C., Representative Commissioner.

Sir,

Bordeaux, 4 November, 1882.

I have the honor to submit to you the following summary report and account of expenditure which I have deemed my duty to prepare for your information, on the occasion of the distribution of awards, before the closing of the Bordeaux Exhibition.

I arrived in Bordeaux, in accordance with instructions, on the 1st of May, 1882. I put myself at once in communication with the Managing Committee of the Société Philomathique, giving them notice of your Commission and of my appointment to act here respectively on behalf of New South Wales.

The building intended for the exhibition of wines was ready for the distribution of space towards the end of May, and the ground allowed to New South Wales was definitely handed to me on the 1st of June. I called for tenders for the erection of our Court, and in due course made the necessary contracts, dealing always with people on the respectability of whom no doubts were to be had.

Not having been provided with any instructions as to the amount of the credit of the Commission, nor as to the way in which such credit should be spent, I had to act according to my own judgment; and I endeavoured to carry out my mission with credit to the leading Colony of Australia, taking care that its prestige should not suffer, and its importance made to appear otherwise than as great as it is; at the same time acting as economically as circumstances would allow.

The various exhibits sent from our Colony reached Bordeaux in good time, and generally in very good condition, with the exception of a few cases, for which the Department of the Agent-General in London was so good as to take the initiative of reserving the rights of the exhibitors, and prefer claims which have been since successfully sustained.

The wines in casks received every necessary care, a cellar being provided by the Société Philomathique for its reception. The samples in bottles were also properly looked after, carefully numbered, and stored systematically in the same cellar.

After being postponed several times, the opening of the Exhibition did finally take place with great *éclat*, on the 20th of June, 1882, under the presidency of Mons. Léon Say, member of the then Government of the Republic, in the presence of a very great concourse of high French and foreign officials, and of the inhabitants of the city of Bordeaux and its surrounding districts. Great and numerous official receptions and other festivities took place on that occasion.

The New South Wales Court was on that day quite completed, and since then no alteration of any importance has been made to its general appearance, whilst additions have been constantly going on in the surrounding Courts. We had every reason to be satisfied with the extent and situation of the ground allowed to the Colony.

I hope, as you were present at the time of the opening of the Exhibition, you will concur with me when saying that the Court of New South Wales in particular, and the whole of the British Sections in general, have produced a very good impression in our favour on the people in this part of France, and on the numerous visitors who came from Spain and Portugal. The Minister and the most distinguished personages of his suite were received by you, and they paid special attention to our Court.

Since the opening day, I am proud to say, the Australian Courts—and amongst the whole of the wine building, the Victorian Court in particular being one of the most attractive—have been very much admired, and always well frequented by the general public, whilst great interest has been at all times evinced towards the progresses so rapidly made by each Colony, and more especially by New South Wales: descriptive maps, statistical tables, photographic views of which were exposed to the public, every useful information on the Colony, its vineyards and wines, and other industries, being also provided to the public by books, newspapers, personal explanations, and in every other way which appeared to me likely to be most effective, either in or out of the Exhibition.

I did avail myself as much as possible of my presence in Bordeaux to gather every information required by the Government of the Colony on behalf of the colonists and exhibitors. I regret to have to say that the weather this year has been very unpropitious, the vintage very poor and inferior, and the state of the vineyards very discouraging to the owners, the phylloxera, the mildew, the *autrachine*, the rainy and cold weather rendering vine-growers very shy of inviting strangers; further, I was very seldom at liberty to absent myself from Bordeaux or from the Exhibition for any length of time.

I had to attend to numerous daily interviews every day either to give or receive communications, and several times every week I was busy at the cellar, either superintending the care given to the wines in bulk, or offering samples to the tasting of every person in a situation to appreciate them.

I am glad to say that, in spite of often much unwillingness to express an opinion, the general impression made by our produce has on the whole been very favourable, and I feel fully convinced that so far as quality goes, some of our Colonial wines are almost equal, and have in fact been valued to the same price as those of the southern part of France, and above those of Spain and Portugal. A market for Colonial *new wines* will be very easily secured at the present time in Bordeaux; it is a mere question of quantity, of price, of sufficient casks and *matériel*, of direct steam communications, and of active and practical business management. The example of Hungary should always be retained before our colonists. I am pleased to say that, as matter of fact, an important order for new wines has already been sent to New South Wales, a satisfaction which no other Colony, so far as I know, has yet obtained. As to other wines of some more age, I am satisfied from information received from various quarters that we have at this very moment a very good opening in the north of Europe, whilst for various kinds of somewhat peculiar and different types, markets would be at once found at Paris, and at Celtes, near Marseilles, for what is called "*opérations*."

I have had a number of our exhibited wines chemically analysed, and I will be in a position, on my return to the Colony, to point out to each exhibitor, in a very precise manner, important particulars with reference to the value and suitability of each wine exhibited here.

Although it has been really impossible to me to visit as often as I wished as many vineyards and other establishments which should be presented as models to our wine-growing and industrial colonists, I have taken many notes referring to the various paragraphs of the instructions from the Sydney Committee, as approved by the Honorable the Colonial Secretary; but I must say that I am not personally satisfied as yet with the results obtained so far; and it is my duty to state that, unless I am allowed to remain here for pursuing my studies for at least two or three months after the closing of the Exhibition, and when I will have nothing else to do, I will not have had the opportunity nor the time to see as much as is expected from me, and as is necessary for the successful and useful carrying out of the wishes of the Government, of the Committee and of the exhibitors. For instance, I have introductions to no less a scientific leader than Mons. Pasteur himself; and although I am expected at any time I shall choose to go, I have not found the opportunity to interview that great man, of whose discoveries it is my duty to make a special study. I may perhaps be allowed to state here, that the Government of Victoria has recently advised the Executive Secretary for that Colony to remain in France until the latter part of January, 1883, on full salary; and I should be glad, for the sake of my mission, to be allowed the same facilities, even on less favourable terms. Perhaps will you, sir, be good enough to consider whether it is well or necessary for the interests of New South Wales that an extension of time be granted to me.

The various officers of the Société Philomathique, presided over by Mons. Daney, have been at all times very courteous and kindly disposed towards this Office. The Vice-President, Mr. Larroude, Chairman of the International Section, has often proved and expressed the very best feelings for us; and if any reserve as to the appreciation of the services rendered by these gentlemen is to be made, it must also be taken into account that they had each of them to attend at the same time to their private business, and that an Exhibition conducted by a private Society cannot be managed on the same broad basis as one conducted by a Government, nor with such prompt and perfect attention.

The Jury appointed by the Société Philomathique for tasting wines began its operations early in September. It was an International Jury, but we had considerable difficulty to obtain a proper recognition and the privilege of being represented on it. A letter sent by you personally to the Chairman of the Société Philomathique had an undoubted influence on the subsequent resolutions of the Wine Committee, and we have also to thank the Imperial Government for its timely assistance through Her Majesty's Consulate in Bordeaux. In consequence of these energetic interventions, the Colony of New South Wales and the sister Colonies secured the right of nominating each a member of the Jury. The Honorable the Agent-General, Sir Saul Samuel, K.C.M.G., supported also very firmly in London the representations made by your Executive Secretary, to secure such a result on behalf of the Colonial exhibitors. The International Jury was presided over by the Honorable Señor Don Soriano Plasent, Delegate of His Majesty the King of Spain. The Colony of New South Wales was represented and well served by Mr. Maurice Tandonnet, one of the leading shipowners and merchants of Bordeaux. We had thirty-one exhibitors and 189 exhibits, some of these being in duplicate (wood and bottles), and also in addition a few

few

few samples of new wines, vintage of March, 1882. The highest awards to be granted are gold medals. I have asked for a diploma of honor, special, to the most successful exhibitor of Australia (and who belongs to New South Wales), but I cannot say yet whether it will be granted or not. Nothing is yet at this very time definitely settled or positively known as to the awards made, nor even as to what the nature of the awards is to be; I am however led to believe that we have obtained five gold medals, nine silver, eleven bronze, and two mentions, four only of our exhibitors being altogether unsuccessful. I regret that I am not in a position to give you officially the names of the successful exhibitors, but they will be publicly proclaimed on the 6th November instant.

The Melbourne *Argus* has offered a prize of 100 guineas to the exhibitor of the best Australian wine, exhibited at Bordeaux, and arrangements are now being made for the constitution of the special Jury to be appointed by the several Agents-General in London. Sir Saul having asked me to nominate such jurymen to him, I intend, should you approve of them, to submit to the Honorable the Agent-General the names of Messrs. Dubos Brothers as members of that Jury on behalf of New South Wales.

As instructed by the Honorable Sir John Robertson, K.C.M.G., I have had, during my stay in Bordeaux, printed in French, after translation of same from English into French by me, 1,000 copies of the Colonial book, "New South Wales in 1881," with the statistical diagrams and tables, and also the coloured description map of the Colony included in the Australian edition. I added to it such information special to the Bordeaux Exhibition of Colonial Wines, and to our vineyards and vines, as I thought would possibly increase the already great value of the work, for it is likely some long time will elapse before such another opportunity is found to publish anything officially in French, with respect to the Colony, or to the Colonial wine industry and cultivation of the vine.

I have also thought proper to have a small pamphlet on the Colony printed to the extent of 400 copies in Spanish, a great number of distinguished and leading Spanish people having visited our Exhibition, and evinced the greatest ignorance concerning our country, with the most sincere desire to receive information on the same. I believed, further, that the Colony would certainly derive great benefit by the immigration of a number of Spanish people, who do not actually come to us, for want of information and for not knowing where to obtain it.

The general complete want of information and absolute ignorance of the people about Australia generally has been most surprising and vexatious to me, as a continental man; at the same time I found every one anxious to be made aware of our existence and of our progress. Several Heads of Departments and of Governmental leading Schools have applied to me for numbers of copies of the book referred to, and I have thought right to grant the same in proper but limited quantities.

This book, "New South Wales in 1881," has been indiscriminately distributed all over France, on behalf of the Governments of New South Wales, and in the name of the Honorable the Representative Commissioner, and I have received many letters of acknowledgment and of thanks for same.

The Société de Géographie Commerciale de Bordeaux has decided to publish with the report of the sittings of the recent National Congress of Geography the two lectures I have delivered here on Australia and New South Wales, and has asked permission to reproduce the map of the Colony from the official book, a permission which I have granted very willingly. This report is to be printed to the extent of 2,500 copies.

I may perhaps be allowed to mention here that a number of the Sociétés de Géographie de France have asked me to repeat my lectures for them, especially in Marseilles, where the attention of every one is now turned on the Australian Colonies, on account of the line of steamers about to connect this port direct with Sydney at the end of the year 1882.

I have yet in hand about 100 French copies of the map of the Colony, and 500 French copies of statistical and comparative tables of the Australian Colonies; and I now propose to your approval, to offer the first to the Minister of Public Instruction in France, on behalf of the Government of the Colony, and to distribute the others to every Chamber of Commerce in France, Belgium, and other French speaking countries.

I have had also two sets of photographic views of the Colony, coming from the Sydney Government Printing Office, handsomely bound, for presentation to such distinguished personages as you may think proper; and I intend to continue distributing our Colonial book, copies of which should be properly bound for presentation, amongst such learned Societies of France, from which we may expect in return reports and information of interest to the Colony.

The work of this office has of late taken so much extension that I have been compelled to secure permanent clerical assistance, for which I have given preference to a young English gentleman, of good repute, and actually in want of employment in Bordeaux.

I have been advised that it was the intention of the Wine Trade Syndicate Chamber of Bordeaux to interview you on the question of Customs Duties on Bordeaux wines in the Colony, or should your stay in Bordeaux be too limited, the Chamber will then send its address to the Government through this office.

The distribution of awards is to take place on Monday next, 6th of November, with great ceremony, under the presidency of Mons. Pierre Legrand, the present Minister of Commerce of the Republic of France, but the Exhibition itself will not close until the end of November, if not later.

The exhibits will then have to be removed or disposed of in some way. With the exception of one or two exhibitors, who have communicated their wishes to me, through the Colonial Secretary's Office, I have as yet no instructions on the subject, but I hope to receive some by one of the next incoming mail steamers; should I however not sell our exhibits, I should propose to reserve them for the forthcoming International Exhibition at Amsterdam, where our wines of a few years old will certainly receive great appreciation.

I shall be happy to complete this part of this Report, should you require more particulars on any special point.

EXPENDITURE.

The accounts herewith will be found a correct statement of all sums of money spent by me in connection with the Exhibition of Colonial Wines on behalf of the Colony of New South Wales.

I found myself in the absolute necessity to slightly exceed the estimates originally submitted by me to you; I have however kept as much as possible within the same limits, and as no instructions were ever given to me on that subject, I presumed I was justified for acting according to my own judgment, as long as I was conciliating the dignity of the Colony with its financial and all other interests. I was anxious the New South Wales Court should be the best of the Australian Colonies and Foreign countries, as I am satisfied it has been; and I hope that on this ground you will kindly approve of the expenditure made, under the several paragraphs of the account annexed herewith.

I must state, however, that some provision must be made for the payment of the rent of the grounds allowed by the Société Philomathique in the wine building, and for the use of the cellar provided by the Committee, as mentioned in previous estimates.

Provision will also have to be made for the expenses of removing exhibits, Customs dues on the samples, and such other charges, if any, in the event no sale should be effected here; for if the exhibits are sold, as I believe they will be, the cost of their removing and the duties will be supported by the buyers.

I hope to recover part of the money spent for the decoration of our Court, by reselling some portion of the ornaments, otherwise I propose to send the same to the Honorable the Agent-General, for being utilized, if possible, at the Fisheries Congress in London, or at the Amsterdam Exhibition.

The heaviest items of expenditure under the Bordeaux special estimates will be found in reference to paragraph 3; and also for publicity, which had not been provided for. I refer now to the expenses of printing the book, "New South Wales in 1881," in French, the pamphlet on the Colony in Spanish, and published with a map, also the postage on both, and the purchase for distribution of large numbers of copies of French newspapers having favourably spoken of our Colony and its exhibition of wines.

I hope I have been acting according to the views of the Minister, and that the Colonial Government will find no fault with me for such expenditure, which, besides entailing very heavy work upon me, has been calculated to be of service to the Colony, as I believe and trust the ultimate result will prove before long.

On the whole, I venture to say that the expenditure of this office has been reasonable, and that, with no more and perhaps less expenses than others, much more effective, satisfactory, and lasting results have been obtained, for the benefit of Australia.

Should, however, the Government reject any one of the items of the accounts as now submitted, I will refund these amounts to the Public Treasury, but I should however beg that the advance of said sums be made to me provisionally, until my return to Sydney, at the completion of my mission, when fuller and more detailed accounts will be submitted to the Honorable the Colonial Secretary.

I will now have the honor to refer you to the annexed special accounts, from which you will see that the expenditure made in Bordeaux on behalf of the Colony of New South Wales, up to the end of October, 1882, has reached the total amount of £760, the whole of which is actually paid, whilst I have only received £750 beyond exchange. The original estimates, which I have had the honor to submit to you on the 4th of July last, amounted *in toto* to £1,264. I see no reason for increasing that amount, which still appears to me quite sufficient, even with the slight increase which would result by my staying longer in Europe than was at first contemplated, provided you would approve of such increase.

With reference again to the expenditure incurred for the printing and publishing, as explained under the head of chapter 3, and the total amount of which is £214 in addition to the Exhibition estimates, I may perhaps suggest that, as the wine exhibitors must be the first to derive some benefit by the same, they should be called upon to contribute to the payment of these expenses, in proportion to the number of exhibits sent by each of them. I am desirous to know whether a small number of copies of "New South Wales in 1881" (French edition) should not be properly bound or half-bound for presentation to certain high personages in France and elsewhere, on behalf of the Colonial Government. As yet I have never been made aware of the intentions of the Honorable Colonial Secretary with respect to the book referred, further than to have it published, but I presume yourself or the Honorable the Agent-General may be able to direct me as to the use to be made of same in any special way.

I have also been provided from Sydney with a number of English Catalogues of our exhibits, and I intend to have these distributed in England, with a short list of the awards granted to New South Wales.

I have, &c.,
HENRY BONNARD,

Executive Secretary for the Colony of New South Wales at the Wines Exhibition, Bordeaux.

Report presented by the Executive Secretary at the Bordeaux Exhibition.

To the Honorable F. M. Darley, Q.C., M.L.C., Representative Commissioner of the Government at the Bordeaux Exhibition, 1882, and to the Honorable Sir Saul Samuel, K.C.M.G., Agent-General for the Colony of New South Wales in London.

Honorable Sirs,

18 February, 1883.

I do myself the honor to report as follows, for your information, with reference to the clearing out of the exhibits connected with the recent Bordeaux Exhibition, sending herewith a statement of the expenditure up to this day, as well as of the sums received by this office.

I am now engaged preparing carefully a complete and extensive Report on the Bordeaux Exhibition, in its respects to our Colonial wine industry, and I will also deliver shortly to each exhibitor a brief but qualitative report on each exhibit sent.

I, however, beg to be allowed to say at once that the conclusion I am arriving at is that the generous initiative taken by the Government of the Colony and the exhibitors in submitting the Colonial wines to the Bordeaux Jury has had, to my mind, and to all those who have closely and intelligently watched the Exhibition, a result such as should give a great impulse to the cultivation of the vine in Australia. In a very few years it will prove a great benefit to the Colonies at large, and a certain source of very great profits to the colonists who will start at once extensive plantations; and if the Governments, the Agricultural Societies, and the colonists will join together in properly organizing and favouring the creation and cultivation of vineyards, either small or large, of nurseries in charge of well-selected men, in two or three parts of the territory, and by keeping well spread the knowledge and progress of all that refers to vine-culture, I humbly but firmly believe that in twenty years hence the vine-growing and wine-making industries of Australia must rivalize successfully in importance with wool-growing, however prosperous, even without necessarily producing superior fine wines, but simply good ordinary wines for general use, the demand for such being constantly and importantly increasing.

As it is, at this present time some of our Colonial wines can hold their own very successfully against most of the exotic wines, and many of the European and even French wines. No doubt the great majority of our exhibits were not first-class wines, but the opinions I have been able to collect generally acknowledge a certain superiority in the New South Wales wines on those of neighbouring Colonies, more especially for business purposes.

The results obtained individually by our colonists have already been communicated to your honorable selves, and also telegraphed to Sydney by the care of the Colonial Press. I will therefore simply mention here that the general results to the Colony are, that out of 188 samples, of which 91 were of red wines and 97 of white wines, we have obtained—

| | | | |
|----|--------|------------------|----------------------|
| 9 | first | classifications, | all for red wines. |
| 20 | second | „ | of which 16 for red. |
| | | | 4 „ white. |
| 42 | third, | „ | 23 „ red. |
| | | | 19 „ white. |
| 60 | fourth | „ | 24 „ red. |
| | | | 36 „ white. |
| 36 | fifth | „ | 14 „ red. |
| | | | 22 „ white. |
| 20 | sixth | „ | 4 „ red. |
| | | | 16 „ white. |

187

The members of the jury were as careful, and perhaps more severe, than circumstances might have allowed, but it will be seen that the verdicts of the jury have generally been confirmed by opinions obtained from other persons.

It is perhaps a matter of regret that the Société Philomathique did not think proper to provide more facilities than they did for comparing wines foreign to each other: and also, that that Société did not publish the valuable and numerous informations given by the exhibitors from many distant parts, in reply to the questions asked from them, at the time of their sending their exhibits.

The exhibits received from Sydney via London were, as per the records of the Bordeaux Customs House, 2,563 bottles of various samples, and 59 qr. casks and 4 barrels, equal to 6,804 litres, the whole of which is accounted for in the annexed Schedule, together with accounts of sales. 24 bottles, selected from the wines which obtained gold medals, have been reserved for the competition for the prize offered by the *Argus* proprietors; 436 bottles, including 112 bottles of foreign wines exchanged for ours, besides duplicate samples of the exhibits, are returned to Sydney at the request of the exhibitors; a quantity of (say) 500 bottles has been tasted by the general public, distributed by me amongst wine merchants, sent in various parts of France, submitted to analysis, or offered at several public dinners. A number of bottles happened to be broken in the cellar, and the contents of others were found unsound. In accordance with special instructions from J. Wyndham, Esq., a quantity of bottles and a few qr. casks were shipped to London, to his agents, Messrs. Collins & Co., of 5, East India Avenue, and I have also sent to the same firm thirteen dozens of Mr. G. Francis' wine, to be sold for the best of their owners' interests, and the proceeds of such sale to be paid over to the Hon. the Agent-General's Department, to be remitted to Mr. Francis by the Government.

I may well mention here that the exhibits, as a whole, remained sound and unaltered in casks, with two exceptions: one of these being white wines sent in small barrels.

The establishment of the Colony in Bordeaux in connection with the late Exhibition was definitely suppressed on the 31st of January, 1883, at which time the expenditure amounted to 26,189 f. 68, viz., £1,047 19s. 6d. stg.

The Bordeaux Office has received since the end of April, 1882, to the end of January, 1883, a total sum of 29,303 f. 10, viz., with proceeds of exchange, £1,172 10s. 6d. stg., including 25,155 f., or £1,006 4s. stg., from the Agent-General's Department, the balance being for refunds and proceeds of sales, &c., leaving therefore in my hands a sum of 3,113 f. 42, = £124 11s., which I am prepared to remit to the Hon. the Agent-General, should I be so instructed.

I consider that the exhibited wines in casks were sold at a very fair price, all things being considered, as they fetched the same value as many good wines of France. The samples sold in bottles were rather given away as so many advertisements of our wines than sold as a speculation, and it has not been possible to keep a precise record of each particular sample thus sold, the number of bottles being 300, and the sum about £16 stg., which should go towards the general expenses of the Exhibition.

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The prices at which the wines in casks were sold were mostly those asked for by the owners, although in some cases they were under, and will I fear seem unsatisfactory to the proprietors: but it must be remembered that of all the wine markets in the world, Bordeaux is the best provided for in quantity, and the most difficult to please; and personally I thought it was much better for the colonists that their wines sent here for exhibition should be sold at a low rate than returned to the Colony or sent to England, as it must help to cause them to get more generally known in this country, without any sensible loss.

It should be mentioned here that, should any Colonial wine merchant send his wines for sale to France, the shipment should be made direct, the Customs duty on entering in France being then 4 f. 50, about 3s. 6d. per hectolitre of 22 gallons, on wines of not over 15° French, viz., 26° Sykes, but in case of a simple transshipment in London or elsewhere, the wines on reaching France pay a duty of 80 f. 60, and such a trade should be started under some sort of Syndicate.

I have faithfully endeavoured, and believe I succeeded, to keep the general expenditure as low as was practicable, so that the original credit should not be expended. I trust the accounts I will have the honor to submit will be found in every way correct and reasonable. The money spent in publishing books must ultimately largely benefit the community, for it was judiciously spent.

I have sent to the Amsterdam Exhibition, for the N.W. Wales Court, two cases, one bag, and one parcel, containing a quantity of flags, coats of arms, framed maps, &c., the value of which I have fixed at £10, should be recovered from the Amsterdam's funds hereafter. A list of the several objects sent there is annexed.

I have not as yet made use, to its full extent, of the special credit granted for the purchase of books and for visiting vineyards.

With reference to this last part of mission, I am very thankful for the official letter of recommendation the Hon. Sir. Samuel, K.C.M.G., was so kind as to provide me with, introducing me to Her Majesty's Consuls in France, Spain, and Portugal; however, I have been prevented from travelling as much as I desired, for several reasons, the most important of these being the very unfavourable weather. I had to delay starting on my journey to Spain until the season be a little more advanced, to be more certain of finding on their vineyards the classes of people from whom useful and complete information was desirable. Nevertheless I made the best of my time in the several districts of France round Bordeaux, and am now doing so in the districts of Champagne and Burgundy. I am desirous to proceed as far south as the *Hermitage's* vineyards, and to inspect the much spoken of plantations of American vines (intended to reconstitute the French vineyards) between Lyon and Marseille. I wish I could go round the Rhenish vineyards also; and I intend to take back with me seeds of every known variety of European and other vines, the importation of cuttings being prohibited. I would like circumstances to permit me to postpone my visit to Spain, and to return once more round the Bordeaux district, until the middle of the year; at the same time I have no desire to make my appointment last any longer than is reasonable or that is intended by the Sydney Committee. I am quite satisfied to abide by the decision to be given after delivery of my final report, as well as to conform myself to all the instructions I may be favoured with from the Government.

I shall be thankful to be informed whether I will be in order in spending the credit now remaining in my hands for the purpose of pursuing my travels, which amount could be deducted from the balance now in the hands of the Hon. the Agent-General.

With respect to inducements being offered to capitalists and working-men, acquainted and interested in vine-culture and wine-making, I am in a position to say that the generality of the people with whom I came in contact have always asked and learned with satisfaction, and that many newspapers have looked for with eagerness every information on the vine-producing capabilities of the Australian Colonies generally; at the same time I have been assured that numbers of people, especially from Burgundy, are contemplating bringing over eventually their capital and their industry to the Colonies; and I know also that numbers of small proprietors (wine-growers) could be induced to emigrate. But such decisions are not quickly taken by the people of this country, especially to go to parts far away, from which nothing is known, not always the very name itself; and I venture to take the liberty to say that the appointment of some Colonial Agent, residing on the Continent, under the supervision of the Hon. the Agent-General, would soon be productive to the Colony, in the way of immigration of people as well as of capital, of the same good results as the same is to the Dominion of Canada since the recent appointment of such a Colonial Representative in Paris by that Government. Facilities should also be provided for immigrants from the Continent being enabled to start for Australia without having first to put up with the expenses and the annoyances of a preliminary journey to London or Liverpool.

Before leaving Bordeaux I received from the Société Philomatique the *Diplôme d'Honneur* granted to the Colonial Government, also the several Diplomas for gold, silver, and bronze medals of our successful exhibitors. I have not, however, received the medals, which will not be ready for some time.

I have also obtained delivery of the *Diplôme d'Honneur* granted to the Colonial Government for the map, photographic views of the Colony, statistical returns, official reports, and other publications issued from the Sydney Government Printing Office, and which were exhibited in the New South Wales Court at the Bordeaux Exhibition.

In return for several official documents relative to the Colony, offered to the Bordeaux Chamber of Commerce, I have been requested to receive and transmit a collection of its Reports since 1870 to the Library of the Chamber of Commerce of Sydney.

The Syndical Chamber of the Bordeaux wine-growers and merchants has adopted a resolution complaining of the high Customs duties charged on French wines entering in New South Wales, and requested Mons. Maurice Candonet and your Executive Secretary to call the attention of the Hon. the Representative Commissioner on the subject, so that he might represent the matter fully to the Colonial Government, with a view to obtain a reduction of those Customs duties—if not upon all wines, at least upon those introduced in casks, as being generally wines inferior in quality to those imported in bottles, and therefore more likely to become in general use, as of first necessity, amongst the most numerous parts of the population.

The Academy of Fine Arts, Sciences, and Literature, of Bordeaux, has entrusted me with a valuable and voluminous collection of its scientific and learned reports, to be presented to the Royal Society of New South Wales; and the Archivist (Professor Raulin) was good enough to add a few fossils from the surroundings of Bordeaux, for the Sydney Museum.

The National Museum of Natural History, in Paris, has, in response to an application from me, especially prepared a collection of 200 specimens of reptiles, batrachians, and fishes, to be presented also to the Sydney Museum.

I have been promised, by a learned gentleman at the head of a scientific Society of Reims, taking great interest in the progress of viticulture, a collection of specimens of the diseases of the vines known about the district, and of insects destructive of same; such collection to be offered to the Agricultural Society of New South Wales, so as to better enable information to be gained, or comparisons to be made, *de visu*, by all interested parties.

I shall feel very happy, if before my departure from Europe, on my return journey to the Colonies, circumstances will allow me to secure other collections of interest for the benefit of the public and other institutions of New South Wales.

I have not yet had the honor to present the two large photographic albums of Colonial views which the Hon. F. M. Darley intended to be offered to the President and to the Prime Minister of the Republic. I am very anxious to do so at an early date, but I should like to be provided first with letters from the Hon. the Agent-General of the Colony at the time of remitting these albums. I have reasons to believe Mr. J. Sents, late Consul-General of France, many years residing in Sydney, would kindly assist me in the presentation of the volumes referred to. I will deem it a special favour to be honored with an early reply on this particular point.

I respectfully beg to state here, with reference to the Amsterdam Exhibition, that I am informed the Commission in Sydney has recommended me for appointment by the Government as Executive Secretary at Amsterdam. This information causes me to hesitate to travel far away from my present residence, for fear some news should reach me, either direct or through the Department of the Hon. the Agent-General, by every incoming mail steamer, with reference to the said Exhibition, in consequence of which I should be expected to proceed at once to Amsterdam. Should not, however, the Government deem proper to act upon the above recommendation in my favour, I would like to make the necessary arrangements for starting back to Sydney during March next; and, as I have to conclude several business matters, which I am willing to postpone if I am to go for the Colony at Amsterdam, provided I receive due notice in good time, may I be permitted to suggest that, should not any information be received by the mail due from Sydney on the 27th of February, a cablegram be sent by the Hon. the Agent-General's Department.

I have, &c.,

HENRY BONNARD,

N.S. Wales Executive Secretary at the Bordeaux Exhibition, 1882.

Société

Société de Géographie Commerciale de Bordeaux.

To H. Bonnard, Esq.

Bordeaux, 5 January, 1883.

Sir, We have the honor to inform you that the National Congress of the French Societies of Geography, in its session of September last, has awarded to the Government of New South Wales, a Diploma of Honour for the publications and maps sent to the Bordeaux Exhibition.

This diploma will be handed to you at the next sitting of this Society, on the 22nd inst., in the main amphitheatre of the Professional School of the Société Philomathique.

We have, &c.,

Le Président, MARC MAUREL.
Le Secrétaire-General, J. MANES.

Sir,

The Société de Géographie Commerciale de Bordeaux being informed of the presents you have been pleased to make to its library on behalf of the Government of New South Wales, has accepted them with the greatest satisfaction, and on the motion of Professor Schrader, Vice-President, special thanks have been voted for your address. It has been further decided to request you to transmit to your Government the expression of thankfulness of the Society.

I remain, &c.,

Le Secrétaire-General, J. MANES

New South Wales, Australia.

Société Philomathique International Exhibition of Wines at Bordeaux, 1882.

Special report to the Honorable F. M. Darley, Q.C., M.L.C., representative Commissioner from the Executive Secretary for New South Wales, at Bordeaux, upon samples of wines exhibited by Mr. from the vineyard, district of New South Wales.

Preliminary Remarks.

THE memorandum of instructions given, with the approval of the Honorable the Colonial Secretary to the Executive Secretary for the Colony, by the New South Wales Committee for the Bordeaux International Exhibition of Wines, in 1882, contains the following prescriptions, to which it is proposed to reply more especially by this report.

"The principal object in sending samples of the wines of this Colony to Bordeaux, is to ascertain whether sales for them in large quantities can be effected. The resources of New South Wales for viticulture are practically unlimited, and if a minimum price can be fixed on the wines sent, regard being had to their various qualities, sufficiently remunerative to justify an enlarged production, the dealers in them can be assured that in a few years their requirements can be met, how great soever they may be.

"Every exhibitor from this Colony expects that his wines shall be introduced to the notice of the jurors and others interested in the wine trade in the way most likely to secure attention to them, and it is hoped that reports will be obtained on the whole of the wines sent to Bordeaux, of such a nature that their characters may be specified and any defects remedied.

I have during the Bordeaux Exhibition, and since then until now, faithfully endeavoured to carry out the above instructions, to which I am now about to reply; but I reserve to myself, to more fully treat all other questions mentioned in the said memorandum of instructions, in the final report which I am still engaged preparing, addressed to the Honorable the Prime Minister, and in which will be found the result of the inquiries made by me, during my absence from the Colony. It is my desire to make that report a useful compendium of all that refers to vine-growing and wine-making, as complete as the time and means at my command will permit.

I desire therefore simply to treat to-day the questions of quantity, quality, and price of production, in their respects to our Colonial wines, as a whole, and to each exhibit in particular. I trust the following remarks may, to at least a certain extent, and provisionally, give the satisfaction required.

On the question of quantity of production it will, I hope, be admitted with me as a conclusion, that the vineyards of New South Wales should be at once considerably increased—

1. So as to be prepared to meet future but certain events, it being considered that France is actually importing Foreign wines at the rate of £40,000 per day, or 8,000,000 of hectolitres per year; and
2. to provoke a current of exportation, to create and maintain a demand, which a few isolated samples, or irregular small shipments, not always of the same character, cannot possibly do.

On the question of quality, it will be found that our wines are recognized as wholesome and pleasant, and that a number of them are in every way likely to hold their own in France, against any other imported foreign wines, and many French wines of commoner growth at the present time, perhaps more as wines for daily consumption than even for blending purposes, as the Colonial industry goes progressing.

On the question of price, the New South Wales new wines will fetch on the markets of France, when delivered in sound conditions, exactly the same figures as most of the smaller French wines to which they are similar, and higher figures than certain other Foreign wines now imported in France. I venture to think it is all that can be reasonably expected, and it remains for our wine-growers to say whether they are in a position to compete at same prices, with those of European countries. A few proprietors have already said they could, and I am personally inclined to believe there is no reason why all should not successfully do so, within the next few years.

Vine-growing and Wine-making.—I have great pleasure to report that amongst the public and the trade, besides the members of the jury, generally speaking, the New South Wales wines were found pleasant to drink; they were not looked upon as from *crûs distingués et fins*; but it was thought that when the wine-growers, after constant search, have ascertained the vines species best adapted to their land, the methods of cultivating the soil best suited to local exigencies, to the climate, frequency or paucity of rain, and when they have perfected their ways and their implements, then most of them will certainly succeed in producing excellent wines. We must expect that there will and must be plenty of attempts and hesitations, requiring time, patience, and especially perseverance; it is thus that for the district of Gironde itself, centuries have had to elapse before obtaining the present results; and yet, the wines of all parts of that district are not equally reputed.

It is likely enough that in Australia, success will come much sooner by taking advantage of the experience already acquired in Europe; yet people in the Colonies must not remain attached to the idea that plants from the Rhine, Burgundy, and Médoc, will give elsewhere wines exactly similar to those of the original countries; each soil has its own distinct marks and characteristics, not to be taken away from it or imitated; and the Australian wines will have some day their distinctive characters, which will find also their own amateurs.

The progress of certain of the New South Wales vine-growers have done them much credit in Bordeaux, but with respect to vine-growing and wine-making in the Colony, many accessory questions, such as the length of fermentation, the time at which the wines should be put in casks, or bottled, or sized, or racked, is beyond the precise advices of people at a distance; it mostly depends upon the care, the attention, the intelligence, the observations, the perseverance to be bestowed upon the subject by each interested party, either individually or under some central or collective organisation. As a matter of fact a good wine-grower or maker from Europe will not necessarily be successful in Australia from the day of his arrival; it will take him a few successive years of study, neither can every individual wine-cooper of Bordeaux or Paris be depended upon for the maintenance of our Colonial wines until he has had time to acquire a lengthened practice and knowledge of them.

A number of the jurymen expressed their belief that the Australian Colonies, possessing a climate permitting the making of wines very rich in alcohol, there ought to be no necessity to make use of any artificial means for the conservation of its wines, and that those should be able to support the longest journeys for exportation, provided always that the constant and numerous cares required by their nature be never neglected, either at the time of vintage nor subsequently, while in the vaults; and once these wines properly made, they certainly should travel all over the world in good conditions.

conditions. At the present time the jury consider that the Colonial wines of more than three years old should not be exported as, from the experiment at Bordeaux, they did not seem to keep well much longer, owing very likely to their excessive quantity of glucose, which always is a great and permanent danger for any wine, unless it was on account of a great want of proper care during the second period of their vinification. It is thought also that the Colonial wines, in spite of their fine colour, have not enough tan, likely owing to the vintage being made too late, and when the grapes are too ripe, and also to their vinification being carried on under too high a temperature; which last defect should be remedied by allowing the fermentation to take place within cellars properly constructed. To avoid such high degrees of saccharine matter in the red wines, they should be made with grapes just reaching maturity, or gathered even a few days before they are quite ripe; but with respect to white wines, the opposite rule should be acted upon. With respect to the taste of earthiness, it may be much toned down by frequent ploughings of the ground every year, by a mode of cultivation appropriated to the vineyard and to the vine species it contains, and mostly by adopting the ways and implements, wine-presses, &c., in use in the leading vineyards for wine-making.

Several jurors insisted upon the necessity for our wine-growers to keep their wines in vaults well closed, built of thick masonry, about four or five steps below the ground, and exposed to the coolest winds, so as to retain always an undisturbed and same temperature. They recommended also that the new wines of each year should be always lodged in new casks, made of oak, very dry and free of any woody taste; they consider it safer to go to the expense of importing or buying proper casks from Europe than to continue any longer the present custom of utilizing any old cask. The only ones which cannot injure wine are those having contained cognac of good quality, but even then they say it is much wiser to strictly adopt and adhere to the practice of getting new casks for the new wines.

The denomination of Colonial wines, especially by the name of their original species of vine or other European names, were causes of constant surprise and even disappointment to the jury, as these wines had only very faint or distant, if any, resemblance to European wines bearing similar names. It must therefore be specially mentioned here, that whilst taking for ourselves due note of the vine's species of which their wine is the produce, our growers should deliver it on the market, with the simple denomination of red, white, dessert or liquor wine, with the name of their own vineyard added for identification. It will certainly prove of great benefit to the generality of the wine-growers when they can depend upon qualified men sufficiently acquainted with the Colonial wines to be quite competent for judging and classifying them after each vintage from year to year.

Vine grapes.—It appeared that in our Colony the species of Verdot and Hermitage were almost the only one producing good results as red wines, and it seems probable that two-thirds of Verdot and one-third of Hermitage would give a good wine for daily use, cool and pleasant, if the grapes were cut before a too much advanced maturity; whilst, on the other side, two-thirds of Hermitage and one-third of Verdot would produce with more maturity an alcoholic wine of the same kind as *Hermitage* or *Port*. Experience alone will teach the grower when to cut its grapes to secure these results.

The Cabernet, Malbec, Pineau, so successful in French vineyards, do not appear to succeed in New South Wales, unless the Cabernet, which ought to produce a good effect, when mixed in certain quantities with the Verdot and the Hermitage.

As to white species, the Verdeilho, Shiraz, Rielsing, and also, but only exceptionally, the Chasselas, have given the most satisfactory results, whilst the Madeira grapes did not produce anything appreciable, and it did seem doubtful whether the Sémillon and Sauvignon would give us much satisfaction as in the district of Sauterne. Amongst the liquor wines the red sweet wines from the Isabella grapes, were much noticed, and thought very peculiar; a sample of *Lachrymæ Christi* was very much approved of and considered as deserving to be followed.

It has been also suggested that several plants of muscatel grapes be grown here and there in the middle of each vineyard as a means to give its perfume and taste to the wines, it being found that the wind and the bees, when travelling over the vines in blossoms, spread the bouquet from one tree to another.

Soil.—With reference to the soil, it will require a general study of the Colony to form any opinion; but as a principle, to avoid wines retaining as the Colonial wines do, such strong taste of the ground, the vines should be planted in gravel and shells with substrata of sand, stones, or of the mixture known under the name of *alios*, whilst, on other side, all substrata of argile or clay should be carefully avoided, as they always give a wine without refined taste, and retaining the *terroir* very strongly, in spite of all efforts to the contrary.

The problem now to be solved is to find out in each locality, in very vineyard, the causes of its qualities, and the reasons of its defects; to develop the first, to neutralize the others.

Character of Colonial wines.—Our best red wines were found not to be without some similarity to those of St. Emilion; the most ordinary being of the same class as those of the South of France, near Spain. The generality of our white wines were judged as somewhat of the same description as those of the middle of France.

The production of dessert wines in Australia should be, in the opinion of many members of the jury, most strongly recommended, as also the cultivation of vines most adapted to the making of brandy and alcohol, so that no further importation of these ought to remain necessary, more especially now that the great vineyards of Malaga and others in Spain and Portugal are fast devastated by the *Phylloxera*, and that those of the Cognac District in France have almost ceased to exist.

With reference to the champagne or sparkling wines, the samples of Australian wines submitted to the jury, did not seem to give them any reason to recommend that branch of wine making for the present, as a peculiar soil and climate, with special knowledge and skill and considerable time, practice and expenditure are required, before any attempt could be made with any fair chances of success on the European market, nor, was it said, could any decisive opinion be formed on that particular point, otherwise than by personal examination of the country by thoroughly competent persons.

Notwithstanding a reserve hereafter mentioned concerning the character of our wines, I can assert that at the present time, and the European demand for wine increasing yearly, most of the best Australian wines in general, and more particularly those of New South Wales if properly attended to from the first, will find a ready sale in Paris, and the North of France and Europe, as also in London. I have had a number of our wines analysed not only to ascertain their alcoholic strength, but also their other qualities; the result of these analyses will be included in my final report, but I may say at once that nothing could justify any report that the New South Wales wines are anything else than good and wholesome, when in their natural state.

The samples of new wines received were very much thought of, and favourably appreciated by the trade and other interested: those of the Hunter being considered as most promising and equal to many light French wines of the vicinity of the Gironde, and those from the Murray were declared to be very like those from the Roussillon district in the south of France, both being very available for blending and other commercial purposes.

A few samples, especially of white wines, were sent also from the North, but when they reached Bordeaux, it was too late to submit them to the jury, and further, the small dimensions and other defects of the casks had caused these wines to become unfit for any classification.

Quality.—But the superiority of Colonial wines upon all other foreign wines exhibited at Bordeaux, was well recognized by the jury, the *ensemble* of its opinion upon the Australian wines being unanimous to proclaim that, whilst the wines of France had nothing whatever to fear from any of their rivals, on the other side, of all foreign or exotic wines submitted to them, excepting of course the famous liqueurs wines of Spain and Portugal, the Australian wines were the best constituted, the most useful, and the most likely to become in demand for daily use and food.

Price.—With respect to the commercial value of Colonial wines in Europe, especially of the new wines arriving each vintage in good condition, as it has been proved they could do, I am able to affirm that they will fetch the same figures as most similar wines of the South of Europe, and even of the surrounding districts of the Gironde, in the South of France, the value of which is now considered high and remunerative by their owners themselves: viz., 40 to 60 francs per hectolitre of 22 gallons—a price which seems satisfactory to certain Colonial growers, for wine delivered, f. o. b. in Sydney.

These facts are beyond doubt, a large order at the above rate having been telegraphed from Bordeaux to Sydney during last year; and they appear to me somewhat conclusive that, with more experience, a judicious choice and mixing of vine's species, amongst the best suited to their soil, great care and constant attention at the time of vintage, during the vinification, in the subsequent stages of wine-making, and with proper implements, there is no reason why every one instead of only a few of our wine-growers should not ultimately, and within a few years hence, since they are now provided with fast and accessible means of direct communication with France, succeed as much for quantity and quality, both in Europe, and in the Colonies, as well as those of longer favourably known wine-producing countries.

Quantity.—

Quantity.—Our Colonial growers must also convince themselves that people, at least for the present, will not buy, nor offer or promise to buy, nor even mention any price they may be induced to pay, for a product yet unknown in quality, and whose quantity as a whole, or for any given sort, is yet problematic; they must consequently increase their plantations, and send their product to market, without any further hesitation, or unreasonable anxiety about the final result; if they will only go to the proper trouble at first and make their wines properly, the Colonial wines will stand any journey, and have as good chances as any one else.

It is already surmised by many people connected with the wine-trade, that it will take no longer than ten or eight years before Australian wines get generally known, but as they are new to the European palate, although not objectionable, yet most of them retain such an exotic bouquet or flavour from their land of origin, that it must of absolute necessity require a number of years for the general public to become accustomed to it; therefore the sooner the Colonial production is increased, and the exportation started, the better for our trade.

Progress of Viticulture.—The southern countries of Europe and the French districts of the North of Algeria are now increasing their vineyards very fast.

As a remarkable instance of an increase of production and importation, I may say that a very few years ago Hungarian wines were entirely shut out and absolutely despairing of ever entering the several leading wine markets of France, and now, they are imported at the rate of over 400,000 hectolitres in one year, and have important agencies even in Bordeaux. I must add that the duties and the freight from Hungary to France almost amount to the same figures as on wines from Australia.

The colony might very well follow the example of other countries, with respect to the developments of vineyards and the encouragement of that important branch of agriculture, by creating vine-nurseries, model-vineyards, model-cellars, &c.

Some years of governmental assistance, and co-operation, and of well directed efforts and attention on the part of the parties privately interested, under the guidance of a syndicate or of agricultural societies, would soon put the wine industry of the colony on a very good footing:

Vine's Diseases and Parasites.—Of all of these the almost only danger to provide against is an invasion of the *Phylloxera*, a plague against the progress of which I am sorry to say no successful discovery is yet registered, and in regard to which most stringent and well devised regulations must be at once adopted and strictly carried out by all the colonies conjointly. I am giving my best attention to the matter and will fully report on same.

Conditions of Trade.—To secure for Colonial wines, a good name and constant sale in Europe, if the quantity produced could justify it, the trade should be started under the management of a syndicate, and of a competent central agent, residing in France. I would then feel confident that the Australian wines will always be sold at the same rates as many French wines, and at higher rates than many other imported wines; our growers should especially direct their attention to send new wines neuter in taste, of deep colour, full-bodied, and in new casks, all of the same pattern and dimensions, say, 50 gallons; as to wines sent in bottles, the bottles should be as those generally adopted in Bordeaux, of dark glass for red wines, clear glass for white wines, and of six per gallon.

It is a general reproach to our wines that they are not bottled at the most propitious time, and that they are consequently, generally not as clear as they ought to be; they also lose their *bouquet* very quickly, and the corking is very defective. None but the best corks should be employed, and then secured against dampness with metallic caps instead of wax which is always an imperfect protection.

The wine is sold per hectolitre of 22 gallons equal to the *barrique bordelaise* of 228 litres, viz., 50 gallons; or per ton of 4 *barriques*, equal to 912 litres, viz., 200 gallons; or else again per dozen in bottles.

It would be most important to ship the wines direct to a French port, without even transshipment through England, as otherwise the import duties of fr. 4.50 or 3/6 per 22 gallons upon wines of an alcoholic strength not exceeding 15° French or 26° Sykes, are raised at once to fr. 8.60, or about 7s. per hectolitre.

It is, however, impossible to do justice to all the above matters, within the few lines intended for this report. They require much longer explanations, and, therefore, all these several points and many others I intend to more extensively develop in my final report, for the compilation of which I hope to be allowed the necessary time and other facilities, so that I may make more extended observations, especially during the next vintage season, as I hope to be enabled to do, owing to my expected prolonged sojourn in Europe, in connection with the representation of the Colony at the International Exhibition of Amsterdam, which will take me in the vicinity of the Rhenish and also Burgundy vineyards.

Jury's Report.—As I have already had the honour of explaining, in previous summary reports, sent from time to time, it will be seen that the wines submitted to the Bordeaux jury were divided into seven classes, and subdivided into 26 various degrees of merit and progress.

The classification of exhibits, by the General Wine Jury of Bordeaux was expressed in accordance with the following figures, with the reserve that the awards referring to French and two or three other European wines were to be considered as of a superior value, and higher order of merit, to the corresponding figures granted to all other Foreign and Exotic wines, as it appeared to the Jury that these last wines, although in many cases very sound, rich, and promising wines, and susceptible of becoming in good demand within a comparatively short time, were generally all of commoner sorts, somewhat suffering of imperfect preparation, or otherwise not exactly adapted to the best requirements of the trade.

Exhibits obtaining 25 marks were classified as being of superior quality.

Exhibits obtaining from

| | | | |
|----------------------|-----------------------|---------------------|----------|
| 24 to 21 marks | very good | 10 to 6 marks | passable |
| 20 ,, 16 ,, | } good { 1st category | 5 ,, 1 mark | inferior |
| 15 ,, 11 ,, | | } 2nd ,, | 0 | unfit for any classification. |

The rewards consisted of *Diplomes d'Honneur*, gold, silver, bronze medals; and *mentions honorables*, granted in the relative and successive order of merit of exhibits of the same class upon the report of the jury, finally revised by a Special Committee; the Direction of the *Société Philomatique* decided to deliver certificates of awards for the highest classification only, obtained by any one or more of the exhibits sent by the same vine-grower or wine-merchant. The General Wine Jury was composed of seventy-five leading French and foreign wine-growers, merchants, and *courtiers en Vins*; the International Section, more especially entrusted with the tasting and reporting, of the Foreign and Exotic wines included twenty-six judges, most of them being experts of high repute; the member appointed on behalf of the Colony of New South Wales was Mons. Maurice Tandonnet, of the firm of J. H. Tandonnet et frères, ship-owners, wine-growers, and general merchants at Bordeaux. I was also present at the deliberations of the jury, which lasted several days. The wines were divided into red and white wines. The red wines were proceeded with first, and then by year of vintage, beginning of course with those of most recent date, and all those of same growth or *cepages* being tasted and compared together.

General Remarks.—Independently of many moral and other benefits to be derived by New South Wales and other Colonies, from their much appreciated participation in the Exhibition, the results obtained by the Australian wines exhibited at Bordeaux, were as hereafter stated, showing that the New South Wales wines are very far from being in any way inferior to those of the sister Colonies, besides being able to sustain comparisons with those of other distant countries, if there was need or any interest to do so.

It is however most important to add here that, amongst the Australian exhibits, it was only in the New South Wales section that several distinct samples of one same vineyard secured the highest classification; thus demonstrating that the results obtained were due to good methods, and not to some unaccountable hazard. I firmly believe that, had the awards been made for each sample, instead of one for each exhibitor, New South Wales would have secured the greater number of gold medals, especially for its red wines; but as it happens, the Colony who had the greatest number of exhibitors and of exhibits had the appearance of having secured the highest success.

The proprietors of the *Melbourne Argus* generously offered a 100-guinea prize to the most successful Australian exhibitor at Bordeaux. The contest was cheerfully accepted on behalf of New South Wales, and I had already secured the services of two of the best judges of Bordeaux, but subsequently, the Victorian Representatives, who had the management in hands, decided to adjourn it *sine die*. Samples have been duly reserved of the wines entered for competition.

In addition to the awards to the exhibitors, two *diplomes d'honneur* were granted to the Colonial Government, the second of these being given by the *Congrès National de Géographie*.

The

The appearance of the New South Wales Court in the Exhibition was considered as one of the best, and the Colonists may rest assured that nothing was neglected, but everything done likely to serve their interests and do them credit. M. Leon Say, Minister of Finance, Mr. P. Legrand, Minister of Commerce of France, and other distinguished personages from France and Spain, paid lengthy visits to our Court and tasted the wines. Very good cellarage had been provided by the *Société* for old and new wines. Mr. F. Terrier having been prevented by ill health from remaining in Bordeaux, I am indebted principally to Mr. E. Roullé, wine merchant, of Bordeaux, for his assistance and experience in the constant and careful attentions given to our wines exhibited in wood. Great and numerous facilities and occasions were constantly given to all interested parties for tasting the New South Wales wines, and these were much availed of by wine-growers, makers, and consumers of all ranks, from many parts of Europe and even of America, besides a number of bottles having been left for observations to several *connaisseurs*, or brought forward at several public dinners.

During my stay in France, I visited many leading vineyards and a considerable number of others, as well as many cellars, etc., endeavouring to collect as much practical and theoretical information as was practicable under the circumstances for the benefit of the colonists.

I delivered several lectures on the Colony and published in French every information I had in hands concerning our wine-industry, as well as a map of the Colony showing the viticole districts, in connection with the book "*New South Wales in 1881*," its diagram and Australasian statistical tables.

The actual expenditure of the Colony in Bordeaux, out of the sum allowed by the Government to the Wine Exhibition Committee, has been limited to £841 up to this date.

The annexed report will be found to give the awards of the Jury, together with such general remarks and appreciations as were given by other *connaisseurs*, upon each variety of wine exhibited; also the estimated commercial value of same, an analytical report, whenever obtained, and a recapitulation showing at one glance the general result of the Exhibition with respect to the samples sent from each particular vineyard, as follows:—

Statement of Awards to New South Wales Wines Exhibitors, under the name of "Progress Rewards."

The gold and other medals or awards granted to the New South Wales wine exhibitors have been as per the following list:—

| | | | |
|------------------------------|------------------------|----------------------------------|--------------------------|
| 1°. Gold Medals. | | 3°. Bronze Medals. | |
| Messrs. J. WYNDHAM..... | } for Red Wines | Messrs. G. W. STEPHEN & Co. | } for Red Wines. |
| J. KELMAN..... | | G. FRANCIS | |
| P. TERRIER | | G. F. FLEMING | |
| C. BRECHT | | COLIN ROSS | |
| A. MUNRO | | The Hon. W. MACLEAY..... | |
| 2°. Silver Medals. | | and | |
| Messrs. J. T. FALLON | } for Red Wines. | Messrs. A. E. DAVIES | } for White Wines. |
| GREER & Co. | | J. VIVIAN RAUCH & Co. | |
| T. COOPER..... | | Hs. MATHER..... | |
| HARBOTTLE, BIDDULPH & ALLSOP | | WAD. WYNDHAM..... | |
| J. WILKINSON | | C. V. J. B. CARMICHAEL..... | |
| J. HILL | | | |
| H. J. LINDEMAN | | | |
| J. BOUFFIER | | 4°. Mentions Honorables. | |
| and | | Messrs. A. MURRAY..... | for Red Wine. |
| J. T. DOYLE | for White Wines. | Made. K. H. BARKER..... | for White Wine. |

being a total of 27 rewards, distributed as follows amongst the New South Wales districts.

| | Red Wines. | White Wines. | Total. |
|---------------------------------------|--|----------------------|--------|
| North of Sydney ... | { Gold 5 Silver 5 Bronze 3 Mentions 1 | { 1 5 | { 20 |
| West of Sydney or in its vicinity. | { Bronze 1 Mentions | { 1 | { 2 |
| South of Sydney ... | { Silver 3 Bronze 2 | { | { 5 |
| Total | 20 | 7 | 27 |

The New South Wales exhibits included 13 samples of Red Wines and 12 samples of White Wines in casks, and they obtained the following classification, which deserves to be the object of a special notice.

Red Wines.

| | |
|--|------------------------|
| 1 sample of New Wines, of 1882, received | 21 Marks (Gold Medal.) |
| 4 samples Old Wines | from 16 to 20 " |
| 4 " " " | " 11 " 15 " |
| 4 " " " | " 10 " 6 " |

Whilst the White Wines in casks had—

| | |
|--------------------------|----------------|
| 1 sample Old Wines | from 20 " 16 " |
| 5 " " " | " 11 " 15 " |
| 4 " " " | " 6 " 10 " |
| 2 " " " | " 5 " 0 " |

In comparison to the exhibitors of other Colonies, those of New South Wales stand as follows with respect to the awards:—

| | Red Wines. | White Wines. | Total. |
|---|--|--|--------|
| New South Wales...31 Exhibitors, 193 Exhibits | { Gold Medals 5 Silver " 8 Bronze " 6 Mentions 1 Unclassed (4). | { 1 5 1 | { 27 |
| Victoria .....41 " 260 " | { Gold Medals 7 Silver " 8 Bronze " 4 Mentions 3 Unclassed (5). | { 2 7 5 2 | { 33 |
| South Australia.....14 " | { Gold Medals Silver " 1 Bronze " 3 Mentions 2 Unclassed (1). | { 2 3 2 | { 13 |

CONCLUSION.

Numerous comparative tables between the various districts of New South Wales, or between the three Australian exhibiting Colonies and other countries exhibiting at Bordeaux, could be easily made up, but owing to the inequality in the numbers of exhibitors, and of exhibits as a whole or in various descriptions, as well as owing to many other differences, such tabular statements would prove nothing whatever, and would be more likely to mislead to an erroneous conclusion.

The only observation worth making may be, that both in New South Wales and in Victoria the red wines obtained more success than the white, whilst, in South Australia, the white wines were more successful than the red, but the proportions are so small that it is questionable whether any decisive conclusion upon that point is to be drawn therefrom.

On the whole the general result for New South Wales has been that her exhibits of wines were classified as follows by the members of the Jury of Bordeaux.

| | | | |
|-----------------------------|------------|---------------|--------------|
| Very good | 9 of which | 9 were red | wines. |
| Good..... | } 20 " " | } 16 were red | " |
| 1st category | | | 4 " white " |
| Good | } 42 " " | } 23 " red | " |
| 2nd category | | | 19 " white " |
| Passable | 60 " " | 24 " red | " |
| | | 36 " white " | " |
| Inferior | 36 " " | 14 " red | " |
| | | 22 " white " | " |
| Unfit for classification... | 20 " " | 4 " red | " |
| | | 16 " white " | " |

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The above figures leave a very creditable balance in favour of the good wines, and to conclude, we are fully authorized to congratulate ourselves upon the fact, stated by the best experts of Bordeaux, on the subject, that almost 90 % of the wines from New South Wales are, besides having an undoubted commercial value, good and wholesome wines.

It is a well recognized and proclaimed fact by all the leading scientific and moralizing societies of Europe that there is not a better, healthier drink for civilized men, than sound and natural light wines, even in frequent but moderate use, independent of meal time, and that no other drink has such a beneficial influence upon the mind and the faculties. In all wine-producing countries wine is by law included at the public expense in the daily food of soldiers, Government workmen, hospital and other public establishments, and for sailors of the Government and mercantile navy, even when in foreign parts, whenever wine is available.

Therefore, now that it is proved that such wines are produced within the Colonies, I firmly hope, that with the help of the Colonial Governments, for the sake of the Colonial wine-growers as well as of the general public, a taste will be encouraged and soon spring up to last permanently, for the greatest advantages of both in many ways, thus contributing to a new branch of the development of the superiority, prosperity, and wealth of Australia and New South Wales.

HENRY E. BONNARD,

Executive Secretary for the Colony of New South Wales at the
International Exhibition of Wines, Bordeaux, 1882.

February 20th, 1883.

Translation of Notes addressed by Dr. Méran, Member of the Société Philomathique
of Bordeaux.

To Henry E. Bonnard, Esq., Executive Secretary for the Colony of New South Wales, at the Bordeaux International Exhibition of Wines, 1882.

I.

THE Australian Wines have been one of the great attractions of our Exhibition, and the book "New South Wales in 1881," with notices upon the origin, the production, the nature of these wines, could not be read otherwise than with a very great interest.

It is with the same curiosity that I have desired to become personally acquainted with the leading samples of the wines exhibited, and I have to thank you, sir, for the obliging courtesy with which you gave me opportunities of tasting and appreciating them.

There exists here a prejudice against foreign wines, with the exception of the liqueurs wines of old repute, from Spain, Italy, Cape of Good Hope, and it is generally believed that the good drinking wines which have earned the favour of the whole world are, with very few exceptions, and cannot be others, than wines from France.

This is, without doubt, an exaggeration, to be convinced of which, it is sufficient to have tasted a few bottles of Dalwood, Kaludah, Bebeah, Albury, Bukkulla, Rosemount, and it is only just, to proclaim the merit and the ability of the vinegrowers of Australia who succeeded, within a very few years, to create magnificent vineyards and produce excellent wines. From this remarkable success must it be inferred that Australia knows already how to produce *Burgundy* and *Médoc*, and that very soon its vineyards will be able to quench the thirst of the whole world?

Many years must elapse before Australian vinegrowers will produce at the same time as their local consumption the hundred of millions of gallons of wine necessary for the general requirements, to replace the bad drinks and dangerous drugs to which are condemned the people who have no wines of their own.

In the mean time it is most interesting to state that your Australian wines, whilst wanting the qualities expected from the best wines of France, are by far superior to the common wines of the whole of Europe, and they may rest assured of a great future, if the intelligent owners of your principal vineyards may obtain experienced workmen, skilled wine-coopers, *maitres de chais*, and men qualified to taste wines, ascertain their defects, and develop their qualities. There is in that a full science which a long practice alone can give, and as some advantage should be derived first from the experience of elders in viticulture, it would be well also to learn and follow what is being done in France. I will ask you, on that respect, permission to submit to you the reflections and the ideas which have been suggested to me by the reading of your publication, and the personal study I made of your wines.

The actual prices of the Colonial wines varying from 60 to 180 francs per hectolitre, do not allow to the trade of distant exportation, to blend these with the wines of great consumption; for that purpose cheap wines are required.

To obtain these, your vinegrowers should choose rich and well watered grounds, vine-species of an extreme abundance, such as the *aramon*, for instance; and then produce wines similar to those of Languedoc, of Provence, and of the north of Spain.

It is with such common wines, very easily obtained in the new and unlimited lands of Australia, after pulling down the economic fences separating for a long while the various nations in the name of "Protection," that your people may give to drink to those who are thirsty.

Entirely different is the question of the *vins fins*.

For these, the selection of vine-species is very important, and I fear you have not been very lucky by giving too great a share to the Rhenish species, nor by cultivating separately each vine to obtain as many qualities of wines, as of varieties of grapes, such as the *Pineau*, the *Cabernet*, *Malbec*, *Riesling*, *Verdot*, *Hermitage*, *Pedro-Ximenes*, *Shiraz*, &c., &c. Such a method is not enough to create *Rhenish wines*, neither *Burgundy*, nor *Médoc*.

It is of absolute necessity to associate in a vineyard a small number of vine-species, springing, blooming, and ripening together, and whose different qualities combine and harmonise to give a wine full-bodied, rich with *savour*, delicacy and *bouquet* all at once.

The grapes imported in France as well from the banks of the Rhine as from Spain, Italy, Asia Minor, Persia, Palestine, Syria, do not succeed here, as a rule, and the best species cultivated for the *vins fins* of France are still to the fore, such as the *Cabernet*, *Pineau* of *Burgundy*, then, *Verdot*, *Malbec*, (often combined together, according to the ground, as follows: one-third of *Cabernet-Sauvignon*, one-third of *Merlot*, one-third of *Malbec*).

Most

Most certainly it is important to consult the ground, its aspect, the climate, before selecting the three or four species which are to form the vineyard, but it will always be required to have at least one-third of a very fine species, such as *Pineau* or *Cabernet*, with good grapes more abundant, such as the *Malbec*, for instance.

Your publication name some wine-growers who buy and collect *must* of grapes immediately after the gathering, and blend them together in their cellars. There is no mention made of fermentation, and yet it is indispensable for the good fabrication of red wines, for their colouration, their taste, their conservation that the *must* should work in the vat with the pulps and seeds of the grapes during the whole time that the first fermentation is to last; and for the superior wines our wine-growers watch with the greatest care the moment when, after six or ten days of work in the vat, the *must* ceases fermenting, becomes from warm to tepid, and must then be at once lodged in casks of new wood, such as will not affect the taste of the wine. A warm temperature of 25 to 30 degrees centigrades (70 to 80 F.) is generally favourable to the *Cuvaison*, which does not make it necessary to secure a cool exposure for the *curier*, whilst the temperature of the *chais* or cellars must be neither warm nor cool, but uniform, so as not to disturb the slow and peaceful natural work which is to take place within the casks.

Your Colonial red wines remain often sweet, even after having been bottled; does this result from grapes of a too advanced maturity, from the want of a complete fermentation in the vats, or from a staking of the grapes before their being vatted?

It is preferable for the good red table wines, that the sweetness had disappeared to transform itself into other qualities of *savour* and *bouquet*. It is even to be mentioned that a slight *verdeur* in the most famous wines, immediately after the vintage, is sometimes a sign of qualities which the wine is to reveal later on. It is so because the *tan*, cause of that *verdeur*, comes usefully in the composition of the wine to secure, perhaps by reducing it, the good *elaboration* which will allow it to become complete wine. The same may be said of the tartrate of potassium, accused by some of your wine-growers to be a sort of saltpetre which spoils your wines by rendering them acides, and by affecting their keeping qualities; such accusation is an error of appreciation. It will always depend with a good *maître de chai*, by racking and fining often, and opportunely, to reduce the sediments, and the accumulation of the dregs, to prevent the alteration of the wines, and to nurse and train these as their nature and character require.

The above remarks apply mostly to red wines.

As to the white wines, the maturity of the grapes must be extreme, and when the skin of these are softened, almost rotten, the juice having become like syrup, gives a wine so much better; but it then is necessary to avoid too rapid a fermentation, and for that purpose, frequent rackings are practised to moderate and stop momentarily the work of nature.

With respect to grapes, for wines of large consumption, the big species of Spain, *la Folle* of the Bordelais, will prove very productive; but there is an entire tribe of grapes worth nothing for the wines of France, which promises very much for the Australian wines. These are the *Chasselas*, which have already given very good wine to Mr. de Castella, in the colony of Victoria. I do not doubt the complete success which would give a mixture of the *Chasselas* with white grapes such as the *Semillion*, the *Sauvignon*, and a small proportion of *Muscats*.

In the same way as for the red grapes, it is, besides, most important, whilst taking in due account the fertility of the selected species, never to omit the adoption of a species which will give to the wine *finesse* and *delicatesse*, and for the white wines, wherever the *Muscat* thrives well, that kind should have a spot reserved in every vineyard.

Kindly forgive me, dear sir, if I allowed myself to go into so many reflections which will teach nothing to most of the leading vine-growers of Australia, who have at their command all the facilities provided by wealth and by instruction; but perhaps there may be profit for the small owners, yet not thoroughly acquainted with the methods required for the vintage and the *manutention* of the wines, to call their attention upon several of the points mentioned in this letter. It is to answer your desire to take back to Australia as much information useful to the viti and vini-cole industries, that I have collected these notes; you will no doubt, gather from them some *data* of service and at all events I shall be satisfied if they have been agreeable to you.

II.

The Australian white wines are generally successfully made, with a good colour, delicate, resembling often the best dry white wines of the Gironde (old *Barsac*, for instance): but they are nearly all too dry, and would benefit by being sweeter.

These peculiarities belong mostly to the *Dalwood* wines; we have found them also in the *Madeira*, *White Pineau*, *Shiraz*, *Pedro-Ximenes* 1879 (this last one being the best of its sort).

With respect to *Madeira*, we must make a note that not one of the Australian wines having that name, had the taste of *Madeira* wine; we did not find it either in the *Madeira* of Bukkulla 1877 (which is a very good wine), nor in the *Madeira* of 1874, from Coolnalta, nor in the Australian *Madeira* of 1881, from Hannahton (excellent sweet wine, the only one to be compared with the best white wines of the Gironde), neither in the *Madeira* of 1876 from Kinnross.

The *Muscats* of Rosemount 1877 and 1879, both with a slight taste of *Muscat*, are very delicate and amongst the best; they prove the advantage to be derived from introducing *Muscats* in the vineyards.

Without being as good, a *Kirton* of 1878 deserves being mentioned for its delicacy, its distinction, and a light bouquet which is quite peculiar to that sample. We must mention also a *Maryland* of 1872, somewhat faded, although yet good.

Most of the Colonial wines (saving the exceptions indicated) reveal, by their dryness, a damage caused mostly by the bad conditions of temperature in the cellars, or else during the journey to Europe.

We have a cask of white wines 1879, *Dalwood*, less dry than most of the other samples tasted, and which, in a cool cellar, with a uniform temperature, will very likely remain very good.

The red wines from Dalwood were the most numerous in the New South Wales Exhibition, and the importance of the production of this vineyard, as well as the variety of its samples, deserves a special study. It is amongst these that there is found the most of the wines resembling the *Verdot*, which appear to be most likely to blend well with our French wines. I, however, prefer the *Pineaux* more coloured, more generous, somewhat sweet, making one think, according to the year, of our *Burgundy*, *St. Emilion*, or *Roussillon*.

The *Pineau* of 1879, notwithstanding a little sweetness and a certain peculiarity, is really good; the *Pineau* of 1880, very discoloured, light, fine, delicate, is excellent.

The wines in casks reveal the same qualities and the same defects as those in bottles. One of the casks promises to resemble the *Black Pineau* of 1877; the same is to be said of a cask of *Hermitage* 1877, generous, with a somewhat peculiar taste, from Bebeah Vineyard.

Those wines from your colony have mostly become old too soon; they are discoloured and poor. Too much warmth, great variations of temperature, and too unfrequent rackings, are very likely the causes of their alterations. A cask of *Hermitage* 1879 has given us, by racking it, a quantity three times too heavy, of dregs which had already damaged the quality of the wine.

A few samples from Kirton, *Claret* 1878, have appeared to us as being somewhat similar to those of *Dalwood*.

With respect to the white wines from Dalwood, in bottles, they are well made, delicate, generous, but nearly always a little too dry, much resembling the good dry wine known as *Ancien Barsac*.

There should be, owing to the change of taste now prevailing amongst the consumers since about twenty years, some advantage to make these wines sweeter.

It might also be profitable to introduce some nice smelling species, such as *Muscat*, *Muscatel*, or *Sauvignon*.

Dalwood seems to have succeeded the best in giving wines, being very like some very good wines from the Bordelais. If we judge according to his wines in bottles, he has also been very successful in producing wines similar to those of the Graves, or rather, the Libournais; but they are often too much dry, too much discoloured, even when retaining some sweetness; and very likely they had to suffer of bad conditions of temperature, want of rackings, etc., etc.; the *Verdols* although imitating our wines, would benefit by not remaining alone; a mixture of *Merlots* and *Cabernet Sauvignon* would do them good; as it is, they do not seem to support well a sea journey, and two of the casks, *Verdot* 1879, and 1882 have somewhat suffered.

Most generally, under the designations of *Black Pineau* and *Burgundy*, we met with wines better and more generous than the *Claret*, the *Verdot*, and *Hermitages*. Some samples presented certain similarity with *Burgundy* and sometimes *Roussillon*, even with *Port* more especially a few bottles of *Bukkula* have offered us a *Burgundy*, soft and excellent.

A *Burgundy* of Albury 1878 (Groer & Co.) had the same qualities as the precedent, being still more successful again, and even the best of the Australian *Burgundy*.

These qualities will, we hope, be found also in a cask of Albury 1882 (Fallon) which possesses already the taste of a very good, sweet wine from *Roussillon*.

I have yet to mention again a liqueur wine very remarkable, *Isabella* 1880, from Douglas Vale, rosy, not very strong, but having a great perfume, most delicate and very peculiar.

If now I have to compare New South Wales red wines with the few samples of Victoria which I have had the opportunities of tasting, these last have appeared to me very similar to those of the *Hunter River valley*, such as the *Dalwood*, but out of the 10 or 12 samples which I tasted (and most of which were damaged) not one was like the best *Pineau* of *Dalwood*, *Bukkulla*, nor the *Albury* wines. The same is to be said of the Victorian white wines, amongst which I did not meet anything equivalent to the *Muscadel Rosemount*, nor to the *Australian Madeira of Hannahton*.

It would perhaps be interesting to compare the Australian wines with others, which, since the disasters of the French vineyards, appear likely to become much in demand.

I was not fortunate enough to taste more than a few samples from *Hungary*, of *Italy*, *Sicily*, and *Greece*.

The *Hungarian* wines, especially those from the *Buda-Pesth* District, are mostly light, without any peculiarity, and very suitable for blending with the French wines. Most of those which were in bottles at the Bordeaux Exhibition, were delicate, agreeable, as table or meal wines, but they had very little bouquet, were often poor and not generous. In that respect the sun of Australia should permit to obtain much richer wines.

As to *Greece*, it is easy to understand that it is liable to produce good ordinary wines and excellent liqueur wines, but it must take many years before generalizing the good methods of viticulture and maintenance of the wine. Still, *Patras* is already offering to the trade, good red ordinary wines 1881, better white sweet wines of 1880, at prices from 100 to 120 francs per hectolitre (viz., £4 to £5 per 22 gallons). *Santorin* has exhibited wines from 30 to 40 francs per hectolitre, which, while revealing an imperfect fabrication, were promising for the future, very good ordinary wines.

Chalois d'Éubée has sent an excellent *Muscadel*, a very delicate *Madeira*; *Cephalonia* had a whole series of white wines, good, very good, perfect. Several *Athenian* houses had also sent good samples; but the vinicole industry of *Greece* dates only of a very few years, and if a few of its liqueur wines are superior, without any doubt, to the similar wines of *Australia*, it is quite different with respect to the ordinary red wines.

The wines of that category, to suit absolutely at meal-times, to be drunk copiously and with pleasure, to exercise a favourable action upon health, and to develop at the same time the good dispositions of the organs and of the intellect, require to be carefully nursed with an aptitude and an experience not to be improvised.

France, or rather, a few districts of *France*, are perhaps alone fit to produce excellent table-wines whilst in all the countries having proper temperature it will be possible to obtain liqueur-wines more or less pleasant.

It is therefore a great credit to *Australia* to have already succeeded in obtaining red wines sufficiently good to cause to be remembered, although perhaps faintly, several French wines produced only here with all the resources of an old practice and of an intelligent experience.

Is then the success of the vinegrowers of *Australia* to encourage them to follow exactly the road already taken? Are they to try making *Burgundy*, *Champagne*, or *Médoc* wines?

The *Australian* Colonists progress so rapidly in taking advantage of the teachings of their European Elders, that in 20 or 30 years there will be perhaps great *Australian* wines. People will talk of the *grands crus* of *Dalwood*, *Albury*, *Bukkulla*, *Château-Tahbik*, and *St. Hubert*, but while waiting for these wines, intended for the aristocracy of wine consumers, would it not be useful and profitable for all to develop the actual vineyards, to create new ones, and to cause springing on the banks of the *Hunter* or of the *Murray*, flows of wines which would come to rejoice the civilised people, instead of allowing these to become stultified by beer, by alcohol, and all sorts of adulterated and injurious drinks?

Notwithstanding the reproaches addressed and often deservedly, to the fraud of wine merchants, it is just to recognise that the great dealers are the best able to treat, to watch, to direct the training of wines, and that there would be, at the same time, benefit for producers and for consumers, to entrust them with the higher education of the wines from the whole world.

The High *Bordeaux* Trade has all the experience and aptitude necessary to justify such a trust; and now, already, *Hungary*, *Spain*, especially *Italy* and *Portugal*, send floods of their wines towards the *Garonne*: to-morrow *Greece* will do the same, and perhaps, *Australia* also.

Nobody could rightly complain, if the finishing, after French fashion, of the wines from the whole universe, was to permit the public health to benefit by it.

If *France* is condemned by the rigours of the *Phylloxera* to produce for ever such limited vintages, so little raw material, as at present, she would, at least, retain the glory of having inimitable *grands vins* and the merit of civilising, training, perfecting common foreign wines, and rendering these worthy of being selected and preferred by the most refined nations.

III.

Remarks upon the "Notes d'un Vigneron Australien," of Hubert de Castella, Esq., of Melbourne.

Charming conversation of an intelligent, amiable, and reflecting gentleman who, after having been accidentally brought to extensively cultivate the vine, with the data and teachings of its elders, has had to correct many errors, and must have found by his own remarks and by his personal sagacity the way to do better, and to reach success upon his vineyard of "*St. Hubert*."

I regret deeply not to have, notwithstanding my repeated applications, obtained at the *Bordeaux* Exhibition more opportunities to taste the wines of Mr. Castella. A few bottles, the contents of which were all somewhat damaged have hardly allowed me, not to state but rather guess the value of these wines, which, even in spite of their alteration, were showing the intelligence of the vinegrower.

I have been really stupefied, when reading in the pamphlet of Mr. de Castella the quotation of the most pernicious advices of Dr. Guyot, one of the most intelligent amongst practical men, but who, practising in the cold regions of *Champagne*, had never thought of the dangers of his advices for the warm latitudes of *Australia*.

It is not surprising that Mr. de Castella has had to put through the alambic, every year, quantities of wine which, instead of enduring the work of fermentation in the vats, was put in casks when yet hot, disturbed, and still dirty with seeds and skins.

Mr. de Castella has had to read the book of Mr. Chaverondier, and to follow his remarks, to understand how much it affects the value of wine, to be left to a long and slow insensible fermentation, to acquire strong qualities, softness, and bouquet, constituting what may be termed the intellectual value, the *soul* of a wine.

Once convinced of this truth, he has looked for the means to apply it. Mr. de Castella has not yet fully understood that it is absolutely indispensable to wait for the red wines, a complete work of fermentation visible in the vats, before putting the wine into the casks, where is to continue a long, calm, and unfelt fermentation; but he has nearly divined it, and with respect to the white wines, he has seen that the best way to success, consists in leaving them quietly to ferment, without touching them, in casks of 20 to 50 hectolitres.

As soon as the bringing of a match near the bung-hole (one month at the most, after the wine is in casks) permit to ascertain whether there is still or not an escape of carbonic acid, it is known whether there is or not any necessity to attend to the wines, either to fill up the casks, or to do anything else, such as racking for instance. This last operation is not mentioned, and yet I believe it should be, for once the sediment, after fermentation, has settled, a white wine ought to benefit by being freed from its dregs, and placed in casks in order there to continue its intimate chemical modifications.

Mr. de Castella explains very well in his pamphlet, by his practice, the advantage there is for the white wines, to submit without any delay the grapes to the *fouillage* and subsequent operations, in the same way as for the red wines. The hot climate of *Australia* renders necessary, if delicate wines are required, a very quick gathering of the grapes, a complete *cuvaison* in vats covered with canvas or boards to reduce the too great action of the air.

I regret that the *Black Pineau* is not properly appreciated by the *Australian* winegrowers; if its wines are not always good, it must be the consequence of wrong proceedings of vinification, for the *true Pineau*, being equal to the *Cabernets* of the *Médoc*, as I fancy having read it in the *Ampelography* of the Comte Odart, give excellent wines, unless, through some mistake, the Colonial growers give that name to the white and red *Camai* of the *Orléanais*, called, in the South-west of *France*, by the names of *Folle Blanche* and *Folle Rouge*: and which, of a prolific abundance in all the damp soils, produce in great quantity wines which are always common.

As to the *Cabernet*, *petit* and *Cabernet Sauvignon*, the only thing to do to obtain from these an abundant vintage is to plant them in appropriated ground. The *Cabernet Sauvignon*, with that respect, is more difficult than the *petit Cabernet*.

With

With respect to the *Chasselas*, much recommended by Mr. de Castella, they deserve that preference, as far as they are grapes with a neuter taste, and of a great and constant fertility, but it is important to add with them certain species giving more perfumed and more generous wines! such as the *Sauvignon*, the *Sémillon*, of the Gironde, and certain *muscats*, of an earlier maturity.

With respect to these last grapes I have had opportunities to ascertain a fact which, to my knowledge, is not mentioned in any book upon viticulture; it is the influence of the *muscat bloom or flowers* to fecund the blooming grapes of other species in vicinity, thus causing a considerable amelioration.

Since a number of years I have observed, in a small town garden, the difference of taste of the *chasselas* growing close to several plants of *muscat*. The bees, when collecting the pollen of the flowers, can only modify their fecundity, and cause noticeable changes in the quality of the grapes. In that light I feel certain that there would be great profit to distribute here and there, in all the vineyards, amongst numerous other species, more or less common, some well selected and first-class grapes, to contribute towards the fecundity of the first. It is an idea which I believe to be new, and which deserves, therefore, to be submitted to experimentation by intelligent and sagacious men such as the "Vigneron Australien."

Believe me, etc.,
Docteur MERAN,
BORDEAUX.

Notice upon the Viticulture, the Vinification, and the Australian Wines of New South Wales, addressed by Mons. E. Roulle, member of the Wholesale Wine Trade Syndicate of the district of Gironde, wine merchant of Bordeaux, to H. E. Bonnard, Esq., Executive Secretary for the Colony at the Bordeaux Exhibition of 1882.

Vine Culture.

The Australian Vine-growing is yet old-fashioned, and I cannot too much recommend to the Colonial wine-growers to study and follow the *Bordelaise* vine-culture which they will find in the special books compiled with great competence upon the matter; and of which their able delegate at Bordeaux has made a judicious collection.

I will only make a few remarks upon the choice of the vine-species and of the soil, with reference to the creation of a vineyard.

Vine Species.

The species of *Verdot* and *Hermitage* seem the only one, at least generally speaking, which have produced any good results in the Colony for the Red Wines; but it is probable that a blending of these two *Cépages* would produce much better qualities. Thus two-thirds of *Verdot*, and one-third *Hermitage*, would, I believe, give a table-wine cool and pleasant, when gathering the grapes before a too much advanced maturity.

In the reverse proportions two-thirds of *Hermitage*, one-third of *Verdot*, with a more advanced maturity, should result in alcoholic wines of the same kind as *Hermitage* and *Port*.

The *Cabernet*, *Malbec*, *Pineau*, which give so good results in France, do not seem to succeed well in the Colony; nevertheless, I feel certain that a blending of *Cabernet* with *Verdot* and *Hermitage* would have a good effect.

With respect to white wines, the *Verdeilho*, the *Riesling*, *Shiraz*, have given the most successful dry wines. The species of *Madeira* generally result in wines having no similarity whatever with the true *Madeira* wine; they are sometimes dry, sometimes sweet, sometimes liquorous, although at the same time tolerably good and pleasant.

The cultivation in your country of the *Sémillon* and *Sauvignon* might possibly produce good white wines of the same character as the *Sauterne*, at least as liquor, if not as *sève* and *finesse*, which the land of the Sauternais alone can give.

Soil.

The selection of the soil is certainly the most important question for the creation of a vineyard; for the soil is the principal cause of this earthiness in the wines, rendering some of them pleasant, and some other objectionable.

In a new land like Australia the selection of grounds is a study to be made, but, in principle, to avoid an earthy taste being too much felt or objectionable, the ground must be chosen siliceous and gravel, with a substrata of sand, with stones, or, what would be better, *alios*, but great care must be taken to avoid the argillous undergrounds which always cause a wine to be without delicacy and to have a very strong earthiness.

Wine making.

The fabrication of the wine leaves also much room for improvement, and yet it is one of the most essential conditions to produce a sound wine, likely to remain good.

I would refer the Colonial wine-makers to the books of Messrs. Boireau, d'Armailhacq, etc., and I will simply mention summarily here various stages of the manutention of the wines.

Red Wines.

The grapes brought from the Vineyard should be placed upon a cuvier, foot pressed, and the juice then carried into large vats. The Australian wines being generally thick and possessing very little *tan*, the stalking to the extent of the two-thirds only would certainly give them more *tan*, and consequently more firmness and keeping qualities.

The *must* should be allowed to ferment in the vats from eight to fifteen days. Under the climate of Australia eight days might prove sufficient, but I should add that this space of time depends entirely first, from the temperature; then, from the state of maturity of the grapes; and finally upon the more or less coloured wine which may be desired. The tasting of the *must* is the best guide in all such cases.

The wine should then be distributed in casks. This lodging of the wines should take place in new oak casks, to secure a good wine, for the *tan* of the wood communicates itself to the wine, thus increasing its principles of conservation.

During the two first months, the bungs should be lightly placed in their holes, and the casks be filled up every third or fourth day. At the end of five months (and sometimes three months only, if the temperature or the wine render it necessary) the first racking should take place, in order to remove the thick dregs; and every third month subsequently, even oftener, during twelve months; if the wine appear to start fermenting again, new rackings should take place, taking good care to burn sulphur in the casks before filling up. At the end of the first year, if the wine is full, strong-bodied, and generous, an energetic fining often becomes useful, to free the wines from their elements mostly liable to ferment again.

During the following years, if the cellar is cool, two rackings, one at each equinox, ought to be enough, unless secondary fermentations should take place in the interval.

White Wines.

The manutention of white wines is entirely different from that of the red wines.

To obtain the soft and liquorous wines of the *Sauternais* the grapes are not gathered before they are dried upon root, and almost *comfit*; after the gathering has been foot pressed upon the cuvier it is then passed under the *pressoir*.

The wine is then immediately placed in casks which are not closed, but simply covered upon the bung-hole with a piece of canvas, so as to allow the impurities produced by the fermentation to escape from the casks; these casks are also to be filled up every third or fourth day, but only after the first fermentation, and the throwing up are completed.

For the white dry wines of the more common vineyards the grapes are gathered when ripe, without waiting for them to be dessicated.

The first racking should take place from two to four months after the making, and the others as for those of the red wines or oftener if there is any sign of the wines starting a secondary fermentation, taking care to burn a sulphured wick of 3 or 4 metres long each time in each cask before filling it up.

The Australian Wines.

The Australian wines, generally, have a fine colour, much spirit, and are full-bodied. I feel convinced that, with a better method of first fabrication, they would keep well, and should be able to support long journeys. Further, the numerous awards which they have obtained at the Bordeaux Exhibition have placed them, on the whole, at the head of the light and soft foreign wines.

Their greatest defect is their earthiness, less or more exotic, and which is not likely to suit the consumers used to the delicate wines of Bordeaux and Burgundy. The cold climates of the north of Europe will, however, ultimately get certainly used to these soft although alcoholic wines.

As blending wines I believe it will be difficult to succeed producing types able to rivalise for cheapness with those of Spain, Italy, Portugal, and Algeria, and I cannot encourage the Australian wine-growers to go in for these sorts. The good wines for table requirements appear to me to be those more likely to meet with success, and those mostly to give best pecuniary returns for the Colonial trade.

I must add that, on the whole, I have found the white wines from New South Wales somewhat more successfully made than the generality of the red wines.

Lodging of the Wines.

I strongly recommend the Colonial wine-growers adopting immediately and definitively a uniform kind of casks to lodge their wines. The *barrique bordelaise* of 225 litres, or about 50 gallons, seems to me the best system, the most favourable for the keeping of the wines in good condition, also the easiest to manage for travelling or handling.

The same should be said of the bottling. I advise them to adopt the English bottle of 75 centilitres, equal to six bottles per gallon, or the *bordeaux*, dark brown glass for red wines, and clear green glass for the white wines.

ON COMMERCIAL RELATIONS BETWEEN FRANCE AND AUSTRALIA.

THE commercial relations of France with Australia are far from being important, they being almost monopolised by the United Kingdom. It is certainly to be regretted, in the interest of both countries, who might save the heavy commissions paid to the English middle trade, who act as intermediate agents between us.

But to reach that result Australia should take a truly free-trade policy, from which it is now very distant. Thus its Customs duties upon the foreign wines are the heaviest in the world, and are nothing short of prohibitive. Yet it is nearly the only produce which might allow the French shipowners to charter their ships for Australia, especially for the maritime trade of Bordeaux; but to charter ships, freight is required, and it must be admitted that the shipment to Australia of delicate and sound Bordeaux wines cannot much increase as long as the Colonies inflict such exorbitant Customs duties. Australia would have every interest to remove these.

For instance, reducing the duty upon our wines in wood to £2 per hectolitre of 22 gallons, our export there would certainly double in a very short time, and compensate fully the lowering of the tariff. As to our superior wines in bottles I do not ask for the present to alter the present duties.

By these changes not only the Government would not find a deficit in its returns but it would not be doing any harm to the Colonial vine-culture. The frequency of our direct communications would by degrees bring to us a better knowledge of the Australian wines, and these, as they improve both in cultivation and manutention, would become introduced through us to the Northern peoples, whilst our own wines, cooler, lighter, and more pleasant under the climate of Australia, would become of much easier access to every class of the population.

Thus again, notwithstanding our higher prices, we are in a position to deliver good wines from the Bordelais at prices ranging from 80 to 90 francs per hectolitre; with 50 francs of Customs duties they would cost, delivered in Sydney, about £6, or 150 francs per 22 gallons. Such a price is much more accessible already; and in a country really democratic it seems a desideratum of social economy to render easy to all the citizens, amongst other benefits, the use of the hygiene and benefiting wines from the Bordeaux districts.

At the same time as it would greatly facilitate direct intercourse, the great interest of Australia would be especially served by the exportation of its wools to France, for the Australian graziers would again save the heavy charges made by their agents of London and Liverpool.

A further consideration, which the Colonial Governments should not lose sight of, is, that in consequence of their prohibitive duties upon our produce, a number of French merchants have already urged the Government of the Republic to raise the duty upon Australian wool coming into France. Therefore I would say, in conclusion, let Australia reduce its Customs duties, and its connection with France will get at once a considerable extension, full of compensation for all the Colonies, and most advantageous in every respect to the mutual interest of both nations.

E. ROULLÉ,
Négociant en vins, Bordeaux.

The Foreign Wines at the Vinicole Exhibition at Bordeaux.

(Ex La Vigne Française, Paris, October 31st, 1882.)

THE General Exhibition of Bordeaux, organised by the *Société Philomathique* of that city has had the full success which it deserved; but the greatest attraction of that industrial exhibition has been the exhibitions of wines, the most universal of known Exhibitions, since 1,800 exhibitors had answered from all the corners of the world to the call of the Bordeaux Société. The United States alone kept away, unwilling, no doubt, to expose the foxed and somewhat strangely tasted produces of their young viticulture to the railery and jokes of an international jury.

These American wines would have inspired such a repulsion to European palates that the discredit following them might have damaged the sale of American wines in a district where their introduction on a large scale is now being attempted.

The vine-growers of the Gironde would have never allowed themselves to be convinced that the graft-bearer would not communicate a few particles of its foxed sap to the fine vine species whose delicate aroma constitutes all the merit.

It has therefore been deemed prudent on both sides of the Atlantic to keep away from the Bordeaux Exhibition the vines and wines from America; nevertheless it has been a thorough universal Exhibition owing to the presence in its elegant pavilion of the best growths from the wine producing countries of the whole world.

Thirty-three French Districts were represented: Champagne, Burgundy, liquorous southern wines, wines from the Garonne, from the Loire, Moselle, Jura, Saintonge, Dauphiné, Provence, Savoie, Béarn; all the best growths appeared in their own sections, some of which being marvels of taste and elegance. Corsica also had come, and 33 exhibitors from Algeria had seized this opportunity to bring forward the wines obtained from their young and admirably fertile vines.

Further, the wines of Portugal, of Spain, Italy, Austria-Hungary, Greece, Turkey, Russia, Switzerland, Germany, Chile, and Australia made themselves very conspicuous.

The red and white wines included 1,662 exhibitors, the liquorous wines 104, and the sparkling wines 35, being a total of 1,801 exhibitors of wines only. Each exhibitor had submitted an average of six samples, thus bringing the total amount to 11,000 samples to be adjudicated upon by the jury, whose report is not yet published.

Of all foreign wines, those from Australia have been amongst the most appreciated, as much on account of their fine taste as of their bouquet. They have some analogy with the wines from the Cape of Good Hope, but are rather less liquorous. Their alcoholic strength reaches generally that of the Spanish and Roussillon wines, and get even higher as they grow older. If the price of Australian wines was lower they could compete easily with several of our well classed growths of the Rhône and of Côte d'Or.

MONR. CH. BENOIT, Delegate of the Society of Viticulture of Rheims, and member of the International Jury at Bordeaux, has reported as follows to the Mayor and President of the Chamber of Commerce of Rheims upon Australian wines.

NEW SOUTH WALES WINES.

I will speak first of the Colony of New South Wales, whose delegate is Monr. Henry Bonnard, a native of our district. This magnificent exhibition, occupying about 50 square meters, secures the attention by a happy display very creditable to the organisateur.

Mr. H. Bonnard has submitted to the jury the wines of his exhibitors after a perfect classification of 246 samples, of which 196 had been sent in bottles and 50 in casks.

Of all the New South Wales exhibitors, Mr. Munro, owner of vineyards at Bebeah, in the Hunter Valley, has sent the most remarkable collection; he is certainly an able grower; all his wines have been very properly treated; not one sample was found faulty. The Bebeah vineyards have an extent of 26 hectares, planted since about 15 years, in a dark, sandy, alluvial soil, partly in a plain, partly on a hill.

The species cultivated, producing yearly some 1,600 hectolitres of wine, are the *Red Hermitage*, *Pineau*, *Verdot*, *Malbec*, *Lambrusca*, *White Hermitage*, *Schiraz*, *Riesling*, *Muscat*, *Pedro-Ximenes*, &c. The most successful wine however, was an *Hermitage* of 1880, splendidly constituted, soft and delicate, although full bodied. It is valued at 137 fr. 50 per hectolitre, but here is the succinct result of my observations upon the whole of the New South Wales exhibits :

- Vintage of 1881.—*Hermitage*, very good wine. *Verdot*, fuller, but somewhat woody. *Burgundy*, very alcoholic, straight enough, although tasting as if heated.
- Vintage of 1880.—*Hermitage*, from Mr. Munro; it is one of the four samples which obtained the best mark. *Hermitage* from Mr. Brecht, Denman. *Ex quo* to Mr. Munro, although having a lesser French character. *Pineau*, bad wine. *Malbec*, very good wine from Mr. Munro again.
- Vintage of 1879.—The *Hermitage* and other wines from French species, are slightly damaged, and lead to the opinion that these Australian wines do not retain their good qualities for any length of time. The wines from other species of grapes seem better kept, and on the whole obtained good marks.
- Vintage of 1878.—*Hermitage*.—With the exception of that of Mr. Munro, all others are of very low description. *Schiraz*, Persian species, gives a sweet wine, with a peculiar bouquet, entirely different from French wines. *Malbec*, bad wines. *Cabernet*, pleasant, well kept wine. *Burgundy*, tolerably good. *Muscat*, good wine, perfumed soft, and well constituted. *Isabella*, American species; liquor wine, very inferior, almost bad, and similar to the Port wine, with a very disagreeable taste of pine-apple or strawberry.
- Vintage of 1877.—*Pineau*, damaged wines. *Verdot*, sweet, well kept. All other wines from French species were unsatisfactory; those from American, Portuguese, or other origin, appeared to have kept better and obtained tolerably good notes.
- Vintage of 1876.—*Hermitage*, tolerably well kept; rather good average. *Schiraz*, all unfit for classification.
- Vintage of 1875.—*Hermitage*, very well kept; good mark; all others damaged.
- „ 1874.—Passable wines.
- „ 1873.—All samples are bad.
- „ 1872.—*Malbec* samples, damaged.
- „ 1869.—*Cabernet*, tolerably good.
- „ 1868.—*Cabernet*, damaged.
Moscatel, liquor wine, good.
Lachryme Christi „
Hermitage „

The average of the marks for the red wines from New South Wales, attained the note tolerably good, whilst that for the white wines did not reach above passable.

Comparatively, the white wines were very inferior to the red; the species *Pineau* does not succeed at all; the best kind of grapes is the *Riesling* from the Rhine, which alone secured some good marks.

From my observations, it would seem as if the *Hermitage* grapes were the most successful in New South Wales, and as if Australian wines could not last; as they become old, they take a taste of *wood* or *Rancio*, and lose more and more any similarity with the type of French wines.

Nevertheless, I must say that there are elements for the making of good wines; experience and the constant cares required by wines are yet unknown to Australian growers; one of them only has shown a few well-defined samples as to quality, and whatever our dear friend Mr. Henry Bonnard may say, the Australian wines are not yet such as to compete with French wines; their value is excessive, and before the growers are able to produce enough to appear on our markets, either in quantity or as to price, our own French vineyards will have been reconstituted.

VICTORIAN WINES.

After referring in very flattering terms to the attentions paid by Mr. Alfonso Faber, delegate of Victoria, Mr. Ch. Benoit says :—

Mr. Alfonso Faber has submitted to the jury 260 samples from thirty-one various species, besides 24 casks of wine from the vintage of March, 1882, which left Melbourne on the 28th July, and reached Bordeaux on the 14th September, 1882.

The *Red Wines* of 1882 were very successful, especially those from *Hermitage* and *Cabernet* and *Sauvignon*; the the *Pineau-Menuier* were not as good.

As to the white wines of 1882 they were of inferior quality; the *Hermitage* and *Verdelho* were passable wines, but the *Chassees* were very common.

The old wines from 1869 to 1880 were somewhat uniform, in spite of the diversity in the geological formation of the vineyards; the wines made of *Hermitage* obtained again the best notes; next were the *Cabernet Sauvignon*, and *Schiraz*, which had characters far better established than those of New South Wales.

As to the white wines, a *Riesling*, or kind of *Sherry*, 1858, was much appreciated; another *Riesling* of 1875 was also much remarked, and had much analogy with Rhinish wines; all other samples were unsatisfactory.

Four samples of *Sparkling* wines completed the collection; they were badly presented; their work had been very imperfect, and they originated from *Pineau* and *Chasselas* grapes; they had a peculiarly disagreeable taste, somewhat foxed, and the jury thought nothing of them.

SOUTH AUSTRALIAN WINES.

Mons. Emile Dubois, Mayor of Cognac, near Bordeaux, and who had resided many years in Adelaide, acted on behalf of the South Australian exhibitors, and was complimented by the jury for the perfect order adopted by him in the classification of his exhibits. He submitted eighty-one samples, reported upon as follows :—

Red wines, full bodied, resembling those of Spain and from Roussillon, weighing 18° to 20° of alcohol; a few of them were sweet, and rather somewhat pricked; others had a very wild type.

Red wines, light.—This collection offered yellowish wines, somewhat salt.

Liquorous Sweet Red Wines.—The wines from the Auldana vineyard had a very strong taste of raspberry, and the whole was unfavourably judged.

White wines, full bodied.—A good mark was given to a kind of *Sherry*, half sweet, of 1878; other samples are found to possess muddy, caramel and scented tastes, besides being common and wild.

White wines, light.—A good mark was secured by a sample composed of four species—*Verdelho*, *Riesling*, *Tokay*, and *Muscat*. That collection made a better impression than the others; the species of *Riesling* giving a wine very similar to those from the Rhine, and well thought of.

Sweet or Liquorous White wines.—Very good marks were secured by two samples out of five; one was soft, full-bodied, with a light taste of heated wine, from the vintage of 1879; the other, from 1877, was a very delicate *Muscatel*. As to the three others, they were very much like sweet *Port* wine.

On the whole, and with the exception of the sweet white wines, the wines from South Australia were considered as inferior to those of the other Australian Colonies.

CHARLES BENOIT, fils, *Champagne* Wine-grower and Merchant, Delegate of the City of Rheims, and Member of the Bordeaux Wine Jury, 1882.

COLONY OF NEW SOUTH WALES, AUSTRALIA.

Private Report from the Executive Secretary for the Colony of N. S. Wales, upon the Colonial wines exhibited at the International, Intercolonial, and General Export Exhibition of Amsterdam, 1883.

THE Executive Secretary for the Colony of N. S. Wales at the Amsterdam Exhibition of 1883 has the honor to report as follows upon the N. S. Wales wines exhibited on that occasion :—

Only twenty-six vine-growers of the Colony have exhibited, and these sent 170 samples of wines, red and white, being the results of vintages from 1875 to 1882; these wines reached the Exhibition, for the most part, in good external conditions, and were often tasted and judged by competent visitors at the Exhibition. Six samples only were exhibited in wood, and these in casks which must, from previous uses, have affected the contents, as three of these wines were found somewhat damaged when first open; the other samples were all shipped in bottles, a small proportion of these being however found missing or broken, when delivered at Amsterdam.

The Jury appointed to appreciate these wines was composed of seven members, four of whom were in constant attendance, and began its work in the early part of August, the wines being divided into red and white, and those of the same species and vintages were judged together and separately from the others.

M. E. Roullé, wine merchant of Bordeaux, and member of the Jury, acted also as reporter and expressed himself as follows with respect to Australian wines :—

The two Australian Colonies of N. S. Wales, represented by twenty-six exhibitors with 170 samples, and Victoria, represented by fifty-six exhibitors with 280 samples, have submitted to us a collection as numerous as interesting of the produces of their vineyards; with three or four exceptions only, their samples were found in excellent conditions for tasting, thanks to the intelligent care given to these by the executive delegates of both Colonies. It is then with satisfaction that we have been able to recognize, through the success of its best wine-growers, that Australia, if ameliorating its soil yet virgin by an appropriated cultivation, if combining a wise mixture of its best vine-species, and if perfecting its present ways of wine making, must ultimately produce most excellent wines for constant use.

After a complete and strict tasting of all the exhibited wines these are the awards which we propose to grant, following the order of qualities and merit for each exhibitor, with reference to the exhibits from the Colony of New South Wales.

List of awards to N. S. Wales wines, exhibited at Amsterdam, 1883.

Diploma of honor to Mr.

- 1. John Wyndham, Esq., of Dalwood, for collection of red wines, Hermitage and Verdot, which are the most neuter and the finest of both Colonies (N. S. Wales and Victoria).

Gold medals to Messrs.

- 1. Alex. Munro, for the good vinification of most of his red wines.
- 2. T. Fallon, for his red wine of 1882; sample exhibited in wood at the Bordeaux Exhibition of last year.
- 3. Holmes, for his red wine of 1881, very good type of Malaga.
- 4. Bouffier-Arnoul, for their Verdot, 1882, and their white Pineau, 1878.

Silver medals to Messrs.

- 1. A. E. Davies, for his Red wine, 1881, same exhibited at the Bordeaux Exhibition, 1882.
- 2. Geo. Francis, for Isabella wine, 1880.
- 3. Carl Brecht, for Hermitage, 1879.
- 4. F. Doyle, for Red wine, 1879.
- 5. Harbottle Bidulph-Alsop, for Muscat wine, 1881.
- 6. Lindeman, for White wine, 1876.

Bronze medals to Messrs.

- 1. Mather, for Verdeilho, 1880.
- 2. Stephen & Co., for White wine, 1881.
- 3. Carmichael, for White wine, 1880.
- 4. Flemming, for Red wine, 1879.
- 5. Parnell, for White wine, 1880.
- 6. Wilkinson, for White wine, 1876.

Honorable mentions to Messrs.

- 1. Th. Cooper, for Burgundy wine, 1879.
- 2. J. Drinan, for White wine, 1881.
- 3. D. Jack, for Red wine, 1882.
- 4. A. Murray, for Madeira wine, 1882.
- 5. Campbell, for Red and white wines.

From the above report and that of the awards, it may be seen that the opinion of the Amsterdam Jury was almost the same as that of the Bordeaux Jury, at the Exhibition of the previous year; it is however to be regretted that the report of that Bordeaux Exhibition has not yet reached us, as it would have facilitated considerably the comparisons between wines at both Exhibitions, and also coming to a more precise conclusion on the merits of Colonial wines generally.

Be it as it may, the N. S. Wales vine-growers need not in any way have any hesitation or doubt concerning the near prosperous future reserved to their vineyards and to their wines, and they may rest assured that as soon as they produce large quantities of any given particular quality or sort of wine they will find a ready sale for it on all the European markets at the same rate as is paid for the average of some of the best European wines.

I append herewith a brief report upon each sample exhibited at Amsterdam by the Colony for the private information of every exhibitor especially interested in the results thus obtained. It must however be explained here that the classification made by the Jury or other *Connaisscurs* was expressed in the following manner :—

| | | | | |
|---|---|---|---|---------------------------|
| Exhibits of superior quality were classified as superior. | | | | |
| Exhibits obtaining 5 marks were classified as very good. | | | | |
| " | " | 4 | " | good. |
| " | " | 3 | " | passable. |
| " | " | 2 | " | inferior. |
| " | " | 1 | " | bad. |
| " | " | 0 | " | unfit for classification. |

H. BONNARD.

AMSTERDAM

* See further official report on Colonial Wines exhibited at Amsterdam, in report to the Hon. the Colonial Secretary, upon the Amsterdam Exhibition of 1883.

AMSTERDAM INTERNATIONAL EXHIBITION OF 1883.

REPORT UPON NEW SOUTH WALES WINES.

THE most successfully made wines of Mr. J. Wyndham are certainly the finest of Australia, and those most adapted to the requirements of European consumers. He should, however, give the utmost attention to the first phases of the making of his wines, for his vineyard appears to be most favourably situated and otherwise qualified to give superior results.

It is unfortunately not so with most of the other vineyards, the soil of which seems very defective. To remedy that defect I would recommend the wine-growers to plough deeply their ground and underground, to bring sand into it so as to divide and transform the argillaceous substrata, which are the principal cause of these earthy tastes, so strong in some wines as to render them almost unpalatable.

Further, instead of making wine with only one species of grapes it is equally indispensable for obtaining a good wine likely to keep and improve, to mix at least from two to four species properly selected and such as will thoroughly combine together.

With such a mixture of species it is further necessary to be careful of a proper vinification by collecting the grapes at the proper time, neither green neither too ripe, both defects being equally as bad one as the other with respect to the quality and conservation of the red wines more especially.

These improvements should not be despised, for if the wines, either red or white, become suddenly acid and bitter, it is due mostly to an improper blending and imperfect vintage and a want of proper care under a climate which requires more constant attention than any other.

As a conclusion I would advise the wine-growers thinking of starting new vineyards to choose first a ground with pebbly or sandy substratum, which will give much finer wines than argillaceous soil; then they should select at least three species of vines amongst those which succeed best in their districts. By adhering to these recommendations Australia will certainly obtain, in a very short time, far superior results to those it has had until this day.

E. ROULLE,

Wine Merchant of Bordeaux,

Member and Reporter to the Wine Jury at the Amsterdam Exhibition, 1883.

NEW SOUTH WALES GOVERNMENT.

Department of the Agent-General in London, 5, Westminster Chambers, Victoria-street, S.W.

20 December, 1883.

To Her Britannic Majesty's Consuls in France, Spain, and Portugal,—

Sir,

I have the honor to inform you that the bearer, Mr. Henry Bonnard, the Executive Secretary for New South Wales at the Bordeaux Wine Exhibition, has received instructions from me to visit certain vineyards of France, Spain, and Portugal, for the purpose of collecting information for the Government of New South Wales relating to the culture of vines in those countries, and as he undertakes this mission on behalf of the Colonial Government, I have the honor to state that I should feel greatly obliged and my Government would much appreciate any assistance that Her Britannic Majesty's Consuls can afford to Mr. Bonnard so that his movements may as far as possible be facilitated in the work he has to do.

I have, &c.,

SAUL SAMUEL,

Agent-General for New South Wales.

INSTITUTE OF FRANCE—ACADEMY OF SCIENCES.

COMMISSION OF THE PHYLLOXERA.

Members:—

Messrs. Dumas, President; Milne, Edwards, Duchartre, Blanchard, Pasteur, Thenard, H. Mangon, Bouley (reporter.)

Report upon steps to be adopted to check the extension of the ravages of the *Phylloxera*.

Since the *Phylloxera* has invaded France and whilst it extended its ravages, the searches upon the habits of this insect were manifold. We are now in possession of positive notions which permit to establish upon a solid basis, processes such as will check the progress of that scourge.

The Commission of the *Phylloxera*, in accordance with the principles assented to by the Academy of Sciences in its sitting of the 5th March last, has endeavoured to point in this report by which legislative means, and by which regulations, a barrier could be erected against its invading march and even compel it to retreat.

It is not in the attributions of the Academy to prepare legislative enactments; the Commission of the *Phylloxera* does not consider itself either called to fulfil such a mission. Nevertheless, to fix the ideas and to answer to the just anxieties of the countries yet intact, this Commission felt bound to formulate the (*ensemble*) whole of the measures which were judged to be necessary. It is a mere text which after having agreed upon with the most competent persons it proposes as a basis of discussion to the public bodies and to the Vigilance Committees of the various countries interested in the preservation of vineyards.

Whilst submitting this project to their knowledge, the Commission however wishes to be free from all responsibility. Its members are aware of the difficulties they have to meet; but, in the interest of the country, they cannot keep back whatever they deem to be the truth.

The Commission has never despaired of the French vines. The members have believed, from the first appearance of the *Phylloxera*, that the wine-growers were in presence of an imported evil whose action was to be circumscribed and the extension to be counteracted. What they did suppose then has been since confirmed by the facts. (For the deplorable consequences of the *Phylloxera* invasion the hand of man and the insufficiency of the laws are more deserving blame than nature itself.) If there is any desire to prevent the evil reaching much greater developments again, people must defend themselves, at the same time against imprudent interventions and against inertia.

The Commission being convinced that it was its duty at any cost to devote itself to the preservation of the French vines, has never hesitated to look upon the introduction of American vines as a danger for the whole of the French vineyards. The measures which it proposes now are intended to protect our old vinicole wealth, and particularly to preserve public fortune, and private interest from the destruction with which it is threatened by the expansion of the American vines, permanent nests of *Phylloxeras*.

That these measures be well understood it is necessary to expose their scientific causes to show that they are justified by the conditions of life of development and of propagation of the *Phylloxera*; further, to precise the circumstances to which they apply.

The *Phylloxera* presents itself under three forms: (1.) in the radicant state; (2.) in the winged state; (3.) in the winter egg stage.

Under the first form its existence is subterraneous.

It multiplies itself and swarms on the spot with a very great activity; but its movement of underground migration goes on somewhat slowly. It is limited indeed to a radius of a few yards only per year. It may then be said that for the nine months of its life in that state the *Phylloxera* is not much invading. Its colonies remain located in a space somewhat limited round the spot from which they originate.

2. In the winged state, the *Phylloxera* may be carried far from its birth-place, and go to procreate another hive at some distance. But experience teaches that its migrations under that form do not proceed further than 30 or 40 miles (15 to 20 kilometers) during the three months of its winged existence. There are no instances properly proved of any quicker march or of a normal transportation further away.

3. It is in the winter's egg left on the vine-stocks by the winged *Phylloxera* that exists as a germ, the future radican insect by the acts of which the ravages of the insect constantly reach new grounds; but the produces of the winter egg develop themselves on the spot; at first on the leaves, then on the roots; they are never carried away.

Thus do progress the *Phylloxera* when it goes through what may be termed its normal migrations.

From the knowledge of these facts we are authorized to conclude that the appearance of the *Phylloxera* at 30, 40, or 50 kilometers, and therefore further away again from any country it has already invaded, must be attributed to the act of man. It travels under the conditions of transport peculiar to it are never so fast in any one single bound.

In fact a serious inquiry has proved that it was always through *phylloxerated* vines carried by man over long distances that any *phylloxeric* invasions of regions so far free from it had taken place.

To protect against the *Phylloxera* the countries which it has not yet invaded, and situate far away from its actual seats, it is therefore necessary—

(1.) To exercise upon the commercial transport of vines, a most active watch submitting it to rigorous precautions to prevent the dangers of infection of which such transport may be the cause.

(2.) To prohibit the exportation of vine-stocks outside the territories already *phylloxerated*.

(3.) To prohibit within the territories not already *phylloxerated*, the importation and plantation of vine-stocks coming from the *phylloxerated* territories.

This interdiction of the plantation of vine-stocks with a dangerous origin within *non-phylloxerated* regions must be applied in a special and most strict manner to American vines, since it is beyond doubt that it is through them that the *Phylloxera* has been brought to France, and that it is also by their direct or indirect agency that the insect went to parts very distant from those where its extension was limited to its natural means of evolution.

Everything commands then to prohibit the importation in *non-phylloxerated* lands of these American species of vines, which by bearing within themselves the *Phylloxera*, propagate so unfortunately its natural power of expansion and of destruction already so much to be dreaded.

Whenever the invasion of the *Phylloxera* is observed to be starting within a country so far free from it, every attempt must be made to prevent its extension beyond its starting point.

The danger resides in these first subterranean hives, very limited, ascertained first on a few square yards, quite able to destroy the vine-stalks upon which they are fixed, but not likely to reach any great extent as long as they remain in their radican state.

The thorough destruction of these hives on the spot by a deep and lasting poisoning of the soil, with the help of very strong doses of insecticides, such as the sulphuret of carbon, the sulpho-carbonates, the coal oil, or such other means the efficacy of which should be proved; such is the remedy to apply.

But as the use of these insecticides in such an absolute manner may prove damageable to the conservation of the vines, the most simple step may prove to be the radical process of uprooting the vines, which allows, by rummaging thus deeply the ground to reach the insect in its most subterraneous retreats, and most effectively so by the help of any chemical insecticides, and lastly to destroy it by the most energetic means of all, viz., burning the very roots which support it.

The disinfection of the soil previous to the uprooting is a measure preventive of any expansion of the insect, while the ground is being turned over, and the disinfection after the uprooting, is a complementary measure which enhances the chances of success and efficacy of the means of destruction resorted to.

But it is not enough to destroy the radican hives wherever the external spots reveal their presence; it is yet required, within a certain perimeter round those spots, to provide against other underground nests quietly spreading while nothing yet reveals them.

People must further resort to energetic means to prevent the hatching of the winter egg, upon which depends the constant reproduction of the *Phylloxera*, by the renewal of its fecundity.

To fulfil the first of these indications, chemical insecticides must then be introduced in the ground in proportions which, whilst not hurting the vines, render it uninhabitable for the *Phylloxera*; to fulfil the second indication, attempts to destroy the winter egg should be made by either cultural or chemical means, such as the superficial decortication, the whitewashing with some insecticide composition, the scalding of the stocks, &c.

The results secured by experiments already made in various regions, justify the assertion that people can now fight against the *Phylloxera*, and that by starting in time it may be checked in the grounds which it is invading, and driven away from those in the vicinity and not yet infected.

If such notions were spread and properly understood, it is likely as has been the case in the district of Geneva, that the scourge would be soon put a stop to, for then instead of despairing of a vineyard on the first appearance of the *Phylloxera* every effort should be made to prevent its extension, by limiting its first nests, and especially by applying to the vine-stalks to the greatest practicable extent the preventive treatment, which, by destroying the winter eggs, preserves from the coming of new subterraneous colonies round those already formed.

There is much to be expected in all countries yet safe, or only threatened, from these sanitary precautions made compulsory by law; but to secure their full effect all the interested parties must work and pull together, giving their best and most active co-operation to the authorities entrusted with the carrying out of the law. The vigilance committees should then, by short instructions and lectures, teach to the wine-growing populations the customs of the insect and the means actually known to prevent its ravages or stop its extension.

If it is possible to preserve from the *Phylloxera* the countries yet free from it, and to drive it away from those it is beginning to invade, it is not impossible to reconquer the territories which it actually occupies. But there the law can be of no effect. The uprooting could not be resorted to compulsorily to large surfaces. Such a measure is justified only within very circumscribed limits, and at the origin of the invasion, when after having been detected through external spots by the state of the roots, or any other and accidental means, such invasion is definitively confirmed by the insect itself being actually seen.

In all countries greatly and since a long time invaded, people are led to clear and stump out the vineyards where all the vine-stalks have died from the bites of the insect. The uprooting being then the result of events, the ground should be disinfected so much more energetically that there can be no longer any fear of damaging the vines.

With respect to the vines yet living, the uprooting is at the least useless in the actual state of these very countries; it should not be resorted to until after the decay is well proved of the vine-stocks and of their largest roots. As to the others they should be treated with insecticides, which, being applied to the ground and to the vines, may prevent a new extension of the insect, and restore to life again the apparently destroyed vegetation.

Finally, if it is decided to reconstitute the vineyards, it will be well, by the gradually increasing use from year to year of the sulpho-carbonate of potassium, to destroy the *Phylloxeras* which should be detected, and thus form round the roots of the young vines a healthy and fecundated centre wherein it might reach again a vigorous life.

Thanks to these means, if the *Phylloxera* is not altogether done away with, the wine-growing industry might at least accommodate itself to its limited existence, as has been done with the *pyralis* and the *oidium*; provided, however, that a constant watch will be kept, and that the enemy will be met with a resistance equal to the energy and to the continuance of its attacks.

Measures to be taken against the *Phylloxera* in countries not yet invaded, or where the invasion is just starting.

1. Legislative Measures.

1. The exportation of vine-stocks from *phylloxerated* territories should be absolutely prohibited.
2. In countries not yet invaded it should be absolutely prohibited to import and plant vines coming from *phylloxerated* territories.
3. Every owner of vineyards situate within a *non-phylloxerated* municipality should be bound to report to the Mayor of its residence the certain or supposed existence of the *Phylloxera* as soon as the first symptoms of such should be detected.

From the time of such report the vine-grower making it should not be left at liberty to remove from his suspected or invaded vineyard any vine-stock, vine branches, leaves, roots, cuttings, stakes, or manure.

4. The necessary steps to stop the propagation of the *Phylloxera* in the vineyards where it is penetrating, and to prevent its expansion beyond them, should be declared of public necessity.

5. The ministers of agriculture and trade should be entrusted with their execution. A decree of public administration should regulate the method according to which these steps should be adopted with reference to local circumstances.

6. Whenever these measures should necessitate the destruction of vines an indemnity should be allowed to their owners.

Such indemnity could be calculated on the average production of the previous ten years. It should be equivalent at least to the clear revenue of two years calculated upon that average for those portions of vineyards stated by experts as being diseased, and equal to the revenue of three years for those portions destroyed by precaution. A special ministerial decree should fix the rules to be followed for the valuation of the vines whose owners should be entitled to any indemnity.

7. The State might contribute for the half to the expenses of carrying out the preventive measures and remedies within vineyards situated in any suspected *perimeter* limited by experts.

All expenses beyond such limits should be supported by owners.

2. Measures of public administration.

1. In the *non-phyloxerated* territories, but where symptoms of the *Phylloxera* should be reported, the localities said to be infected should be examined by agents appointed by the governor of the district, to which the Minister of Agriculture might, if necessary, add special delegates.

A detailed report, giving an account of their examination, should be sent to the minister within the shortest delay.

2. Should the Minister decide it necessary for stopping the propagation of *Phylloxera* in the vineyards where it should have first appeared, and for preventing its expansion in the territory, to resort, as measure of public utility, to the destruction of the infected vines, experts appointed by him should limit the extent of country within which the uprooting of vines should be proceeded with.

These experts should be guided for such delimitation—(1st), by the extent of the external spot revealing the vine-stocks whose roots should already be damaged by the insect; (2nd), by the results of successive examinations conducted upon the roots of neighbouring vines.

These experts should fix, accordingly, the extent of the perimeter within which the destruction of vines should take place.

3. Before carrying out the uprooting of vines the soil should be poisoned in the most efficacious known manner within the full extent of the said perimeter.

After such poisoning the vines should be uprooted and their roots, leaves, and stakes burned on the spot.

A further poisoning of the ground should then be made as above.

4. The poisoning of the soil should be also attended to as a preventive measure to the periphery of the cleared ground within a radius of 100 yards at least.

Within such zone all vine-stocks and their stakes should be disinfected for the purpose of reaching the winter eggs; these preventive measures should be especially carried out in the direction towards which the summer's prevailing winds might carry the winged *Phylloxeras*.

5. Within a zone said of *prévision*, measuring from 500 to 1,000 yards beyond the suspected ground, every wine-grower should be compelled to disinfect at his own cost the vine-stocks and stakes for the purpose of destroying the winter eggs.

6. The earth should be rolled over, or otherwise made compact within the whole cleared ground. No ploughing or tilling work should be allowed there for a season.

7. The replantation of vines on such grounds should be prohibited for two years. It could not be allowed again until after a visit of the examiners of vineyards.

8. Whenever the multiplicity of new spots appearing within a territory not infected until then would render any uprooting useless, the Minister could order the poisoning of the ground to be compulsory by such means as would be considered the most effective as well as all other measures intended for the *suspected* and *prévision* zones.

9. The returns of any vines for the destruction of which some indemnity should be claimed should be valued by appraisers appointed by the Prefect of the District by the owner of the vines, and, in case of conflict, by the District Court Judge. In any case the valuation made by such appraisers should be liable to revision by administrative commissioners.

DUMAS, President.

BOULEY, Reporter.

POST NOTE.—In order that the disinfection of the vine-trees and their stakes, with a view to prevent, by the destruction of the winter eggs, the formation of new subterranean hives, be as effective as possible, it should, according to Mr. Balbiani, be applied within 15 to 20 kilometers, since such is the space which the *Phylloxera* may travel over during the three months of duration of its winged life. The Commission would hesitate to impose such an obligation, but would trust to the good sense of the owners of each threatened vineyard to induce them to resort themselves at their own cost to the use of so comparatively cheap a remedy.

MINISTRY OF AGRICULTURE.

Second Division. Service of Assistance and Encouragement to Agriculture.

Circular Letter having reference to the appointments of Examiners of Vineyards for the better protection of Vineyards against the *Phylloxera*.

Monsieur le Préfet,—

The law of the 15th of July, 1878, having reference to the measures to be adopted against the *Phylloxera* has opened a new way to the Government. Several amendments now proposed to the Parliament, and which, I trust, will be accepted, will again strengthen the Department of Agriculture, and better enable us to meet a scourge which is developing itself in alarming proportions.

Vigilance and Enquiry Committees are established in almost all wine-growing districts.

In order to co-ordinate their efforts, to guide their searches, I have deemed it advisable to add to them a staff of specialists with great experience, exclusively giving their time and their knowledge to the fight against the destroyer of our vineyards, and who shall be the heads of the service of viticulture in each wine-growing region of France.

This new staff being likely to have with you, frequent relations, it is necessary that you should be made aware of its organization. It will consist of:

1. Regional Delegates.

2. District Delegates, and

3. Local agents intrusted in each district in searching for the *Phylloxera*, and with applying the administrative treatments which should be prescribed.

The Regional delegates will not have to substitute their action to that of the vigilance committees; they will have, on the contrary, to help and guide them in their work. Owing to their own situation in their district, the members of such committees will always prove valuable assistants, who, well knowing the localities, will be in a better position than any other persons, to co-operate with the Department of Agriculture in watching all over the country, and provoking the reports of the owners of vineyards, schoolmasters, rural guards, &c.

One of the duties of the regional delegates will be to teach and form the district's delegates, and then to organise the inspection and examination of vineyards.

With the help of the district's delegates, they will have to create patrols for the purpose of watching all vineyards, searching for the *Phylloxera*, and directing their investigations upon all places wherever any disquieting symptoms should be reported to them. Experience has already proved that such patrols, when properly formed and conducted by road surveyors, give very satisfactory results.

I therefore invite you to place these last-named agents at the disposition of the regional and district examiners, who will find in them, men well acquainted with the country, able to read maps and to draw plans; also to add to them the medical men, the chemists, the school-masters, mayors, rural guards, and forest rangers, and further, all men of good will, stimulating their zeal by any means you may think proper to adopt.

Indeed, Sir, I cannot too much recommend such a service to your attention. The success of the efforts made by the Government depends mostly on vigilance; for it must not be lost sight of that the sooner the *Phylloxera* is detected in any part of the territory, the more limited is the fight, and the more numerous are the chances of cheaply and quickly checking the plague.

You

You must, therefore, give to the officers of my department every facility to organize their service, to second them in the task they have to perform, see that the watching be a continuous one, and so act as to extend it all over your district which it will have to envelop as would do the meshes of an immense net.

The laws of Foreign States bind all vineyard owners to report all abnormal facts in their vineyards. The Parliament of France did not think proper to make such reports compulsory; but the Government trusts that the Members of Committees, the Mayors, &c., will show to the growers the interest and importance of such spontaneous declarations. The Department of Agriculture relies upon their devotion to the public good to co-operate towards the destruction of the common foe.

An important portion of the task of the regional inspectors will be to report to you the steps to be adopted for the administrative treatments entrusted to them. They will form some brigades, and will have to assist you in every detail connected with the carrying out of the laws, decrees, and Ministerial regulations against the *Phylloxera*.

Being under the orders of the Regional Inspectors, the District Examiners will be specially in charge of the anti-Phylloxeric service in each district. They will correspond with the Regional Delegates and follow their instructions. Selected amongst professors of agriculture, or, for want of these, amongst active, well-informed and able men, these District Delegates will be, so to say, the executive officers of the Vigilance Committees. They will have to keep you informed as to the situation, and you will have to submit their remarks to me, in order that I might send you the Regional Delegates as soon as need would be felt of their superior experience.

The District Delegates will be appointed by you. The Regional Delegate will let you know the special knowledge required from these officers, and help you in selecting them. You will have to communicate to me the name of the person selected by you for such duties in your district.

The organization of this new service requires an expenditure for which provision must be made. The Parliament has given me certain credits with which I must attend to the obligations resulting from the sections 4 and 5 of the law of the 15th July, 1878.

The Department of Agriculture will consequently retain to its charge the expenditure of the Regional delegates; it will allow to the District Delegates, besides travelling expenses, a fee of fifteen francs (12s.) per day of absence from their residence whenever they will be employed by the Regional Delegates, for superintending any administrative treatment of *Phylloxeric* spots.

It would be desirable, Sir, for the considerable sacrifices agreed to by the Government, being supplemented by contributions from the District funds to be voted by the General and Municipal Councils, and obtained from private subscriptions. These means should be appropriated to the remuneration of District delegates, road surveyors, schoolmasters, and all others who would in any way assist in the protection of vineyards.

Such a special service, of a first-class order, concerns more especially the districts, for the credits voted, by Parliament must be reserved as much as practicable for the expenditure to be incurred in applying the remedies; and it will be through such a treble alliance of the State, of the General and Municipal Councils, and of the general public, that any organization may be really practicable and effective.

I trust to you, Sir, to act accordingly, and to obtain from the General Council, during its next session, a credit affording you all necessary means.

The fate of what remains of our vineyards is in question; when a scourge progresses with a destructive power of 85,000 hectares (212,000 acres) per year, great efforts, powerful means of action are required to meet effectively such emergency.

I hope you will not call unsuccessfully upon the good will of the people within your jurisdiction.

And remain, &c.,

The Minister of Agriculture and Trade,

P. TIRARD.

International Convention upon steps to be adopted against the *Phylloxera Vastatrix*. (Agreed to at Berne, Switzerland, on the 9th of September, 1878, by the Governments of France, Germany, Austria, Hungary, Italy, Portugal, and Switzerland).

1. The contracting States agree to complete, if they have not already done so, their internal legislation with a view to secure a common and efficient action against the introduction and propagation of the *Phylloxera*.

Such legislation will have specially to deal with—

- (1.) The supervision of vines, gardens, vineries, and nurseries; and all the necessary investigations, and reports with the view of searching for *Phylloxera*, and the operations intended for its destruction as much as possible.
- (2.) The delimitation of the territories invaded by the disease as the scourge is introduced, or as it progresses within each State.
- (3.) The regulations of the transport of vines, *debris*, and produces from that plant, as well as of the plantations, shrubs, and produces of horticulture, in order to prevent the disease from being exported outside of the infected territories within each State, or through transit outside of such State.
- (4.) The system of packing, and the circulation of these goods, as well as the precautions and enactments to be taken in case of infringement of the laws brought into force.

2. Wine, table-grapes without leaves, and branches, grape-seeds, cut flowers, vegetable produces, seeds of all sorts, and fruits, will be admitted to free international circulation.

The plants, shrubs, and various produces from nurseries, gardens, hot-houses, and orange conservatories, will not be imported into any one State from another unless through the Customs offices designated to that effect by the contracting neighbouring States, and in accordance with the prescriptions of the section 3.

Uprooted vines and dry branches will remain excluded from international circulation.

The neighbouring States will agree together as to the admission in their border zones of vintage grapes, grapes husks, manures, earth, stakes already used, provided such articles will not come from any *phylloxerated* territory.

Vine cuttings, slips, and branches will not be imported into any State without its consent, and will only be admitted to International Transit, through the designated Customs offices, and in the packing conditions hereafter described.

3. The goods enumerated in the 2nd and 3rd paragraphs of the previous section, as being admitted to International Transit through specified Customs offices, will have to be provided with a certificate from an authority of the exporting country, attesting that: (1) they are coming from a territory said to be free from *phylloxeric* invasion, and mentioned as such on the special map, drawn and kept to date in each contracting State; (2) they had not been recently imported there.

Vine cuttings, slips, and branches will only be admitted to International Transit, if packed into well-closed boxes, screwed down, and yet easy to visit and to shut again.

Plants, shrubs, and various produces from nurseries, gardens, hot-houses, and orangeries will be solidly packed; the roots will be completely denuded from earth, but it will be allowed to pack them in moss, and, in any case, covered over with oil-cloth, so as not to let any *debris* falling, but to permit the necessary control.

The Customs officers, whenever deeming it necessary, will cause these objects to be inspected by official examiners, who will make special reports, whenever detecting any *Phylloxera*. Such report will be transmitted to the exporting State, in order that prosecution may be made, in accordance with the law of that State.

No invoice, admitted to International Circulation, through whatever part of the border, is to contain vine-leaves.

4. Objects stopped by any Customs officer, as not being packed according to the above section, will be returned back to their starting point, at the expense of whoever it may concern.

Objects reported by the official examiners as bearing *Phylloxeras*, will be destroyed at once, and burnt with their packings. The carriages having transported them, will be immediately disinfected by a sufficient washing with sulphuret of carbon, or with such other insecticide acknowledged by science as efficient, and adopted by the State. Each State will take steps to secure the strictest carrying out of such disinfection.

5. The contracting States, in order to facilitate their common action, bind themselves to communicate regularly with other—

(1.) The laws and decrees promulgated by each of them upon the matter.

(2.) The leading measures taken in execution of the said laws and decrees, and of the present Convention.

(3.)

- (3.) The reports, or abstracts of reports, of the various services organized within the State, and on the Borders, against the *Phylloxera*.
- (4.) Every discovery of *phylloxeric* attacks in any territory so far considered free of same, with particulars as to the extent, and if possible of the causes of the invasion. Such communication will always be made without any delay.
- (5.) Every map drawn for the delimitation of the preserved and of the invaded or suspected territories.
- (6.) Full information upon the progresses of the insect, wherever it will have been detected.
- (7.) The results of scientific studies and practical experiences conducted in *phylloxerated* vineyards.
- (8.) Any other document likely to interest viticulture on that special point.

These various communications will be made use of by each contracting State for the publications it may issue on the subject; such publications will be exchanged between them.

6. Whenever deemed necessary, the contracting States will cause themselves to be represented upon an International Committee, appointed to examine all questions raised by the execution of this Convention, and to propose any alterations recommended by experience, and by the progress of science.

Such International Committee will hold its sittings at Berne.

7. The ratification will be exchanged at Berne within six months from the date of signature of this convention, or sooner if possible.

The present Convention will be in force 15 days after the exchange of the ratifications.

Any State may adhere to it, or withdraw from it at any time, by reporting to that effect to the High Federal Council of Switzerland, who accepts the duty of acting as Intermediate Agent between the contracting States, for the execution of the herein written 6th and 7th sections.

In faith of which the respective Plenipotentiaries have signed it and sealed it with their arms.

Done at Berne on the 17th day of September, 1878.

SPAIN.

Law of 1878, enacted against the invasion of the *Phylloxera*.

1. A CENTRAL Defence Commission against the *Phylloxera* will be created at Madrid on the basis of that of the permanent Commission now sitting in reference to that plague, within the Superior Council of Agriculture, Industry, and Trade. The Minister of Fomento, General Development and Progress, will be *ex officio* President, and as his Deputy the Director-General of Public Instruction, Agriculture, and Industry, with whom the said Commission will correspond.

It will further include, owners of vineyards and representatives of leading agricultural and scientific societies of Spain, as well as persons who owing to their official position and their special knowledge might, in the opinion of the Government, help to reach the end to which the present law is intended.

2. In every wine-growing province of the Kingdom, provincial defence committees against the *Phylloxera* will be created, and include the Governor of the district, chairman, *ex officio*; three wine-growers selected by the Government amongst the first fifty tax-payers; a Provincial Deputy; a member of the Agricultural Society, elected by the Society, the local chiefs of the agricultural services, the Chief Inspector of Forests, professors of agriculture and natural history of the Provincial Institute, the Agricultural Engineer, and the Secretary to Agricultural Society, who will also be Secretary to the said Provincial Defence Committee.

3. These Commissions, both central and provincial, will assist the Government in their respective sphere of action in examining and reporting upon all measures proposed by the Ministry of Fomento with respect to the *Phylloxera*, and suggesting the means which, in the opinion of their members, would prove most likely useful in the execution of the law and otherwise contribute to the solution of all questions connected with such a dreadful scourge.

A special decree will regulate the internal constitution of the said Commissions as well as their relations between themselves and with scientific bodies having official connection and correspondence with the Government, so as to better secure the success of the important mission entrusted to them.

4. The Government is empowered to prohibit, with the advice of the Central Commission, for such time and to such extent required by circumstances, the importation in Spain and its dependencies, of vine-branches, plants, grafts, stocks, roots, leaves, stakes, and everything else in any way used for the cultivation of the vine, even if imported as firewood or for other burning purposes. The Government may also prohibit the importation of any kind of shrubs, trees and living plants, whatever be their origin.

The dried seeds and plants properly prepared for scientific collections will, in any case, be exempted from the prohibition above mentioned.

5. In the event of the *Phylloxera* being detected on any part of the territory of Spain the exportation of vine-stocks to any other province will, *ipso facto*, be prohibited, as well as that of all other objects enumerated in the above section.

6. Before planting vines in Spain and its dependencies it will be necessary to first give a written or verbal notice of such intention to the Magistrate of the district; the notice will have to certify that the new vines do not come from abroad nor from any *phylloxerated* part of Spain. Such a formality may, however, be dispensed with whenever the vines, cuttings, or slips will be taken from the same vineyard should it be free from *Phylloxera*.

The clerks of the municipalities will keep records of the plantations of vineyards, mentioning their situation and the number and origin of vine-trees, and the names of the owner, partner, or tenant.

7. Every vineyard owner or his agent is bound to report to the Magistrate of his residence, any sign or symptom detected upon his land of such nature as to lead to suspicion of a *phylloxeric* invasion. The Magistrate then shall report same at once to the Governor and Commission of the district; these, after having received the report of Examiners, will have to declare, within three days whether or not the *Phylloxera* exists there. The result of these deliberations will be communicated to the Central Commission.

In the event of the *Phylloxera* being recognised, the invaded property will then be placed in charge of such officials or syndicates entrusted with the carrying out of the necessary measures to destroy the insect and prevent its propagation.

8. The magistrates, engineers of all descriptions, and their assistants, as well as the Rural Guards, paid either by the State, the Districts, the Municipalities, or private parties, are bound to report at once to the Governor and to the provincial Defence Commission any alteration or symptom revealing in vineyards the existence of the *Phylloxera*, or in any way disquieting with respect to same.

9. In the event of the *Phylloxera* being detected on any spot within Spain or its dependencies, the uprooting of all vine trees, either decayed or simply diseased, and of all those within 20 yards from the latest stock, will be at once resorted to; they will be further destroyed by being burnt on the spot, with all their branches, leaves, and stakes.

The earth will be trenched as much as might be required, to reach and burn the deepest roots, and the whole vineyard will be disinfected by such means as will be prescribed by the science and the Central Commission. No new plantations will be allowed as long as, in the opinion of the Government or of the said Commission, there would remain any risk.

The owner of the vineyards so treated will always be at liberty to cultivate them otherwise than for vine-growing, but nevertheless the grounds will remain for such period as would be fixed, under the supervision and inspection of the Provincial Defence Commission.

10. No indemnity whatever will be granted for the uprooting of decayed or diseased vines; but for those destroyed within the zone of 20 yards above referred to, their owner will be entitled to receive as compensation the value of the vintage of the following year.

The value of any plantation or vintage whose complete destruction should have been deemed necessary, will be repaid in full.

No indemnity will be due for the destroyed vines belonging to agricultural (Government) establishments.

11. The owner of any vineyard invaded by the *Phylloxera* will be at liberty to direct, at his own expense, the uprooting and disinfection by applying for permission to do so from the Provincial Defence Commission within the three days during which the official examination is taking place, and then only under the supervision of the said Commission, and by observing its regulations. Beyond the said three days, if no permission has been asked as stipulated, the uprooting and disinfection will be proceeded with by the Commission.

12. The Provincial Defence Commissions will cause frequent examinations to take place of all vines in the vicinity of those which have been uprooted, as well as of other vines situated within such perimeter as will be fixed by them, to watch the conditions of the roots and prevent the formation of new centres of *Phylloxera*.

13. All expenses caused by the uprooting of vines, the disinfection of vineyards, and such other works entrusted to the Provincial Defence Commissions, as also the indemnities provided for by the section 10, will be paid out of a special provision made to each branch of the Bank of Spain, and by the order of the Provincial Phylloxera Commission. This credit will be covered by a special yearly tax of 1d. for each acre of vines, which the Districts General Councils shall inscribe from this day upon their respective taxes-roll for two years, but such a tax will be collected in the invaded provinces only, and in those immediately next to them, should these contain any vineyard.

If, in the opinion of the Central Commission, it becomes necessary to continue such tax, the Government will submit to Parliament a Bill to that effect.

To cover the unavoidable expenses of studies and experiments, for the purpose of discovering means of defence against the *Phylloxera*, a special credit of £20,000 is open to the Ministry of General Progress.

14. The Provincial Defence Commissions will cause frequent examinations to take place by their examiners of vineyards, of every vinery, nursery, and seed collections of every description within their respective province; the Government at the request of the Central Phylloxera Commission, and under its special supervision is authorized, where and whenever it will be deemed opportune, to establish plantations of American vines, or of such other species of vines, of such a nature as to resist the damages usually caused to other vines by the *Phylloxera*.

15. The Magistrates and other public officials mentioned in section 8, who will allow any delay, or will neglect to do the duties ascribed to them by this law, will be liable to a fine from 16s. to £12, which will be decided upon according to the ranks of these officials, and to the circumstances of each case, by the Central Commission on behalf of the Government, after due inquiry previously made from the Provincial Defence Commission.

16. Should any object mentioned in the section 4, and whose importation is prohibited, be reported at any Customs office on the borders of Spain, these objects will be burnt immediately. The same precaution will be taken with respect to packings and to the manures made with the debris of vinestocks.

Whenever such prohibited objects will be detected without being reported by their owner or sender, the defaulting party will be liable to a fine of 20 to 500 francs, besides the usual surtaxes and percentages authorized by Customs Laws for similar offences according to the seriousness of the case. Should these prohibited objects not be detected until after they have fraudulently entered the Spanish territory, the law against contraband with its pecuniary and personal consequences shall apply to the offender from whom the maximum of the fine will always be exacted.

NEW SOUTH WALES.

Bordeaux International Exhibition of Wines in 1882.

GENERAL Statement of Expenditure by the Executive Secretary for the Colony of New South Wales from February, 1882, to October, 1884.

Expenditure at Bordeaux—

| | Francs. | Cents. |
|--|---------|--------|
| Building of the New South Wales Court | 625 | 00 |
| Decorating of the same | 942 | 35 |
| Furniture for Court and offices | 917 | 75 |
| Cellars, implements, and skilled labour | 453 | 90 |
| Analysis of Colonial wines | 250 | 00 |
| Printing and stationery | 1,157 | 45 |
| Shipping freight, fire insurance, Customs agency | 404 | 28 |
| Clerical assistance | 750 | 00 |
| Petty cash expenditure | 375 | 00 |
| Rent of Exhibition grounds and cellars | 1,473 | 40 |
| Clearing out of Court and exhibits | 620 | 20 |
| Printing and publishing of pamphlet "New South Wales in 1881" into French, and other pamphlets for immigrants, in French, Spanish, &c..... | 5,665 | 35 |

Allowances to Executive Secretary in Europe—

| | | |
|--|--------|----|
| 1st. From 10th February, 1882, to 28th February, 1883..... | 12,101 | 65 |
| 2nd. For travelling in France, Spain, and Portugal, from 1st January, 1884, to 30th April, 1884..... | 4,250 | 00 |
| 3rd. Return fare from Marseilles to Sydney, June, 1884..... | 2,125 | 00 |

Total, francs

32,201 38

Or, in British money at 25 francs to the £ sterling.....

1,180 1 2

Allowances to Executive Secretary in Australia—

| | | |
|---|-----|-----|
| 1st. Steamer fare from Sydney to Europe, February, 1882 | 60 | 0 0 |
| 2nd. From 1st May to 31st October, 1884 | 220 | 0 0 |

Grand total

£1,460 1 2

I hereby certify the above to be a true and correct statement,—

HENRY BONNARD,
Executive Secretary for the Colony of New South Wales
at Bordeaux, 1882.

Sydney, 31st October, 1884.

RECAPITULATION of Accounts of Sales of Wines exhibited at Bordeaux, 1882, by the Executive Secretary for New South Wales.

| Accounts Creditor. | French Money. | | English Money. | |
|--|---------------|-------|----------------|-------|
| | f. | c. | £ | s. d. |
| 1. John Wyndham, Esq. | 1,143 | 02 | 45 | 14 6 |
| 2. J. Kehnan, Esq. | 826 | 52 | 33 | 1 0 |
| 3. G. Francis, Esq., (pro forma) ... .. | ..... | ..... | 0 | 1 0 |
| 4. J. Davies, Esq. | 579 | 76 | 23 | 3 10 |
| 5. A. Munro, Esq. | 267 | 81 | 10 | 14 0 |
| 6. — Stephen, Esq. | 163 | 68 | 6 | 11 0 |
| 7. — Fallon, Esq. | 214 | 93 | 8 | 12 0 |
| 8. A quantity of samples, 300 bottles | 390 | 40 | 15 | 11 0 |
| E. & O. E. Total | 3,586f. | 12 | £143 | 8 4 |

I hereby certify the above to be a correct statement,—

HENRY BONNARD,
N. S. Wales Executive Secretary at the Bordeaux Exhibition, 1882.

18 February, 1883.

EXHIBITS AT BORDEAUX.

Quantities received—Samples in Bottles (2,563 bottles).

Disposed of as follows:—

| | |
|--|---------------|
| Quantities for the Jury | 600 |
| Samples returned to Sydney | 300 |
| " claimed by Mr. Fallon | 24 |
| " " Mr. Terrier and Mr. Kay | 50 |
| " " Mr. J. Wyndham | 240 |
| " offered to the Lottery of Exhibition | 86 |
| " " Representative of Spain | 140 |
| " exchanged and taken to Sydney | 112 |
| " reserved for <i>Argus</i> prize | 24 |
| " sent to Agent-General | 36 |
| " Wyndham, used for new wines | 96 |
| " " sold | 24 |
| " general, sold to the public, &c. | 300 |
| " tasted by general public, &c. | 531 |
| | 2,563 bottles |

Quantity received in Casks, as per Bordeaux Customs records (6,804 litres).

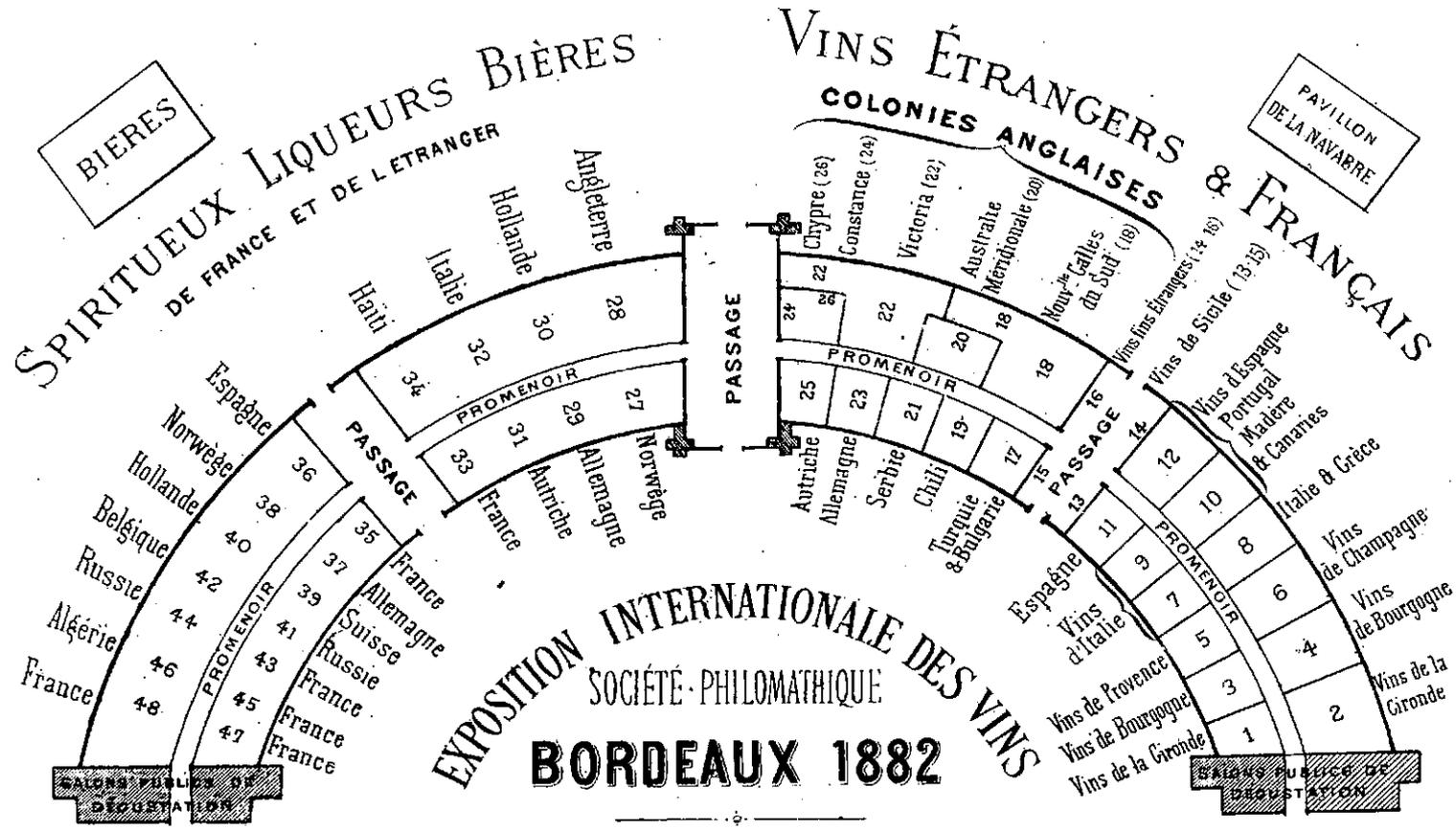
How disposed of:—

| | litres. | litres. |
|---|---------|---------|
| J. Wyndham, 2,640 litres of which sold 24 qr. casks | 1,709 | } 2,640 |
| returned | 840 | |
| ullage | 91 | |
| J. Kelman, 1,650 litres, of which sold 15 qr. casks | 1,544 | } 1,650 |
| ullage | 106 | |
| J. Davies, 1,080 litres, of which sold 9 qr. casks | 1,017 | } 1,080 |
| ullage | 63 | |
| A. Munro, 480 litres, of which sold 4 qr. casks | 446 | } 480 |
| ullage | 34 | |
| qr. casks Stephen, 240 litres, of which sold | 240 | } 504 |
| Fallon, 504 litres, of which sold 4 qr. casks | 493 | |
| ullage | 11 | |
| 4 barrels.....Murray, 100 litres, of which lost | 100 | 100 |
| 1 qr. cask ...G. Francis, 110 litres, of which returned | 110 | 110 |
| Total | | 6,804 |

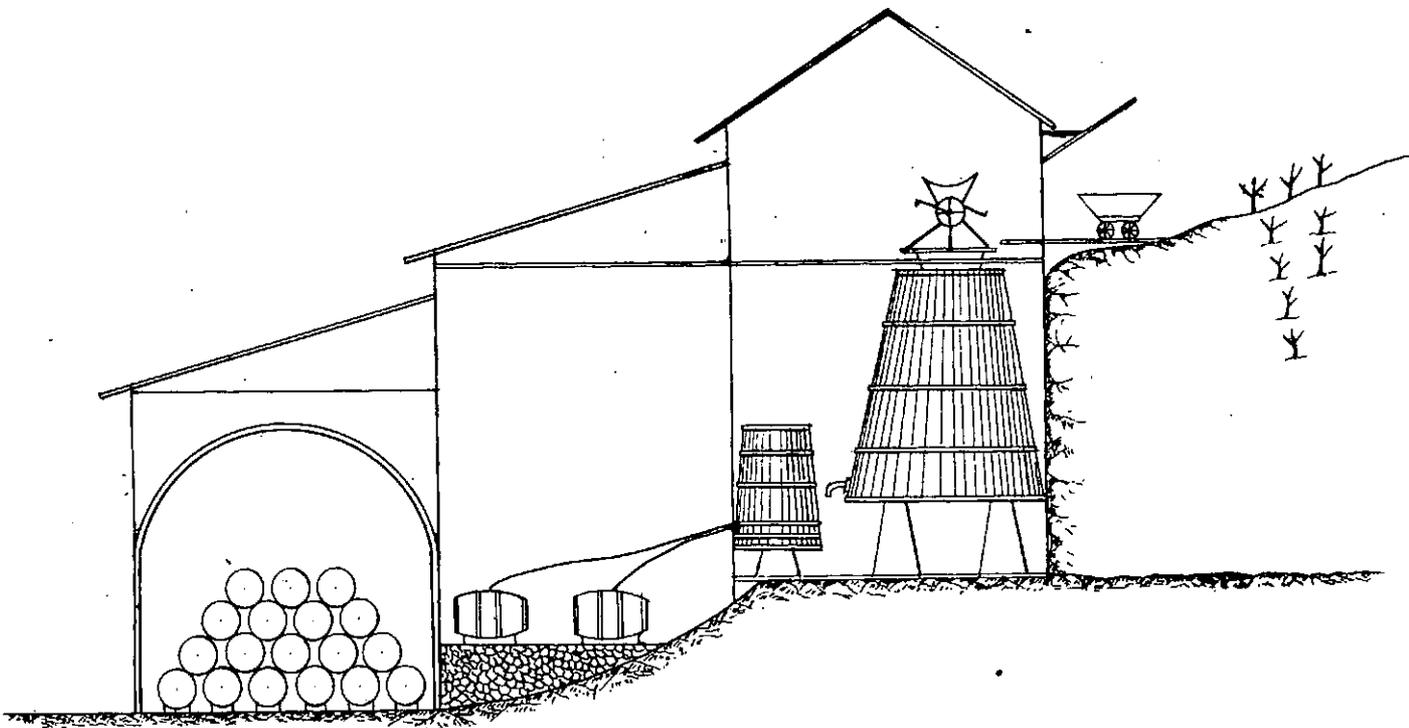
I certify this to be a correct statement,—

HENRY BONNARD,
N. S. Wales Executive Secretary.

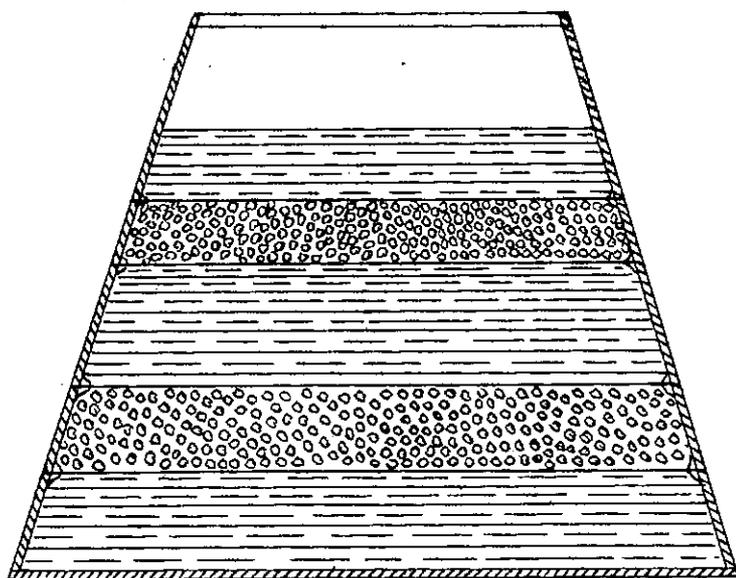
[Sketches.]



MODEL WINE CELLAR
AND
ACCESSORY BUILDINGS

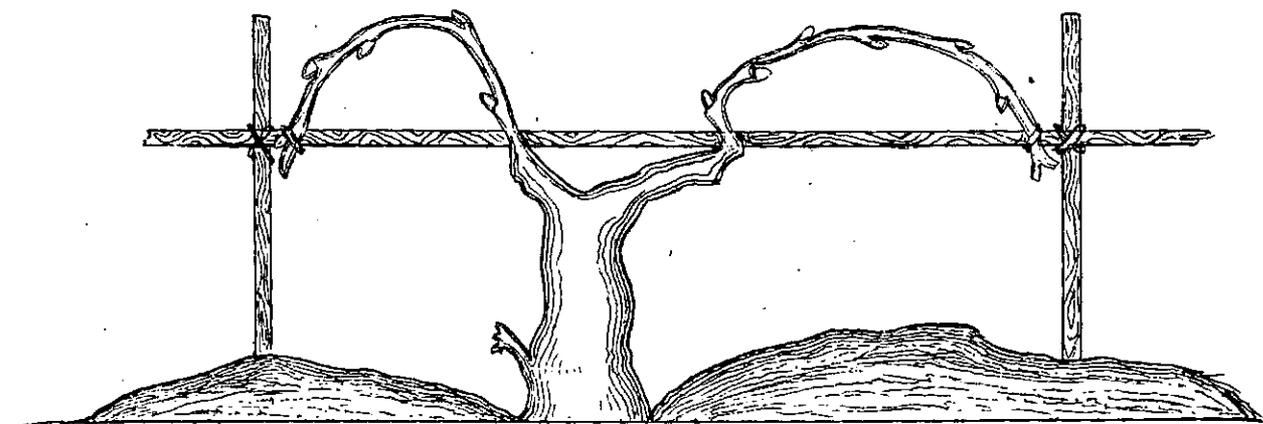


MODEL FERMENTATION VAT

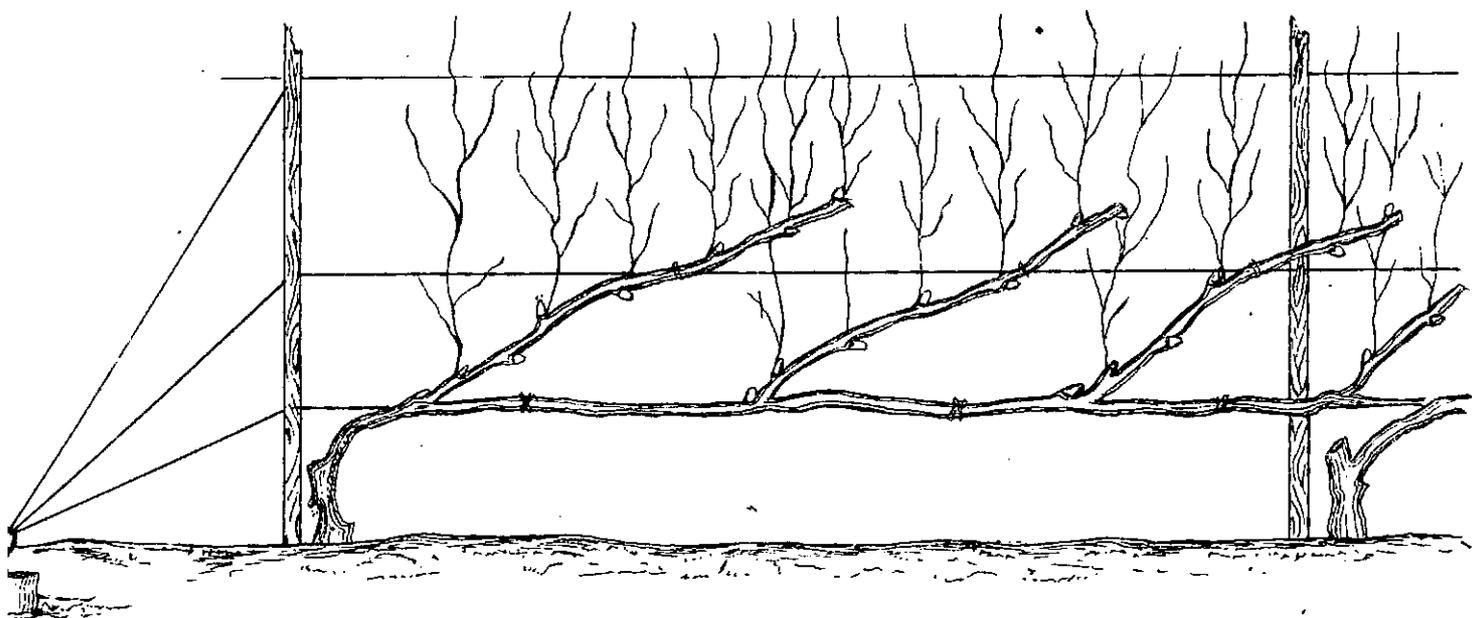


(*Sig.15.*)

Systems of Vine Pruning recommended for Colonial Vineyards.



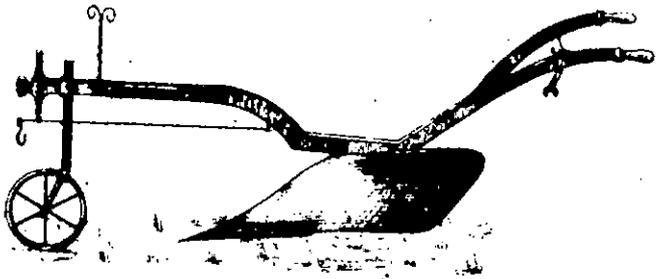
The training and pruning of Médoc. (Superior Wines)



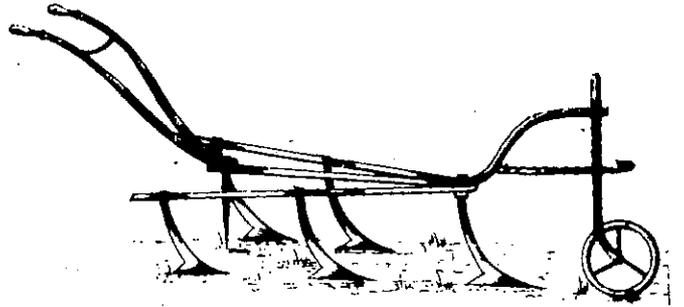
*The training and pruning system of M^r Caxenave for rich soil.
(Good ordinary wines.)*



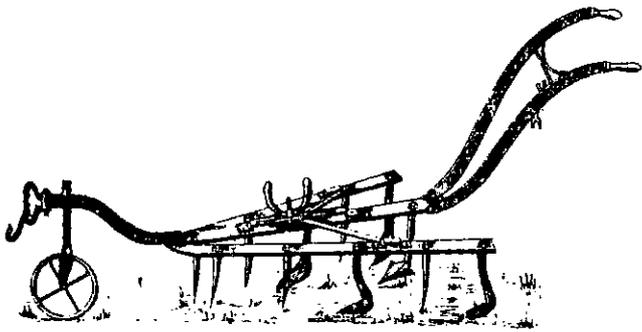
*The training and pruning of the "Hérault" Vines.
(Blending wines)*



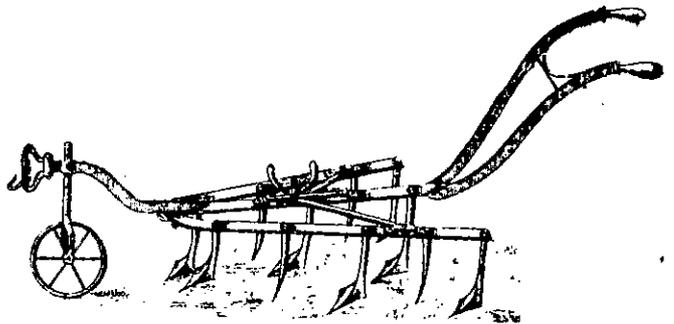
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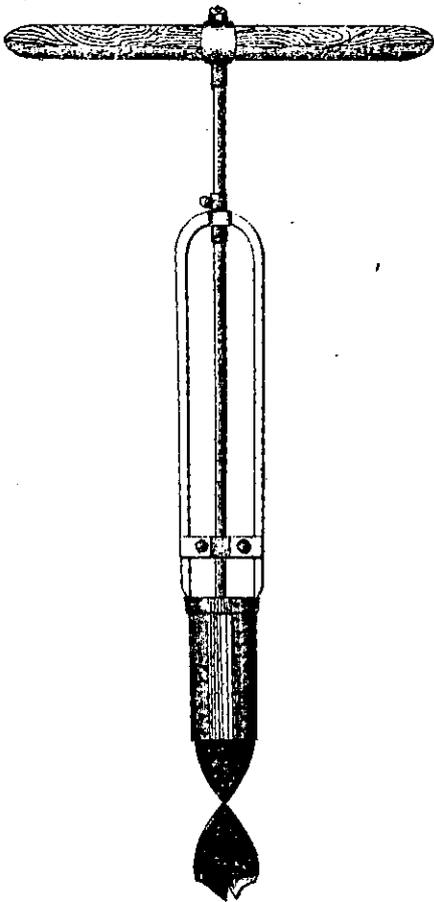
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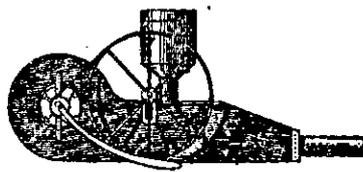
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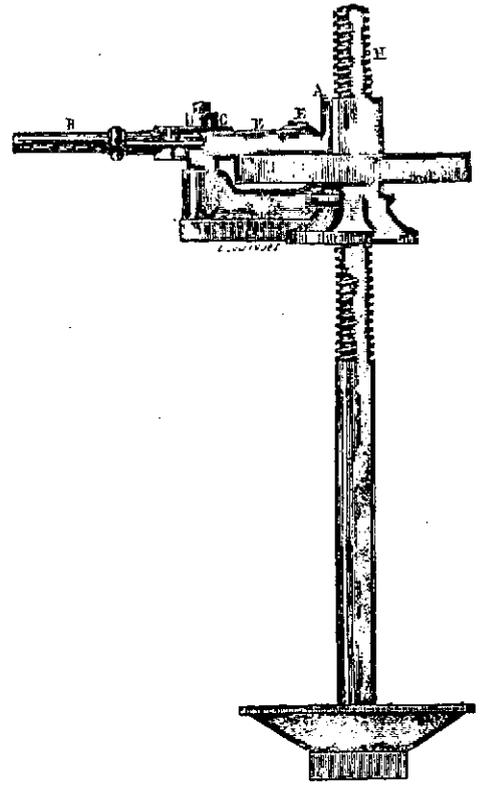
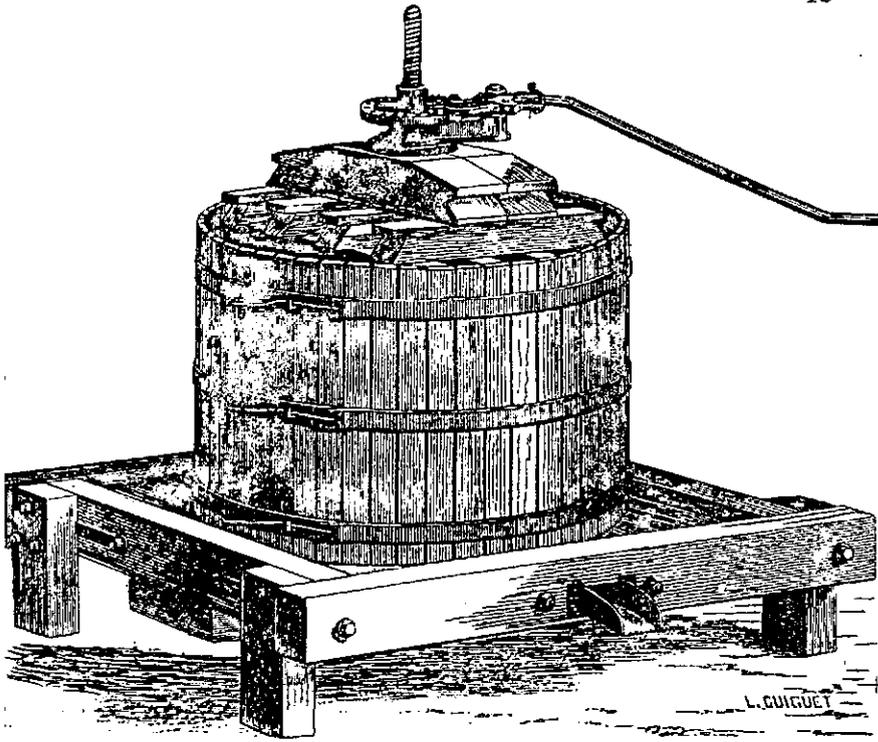
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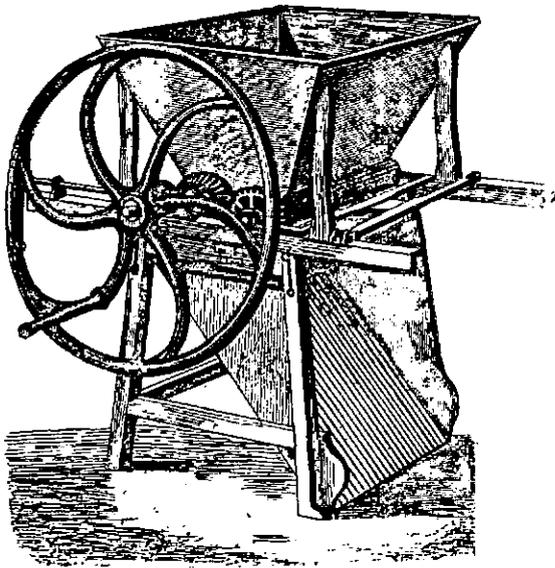
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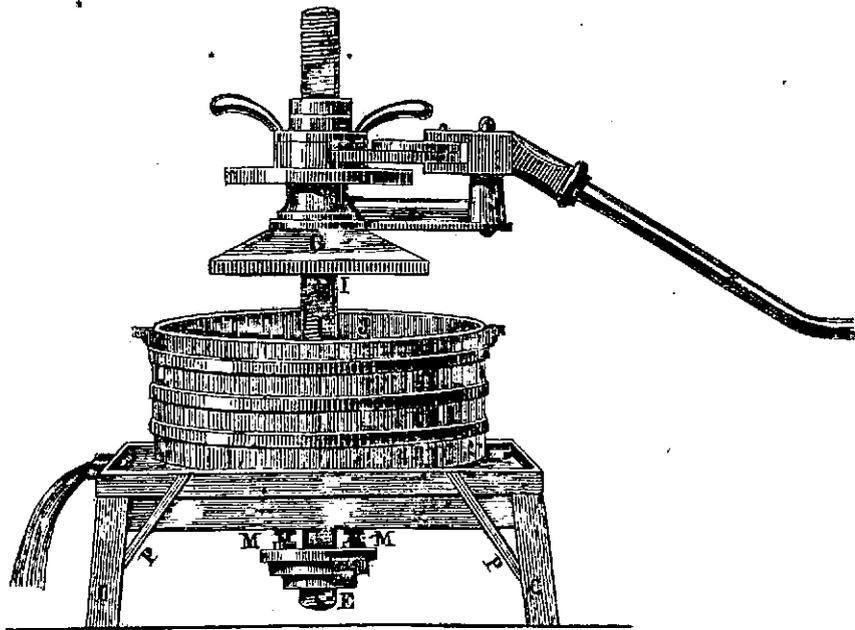
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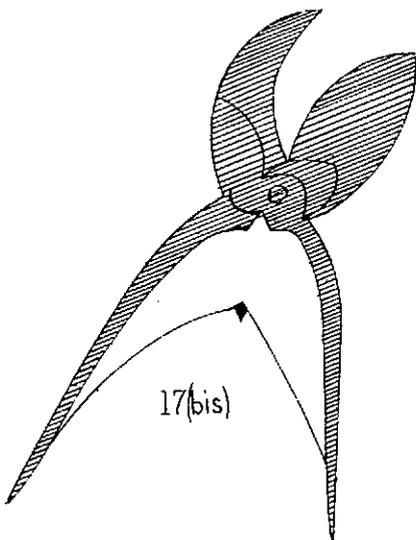
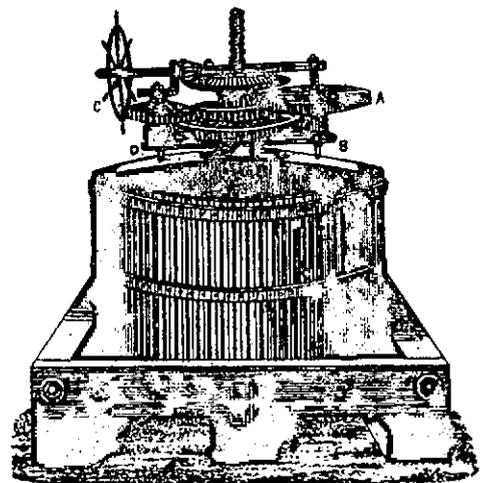
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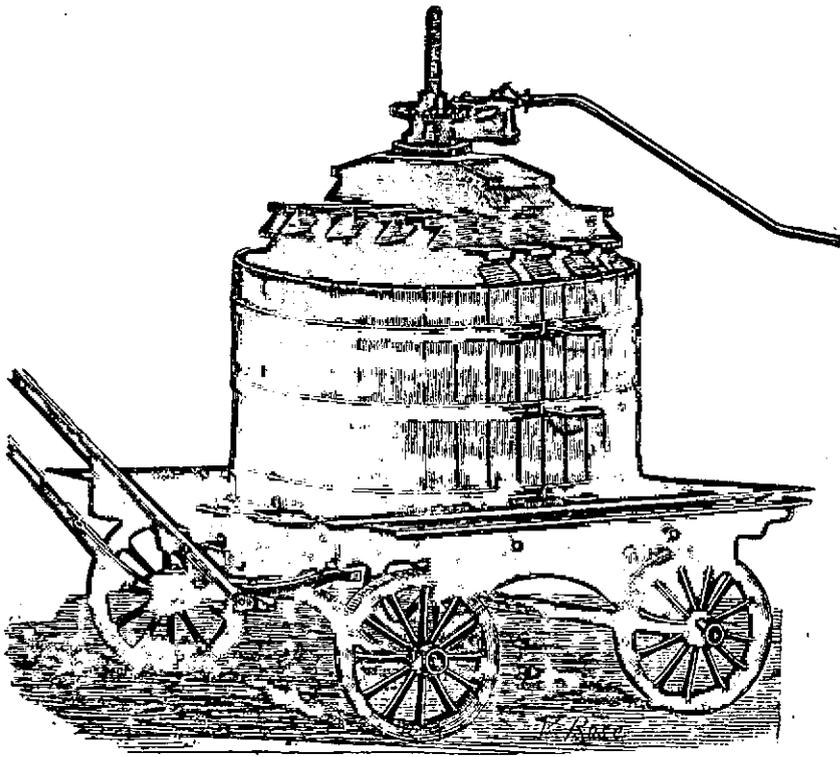


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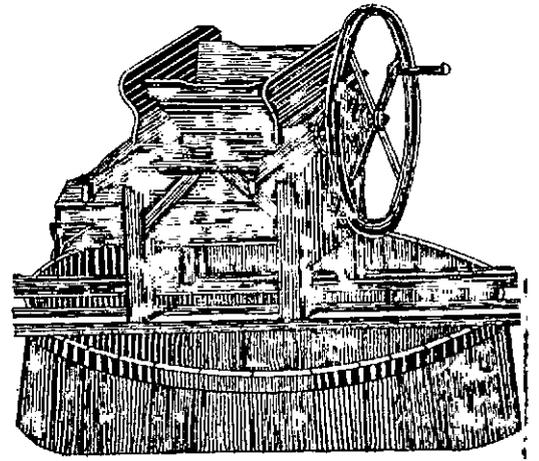


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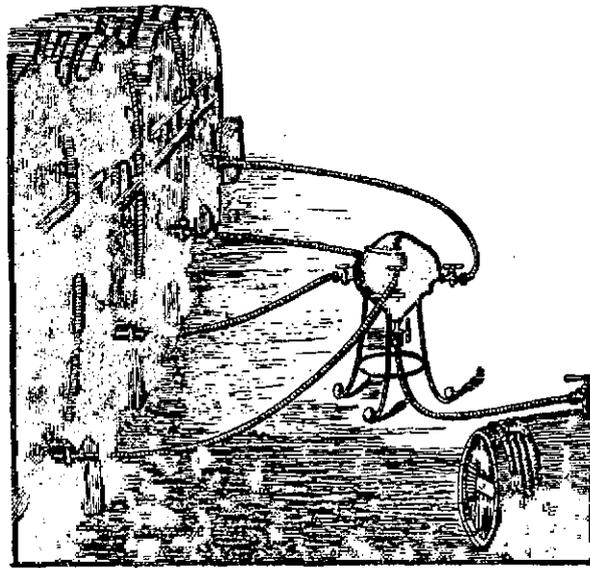
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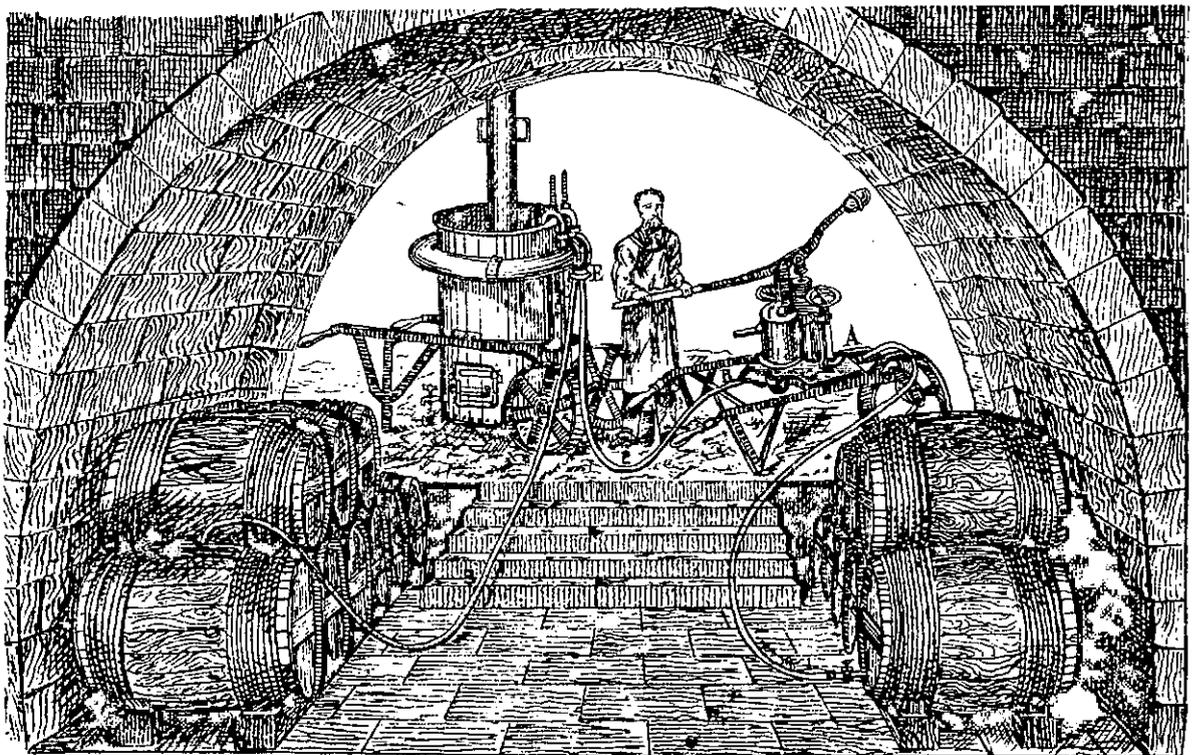
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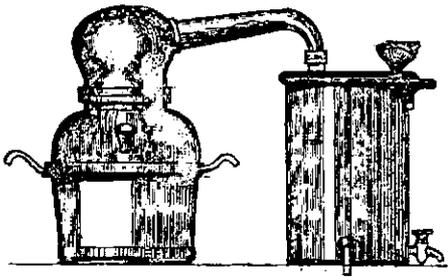
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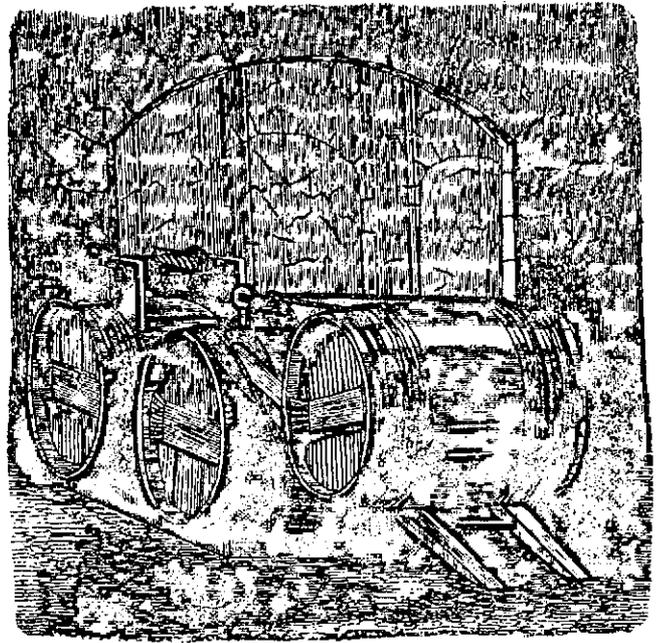
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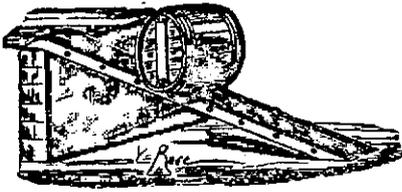
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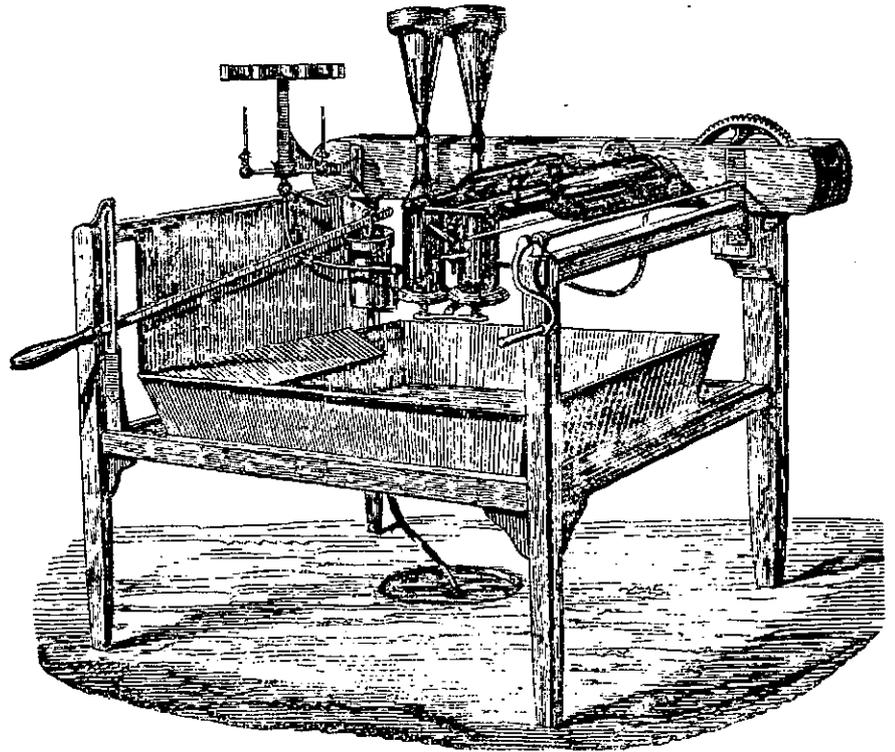
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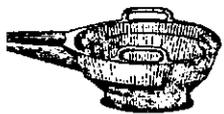
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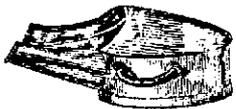
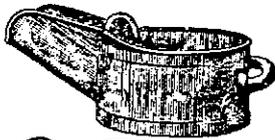
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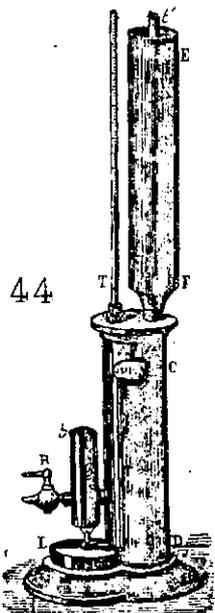
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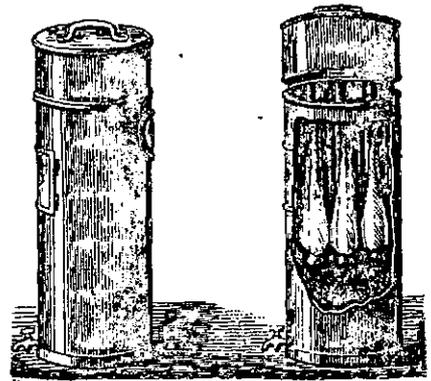
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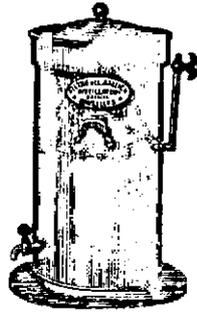


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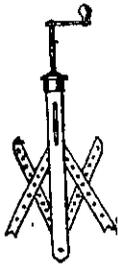
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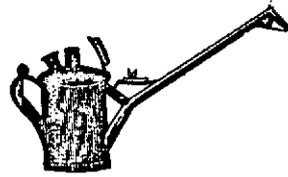
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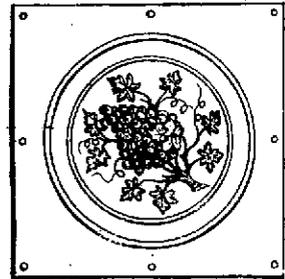
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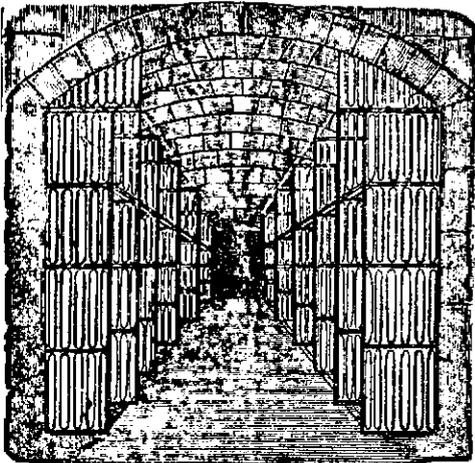
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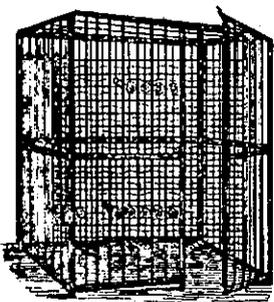
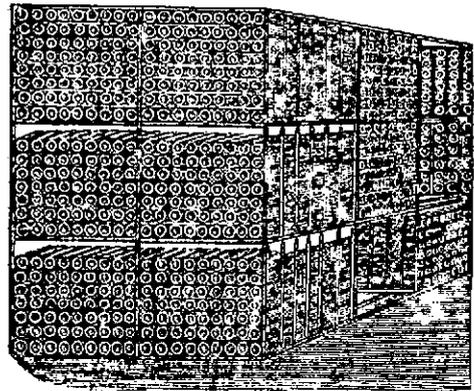
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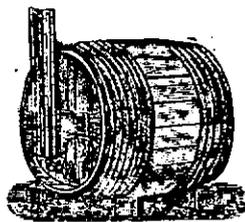
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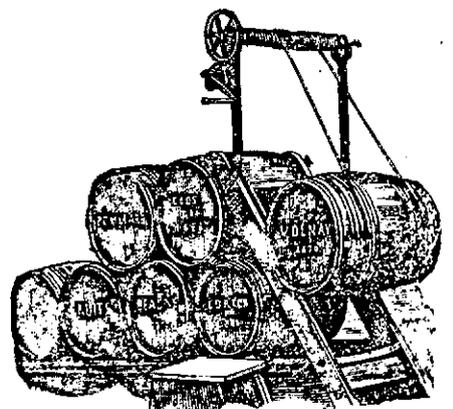
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NEW SOUTH WALES.

LEGISLATIVE ASSEMBLY.

No. 1.

NOTICES OF QUESTIONS AND MOTIONS AND ORDERS OF THE DAY.

WEDNESDAY, 19 NOVEMBER, 1884.

NOTICES OF MOTIONS :—

1. MR. DIBBS to move, That, unless otherwise ordered, this House shall meet for the dispatch of Business at Four o'clock p.m. on Tuesday, Wednesday, Thursday, and Friday, in each week, and that Government Business shall take precedence of General Business on each day.
2. MR. DIBBS to move, That it be a Sessional Order of this House that the Bell be rung two minutes prior to Mr. Speaker taking the Chair.
3. MR. DIBBS to move, That the Clerk of the House shall enter upon the Minutes of the Votes and Proceedings the Questions, of which formal notice shall have been given, put to the Members representing the Government in this House, and the Answers returned to the same.
4. MR. DIBBS to move, That it shall be a Sessional Order of this House,—
 - (1.) That every Motion or Order of the Day for the third reading of a Bill to which, on the Question being put from the Chair, "Whether there is any objection to its being a 'Formal Motion,' "or Order of the Day," no objection shall be taken, shall be deemed to be a "Formal" Motion or Order of the Day.
 - (2.) That before the ordinary business of each day shall be entered upon, Mr. Speaker shall call over the various Notices of Motions and Orders of the Day for third reading of Bills; and on any such Motion or Order being called, it shall be competent for the Member otherwise entitled to move it to have the above question put with reference thereto, and such "Formal" Motions or Orders of the Day shall be disposed of in the relative order in which they stand on the Business Paper, taking precedence of all the other Motions and Orders of the Day.
 - (3.) That no Debate shall be allowed upon any such "Formal Motions or Orders of the Day," or upon the further proceedings consequent on the reading of such Orders; but the House may proceed to division thereupon, without amendment or debate, as in the case of the motion for the first reading of a Bill.
 - (4.) That in consequence of any such "Formal" Orders of the Day having been disposed of as aforesaid, it shall not be held that the House has proceeded to the Orders of the Day upon the Business Paper so as to exclude thereafter the presentation of Petitions or the reception of Notices of Motions.
 - (5.) That no motion for the appointment of a Select Committee, excepting upon a Private Bill, shall be held to be a "Formal" Motion.
5. MR. DIBBS to move, That it be a Sessional Order of this House, That Mr. Speaker, after calling over the various Notices of Motions and Orders of the Day for third reading of Bills for disposal as "Formal Business," shall again go through the Business Paper for the Day to permit Members, without debate, to withdraw or postpone Notices of Motions or Orders of the day on the Business Paper for that day; and any Notices of Motions or Orders of the Day not so withdrawn or postponed, shall retain their relative positions on such Business Paper.
6. MR. DIBBS to move, That the Order respecting the transmission of Messages, agreed to by the two Houses during the Session of 1856-7, shall stand as a Sessional Order of this House for the present Session.
7. MR. DIBBS to move, That, unless otherwise ordered, the resumption of the Committee of Supply shall stand an Order of the Day, as of course, on each Day on which Government Business shall have precedence.
8. MR. DIBBS to move, That, unless otherwise ordered, the resumption of the Committee of Ways and Means shall stand an Order of the Day, as of course, on each Day on which Government Business shall have precedence.
9. MR. DIBBS to move, That the Chairman of a Select Committee on a Private Bill shall be entitled to vote on all questions in the same way as other Members of such Committee, and in case of an equality of votes exercise a second or casting vote.

10. MR. DIBBS to move, That the Standing Orders Committee for the present Session shall consist of Mr. Speaker, Mr. Wisdom, Sir Patrick Jennings, Mr. Garrett, Mr. Stephen, Mr. Poole, Mr. Cameron, Mr. Heydon, Mr. Griffiths, and the Mover, with leave to sit during any adjournment, and authority and power to send for persons, papers, and records, and to examine witnesses and to report in any matter or thing referred to or pending before the said Committee, and to confer upon subjects of mutual concernment with any Committee appointed for similar purposes by the Legislative Council.
11. MR. DIBBS to move, That the Library Committee for the present Session shall consist of Mr. Speaker, Mr. Burns, Mr. Combes, Mr. Griffiths, Mr. Wisdom, Mr. R. B. Smith, Mr. Tarrant, Mr. Garvan, Mr. Trickett, and the Mover, with leave to sit during any adjournment, and power to act jointly with the Library Committee of the Legislative Council, in accordance with the Assembly's Resolution of the 6th August, 1862.
12. MR. DIBBS to move, That a Refreshment Committee be appointed for the present Session, to consist of Mr. R. B. Smith, Mr. Cameron, Mr. Fremlin, Mr. White, Mr. Farnell, Mr. W. R. Campbell, Mr. McLaughlin, Mr. Trickett, Mr. Purves, and the Mover, with leave to sit during any adjournment, and authority to act in matters of mutual concernment with any Committee appointed for similar purposes by the Legislative Council.
13. MR. DIBBS to move, That it be a Sessional Order of this House that the Clerk of the House shall cause to be printed, as a matter of course, all Petitions received by this House (excepting Petitions for the introduction of Private Bills), unless it be otherwise ordered by the House: Provided that when several Petitions are presented substantially to the same effect, he shall cause to be printed only the one first presented, to which he shall append a statement of the number of other Petitions, the general designation of the party or parties to each, and the number of signatures attached.
14. MR. DIBBS to move, That it be a Sessional Order of this House,—That when the Speaker, or the Chairman of Committees, as the case may be, has been notified by any Honorable Member that Strangers are present, then, unless four other Honourable Members rise in their places, in token of their support to the objection, no order shall be made for Strangers to withdraw: Provided that the Speaker, or the Chairman of Committees, may, whenever he thinks fit, order the withdrawal of Strangers from any part of the House.
15. MR. DIBBS to move, That the following Rules shall be observed as a Sessional Order of this House:—
 - (1.) Members balloting for a Select Committee shall place the Balloting Papers, after completion, in the hands of the Clerk of the House (or in his absence the officer acting in his stead), giving time for him to note one paper (as hereinafter mentioned) before another is presented.
 - (2.) The Clerk shall have before him a complete printed list of the Members of the House, and on the presentation of any Balloting Paper shall place his initials against the entry in such List of the name of the Member presenting such Balloting Paper, and the Clerk shall place such List so initialled on record with the other proceedings of the Ballot.
16. MR. BRUNNER to move, that Angus Cameron, Esq., be Chairman of Committees of the Whole House during the present Session.
17. MR. DIBBS to move, That this House do now resolve itself into the Committee of Supply.
18. MR. DIBBS to move, That this House do now resolve itself into the Committee of Ways and Means.

NEW SOUTH WALES.

LEGISLATIVE ASSEMBLY.

No. 2.

NOTICES OF QUESTIONS AND MOTIONS AND ORDERS OF THE DAY.

THURSDAY, 20 NOVEMBER, 1884.

QUESTIONS:—

1. **MR. HUGH TAYLOR** to ask THE SECRETARY FOR PUBLIC WORKS,—Has any application been made by petition or otherwise to the Government to construct a Branch Line of Railway from the Main Western Line, near Granville, to the New Racecourse on the Elizabeth Farm Estate, near Parramatta; if so, is it the intention of the Government to carry out the same?
2. **MR. LACKEY** to ask THE COLONIAL SECRETARY,—
 - (1.) Have the Government received a numerously signed memorial from the inhabitants of Granville, asking for the establishment of a Municipality in that district?
 - (2.) Has any counter petition been received?
 - (3.) If so, would the Colonial Secretary state the number of signatures to each respectively?
 - (4.) Have the Government decided what action will be taken in the matter?
3. **MR. GRIFFITHS** to ask THE COLONIAL SECRETARY,—
 - (1.) What reply was afforded by the Colonial Secretary to the Petition presented to him on 25th August last by the Temporary Draftsmen in the Survey Department, in which the Petitioners humbly prayed that they might be included within the provisions of the Civil Service Act of 1884?
 - (2.) If no reply has yet been afforded to the Petitioners, when may such be expected?
4. **MR. BURDEKIN** to ask THE SECRETARY FOR PUBLIC WORKS,—
 - (1.) Is the Minister aware that the Municipality of Woollahra and the New South Head Road Trust are about to lay a Sewer down Ocean-street, Double Bay, from the New South Head Road to the waters of Double Bay?
 - (2.) Is the Minister aware that Double Bay is very shallow for a considerable distance from the land, with large quantities of seaweed on the beach?
 - (3.) Will the Minister ascertain from the Health Officer to the Government whether it would not be most injurious to the health of the inhabitants to have an outlet to a sewer in the neighbourhood of this seaweed, which would necessarily become impregnated with sewage?
 - (4.) Is the Minister aware that already some of the inhabitants residing near the beach view with such alarm the dangers likely to arise from sewage being emptied into the Bay, and dread to such an extent the offensive smell likely to arise, that they are making arrangements to leave the locality?
 - (5.) If the Minister knows nothing about the above circumstances, will he take immediate steps to inquire into the matter, and have all plans of the proposed sewerage laid upon the Table of this House without delay?

GOVERNMENT BUSINESS—ORDERS OF THE DAY:—

1. Supply; resumption of the Committee.
2. Ways and Means; House to resolve itself into Committee.

GENERAL BUSINESS—NOTICES OF MOTIONS:—

1. **MR. O'CONNOR** to move for leave to bring in a Bill to further amend the Sydney Corporation Act of 1879.
2. **MR. BUCHANAN** to move for leave to bring in a Bill to amend the Law relating to Divorce.
3. **MR. BURNS** to move, That there be laid upon the Table of this House a Return showing all costs and charges connected with the floating of the recent Loan of £5,500,000.

FRIDAY,

FRIDAY, 21 NOVEMBER.

QUESTIONS:—

1. MR. HUGH TAYLOR *to ask* THE COLONIAL SECRETARY,—In view of the numerous cases of typhoid fever which have recently occurred at Prospect Water Works, will he cause an immediate inquiry to be made as to the urgent necessity for temporary hospital accommodation being provided at that place?
2. MR. HAMMOND *to ask* THE SECRETARY FOR PUBLIC WORKS,—
 - (1.) To what extent has the area of the Canal for Sydney Water Supply from the Nepean River been increased since February, 1881, when the then Minister for Works ordered the Prospect Scheme to be continued?
 - (2.) To what extent has the storage capacity of the Prospect Reservoir and the height of its dam been increased since the above date?
 - (3.) What proportion of the interest on the Loan necessary for the completion of the Prospect Works, and also of the annual charges for repairs, &c., will be debited to the Municipalities of Sydney and Suburbs?
 - (4.) Who is responsible for the enlargement of the original design and the increased cost thereof?
 - (5.) How many million gallons will actually be delivered into Sydney as at present estimated for?
 - (6.) What is the amount of money already voted in excess of the original estimates for the completion of this work?
3. MR. ABIGAIL *to ask* THE COLONIAL SECRETARY,—The number of Children in the undermentioned Institutions on the 1st January, 1882, and the 1st October, 1884, viz., Randwick Asylum, Protestant Orphan Asylum, Roman Catholic Orphan Asylum; also the number of Children boarded out at the cost of the State on the above dates?
4. MR. ABIGAIL *to ask* THE COLONIAL SECRETARY,—
 - (1.) The names of the Commissioners of Customs?
 - (2.) The dates of their appointments?
 - (3.) The remuneration received by same?
 - (4.) The duties of the Commissioners?
 - (5.) How often do they meet, and the length of time occupied at each meeting?
 - (6.) The name of the Secretary, his salary, and cost of office?
5. MR. ABIGAIL *to ask* THE MINISTER FOR PUBLIC INSTRUCTION,—
 - (1.) The names of the applicants for the position of Under Secretary recently filled up by the appointment of Mr. Johnson?
 - (2.) The length of service of each applicant?
 - (3.) Is there any rule in the Department that seniority gives any right or claim to promotion?
 - (4.) Is it true that the Minister offered the position of Inspector General of Schools, or any similar position, at a salary equal to that of Under Secretary to Mr. Johnson, if he would accept the same, and allow of the appointment of Mr. Miller as Under Secretary; if so, will the Minister have any objection to give Mr. Johnson's reply?

GENERAL BUSINESS—NOTICES OF MOTIONS:—

1. MR. ABIGAIL *to move*, That there be laid upon the Table of this House copies of all letters, minutes, petitions, reports, depositions, or other documents referring to the case of Mr. Hatherlie, Public School Teacher at Clandulla, who was charged with acts of immorality towards the female pupils attending his School.
2. MR. ABIGAIL *to move*, That this House will, on Friday next, resolve itself into a Committee of the Whole to consider the advisableness of bringing in a Bill to amend the Party Processions Act, for the purpose of removing present disabilities from meetings of a religious and political character that they are now labouring under.

TUESDAY, 25 NOVEMBER.

GENERAL BUSINESS—NOTICE OF MOTION:—

1. MR. FLETCHER *to move*, That the Report from the Select Committee on "Claim of Matthew M'Ivor to a Tin-mine on Pheasant's Creek," brought up on the 9th October, 1884, be now adopted

TUESDAY, 2 DECEMBER.

GENERAL BUSINESS—NOTICE OF MOTION:—

1. MR. R. B. SMITH *to move*,—
 - (1.) That, in the opinion of this House, preliminary steps should be taken to celebrate the Centenary of the Colony of New South Wales by an International Exhibition of such a character that, independently of the Exhibits that may be expected from other parts of the world, the progress of Australian Colonization may be illustrated by the fullest possible display of the resources of the Australasian Colonies.
 - (2.) That, as the earliest publicity of a Centennial Exhibition is essential to its success, it is desirable that, with as little delay as possible, a Royal Commission should be appointed, with the necessary powers, to give full effect to the suggested undertaking.
 - (3.) That the foregoing Resolutions be communicated by Address to His Excellency the Governor.

NEW SOUTH WALES.

LEGISLATIVE ASSEMBLY.

No. 3.

NOTICES OF QUESTIONS AND MOTIONS AND ORDERS OF THE DAY.

FRIDAY, 21 NOVEMBER, 1884.

MEMO. :—*The House meet at Seven o'clock p.m. This Day.*

QUESTIONS :—

1. MR. HUGH TAYLOR *to ask* THE COLONIAL SECRETARY,—In view of the numerous cases of typhoid fever which have recently occurred at Prospect Water Works, will he cause an immediate inquiry to be made as to the urgent necessity for temporary hospital accommodation being provided at that place?
2. MR. HAMMOND *to ask* THE SECRETARY FOR PUBLIC WORKS,—
 - (1.) To what extent has the area of the Canal for Sydney Water Supply from the Nepean River been increased since February, 1881, when the then Minister for Works ordered the Prospect Scheme to be continued?
 - (2.) To what extent has the storage capacity of the Prospect Reservoir and the height of its dam been increased since the above date?
 - (3.) What proportion of the interest on the Loan necessary for the completion of the Prospect Works, and also of the annual charges for repairs, &c., will be debited to the Municipalities of Sydney and Suburbs?
 - (4.) Who is responsible for the enlargement of the original design and the increased cost thereof?
 - (5.) How many million gallons will actually be delivered into Sydney as at present estimated for?
 - (6.) What is the amount of money already voted in excess of the original estimates for the completion of this work?
3. MR. ABIGAIL *to ask* THE COLONIAL SECRETARY,—The number of Children in the undermentioned Institutions on the 1st January, 1882, and the 1st October, 1884, viz., Randwick Asylum, Protestant Orphan Asylum, Roman Catholic Orphan Asylum; also the number of Children boarded out at the cost of the State on the above dates?
4. MR. ABIGAIL *to ask* THE COLONIAL SECRETARY,—
 - (1.) The names of the Commissioners of Customs?
 - (2.) The dates of their appointments?
 - (3.) The remuneration received by same?
 - (4.) The duties of the Commissioners?
 - (5.) How often do they meet, and the length of time occupied at each meeting?
 - (6.) The name of the Secretary, his salary, and cost of office?
5. MR. ABIGAIL *to ask* THE MINISTER FOR PUBLIC INSTRUCTION,—
 - (1.) The names of the applicants for the position of Under Secretary recently filled up by the appointment of Mr. Johnson?
 - (2.) The length of service of each applicant?
 - (3.) Is there any rule in the Department that seniority gives any right or claim to promotion?
 - (4.) Is it true that the Minister offered the position of Inspector General of Schools, or any similar position, at a salary equal to that of Under Secretary to Mr. Johnson, if he would accept the same, and allow of the appointment of Mr. Miller as Under Secretary; if so, will the Minister have any objection to give Mr. Johnson's reply?
6. MR. W. J. FERGUSSON *to ask* THE SECRETARY FOR LANDS,—When will the Returns in reference to the Mineral Conditional Purchase ordered by this House so long ago as October, 1883, be laid upon the Table?
7. MR. SUTTOR *to ask* THE MINISTER FOR PUBLIC INSTRUCTION,—Has the vacancy consequent upon Mr. Johnson's promotion to the position of Under Secretary in the Department of Public Instruction been filled up; if not, will the Minister say when will Mr. Johnson's successor be appointed?

GOVERNMENT BUSINESS—ORDERS OF THE DAY :—

1. Supply; resumption of the Committee.
2. Ways and Means; House to resolve itself into Committee.

GENERAL

GENERAL BUSINESS—NOTICES OF MOTIONS:—

1. MR. ABIGAIL to move, That there be laid upon the Table of this House copies of all letters, minutes, petitions, reports, depositions, or other documents referring to the case of Mr. Hatherlie, Public School Teacher at Clandulla, who was charged with acts of immorality towards the female pupils attending his School.
2. MR. ABIGAIL to move, That this House will, on Friday next, resolve itself into a Committee of the Whole to consider the advisableness of bringing in a Bill to amend the Party Processions Act, for the purpose of removing present disabilities from meetings of a religious and political character that they are now labouring under.
3. MR. LYNE to move, That this House will, on Wednesday next, resolve itself into a Committee of the Whole for the consideration of the following Resolutions:—
 - (1.) That, in the opinion of this House, the importance of the District surrounding Germanton, having regard to its agricultural, pastoral, and mineral wealth and population, demands the construction of a Railway from Culcairn to Germanton.
 - (2.) That the above Resolution be communicated by Address to His Excellency the Governor.
4. MR. SUTOR to move, That there be laid upon the Table of this House copies of all correspondence and other documents having reference to the appointment of a successor to Mr. Wilkins as Under Secretary to the Department of Public Instruction.
5. MR. VAUGHN to move, That the Report of the Select Committee on "Claim of Charles Stevens," brought up on 29th April, be now adopted.

ORDER OF THE DAY:—

1. Divorce Amendment Bill; second reading.

TUESDAY, 25 NOVEMBER.

QUESTION:—

1. MR. McCULLOCH to ask THE COLONIAL SECRETARY,—
 - (1.) Has any proposal been made to make a separate Command for Colonel Roberts, independent of the Commandant, Colonel Richardson?
 - (2.) Has His Excellency the Governor, as Commander-in-Chief, made any recommendation on the subject; if so, what is it; and is it the intention of the Government to accede to such proposal?
 - (3.) If any proposal has been made, will the Minister lay copies of all papers connected with the subject upon the Table of the House?
 - (4.) What alterations have been made in the stations of the Officers of the Permanent Artillery and Staff within the last six months, and what has been the expense thereby occasioned, and by whose orders were the changes made?
 - (5.) Have applications been made for lodging allowance; if so, how has the lodging allowance been apportioned?

GENERAL BUSINESS—NOTICES OF MOTIONS:—

1. MR. FLETCHER to move, That the Report from the Select Committee on "Claim of Matthew M'Ivor to a Tin-mine on Pheasant's Creek," brought up on the 9th October, 1884, be now adopted.
2. MR. GRIFFITHS to move, That, in the opinion of this House, the Surveys of the Grafton-Glen Innes Railway should not be proceeded with at present.
3. MR. LYNE to move,—
 - (1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the claim of John McDonald for loss sustained through the voidance of his Conditional Purchase, lot G, allotment 30, county of Denison, parish of Dry Forest, 640 acres.
 - (2.) That such Committee consist of Mr. Farnell, Mr. Gill, Mr. Spring, Mr. Hammond, Mr. Day, Mr. Levin, Mr. Barbour, Mr. Stokes, Mr. Targett, and the Mover.

TUESDAY, 2 DECEMBER.

GENERAL BUSINESS—NOTICE OF MOTION:—

1. MR. R. B. SMITH to move,—
 - (1.) That, in the opinion of this House, preliminary steps should be taken to celebrate the Centenary of the Colony of New South Wales by an International Exhibition of such a character that, independently of the Exhibits that may be expected from other parts of the world, the progress of Australian Colonization may be illustrated by the fullest possible display of the resources of the Australasian Colonies.
 - (2.) That, as the earliest publicity of a Centennial Exhibition is essential to its success, it is desirable that, with as little delay as possible, a Royal Commission should be appointed, with the necessary powers, to give full effect to the suggested undertaking.
 - (3.) That the foregoing Resolutions be communicated by Address to His Excellency the Governor.

NEW SOUTH WALES.

LEGISLATIVE ASSEMBLY.

No. 4.

NOTICES OF QUESTIONS AND MOTIONS AND ORDERS OF THE DAY.

TUESDAY, 25 NOVEMBER, 1884.

QUESTIONS:—

1. **MR. McCULLOCH to ask THE COLONIAL SECRETARY,—**
 - (1.) Has any proposal been made to make a separate Command for Colonel Roberts, independent of the Commandant, Colonel Richardson?
 - (2.) Has His Excellency the Governor, as Commander-in-Chief, made any recommendation on the subject; if so, what is it; and is it the intention of the Government to accede to such proposal?
 - (3.) If any proposal has been made, will the Minister lay copies of all papers connected with the subject upon the Table of the House?
 - (4.) What alterations have been made in the stations of the Officers of the Permanent Artillery and Staff within the last six months, and what has been the expense thereby occasioned, and by whose orders were the changes made?
 - (5.) Have applications been made for lodging allowance; if so, how has the lodging allowance been apportioned?
2. **MR. BURDEKIN to ask THE COLONIAL TREASURER,—**Will he cause to be placed upon the Table of this House a copy of the Agreement which he informed the Committee last Wednesday evening during the delivery of the Financial Statement had been made with the Bank of England, in accordance with which the Bank of England is prepared at any time to give the Colony a large advance upon any authorized Loan which the Government might wish to float upon the London market?
3. **MR. BUCHANAN to ask THE MINISTER OF JUSTICE,—**Will he state the reasons that have justified the Government in removing Mr. Percy Lucas from the Public Service?
4. **MR. BRUNCKER to ask THE SECRETARY FOR PUBLIC WORKS,—**Is it his intention to adopt means which will effectually prevent a repetition of losses similar to those which have been recently sustained by the Railway Department owing to the escape of sparks from locomotives?
5. **MR. R. B. SMITH to ask THE COLONIAL TREASURER,—**
 - (1.) Has a commission been given to any Sculptor to execute a Statue of the Queen, to be placed on the pedestal near St. James's Church; if so, who is the Sculptor so commissioned?
 - (2.) If no such action has been taken, what steps do the Government intend taking towards procuring a Statue of the Queen, for which a vote has been sanctioned by Parliament?

GOVERNMENT BUSINESS—ORDERS OF THE DAY:—

1. Supply; resumption of the Committee.
2. Ways and Means; House to resolve itself into Committee.

GENERAL BUSINESS—NOTICES OF MOTIONS:—

1. **MR. FLETCHER to move,** That the Report from the Select Committee on "Claim of Matthew M'Ivor to a Tin-mine on Pheasant's Creek," brought up on the 9th October, 1884, be now adopted.
2. **MR. GRIFFITHS to move,** That, in the opinion of this House, the Surveys of the Grafton-Glen Innes Railway should not be proceeded with at present.
3. **MR. LYNE to move,—**
 - (1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the claim of John McDonald for loss sustained through the voidance of his Conditional Purchase, lot G, allotment 30, county of Denison, parish of Dry Forest, 640 acres.
 - (2.) That such Committee consist of Mr. Farnell, Mr. Gill, Mr. Spring, Mr. Hammond, Mr. Day, Mr. Leviu, Mr. Barbour, Mr. Stokes, Mr. Targett, and the Mover.

4. MR. VAUGHN to move, That this House will, on Thursday next, resolve itself into a Committee of the Whole for the consideration of the following Resolutions :—
 - (1.) That, in the opinion of this House, the importance of the District surrounding Grenfell, and having regard to its agricultural, pastoral, and mineral wealth and population, demands the construction of a Railway from Young to Forbes *via* Grenfell.
 - (2.) That, as the line has been surveyed and staked out, and the lands for 1 mile on each side of such line reserved for Railway purposes, it is desirable that the construction of the work should be commenced at the earliest period possible.
 - (3.) That the above Resolutions be communicated by Address to His Excellency the Governor.
5. MR. ABIGAIL to move, That there be laid upon the Table of this House copies of all letters, minutes, petitions, reports, depositions, or other documents referring to the case of Mr. Hatherly, Public School Teacher at Clandulla, who was charged with acts of immorality towards the female pupils attending his School.
6. MR. ABIGAIL to move, That this House will, on Friday next, resolve itself into a Committee of the Whole to consider the advisableness of bringing in a Bill to amend the Party Processions Act, for the purpose of removing present disabilities from meetings of a religious and political character that they are now labouring under.
7. MR. LYNE to move, That this House will, on Wednesday next, resolve itself into a Committee of the Whole for the consideration of the following Resolutions :—
 - (1.) That, in the opinion of this House, the importance of the District surrounding Germanton, having regard to its agricultural, pastoral, and mineral wealth and population, demands the construction of a Railway from Culcairn to Germanton.
 - (2.) That the above Resolution be communicated by Address to His Excellency the Governor.
8. MR. VAUGHN to move, That the Report of the Select Committee on "Claim of Charles Stevens," brought up on 29th April, be now adopted.

ORDERS OF THE DAY :—

1. Newcastle Streets Bill (*as amended and agreed to in Select Committee*); second reading.
2. Walsend and Plattsburg Gas Company's Bill (*as amended and agreed to in Select Committee*); second reading.
3. Divorce Amendment Bill; second reading.

WEDNESDAY, 26 NOVEMBER.

QUESTION :—

1. MR. ABIGAIL to ask THE COLONIAL SECRETARY,—The number of Children in the undermentioned Institutions on the 1st January, 1882, and the 1st October, 1884, viz., Randwick Asylum, Protestant Orphan Asylum, Roman Catholic Orphan Asylum; also the number of Children boarded out at the cost of the State on the above dates?

TUESDAY, 2 DECEMBER.

GENERAL BUSINESS—NOTICE OF MOTION :—

1. MR. R. B. SMITH to move,—
 - (1.) That, in the opinion of this House, preliminary steps should be taken to celebrate the Centenary of the Colony of New South Wales by an International Exhibition of such a character that, independently of the Exhibits that may be expected from other parts of the world, the progress of Australian Colonization may be illustrated by the fullest possible display of the resources of the Australasian Colonies.
 - (2.) That, as the earliest publicity of a Centennial Exhibition is essential to its success, it is desirable that, with as little delay as possible, a Royal Commission should be appointed, with the necessary powers, to give full effect to the suggested undertaking.
 - (3.) That the foregoing Resolutions be communicated by Address to His Excellency the Governor.

NEW SOUTH WALES.

LEGISLATIVE ASSEMBLY.

No. 5.

NOTICES OF QUESTIONS AND MOTIONS AND ORDERS OF THE DAY.

WEDNESDAY, 26 NOVEMBER, 1884.

QUESTIONS:—

1. MR. ABIGAIL *to ask* THE COLONIAL SECRETARY,—The number of Children in the undermentioned Institutions on the 1st January, 1882, and the 1st October, 1884, viz., Randwick Asylum, Protestant Orphan Asylum, Roman Catholic Orphan Asylum; also the number of Children boarded out at the cost of the State on the above dates?
2. MR. McCULLOCH *to ask* THE COLONIAL SECRETARY,—
 - (1.) Has any proposal been made to make a separate Command for Colonel Roberts, independent of the Commandant, Colonel Richardson?
 - (2.) Has His Excellency the Governor, as Commander-in-Chief, made any recommendation on the subject; if so, what is it; and is it the intention of the Government to accede to such proposal?
 - (3.) If any proposal has been made, will the Minister lay copies of all papers connected with the subject upon the Table of the House?
 - (4.) What alterations have been made in the stations of the Officers of the Permanent Artillery and Staff within the last six months, and what has been the expense thereby occasioned, and by whose orders were the changes made?
 - (5.) Have applications been made for lodging allowance; if so, how has the lodging allowance been apportioned?
3. MR. HUGH TAYLOR *to ask* THE MINISTER OF JUSTICE,—
 - (1.) Has the Government made any arrangements to fill the position of Master-in-Equity, rendered vacant by the retirement of Mr. Holroyd?
 - (2.) Is any delay or inconvenience experienced by suitors by reason of the condition of the Master's Office at the present time?
 - (3.) Is the Government likely to come to a decision as to abolishing the Office, or filling it up?
4. MR. HUGH TAYLOR *to ask* THE SECRETARY FOR PUBLIC WORKS,—
 - (1.) Will he lay upon the Table of the House a copy of the contract made with one Raphael for the repairs of the road to Parkes, 2 miles on the other side of Molong?
 - (2.) Will he ask for a report from the Road Superintendent of the district as to the present condition of this work, or as to whether it has ever been properly or is now properly blinded?
 - (3.) Are the specifications for road contracts drawn up by the Road Superintendents of the district, or is there a regular printed form used by the Road Department?
 - (4.) Do Road Superintendents alone recommend or decide which contract shall be accepted?
 - (5.) Must they accept the lowest tender, provided all tenderers are alike responsible persons?
5. MR. BURNS *to ask* THE COLONIAL TREASURER,—Whether it is the intention of the Government to take any, and if any what, steps towards securing the representation of the Colony at the International Inventions Exhibition which is to be held in London in the month of May next?
6. MR. CAMERON *to ask* THE SECRETARY FOR LANDS,—Is it true that certain persons are allowed a private key to the Wynyard Square Reserve; and have any applications for a similar privilege been received from other persons and refused?
7. MR. CAMERON *to ask* THE COLONIAL SECRETARY,—How many members of the Permanent Artillery Force have been imprisoned in Darlinghurst Gaol during the last twelve months; for what offences, and for what terms of imprisonment?
8. MR. LEVIEN *to ask* THE COLONIAL SECRETARY,—
 - (1.) Did he receive a Petition protesting against the incorporation of South Singleton; if so, how many persons signed the said Petition?
 - (2.) Did he receive a Petition in favour of the incorporation of South Singleton, and how many persons signed the same; if so, has he come to any determination upon the subject; and if so, upon what grounds?
9. MR. TARRANT *to ask* THE COLONIAL SECRETARY,—Will he be in a position to lay the Report of the Commission appointed to inquire into the laying of wood blocks in the City upon the Table of the House during the present Session?
10. MR. GIBBES *to ask* THE SECRETARY FOR PUBLIC WORKS,—Will he say why from the Estimates for 1885 has been omitted the usual Annual Vote:—"Amount in lieu of Tolls for repair of undermentioned Roads:—Sydney *via* the Dam at Cook's River to Halfway House,—Rocky Point Road to Road from Tom Ugly's Point to Burwood Railway Station,—Stanmore Road from Enmore Road to the Canterbury Trust Road,—Newtown Railway Bridge to the Undercliff Bridge—£5,000?"
11. MR. GIBBES *to ask* THE SECRETARY FOR PUBLIC WORKS,—When is the Sub-way for foot passengers under the Southern and Western Railway, just to the west of the Newtown Station, to be commenced, and when will it be completed?

12. **MR. GIBBES to ask THE SECRETARY FOR PUBLIC WORKS,—**
 (1.) When will be commenced the construction of the promised Sub-way for vehicles at the intersection of the Southern and Western Railway with the extension of Burren-street, Macdonald Town, to Wilson-street, Newtown?
 (2.) When is the abovementioned Sub-way likely to be open for traffic?
13. **MR. GOULD to ask THE MINISTER FOR PUBLIC INSTRUCTION,—**When will tenders be called for the erection of the Public School at Rix's Creek, near Singleton, approved in July last?
14. **MR. GOULD to ask THE MINISTER FOR PUBLIC INSTRUCTION,—**When will tenders be called for the erection of the Public School at Dunolly, near Singleton, plans and specifications of which have been prepared since August last?
15. **MR. GOULD to ask THE SECRETARY FOR LANDS,—**Has a decision been yet arrived at in reference to the application of John Wilkinson, of Goorangoola, made 12th September, 1883, for compensation for removal of fence on boundary of his conditional purchase, parish Goorangoola, district Patrick's Plains, caused by original erroneous survey, which application was on 11th January, 1884, said to be in the Survey Department for the purpose of being dealt with; if not, will he cause steps to be taken to have same immediately attended to?
16. **MR. TARGETT to ask THE COLONIAL SECRETARY,—**Whether the Government will invite the neighbouring Colonial Governments to form a Conference to consider the advisableness of assimilating the various Colonial Tariffs, with a view to Federation?
17. **DR. ROSS to ask THE SECRETARY FOR LANDS,—**Has a Town Common been lately surveyed at Cargo; if so, when will it be dedicated for public purposes?
18. **MR. ABIGAIL to ask THE COLONIAL TREASURER,—**
 (1.) Is it true that the Life-boat stationed at Watson's Bay at any time leaked so badly that it became necessary to let her remain at the buoy full of water for days?
 (2.) Did she ever refuse to right herself when capsized, and was she towed outside the Heads and back again bottom up?
 (3.) Is she now fit for use if required?
19. **MR. ABIGAIL to ask THE SECRETARY FOR MINES,—**Have complaints been made against the Warden and also the Registrar at Bingera; if so, have they been inquired into, and will the Minister have any objection to state the result arrived at?
20. **MR. ABIGAIL to ask THE SECRETARY FOR PUBLIC WORKS,—**When will the work of constructing the Bridge at William-Henry-street, Ultimo, be proceeded with, in accordance with the promise given some time ago?
21. **MR. PURVES to ask THE COLONIAL TREASURER,—**When will the Return, ordered on the 21st October last, of the Officers temporarily employed in the Public Service be laid upon the Table of the House?
22. **MR. BUCHANAN to ask THE COLONIAL TREASURER,—**Whether the £800,000 which the Treasurer stated was taken from Loan Money to pay the interest on our Public Debt has been refunded out of the Consolidated Revenue?
23. **DR. ROSS to ask THE MINISTER OF JUSTICE,—**Is it the intention of the Government to place on the Supplementary Estimates a sufficient sum of money for the erection of a new Court-house at Obley?
24. **MR. BARBOUR to ask THE SECRETARY FOR PUBLIC WORKS,—**Is it his intention to cause a Trial Survey of the Railway Extension from Jerilderie to Deniliquin in the place of the one destroyed by fire in the Crystal Palace, and when?
25. **MR. PROCTOR to ask THE SECRETARY FOR PUBLIC WORKS,—**
 (1.) Is it a fact that a man named Weekes was recently reappointed night watchman at Armidale Railway Station?
 (2.) Is it a fact that this man was recently dismissed for drunkenness and fined at the Police Court?
 (3.) If it is a fact, upon whose recommendation was he reappointed?

GOVERNMENT BUSINESS—NOTICES OF MOTIONS:—

1. **MR. DIBBS to move,** That leave of absence for the present Session be granted to the following Members of this Assembly:—
 William Robert Campbell, Esquire, Member for The Gwydir;
 George Fane De Salis, Esquire, Member for Queanbeyan;
 Alfred Reginald Fremlin, Esquire, a Member for Redfern;
 John Thomas Gannon, Esquire, a Member for Argyle;
 Sir Patrick Alfred Jennings, K.C.M.G., a Member for The Bogan;
 John McElhone, Esquire, a Member for The Upper Hunter;
 Henry Michael Hale McQuade, Esquire, Member for The Hawkesbury;
 Alexander Ryrie, Esquire, Member for Braidwood;
 David Ryrie, Esquire, a Member for Monaro; and
 The Honorable Alexander Stuart, Esquire, Member for Illawarra.
2. **MR. DIBBS to move,** That so much of the Standing Orders be suspended as would preclude the passing through all its remaining stages in one day of a Bill to appropriate and apply out of the Consolidated Revenue Fund of New South Wales certain Sums to make good the Supplies granted for the Service of the year 1885, and for the year 1884 and previous years.

ORDERS OF THE DAY:—

1. Appropriation Bill; second reading.
2. Supply; resumption of the Committee.
3. Ways and Means; resumption of the Committee.

GENERAL BUSINESS—NOTICES OF MOTIONS:—

1. MR. BURNS to move, That there be laid upon the Table of this House copies of all correspondence between the Government and the Bank of England on the subject of the Loan of £5,500,000.
2. MR. HOLTERMANN to move, That the Report of the Select Committee on "Whaling Road, North Shore," brought up on 1st November, 1884, be now adopted.
3. MR. PURVES to move, That the Report from the Select Committee on "Claim of Mr. Thomas Horton," brought up on the 4th July, 1884, be now adopted.
4. MR. FLETCHER to move, That the Report from the Select Committee on "Claim of Matthew M'Ivor to a Tin-mine on Pheasant's Creek," brought up on the 9th October, 1884, be now adopted.
5. MR. GRIFFITHS to move, That, in the opinion of this House, the Surveys of the Grafton-Glen Innes Railway should not be proceeded with at present.
6. MR. VAUGHN to move, That this House will, on Thursday next, resolve itself into a Committee of the Whole for the consideration of the following Resolutions:—
 - (1.) That, in the opinion of this House, the importance of the District surrounding Grenfell, and having regard to its agricultural, pastoral, and mineral wealth and population, demands the construction of a Railway from Young to Forbes *via* Grenfell.
 - (2.) That, as the line has been surveyed and staked out, and the lands for 1 mile on each side of such line reserved for Railway purposes, it is desirable that the construction of the work should be commenced at the earliest period possible.
 - (3.) That the above Resolutions be communicated by Address to His Excellency the Governor.
7. MR. VAUGHN to move, That the Report of the Select Committee on "Claim of Charles Stevens," brought up on 29th April, be now adopted.
8. MR. LYNE to move,—
 - (1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the claim of John McDonald for loss sustained through the voidance of his Conditional Purchase, lot G, allotment 30, county of Denison, parish of Dry Forest, 640 acres.
 - (2.) That such Committee consist of Mr. Farnell, Mr. Gill, Mr. Spring, Mr. Hammond, Mr. Day, Mr. Levin, Mr. Barbour, Mr. Stokes, Mr. Targett, and the Mover.
9. MR. LYNE to move, That this House will, on Wednesday next, resolve itself into a Committee of the Whole for the consideration of the following Resolutions:—
 - (1.) That, in the opinion of this House, the importance of the District surrounding Germanton, having regard to its agricultural, pastoral, and mineral wealth and population, demands the construction of a Railway from Culcairn to Germanton.
 - (2.) That the above Resolution be communicated by Address to His Excellency the Governor.

ORDEES OF THE DAY:—

1. Newcastle Streets Bill (*as amended and agreed to in Select Committee*); second reading.
2. Wallsend and Plattsburg Gas Company's Bill (*as amended and agreed to in Select Committee*); second reading.
3. Divorce Amendment Bill; second reading.

THURSDAY, 27 NOVEMBER.

QUESTIONS:—

1. MR. HUGH TAYLOR to ask THE SECRETARY FOR PUBLIC WORKS,—Have the Government arrived at any decision yet with reference to the laying down a Branch Railway Line from the Main Western Line, near Granville, to the Racecourse on Elizabeth Farm; if so, is it their intention to construct such work for the benefit of a few private individuals?
2. MR. HOLTERMANN to ask THE COLONIAL TREASURER,—
 - (1.) Does the Government defray the expense of printing a certain pamphlet issued by Cecil Darley on "Drilling and Boring Artesian Wells as practised in America"?
 - (2.) Is the Government aware that most of the drawings bearing the initials of Cecil Darley in the said pamphlet are *fac simile* of those in trade circulars obtainable in Sydney during years past in instances as waste paper?
 - (3.) Has Cecil Darley had any practical experience in this nature of work and the kind of machines as used in Australia?
 - (4.) Seeing the information in said pamphlet is likely to lead to the purchase of machinery recommended by Cecil Darley already used and found useless,—Is it the intention of the Government to allow the publication to continue?
3. MR. HOLTERMANN to ask THE COLONIAL SECRETARY,—
 - (1.) When will the Oyster Leases, for which the money has been paid long since, be issued to the respective applicants?
 - (2.) Is it the intention of the Government to charge 2s. per bag for spat, besides the 3s. per bag royalty?
 - (3.) Is the Government going to issue any Spat Licences, or how are the cultivators to obtain the spat?
4. MR. BAKER to ask THE MINISTER FOR MINES,—
 - (1.) Has his attention been directed to the great inconvenience and loss which it is alleged arise by the gold miners and others consequent upon the applicants for Gold-mining Leases and others not, in many instances, working or causing to be worked their proposed leased land?
 - (2.) If it be not possible by regulations to compel the applicants for Gold Leases to work their land before the issue of the Lease, will the Minister introduce a short Bill as early as may be possible to enforce the due quantity of labour being put on the land within a reasonable time, notwithstanding that the Lease has not been issued?

5. MR. DANGAR *to ask* THE SECRETARY FOR PUBLIC WORKS,—
 (1.) Has a Trial Railway Survey been made between Cassilis and Coonabarabran, or will one be made?
 (2.) The distance between these two places?
6. MR. DANGAR *to ask* THE MINISTER OF JUSTICE,—
 (1.) What is intended to be done with reference to the Walgett Gaol?
 (2.) Is it true that no work has been done to it for several months?
7. MR. BAKER *to ask* THE MINISTER FOR PUBLIC INSTRUCTION,—
 (1.) Has his attention been drawn to the great inconvenience and loss which the gold miners and others sustain by not being able to mark out and occupy for gold-mining purposes land on Church and School Lands?
 (2.) Will he consider whether he cannot cause covenants to be issued in the Leases granted of Church and School Lands whereby the Lessees would, at the desire of the Government, be compelled to allow portions of their Leases to be occupied for gold-mining, in the same way that Pastoral Leases can be occupied?

GENERAL BUSINESS—NOTICE OF MOTION:—

1. MR. GOULD *to move*, That the Report of the Select Committee on "George Dougherty's Conditional Purchase," brought up on 22nd May, 1884, be now adopted.

FRIDAY, 28 NOVEMBER.

GENERAL BUSINESS—NOTICE OF MOTION:—

1. MR. ABIGAIL *to move*, That there be laid upon the Table of this House copies of all letters, minutes, reports, or other papers in connection with the Life Boat built by a man named Smith, and offered to the Government, including reports from the Marine Board.

ORDERS OF THE DAY:—

1. Sydney Corporation Act Amendment Bill; second reading.
 2. Party Processions Act Amendment Bill; consideration in Committee of the Whole of the advisableness of bringing in a Bill to amend the Party Processions Act, for the purpose of removing present disabilities from meetings of a religious and political character that they are now labouring under.

TUESDAY, 2 DECEMBER.

GENERAL BUSINESS—NOTICE OF MOTION:—

1. MR. R. B. SMITH *to move*,—
 (1.) That, in the opinion of this House, preliminary steps should be taken to celebrate the Centenary of the Colony of New South Wales by an International Exhibition of such a character that, independently of the Exhibits that may be expected from other parts of the world, the progress of Australian Colonization may be illustrated by the fullest possible display of the resources of the Australasian Colonies.
 (2.) That, as the earliest publicity of a Centennial Exhibition is essential to its success, it is desirable that, with as little delay as possible, a Royal Commission should be appointed, with the necessary powers, to give full effect to the suggested undertaking.
 (3.) That the foregoing Resolutions be communicated by Address to His Excellency the Governor.

NEW SOUTH WALES.

LEGISLATIVE ASSEMBLY.

No. 6.

NOTICES OF QUESTIONS AND MOTIONS AND ORDERS OF THE DAY.

THURSDAY, 27 NOVEMBER, 1884.

QUESTIONS:—

1. MR. HUGH TAYLOR *to ask* THE SECRETARY FOR PUBLIC WORKS,—Have the Government arrived at any decision yet with reference to the laying down a Branch Railway Line from the Main Western Line, near Granville, to the Racecourse on Elizabeth Farm; if so, is it their intention to construct such work for the benefit of a few private individuals?
2. MR. HOLTERMANN *to ask* THE COLONIAL TREASURER,—
 - (1.) Does the Government defray the expense of printing a certain pamphlet issued by Cecil Darley on "Drilling and Boring Artesian Wells as practised in America"?
 - (2.) Is the Government aware that most of the drawings bearing the initials of Cecil Darley in the said pamphlet are *fac simile* of those in trade circulars obtainable in Sydney during years past in instances as waste paper?
 - (3.) Has Cecil Darley had any practical experience in this nature of work and the kind of machines as used in Australia?
 - (4.) Seeing the information in said pamphlet is likely to lead to the purchase of machinery recommended by Cecil Darley already used and found useless,—Is it the intention of the Government to allow the publication to continue?
3. MR. HOLTERMANN *to ask* THE COLONIAL SECRETARY,—
 - (1.) When will the Oyster Leases, for which the money has been paid long since, be issued to the respective applicants?
 - (2.) Is it the intention of the Government to charge 2s. per bag for spat, besides the 3s. per bag royalty?
 - (3.) Is the Government going to issue any Spat Licences, or how are the cultivators to obtain the spat?
4. MR. BAKER *to ask* THE MINISTER FOR MINES,—
 - (1.) Has his attention been directed to the great inconvenience and loss which it is alleged arise by the gold miners and others consequent upon the applicants for Gold-mining Leases and others not, in many instances, working or causing to be worked their proposed leased land?
 - (2.) If it be not possible by regulations to compel the applicants for Gold Leases to work their land before the issue of the Lease, will the Minister introduce a short Bill as early as may be possible to enforce the due quantity of labour being put on the land within a reasonable time, notwithstanding that the Lease has not been issued?
5. MR. DANGAR *to ask* THE SECRETARY FOR PUBLIC WORKS,—
 - (1.) Has a Trial Railway Survey been made between Cassilis and Coonabarabran, or will one be made?
 - (2.) The distance between these two places?
6. MR. DANGAR *to ask* THE MINISTER OF JUSTICE,—
 - (1.) What is intended to be done with reference to the Walgett Gaol?
 - (2.) Is it true that no work has been done to it for several months?
7. MR. BAKER *to ask* THE MINISTER FOR PUBLIC INSTRUCTION,—
 - (1.) Has his attention been drawn to the great inconvenience and loss which the gold miners and others sustain by not being able to mark out and occupy for gold-mining purposes land on Church and School Lands?
 - (2.) Will he consider whether he cannot cause covenants to be issued in the Leases granted of Church and School Lands whereby the Lessees would, at the desire of the Government, be compelled to allow portions of their Leases to be occupied for gold-mining, in the same way that Pastoral Leases can be occupied?
8. MR. PROCTOR *to ask* THE SECRETARY FOR PUBLIC WORKS,—
 - (1.) Is it a fact that a man named Weekes was recently reappointed night watchman at Armidale Railway Station?
 - (2.) Is it a fact that this man was recently dismissed for drunkenness and fined at the Police Court?
 - (3.) If it is a fact, upon whose recommendation was he reappointed?
9. MR. GIBBES *to ask* THE SECRETARY FOR PUBLIC WORKS,—
 - (1.) By what time will the wooden blocks necessary to pave that portion of the Newtown Road between Bligh-street and the Railway Bridge, Newtown, be cut?
 - (2.) When did the contractor commence the cutting of the said blocks?
 - (3.) How many blocks have already been cut?
 - (4.) How many blocks are required in all?
10. MR. WILLIAM CLARKE *to ask* THE SECRETARY FOR PUBLIC WORKS,—When are tenders to be called for the erection of Station Buildings at Millthorpe and Spring Hill, as promised on 2nd September last?

GENERAL

GENERAL BUSINESS—NOTICES OF MOTIONS :—

1. MR. GOULD to move, That the Report of the Select Committee on "George Dougherty's Conditional Purchase," brought up on 22nd May, 1884, be now adopted.
2. MR. CAMERON to move, That there be laid upon the Table of this House a Return showing,—
 - (1.) The number of leases there are at Sunny Corner, near Mitchell's Creek.
 - (2.) The number of acres in each lease.
 - (3.) The name of each registered leaseholder, and how long registered.
 - (4.) What interest each holds in the leases so registered.
 - (5.) The names of all who have transferred their interest, and what interest they still hold, if any, from 1876 to date.
3. MR. PURVES to move, That the Report from the Select Committee on "Claim of Mr. Thomas Horton," brought up on the 4th July, 1884, be now adopted.
4. MR. FLETCHER to move, That the Report from the Select Committee on "Claim of Matthew M'Ivor to a Tin-mine on Pheasant's Creek," brought up on the 9th October, 1884, be now adopted.
5. MR. GRIFFITHS to move, That, in the opinion of this House, the Surveys of the Grafton-Glen Innes Railway should not be proceeded with at present.
6. MR. VAUGHN to move, That this House will, on Thursday next, resolve itself into a Committee of the Whole for the consideration of the following Resolutions :—
 - (1.) That, in the opinion of this House, the importance of the District surrounding Grenfell, and having regard to its agricultural, pastoral, and mineral wealth and population, demands the construction of a Railway from Young to Forbes *via* Grenfell.
 - (2.) That, as the line has been surveyed and staked out, and the lands for 1 mile on each side of such line reserved for Railway purposes, it is desirable that the construction of the work should be commenced at the earliest period possible.
 - (3.) That the above Resolutions be communicated by Address to His Excellency the Governor.
7. MR. VAUGHN to move, That the Report of the Select Committee on "Claim of Charles Stevens," brought up on 29th April, be now adopted.
8. MR. LYNE to move,—
 - (1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the claim of John McDonald for loss sustained through the voidance of his Conditional Purchase, lot G, allotment 30, county of Denison, parish of Dry Forest, 640 acres.
 - (2.) That such Committee consist of Mr. Farnell, Mr. Gill, Mr. Spring, Mr. Hammond, Mr. Day, Mr. Levin, Mr. Barbour, Mr. Stokes, Mr. Targett, and the Mover.
9. MR. LYNE to move, That this House will, on Wednesday next, resolve itself into a Committee of the Whole for the consideration of the following Resolutions :—
 - (1.) That, in the opinion of this House, the importance of the District surrounding Germanton, having regard to its agricultural, pastoral, and mineral wealth and population, demands the construction of a Railway from Culcairn to Germanton.
 - (2.) That the above Resolution be communicated by Address to His Excellency the Governor.

ORDERS OF THE DAY :—

1. Newcastle Streets Bill (*as amended and agreed to in Select Committee*); second reading.
2. Wallsend and Plattsburg Gas Company's Bill (*as amended and agreed to in Select Committee*); second reading.
3. Divorce Amendment Bill; second reading.

FRIDAY, 28 NOVEMBER.

GENERAL BUSINESS—NOTICE OF MOTION :—

1. MR. ABIGAIL to move, That there be laid upon the Table of this House copies of all letters, minutes, reports, or other papers in connection with the Life Boat built by a man named Smith, and offered to the Government, including reports from the Marine Board.

ORDERS OF THE DAY :—

1. Sydney Corporation Act Amendment Bill; second reading.
2. Party Processions Act Amendment Bill; consideration in Committee of the Whole of the advisableness of bringing in a Bill to amend the Party Processions Act, for the purpose of removing present disabilities from meetings of a religious and political character that they are now labouring under.

TUESDAY, 2 DECEMBER.

GENERAL BUSINESS—NOTICE OF MOTION :—

1. MR. R. B. SMITH to move,—
 - (1.) That, in the opinion of this House, preliminary steps should be taken to celebrate the Centenary of the Colony of New South Wales by an International Exhibition of such a character that, independently of the Exhibits that may be expected from other parts of the world, the progress of Australian Colonization may be illustrated by the fullest possible display of the resources of the Australasian Colonies.
 - (2.) That, as the earliest publicity of a Centennial Exhibition is essential to its success, it is desirable that, with as little delay as possible, a Royal Commission should be appointed, with the necessary powers, to give full effect to the suggested undertaking.
 - (3.) That the foregoing Resolutions be communicated by Address to His Excellency the Governor.