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PROVINCE OF OTAGO,

New Zealand.

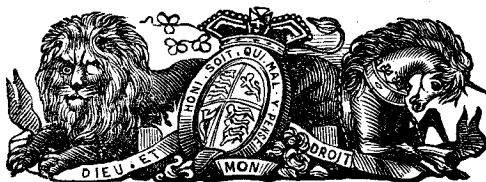


VOTES AND PROCEEDINGS

OF

THE PROVINCIAL COUNCIL.

SESSION XVIII.—1864.



DUNEDIN.

1864.

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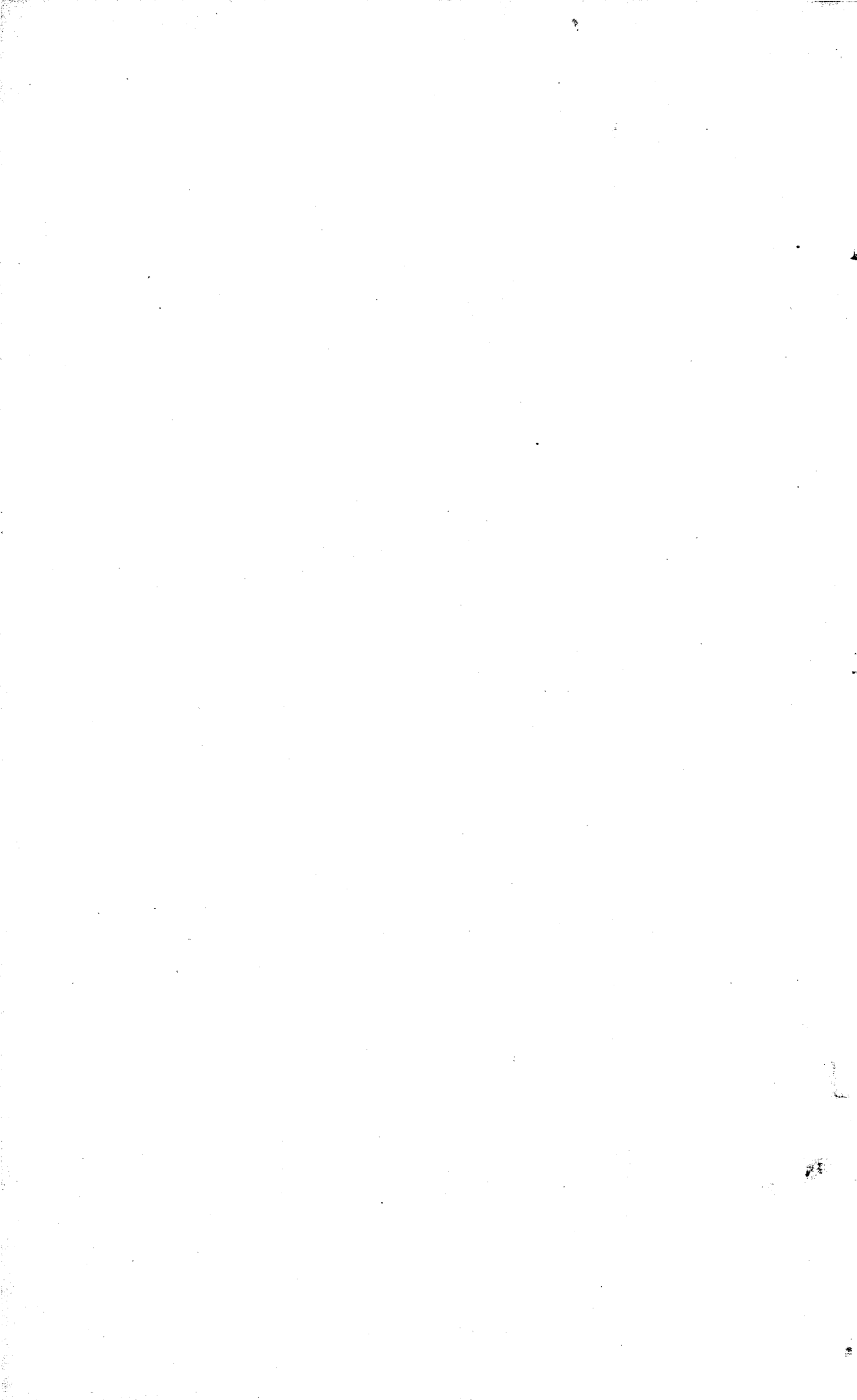
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ROLL

OF

THE PROVINCIAL COUNCILLORS.

SESSION XVIII.—1864.

CLUTHA.....	JOHN LARKINS CHEESE RICHARDSON, (SPEAKER.) DAVID PIKE STEEL. FRANCIS WALLACE M'KENZIE.
DUNEDIN,.....	THOMAS DICK. WILLIAM HUNTER REYNOLDS. THOMAS BIRCH. FREDERICK JOSEPH MOSS. EDWARD BOWES CARGILL. JAMES KILGOUR. JAMES PATERSON.
GOLDFIELDS.....	WILLIAM BALDWIN. JOHN HUGHES. GEORGE BRODIE.
GREEN ISLAND AND CAVERSHAM...	GEORGE LLOYD. JOHN BLAIR.
LINDIS.....	FREDERICK THOMAS WALKER.
MANUHERIKIA.....	WILLIAM DICK MURISON.
MATAU.....	WILLIAM HENNING MANSFORD.
NORTH HARBOR.....	JOHN CARGILL. *GEORGE DUNCAN.
OAMARU (COUNTRY.).....	MICHAEL SHERLOCK GLEESON.
„ (TOWN.).....	HENRY JOHN MILLER.
PENINSULA.....	ARTHUR WILLIAM MORRIS.
PORT CHALMERS.....	JAMES MACANDREW.
TAIERI.....	WILLIAM STEVENSON. DONALD REID. ARTHUR JOHN BURNS. ALEXANDER RENNIE.
TOKOMAIRIRO.....	JAMES ADAM. JOHN LILLIE GILLIES. JOHN HARDY.
WAIHOLA.....	ALEXANDER MOLLISON.
WAIKARI.....	GEORGE HEPBURN, (CHAIRMAN OF COMMITTEES.)
WAIKOUAITI.....	JULIUS VOGEL.
WAKATIPU.....	HENRY CLAPCOTT.

* Charles Henry Street, Esq., succeeded Mr G. Duncan for the North Harbor District.—
See Votes and Proceedings, page 77.



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No. I.—ABSTRACT OF MESSAGES FROM HIS HONOR THE SUPERINTENDENT.

NUMBER OF MESSAGE.	SUBJECT.	WHEN RECEIVED.	PAGE.	WHEN REPLIED TO.	PAGE.	REMARKS.
1	Assenting to Criminals' Bill, 1864	April 14	19	Considered in Committee, April 27, (See Votes and Proceedings, p. 48.) Reported May 3, (See Appendix to Votes and Proceedings, p. vii.)
2	Suggesting Amendments in the Kerosene and Paraffine Oils Ordinance Amendment Bill	" "	19	April 14	23	
3	Home Agency	" "	20	...	...
4	Resolutions <i>anent</i> Loans, &c.	" "	21	...	...
5	Resignation of Executive	April 15	26	...	...
6	Wakatipu Election	" 18	27	...	...
7	Steps taken towards a re-construction of the Executive	" 20	29	...	...
8	Executive (resumption of office)	" 21	33	...	...
9	Medical Practitioners' Bill	" 26	43	April 27	49	
10	Police Regulations Ordinance Amendment Bill	" 27	47	May 2	61	
11	North Harbor District Election	May 6	77	...	...
12	Resignation of Executive	" 11	90	...	...
13	Formation of New Executive	" 17	94	...	...
14	Assenting to certain Bills	" 27	107	...	...
15	Position of Provincial Loans	" 27	107	...	...
16	Transmitting Estimates for Half Year ending 30th Sept., 1864	" 30	112	For Address referred to in Message, see Votes and Proceedings, p. 105.
17	Transmitting Petition from Residents in and near Maclaggan-street	June 1	121	...	...
18	Sanitary State of the city of Dunedin	" 3	133	For Address referred to in Message, see p. 113.
19	Transmitting Resolutions of a Public Meeting of the Unemployed	" 7	142	June 7	145	
20	Supplementary Estimates	" 7	142	...	...
21	Amendment of Taieri Districts Roads Lands Bill...	" 9	152	June 9	154	
22	Further Supplementary Estimates	" 9	152	...	...
23	Cemetery for North Dunedin	" 10	157	June 13	161	
24	Home Agency	" 13	160	" "	162	

No. II.—SUMMARY OF PROCEEDINGS ON BILLS.

ORDER.	SHORT TITLE.	BY WHOM INTRODUCED.	INTRODUCED AND READ FIRST TIME.	READ 2ND TIME AND COMMITTED	RE-COMMITTED.	READ 3D TIME AND PASSED.	ASSENTED TO.	REMARKS.
1	Criminals	Provincial Secretary	April 7	April 8	...	April 11	April 14	Referred to Select Committee, April 8. See Votes and Proceedings, page 10. Referred to Select Committee May 4. Abandoned June 8. Reserved June 14.
2	Kerosene and Paraffine Oils Ordinance Amendment	" "	" 7	" 8	...	" "	June 14	
3	Police Regulations Ordinance Amendment	" "	" 7	" 11	...	" 13	" 14	
4	Building Ordinance Amendment	" "	" 7	" 8	...	...	...
5	Bush Fires	" "	" 7	" 11	..	May 4	May 27	
6	Medical Practitioners... ..	Provincial Treasurer	" 7	" 11 (Committed 12)	April 14	April 14	" 27	
7	Superintendent's Indemnity	Provincial Secretary	" 8	" 21 (Committed 22)	...	" 29	" 27	
8	Education	Provincial Treasurer	" 11	" 25	April 29	" "	" 27	
9	Cattle	" "	" 13	" 26	...	...	...
10	Education Reserves Management and Leasing	" "	" 22	May 5	May 6	May 6	...	
11	Cemetery Reserves	Provincial Secretary	" 22	" 4	" 10	" 10	" 27	
12	Education Reserves	" "	" 22	" 5	" 6	" 6	" 27	
13	Cemetery Reserves Management	" "	" 25	" 4	...	" 6	" 27	
14	Hawksbury Roads Lands	Secretary Public Works	" 25	" 5	May 10	" 10	June 14	
15	Southern Trunk Road Lands	" " "	" 27	" 5 (Committed 6)	" "	" "	" 14	

SUMMARY OF PROCEEDINGS ON BILLS—(CONTINUED).

ORDER.	SHORT TITLE.	BY WHOM INTRODUCED.	INTRODUCED AND READ FIRST TIME.	READ 2ND TIME AND COMMITTED.	RE-COMMITTED.	READ 3D TIME AND PASSED.	ASSENTED TO.	REMARKS.
16	Kaikorai District Roads Lands ...	Secretary Public Works	April 27	May 5 (Committed 6)	May 10	May 10	June 14	
17	Licensing Amendment ...	Mr. Lloyd	" 29	May 2	" ..	May 3	May 27	
18	Licensed Hawkers' ...	Provincial Secretary	" 29	" 5	May 6	" 6	" "	
19	Dunedin Town Board Dissolution ...	" "	" 29	" ..	" ..	" ..	" ..	Withdrawn May 31.
20	Licensing ...	" "	May 2	" 6	June 2	" ..	" ..	Chairman of Committees left the Chair on the motion of Mr. Brodie, June 2.
21	Ferries Ordinances Repeal ...	" "	" 10	" 25	" ..	" ..	" ..	Withdrawn May 31.
22	Anderson's Bay District Roads Lands	Secretary Public Works	" 17	" 25	" ..	May 31	June 14	
23	Tokomairiro District Roads Lands ...	" "	" 17	" 25	" ..	" 31	" "	
24	Otago Loan Ordinance, 1162, Amendment ...	Provincial Secretary	" 17	" 17	" ..	" 17	" ..	Reserved June 14.
25	Otago Harbor Loan Ordinance, 1863 Amendment ...	" "	" 25	" 26	May 30	" 30	" ..	Reserved June 14.
26	Otago Public Buildings Ordinance, 1862, Amendment ...	" "	" 25	" "	" "	" 30	" ..	Reserved June 14.
27	Dunedin Building Ordinance, 1862, Amendment ...	" "	" 25	" "	" ..	" 30	June 14	Brought in in compliance with a recommendation of Select Committee on No. 4.
28	Taieri Districts Roads Lands ...	Secretary Public Works	" 26	June 2	" ..	June 6	" "	
29	Northern Trunk Road Lands ...	" "	June 1	" 6	" ..	" 7	" "	
30	Turnpikes Ordinance Amendment ...	" "	" 6	" 7	June 8	" 8	" "	

SUMMARY OF PROCEEDINGS ON BILLS- (CONTINUED).

ORDER.	SHORT TITLE.	BY WHOM INTRODUCED.	INTRODUCED AND READ FIRST TIME.	READ 2ND TIME AND COMMITTED.	RE-COMMITTED.	READ 3D TIME AND PASSED.	ASSENTED TO.	REMARKS.
31	Caversham and Green Island Districts Roads Lands	Secretary Public Works	June 8	June 9	...	June 10	June 14	The motion for second reading lost on division, June 10. See Votes and Proceedings, page 158.
32	Dunedin Waterworks and Sewerage ...	Provincial Secretary	„ 9	...	...	...	...
33	Provincial Public Notices	„ „	„ 9	June 10	...	„ 13	June 14	
34	Bread Ordinance Amendment ...	„ „	„ 9	„ „	..	„ 13	„ „	
35	Appropriation	Provincial Treasurer	„ 13	„ 13	...	„ 13	„ „	

NO. III.—ABSTRACT OF ADDRESSES PRESENTED TO HIS HONOR THE SUPERINTENDENT:

ORDER.	SUBJECT.	MOVER OF MOTION.	PASSED.		REPLIED TO.		REMARKS.
			DATE.	PAGE.	DATE.	PAGE.	
1	School Fees, &c.	Mr. Vogel	April 13	16	April 21	34	
2	For an amount to be placed on the Supplementary Estimates to cover the expenses of the House Committee	Mr. Lloyd	„ 21	34	June 7	142	Amount included in Supplementary Estimates
3	Resident Magistrates' Jurisdiction Extension Act, 1862	Mr. Vogel	„ 26	43	...	...
4	Commissioner of Mines	Mr. Hughes	„ 28	51	...	...
5	Building Ordinance	Mr. Macandrew	May 6	78	May 25	97	Bill brought up by the Provincial Secretary
6	Division of Goldfields into Electoral Districts ...	Mr. Hughes	„ 10	85	...	...
7	Cemetery at North end of Dunedin	Mr. Street	„ 10	85	...	...	See Message No. 23, Page 157
8	Hundreds (recommended by vote of previous Session)	Mr. Dick	„ 10	85	...	...
9	Cost of Upper Taieri Bridge	Mr. Vogel	„ 10	87	May 25	97	
10	Memorial from T. A. Mansford and J. Brownhill...	Mr. Macandrew	„ 25	98	...	...	Amount put on Supplementary Estimates
11	Education Ordinance, 1864	Mr. Hardy	„ 26	102	„ 27	107	
12	Debentures... ..	Mr. Gillies	„ 26	105	„ 27	107	
13	Retrenchment in the Public Service	Mr. Macandrew	„ 27	107	...	...	See Votes and Proceedings page 118
14	Track from Port Chalmers to Purakanui	Mr. Street	„ 27	108	...	...
15	Petition from Settlers in North East Harbor Peninsula	Mr. Morris	„ 30	113	...	...
16	Sanitary State of the Town of Dunedin	Mr. Brodie	„ 30	113	June 3	133	

No. III.—ABSTRACT OF ADDRESSES PRESENTED TO HIS HONOR THE SUPERINTENDENT—(CONTINUED.)

ORDER.	SUBJECT.	MOVER OF MOTION.	PASSED.		REPLIED TO.		REMARKS.
			DATE.	PAGE.	DATE.	PAGE.	
17	Value of the Unsold Lands of the Province ...	Mr. Brodie	May 31	117	...	...	*Bill brought up by the Provincial Secretary
18	Bread Ordinance	Mr. Birch	„ 31	118	June 9	153	
19	Ferry to connect Inch Clutha with the main-land	Mr. Mansford	June 1	121	...	...	Amount placed on Supplementary Estimates
20	Introduction of Salmon Ova into the Rivers of the Province	Mr. Macandrew	„ 1	121	...	...	See Votes and Proceedings, page 130
21	Formation of the Pine Hill Road... ..	Mr. Street	„ 1	121	...	...	See Votes and Proceedings, page 156
22	John Hughes' Petition	Mr. Gleeson	„ 2	127	...	...
23	Acclimatisation Society	Mr. Adam	„ 8	148	...	...
24	Volunteer Force	Mr. J. Cargill	„ 8	148	...	...

No. IV.—SELECT COMMITTEES APPOINTED DURING THE SESSION.

ORDER.	SUBJECT.	MEMBERS.	MOVER.	DATE OF APPOINTMENT.	REPORT BROUGHT UP.	REMARKS.
1	Standing Orders ...	Mr. Speaker, Mr. Hepburn, Mr. Rennie, Mr. E. B. Cargill, and Mr. Dick	Mr. Dick	April 8	April 13	
2	House ...	Capt. Baldwin, Mr. Lloyd, Mr. Rennie, Mr. Murison, and Mr. Dick.	Mr. Dick	" 8	...	Various verbal, from "time to time"
3	Building Ordinance ...	Mr. E. B. Cargill, Mr. Birch, Mr. Paterson, Mr. Moss, Mr. Kilgour, Mr. Hardy, and Mr. Reynolds	Mr. Reynolds	" 8	" 22	
4	Printing (Council)...	Mr. Speaker, Mr. Reynolds, Mr. Burns, Mr. Mr Blair, Mr. Mollison and Mr. Dick	Mr. Dick	" 13	Interim April 20	
5	Govrenment Printing ...	Mr. Speaker, Mr. Gillies, Mr. Morris, Mr. Walker, Mr. Blair, Mr. Rennie, Mr. Reynolds.	Mr. Reynolds	" 20	May 25	See Reports of Select Committees, Page 31
6	Mr. Speaker's Memorandum on the Audit Act ...	Mr. Speaker, Mr. Morris, Mr. Paterson, Mr. Adam, Mr. Steel, Mr. Moss, and Mr. Brodie	Mr. Brodie	" 20	April 27	
7	Coal Reserves ...	Mr. Speaker, Mr. Miller, Mr. Kilgour, Mr. Brodie, Mr. Hardy, Mr. Gillies, Mr. Mansford	Mr. Mansford	" 21	May 11	See Reports of Select Committees, page 7
8	Masters' and Servants' Act	Mr. Hardy, Capt. Baldwin, Mr. Mansford, Mr. Hughes, Mr. Miller, Mr. Kilgour Mr. Walker	Mr. Walker	" 21	" 6	
9	Clutha Petition ...	Mr. Kilgour, Mr. Moss, Mr. Murison, Mr. Miller, Mr Morris, and Capt. Mackenzie	Capt. Mackenzie	" 27	" 5	See Reports of Select Committees, page 1

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No. IV.—SELECT COMMITTEES APPOINTED DURING THE SESSION—(CONTINUED).

ORDER.	SUBJECT.	MEMBERS.	MOVER.	DATE OF APPOINTMENT.	REPORT BROUGHT UP.	REMARKS.
10	Portobello Road	Mr. Moss, Mr. Blair, Mr. Miller, Mr Burns, Mr. Morris, Mr. Birch, and Mr. Reynolds	Mr. Reynolds	April 29	...	Appointed by Ballot. Discharged May 5
11	Loan and Grant to Town Board (Dunedin)	Mr. Paterson, Mr. Reynolds, Mr. Birch, Mr. Gillies, Mr. Burns, Mr. Murison, and Mr. E. B. Cargill.	Mr. E. B. Cargill	„ 29	June 8	See Reports of Select Committees, page 17
12	Petitions of Inhabitants of Oamaru and the Waitaki District	Mr. Speaker, Mr. Reynolds, Mr. Walker, Mr. Gillies, Mr. Morris, Mr. Paterson, & Mr. Miller	Mr. Miller	„ 29	May 5	See Reports of Select Committees, page 6
13	“Supply,” and “Ways and Means”	Mr. Speaker, Mr. Gillies, Mr. E. B. Cargill Mr. Morris, Mr. Reynolds, Mr. Steel, Mr. Burns	Mr. Burns	May 2	„ 3	See Reports of Select Committees, page 35
14	Congratulatory Addresses to the Queen and the Prince and Princess of Wales...	Mr. Speaker, Mr. Miller, Mr. Hughes, Mr. Stevenson, and Mr. Murison	Mr. Murison	„ 4	„ 6	
15	Cattle Bill, 1864	Mr. Gillies, Mr. Gleeson, Mr. Murison, Mr. Walker, Mr. Mollison, Mr. Burns and Mr. Miller	Mr. Miller	„ 4	„ 30	See Reports of Select Committees, page 9
16	Volunteer Force	Mr. Speaker, Mr. Moss, Mr. Blair, Mr. Gleeson, Mr. Hardy, and Mr. J. Cargill	Mr. J. Cargill	„ 10	June 6	See Reports of Select Committees, page 29

No. V.—ABSTRACT OF PETITIONS PRESENTED DURING THE SESSION:

ORDER.	ABSTRACT OF PRAYER.	FROM WHOM.	BY WHOM PRESENTED.	DATE OF PRESENTATION.	NUMBER OF SIGNATURES.	REMARKS.
1	Claim to consideration on account of the Discovery of the W. Taieri Goldfield	Simon Fraser	Mr. Hughes	April 11	1	
2	Praying for the Expenditure of a greater proportion of the general Revenue within the District	Land owners and others in the Clutha District	Mr. Steel	" 20	257	Referred to Select Committee, April 27, see Petitions page 1
3	Setting forth certain Grievances, and praying for Redress of the same	George Smith	Mr. Kilgour	" 20	1	See Votes and Proceedings, pages 37 and 40
4	Setting forth certain grounds for the Modification or Repeal of the <i>Education Ordinance</i>	William Bacon	Mr. Macandrew	" 25	1	
5	For the aid of Government in making certain Improvements in the Town and District of Oamaru	Inhabitants of Oamaru and District of Waitaki	Mr. Miller	" 27	138	
6	That a Commission be appointed to consider the proper means to be used for the Improvement of the Harbor at Oamaru ...	Inhabitants of Oamaru and District of Waitaki	Mr. Miller	" 27	135	} Referred to Select Committee, April 29, see Petitions. pages 5 and 6.
7	For a Road from the Main South Road to the Mouth of the Taieri River	Settlers in Akatore, Otago, Saddle Hill, and neighboring Districts	Mr. Burns	" 28	67	

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No. V.—ABSTRACT OF PETITIONS PRESENTED DURING THE SESSION—(CONTINUED).

ORDER.	ABSTRACT OF PRAYER.	FROM WHOM.	BY WHOM PRESENTED.	DATE OF PRESENTATION.	NUMBER OF SIGNATURES.	REMARKS.
8	Setting forth certain Losses and praying for Compensation	John Wood	Mr. Mansford	April 29	1	
9	Praying the Exemption of a certain portion of Run No. 178 from an Infected District ...	Messrs Teschemaker and Schlotel	Mr. Vogel	May 5	2	
10	For Redress of Grievances	Jurors of Dunedin	Mr. Reynolds	,, 5	19	
11	For Aid in the Establishment of a Mechanics' Institute at Port Chalmers	Messrs Mansford and Brownhill	Mr. Macandrew	,, 9	2	
12	That Public Reserves be Protected from Misappropriation or Encroachment	Occupiers and owners of property in & around Moray-place	Mr. Reynolds	,, 16	186	
13	That the Government would allow him his Claim of Land in the District of Moeraki, or so much as they have power to grant ...	John Hughes	Mr. Gleeson	,, 17	1	See Votes and Proceedings, page 127
14	For a Road from Anderson's Bay to Portobello... ..	Settlers in North-east Harbor Peninsula	Mr. Morris	,, 25	87	
15	For Alterations to be made in the Boundaries of certain Proclaimed Infected Districts ...	Messrs Chalmers Bros.	Capt. Mackenzie	,, 31	1	Referred to the Select Committee on the Cattle Bill. Reported on June 9

No. V.—ABSTRACT OF PETITIONS PRESENTED DURING THE SESSION—(CONTINUED).

ORDER.	ABSTRACT OF PRAYER.	FROM WHOM.	BY WHOM PRESENTED.	DATE OF PRESENTATION.	NUMBER OF SIGNATURES.	REMARKS.
16	For greater facilities of Steam Communication with Dunedin	Residents and others in the District of Moeraki	Mr. Miller	May 31	92	Presented in the first instance to His Honor the Superintendent. See Votes and Proceedings, page 116
17	Praying Compensation on account of Summary Dismissal from office	Officers of the Provincial Engineer's Department	Mr. Dick	June 6	11		See Petitions, page, 7
18	Setting forth certain Public Services said to have been rendered to the Province, and Losses incurred thereby, and praying for consideration	John Graham	Mr. Dick	„ 7	1	

NO. VI.—SCHEDULE OF RETURNS, PAPERS, CORRESPONDENCE, &c. LAID ON THE TABLE BY ORDER OR OTHERWISE.

ORDER.	NATURE OF RETURN, &c.	ON WHOSE MOTION OR QUESTION.	DATE.	BY WHOM LAID ON TABLE.	WHEN LAID ON THE TABLE.	REMARKS.
1	Acts and Appointments by His Honor the Superintendent under the <i>Goldfields Act</i> , 1862	Provincial Secretary	April 8	See Appendix to Votes and Proceedings, page i.
2	Acts and Appointments by His Honor the Superintendent, under the <i>Diseased Cattle Act</i> , 1861 ... ..	.....	...	„ „	„ „
3	Opinions of Counsel respecting the powers of Speakers of Provincial Councils. ... ..	.....	...	Mr. Speaker	„ „
4	Suggested Amendments upon Standing Orders ... ..	.....	...	„ „	„ „
5	Certified Statement of Provincial Expenditure ... ..	.....	...	„ „	„ „
6	Immigration Correspondence... ..	.....	...	Provincial Secretary	„ „
7	Panama Mail Service Contract ... ..	.....	...	„ „	11
8	Manual of Police Regulations ... ..	.....	...	„ „	12
9	Correspondence relative to the proclamation of New Hundreds ... ..	.....	...	„ „	„ „
10	Correspondence respecting purchase of site for Provincial Government Offices ... ..	.....	...	„ „	„ „
11	Auditor's Report of unauthorised Expenditure, with Memorandum by Mr. Speaker ... ..	.....	...	Mr. Speaker	„ 14
12	Report of Commission on Roads and their Construction ... ..	.....	...	Provincial Secretary	„ „
13	Correspondence relative to the Removal of the Seat of Government	Mr. Brodie (q)	April 14	„ „	„ „	
14	Proclamation respecting Bills passed during Session XVII.	.....	...	„ „	„ „
15	Statement of Receipts and Payments of the Public Accounts from 1st April, 1863, to 31st March, 1864 ... ..	.....	...	Provincial Treasurer	„ „
16	Acknowledgment of Congratulatory Addresses ... ..	.....	...	Mr. Speaker	„ 18

No. VI.—SCHEDULE OF RETURNS, PAPERS, CORRESPONDENCE, &c., LAID ON THE TABLE BY ORDER OR OTHERWISE—(CONTINUED).

ORDER.	NATURE OF RETURN, &c.	ON WHOSE MOTION OR QUESTION.	DATE.	BY WHOM LAID ON TABLE.	WHEN LAID ON THE TABLE.	REMARKS.
17	His Honor the Superintendent's assent to Amended Standing Orders	.....	...	Mr. Speaker	April 21	
18	Letter from Provincial Auditor, transmitting Statement of Revenue and Expenditure from 1st April, 1863, to 31st March, 1864	.....	...	" "	" "
19	Return of School Fees, &c.	Mr. Vogel (M.)	April 13	Provincial Treasurer	" "	
20	Return of Annual Cost of Schools, &c.	" "	" 13	" "	" "	
21	Abstract of Statements of Receipts and Expenditure on account of Grants in aid	.....	...	" "	" 22	
22	Immigration Correspondence (Additional)	.....	...	Provincial Secretary	" "	
23	Case submitted to Mr. Sewell for opinion of Counsel	.....	...	Mr. Speaker	" "	See Appendix to Votes and Proceedings, page i.
24	Return of Town and Rural Lands sold in the Province	.....	...	Provincial Secretary	" 25	
25	Report of Commission on Roads and their Deviations	.....	...	Sec. Public Works	" "	Appendix No. 1-14 laid on the table subsequently from time to time
26	Return of Wholesale, Bottle, and Publicans' Licenses	Mr. Stevenson (Q.)	April 20	Provincial Treasurer	" 26	
27	Return of Expenses incurred on Commissions of Enquiry	Mr. Birch (M.)	" 22	" "	" "	
28	Return of sums collected in Otago Courts of Justice, &c.	Mr. Vogel (M.)	" 13	Provincial Secretary	" 27	
29	Report of Government Gardener on the growth of thistles on the Maori Reserve	.....	...	Sec. Public Works	" "	
30	Copy of letter to the Hon. Mr. Sewell, covering case for opinion of Counsel	.....	...	Mr. Speaker	May 2	
31	Reports and Letters relative to the improvement of the Navigation of the Clutha River	.....	...	Sec. Public Works	" 5	
32	Report of Commission on the Hospital and Lunatic Asylum	.....	...	Provincial Secretary	" 6	

No. VI.—SCHEDULE OF RETURNS, PAPERS, CORRESPONDENCE, &c., LAID ON THE TABLE BY ORDER OR OTHERWISE—(CONTINUED.)

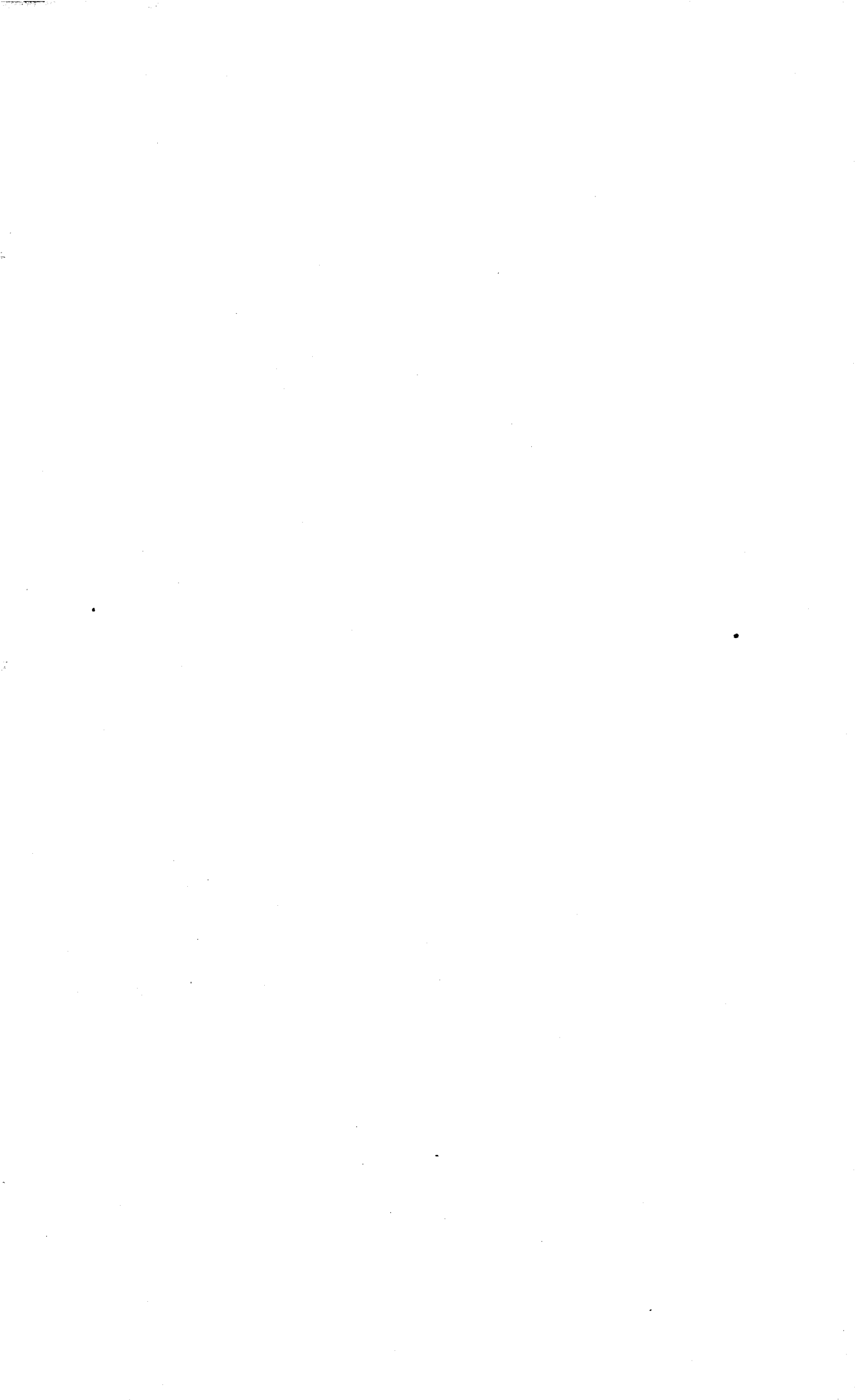
ORDER.	NATURE OF RETURN, &c.	ON WHOSE MOTION OR QUESTION.	DATE.	BY WHOM LAID ON TABLE.	WHEN LAID ON THE TABLE.	REMARKS.
33	Return of Rural Lands surveyed up to March 31, 1864 ...	Mr. Hardy (M.)	April 14	Provincial Secretary	May 9	
34	Correspondence respecting the Application of Simon Fraser for a Reward for Discovery of West Taieri Gold Field ...	Mr. Hughes (M.)	May 9	" "	" "	
35	Returns recommended by Select Committee on Audit Act...	Mr. Brodie (M.)	" 10	Mr. Speaker	" 25	See Appendix to Votes and Proceedings, page iv.
36	Statement of estimated cost of Upper Taieri Bridge ...	Mr. Vogel (M.)	" "	Provincial Secretary	" "	
37	Return of Suburban Lands surveyed for sale adjacent to the Townships of Lawrence, Clyde, and Queenstown ...	Mr. Hughes (M.)	" 9	" "	" "	
38	Convictions for Drunkenness during the year ending 31st March, 1864 ...	Mr. Stevenson (Q.)	April 20	" "	" "	Supplementary to No. 26
39	Return of Revenue and Expenditure connected with the Goldfields for the year ending 31st March, 1864 ...	Mr. Paterson (M.)	May 4	" "	" "	Referred back for correction on motion of Mr. Brodie, May 30
40	Debiture Sale Notes ...	Mr. Dick (Q.)	" 26	Provincial Treasurer	" 26	
41	Correspondence relative to the Appointment of C. R. Swyer, Esq., as Provincial Engineer ...	Mr. Dick (M.)	" "	Provincial Secretary	" 27	
42	Police Clothing Account ...	Mr. Gillies (M.)	" 27	" "	" "	
43	Copy of Compensation Award to Messrs. Grant and Gammie	Mr. Dick (M.)	" "	" "	" 30	
44	Statement showing the Funded Debt of the Province on 31st March, 1864 ...	...	...	Mr. Speaker	June 1	
45	Correspondence relative to Mr. William Shand's claim for compensation, &c. ...	Mr. Gillies (M.)	May 27	Provincial Secretary	" "	
46	Mr Commissioner Worthington's Report on the Goldfields Rules and Regulations, together with a communication from the Goldfields Secretary ...	Mr. Hughes (Q.)	June 2	" "	" 2	
47	Return of Contracts for Public Works, &c. ...	Mr. Gillies (M.)	May 26	Sec. Public Works	" "	

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NO. VI.—SCHEDULE OF RETURNS, PAPERS, CORRESPONDENCE, &c., LAID ON THE TABLE BY ORDER OR OTHERWISE.—CONTINUED.

ORDER.	NATURE OF RETURN, &c.	ON WHOSE MOTION OR QUESTION.	DATE.	BY WHOM LAID ON TABLE.	WHEN LAID ON THE TABLE.	REMARKS.
48	Return of the Cost of Public Works performed by the Provincial Engineer's Department	Mr. Dick (M.)	June 2	Sec. of Public Works	June 3	Supplemental to No. 48
49	Immigration Correspondence (Additional) ... ..	...	...	Provincial Secretary	" "
50	Addition to Return of Cost of Public Works, &c.	Mr. Dick (M.)	" 2	Sec. Public Works	" 6	
51	Return of the amount of Business transacted in the Store-keeper's Department	Mr. Vogel (M.)	" 3	Provincial Treasurer	" "	
52	Correspondence relative to Peter Williams' claim for Land at Moeraki	Mr. Gillies (M.)	May 27	Provincial Secretary	" 7	
53	Return respecting Agricultural Leases on Goldfields ... ..	...	...	" "	" "
54	Report of the Commissioner on Roads and their Deviations on the claims of Mr Sidy, &c., &c. ... ..	...	...	Sec. of Public Works	" "
55	Further Acts and Appointments by His Honor the Superintendent under the <i>Goldfields Act</i> , 1862... ..	...	...	Provincial Secretary	" 9
56	Further Acts and Appointments by His Honor the Superintendent under the <i>Diseased Cattle Act</i> , 1861 ... ..	...	...	" "	" "
57	Copy of Proposal on the part of the Pilot Staff	Mr. Macandrew (Q.)	June 9	" "	" "	
58	Return of Toll Dues Collected at the different Toll Bars	Mr. Mollison (Q.)	" 8	" "	" "	
59	Mr Swyer's Report on Port Chalmers Railway	June 14	Put into circulation, but not formally laid on the Table.

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PROCLAMATION

By the Honorable JOHN HYDE HARRIS, Superintendent of the
Province of Otago.

IN pursuance of the power and authority vested in me in this behalf, I do hereby
fix and Proclaim that the Eighteenth Session of the Provincial Council of the
Province of Otago, shall be holden within the Provincial Council Hall, Dunedin, in
the said Province, and shall commence upon Thursday, the seventh day of April next,
at twelve o'clock at noon; and the Members of the said Council are hereby warned
to give their attendance at such time and place accordingly.

Given under my hand, and issued under the Public Seal of the Province
(L.S.) of Otago, at Dunedin, this third day of March, One Thousand
Eight Hundred and Sixty-Four.

JOHN HYDE HARRIS,
Superintendent.

By His Honor's Command,
THOMAS DICK, Provincial Secretary.

VOTES AND PROCEEDINGS
OF
THE PROVINCIAL COUNCIL.

SESSION XVIII.

1864.

THURSDAY, APRIL 7.

The Council met at twelve noon, pursuant to proclamation of 3rd March, 1864.
Proclamation read by the Clerk.

His Honor the Superintendent entered the Chamber, delivered his opening address, and withdrew.

[ADDRESS]

MR. SPEAKER AND GENTLEMEN OF THE PROVINCIAL COUNCIL, —

The close of the Financial year renders it necessary for me to assemble you in Session, in order that you may sanction the necessary expenditure of Revenue for the current year. The general circumstances of the Province also make it imperative on me at this particular time to have recourse to your deliberative judgment and counsel.

The past year, although not marked by the sudden changes and commercial excitement which followed the discovery of gold at the Tuapeka, and more recently at the Dunstan and Lake Districts, has, nevertheless, been an eventful and important one in the history of our Province; and the evidences of improvement which are everywhere manifest, are sufficiently indicative of a sound progress.

The subject to which, in now addressing you, I feel it incumbent on me to attach especial prominence, is the financial position of the Province—present and prospective.

When you last met in Session, an Estimate of the Ordinary Revenue, and Revenue derivable from the sale of Crown Lands, for the year ending 31st March, 1864, was laid before you. That Estimate showed that the sum of £350,600 might, with reasonable probability, be relied on from those sources; while from the sale of Debentures, issuable under the concurrent sanction of Provincial Ordinances, and of the General Government of the Colony, the sum of L650,000 appeared to be available for Public Works. Thus, a total sum of L1,000,600, inclusive of L10,792 2s. 6d., the amount of unauthorised expenditure from the 31st March, 1863, to the date of your last Appropriation Ordinance appeared to be at your disposal, and by that Ordinance you authorised the Executive Government to disburse on account of Public Works and otherwise the sum of L929,404 13s. 2d.

Of

Of this appropriation, the sum of L678,000 has been expended.

Under some heads the expenditure has been in excess of your votes, while on the other hand many important Public Works for which you made provision, are either uncommenced, or only in course of construction.

Under the head of uncommenced Works may be enumerated, the Port Chalmers Pier ; the Cape Saunders, Tairoa's Head, and Dog Island Lighthouses : the contemplated operations connected with the improvement of the entrance to, and the erection of a Bridge across the River Clutha ; the Provincial Government Buildings and other works of more or less importance.

The circumstances under which unauthorised expenditure has been incurred will be explained to you, and you will be asked to give your sanction to an Act indemnifying the Government for having so far exceeded the powers with which you had entrusted them. You will be also made acquainted with the various operating causes of delay in the prosecution of the authorised Public Works, which are at present either uncommenced or uncompleted.

Having seen that the *Estimated* Revenue and Income for the past year, from ordinary sources, and from sales of Debentures, amounted to 1,000,600 ; that to meet the requirements of the Public Service during that period, you appropriated by Ordinance the sum of £929,404 13s. 2d.—and that of that amount the Provincial Government have expended the sum of £678,000 only, it follows that the sum of £322,000 ought now to be available for Public Works during the current year, *i.e.*, provided that the expectations of the Government when they framed the Estimates in August last, have been realised.

A short reference to actual facts and figures will suffice to show clearly our financial position.

Amount of actual Expenditure for the year ending 31st			
March, 1864,	£678,000	0	0
Revenue and Income from all sources, exclusive of Debentures during the same period,	374,000	0	0
	£304,000	0	0
Leaving the amount of	£304,000	0	0
to be met by sale of Debentures.			

With reference to these Debentures, you are doubtless already aware of the fact that, up to the time of the departure of the last mail, the whole of our half-million Loan remained unnegotiated. The high value of money which has ruled in the English market from the time the Otago Debentures were placed upon it, has, doubtless, had a prejudicial influence on its sale, but in order to account for this Loan being apparently an unmarketable security, other causes more influential than a temporary scarcity of money must be in operation. Among these causes may, I think be ranked the following :—

1. Our real position as a Province, and the nature of our Securities, are neither fully known nor recognised in Great Britain.
2. Our Provincial Loans although assented to by the Governor of the Colony, not having the sanction of an Act of the General Assembly, are not even admitted to quotation on the Stock Exchange.
3. Competition with the numerous loans now on the London market, including those of *Foreign States*, our own *Dependencies*, *Colonies*, and *Provinces*, but more especially the New Zealand War Loan of Three Millions, which, as a Colonial security, from the superior position it appears to occupy as compared with a purely Provincial transaction, cannot fail to exercise a depreciating effect upon the latter.

A prudent estimate of our present and immediately prospective financial position, seems to point to the conclusion that, failing a speedy negotiation of our Loan, even with the exercise of the utmost care and economy in the construction of the Estimates for the current year, it may not be possible for the Province to escape the serious consequences

consequences which must inevitably arise from a crippled Administration and the cessation of Public Works clamorously demanded by the necessities incident to rapid progress, but which must be sternly denied with an embarrassed Exchequer.

I have brought this subject before you in a manner somewhat unusual in an address of this kind, from a strong sense of duty, being possessed with the conviction that we may be called upon to contend with no ordinary difficulties. That these difficulties may be avoided by prompt and decisive action, I as fully believe, as I do in the possibility of their occurrence; and I am equally confident in the thorough soundness and stability of the Province, and in its possession of resources which cannot ultimately fail to place it in the foremost rank of British Colonies.

Without entering upon questions savouring rather of Colonial than Provincial politics, I proceed briefly to indicate the direction in which I think security against impending danger should be sought, as also the line of action which appears best calculated to ensure future exemption from similar difficulties.

Assuming that in the event of no material change occurring in the money market of Great Britain, and in the absence of additional guarantees, our half-million Loan will continue for a considerable time undisposed of, the only course I can confidently recommend is that, by resolution or otherwise, you join me in strongly urging upon the General Government of the Colony the absolute necessity of their immediately pledging the country to a guarantee of the Loan, so that it may be placed in the British Market on as favourable a footing as the Colonial War Loan, which is now in course of negotiation through an accredited member of the New Zealand Government.

On the subject of future Loans which, in connection with Public Works of permanent importance, and especially with reference to Railways, it will be found necessary to resort to a well-defined system, by which Foreign capital may be made available for their construction. The concomitants of such a system as would meet the requirements of this Province deserve, and I feel assured will receive, earnest consideration at your hands. Looking at the relationship at present existing between the General Government and the various Provinces of New Zealand, I can suggest no means by which a sufficiently comprehensive Financial Scheme can be matured and rendered efficient without the fullest sanction and concurrence of the General Assembly of the Colony. To this end it will be necessary to secure the co-operation of the other Provinces, which in a matter so plainly calculated to promote the prosperity and financial stability of each, and of the Colony as a whole, will, I believe, be willingly accorded. As an initiatory step, I would suggest the desirability, during the present Session, of your making an approximate estimate of the cost of the principal Public Works (inclusive of Railways), which will require construction during the ensuing five years, and towards which Ordinary Revenue cannot be made available. As a guide to the construction of such an estimate, important data on various subjects will be laid before you.

The collective amount required during the period specified being approximately ascertained, and care being taken that no works shall be included in such Estimate but such as are manifestly of a permanent and reproductive character, the Financial position of the Province might be placed upon a satisfactory footing, were such Loans sanctioned by an Act of the General Assembly, under condition, by which assurances are afforded that the borrowed capital shall be devoted to the specific purposes defined by such Act, and ample security effected upon Lands within the Province, to provide for payment of Interest, and the repayment of Capital.

The plan, the bare outlines of which I have thus offered for your consideration, appears to me to possess the advantage of adaptation to the circumstances of every New Zealand Province; of constituting every Provincial Loan a New Zealand Loan; thereby affording the greatest facility for its negotiation, with the fullest security for its liquidation; of being based upon principles financially and politically sound, and of being reasonable in its demands upon the Government of the Colony.

Reports from the various Commissions appointed by me, in pursuance of resolutions of your House, will be laid upon your table. They contain much valuable information upon the subjects of inquiry, and resolutions will be submitted to you having for their object the practical benefits which it was your desire should result from the labors of the Commissioners.

One of the Reports, that of the Commission on Roads and their construction, with accompanying evidence, I would especially commend to your earnest consideration. The labors of this commission have not only been great, but have resulted in the collection of a body of evidence of great interest and value to the Province.

A series of resolutions, specially bearing on the subject of Railways, will be prepared and submitted to you. If you concur with me in believing that the time has arrived when the position of the Province demands those increased facilities for the conveyance of passengers and goods which railways alone can afford, I shall be prepared to join with you in the adoption of such measures as may be considered best calculated to effect the desired object.

In connection with this subject I have to refer with satisfaction to the extension of Road communication which has been effected during the past year; and I would particularly notice the progressive state of the road from the Dunstan to the Lake Districts via the Kawaura River, a work long believed to possess features of peculiar difficulty in its construction. A great portion of the work is now completed, and in a few months' time an unbroken line of communication, by means of a good road, will exist between Dunedin and Queenstown.

When the Estimates are under your consideration, your attention will be directed to the urgent necessity for the construction of Pack Tracks to some of the outlying portions of the Goldfields. I have already sanctioned the commencement of Tracks from the Arrow Township to the Twelve-mile Creek, and from Arthur's Point to the Upper Shotover District, and trust to receive your sanction to the completion of works without which habitation in those localities during the winter season must be attended with extreme privation and danger.

Considerable additions have been made during the recess to our geographical knowledge of the western portions of the Province, through the explorations of Dr. Hector, Mr. M'Kerrow, Mr Caples, Mr. Alabaster, and others. The first named gentleman has discovered and succeeded in traversing an available pass through the mountains from Martin's Bay to Wakatipu Lake. The character of the entrance to Martin's Bay, and of the surrounding country, do not, however, appear to justify any immediate steps being taken by the Government to encourage settlement in that direction.

Our Goldfields claim particular notice. Large areas of auriferous country have been added during the past year to the previously proclaimed districts, the progress of discovery having during that period been rapid and extensive. Keeping in view the limited population, and the simple appliances employed in mining operations in this Province, the returns for the year are highly satisfactory. So far from giving reason to fear the diminution of our mineral resources, these returns, as well as the known existence of auriferous reefs in various districts, and the vast extent of country over which the precious metal is now found to be distributed, prove beyond doubt, that although this branch of industry may be subjected to fluctuations, and seasons of depression, yet, gold mining in Otago will for many years to come prove a source of remunerative employment to thousands of its population.

I desire to invite your attention to the New Land Regulations, as finally passed by the General Assembly, with a view to your taking into consideration how far such alterations may prove obstructive or otherwise to the sale of lands and the settlement of population thereon. The alteration by which the tax of 2s. per acre per annum upon unimproved lands is made to commence from the date of purchase, I cannot view otherwise than as calculated to affect future sales in a prejudicial manner, and to operate harshly on purchasers, whose object is the improvement of the lands purchased by them. Other alterations of some importance have been made since these Regulations received your sanction, but to which as they will not escape your notice, it is unnecessary for me now, more particularly to allude.

The correspondence between the General and Provincial Governments, relative to the proclamation of additional Hundreds, will be laid before you, and through it you will be informed that His Excellency the Governor has declined for the present to give effect to the resolutions passed by your House during its last Session. Further resolutions on this subject will be presented by the Government for your approval.

It

It is of importance that I should direct your attention to the contract which has been entered into on behalf of the General Government for a Panama Mail Service. I will cause a copy of this contract to be laid upon the table of the House, in order that you may consider its provisions and principles, and their bearing upon the interests of the country.

It affords me much pleasure to inform you that there is every probability of the Industrial Exhibition, for which this Council granted a liberal vote at its last Session, being carried out to a successful issue. The building, which is to be temporarily used for the purpose, is advancing rapidly towards completion, and I have received assurances from various parts of the Colony that the several Provinces will give the undertaking their hearty support.

The Estimates which will be presented to you have been prepared with much care, after a minute investigation of the probable sources of Revenue, and with reference to the requirements of the Public Service; and I have to recommend them to your best consideration and deliberate judgment.

Several measures will be submitted to you by the Government, the most important of which are :—

1. Roads Bill.
2. Road Lines Bill.
3. Municipal Council Bill.
4. Education Bill.
5. Education Reserves Bill.
6. Criminals Bill.
7. Medical Practitioners' Bill.
8. Cemeteries Bill.
9. Ferries Bill.
10. Cattle Bill.
11. Bush Fires Bill.
12. Licensing Bill.
13. Superintendent's Indemnity Bill.
14. Hawkers' Bill.
15. Appropriation Bill.

The following Bills will be also introduced as Amendments to existing Ordinances, viz. :—

1. Turnpikes Ordinance Amendment Bill.
2. Police Regulations Ordinance Amendment Bill.
3. Kerosene and Paraffine Oils Ordinance Amendment Bill.
4. Dunedin Building Ordinance Amendment Bill.

I cannot close this Address without referring to the death of the late Mr. Crawford, one of our Provincial Agents in Great Britain. This gentleman died in Edinburgh on the 17th day of November last. I feel assured that you will join me in an expression of sympathy with his family, and of regret for the loss of one who has faithfully served the Province during a period of many years.

The late Mr. Crawford having been appointed to his office by Ordinance of the Provincial Council, you will be invited to unite with the Government in adopting such steps as may be rendered necessary by his decease.

I now commit the work of the Session to your hands, with the fullest confidence in your earnest desire to promote the secure advancement and best interests of the Province, and my sincere prayer is that the Almighty Ruler of the Universe may direct and prosper all your consultations,—that all things may be so ordered and settled, by your endeavours, upon the best and surest foundation,—that peace and happiness, truth and justice, religion and piety, may be established amongst us for all generations.

J. HYDE HARRIS, Superintendent.

Prayer.

Mr. Speaker announced that His Honor the Superintendent had placed in his hands the address as delivered by him in opening the proceedings of the Session.

B

Ordered

Ordered—That the Address be held as read by Mr. Speaker, and that it be printed.

Mr. Speaker announced that he had received writs, with declarations endorsed thereon to the effect that James Adam, Esq., had been duly elected one of the representatives of the Tokomairiro District in the room of John Dewe, Esq., resigned, and that David Pike Steel, Esq. had been duly elected to fill the vacancy occasioned by the resignation of David Pike Steel, Esq., one of the representatives of the Clutha District.

The newly elected members were introduced, and took their seats as representatives of the Districts named.

Notices of motion were given by Mr. Burns, Mr. Macandrew, Mr. Vogel, and by Mr. Dick.

The Provincial Secretary laid on the table the following Bills, viz.—*Criminals, Kerosene and Paraffine Oils, Police Regulations Ordinance, 1862, Amendment*, and the *Dunedin Building Ordinance Amendment, 1864*.

Bills read a first time ordered to be printed, and to be read a second time at next sitting.

The Provincial Secretary laid on the table the *Bush Fires Bill*.

The Provincial Treasurer laid on the table the *Medical Practitioners Bill*.

Bills read a first time, ordered to be printed, and to be read a second time on Monday next.

On the motion of the Provincial Secretary the House adjourned till 1 o'clock the following day.

NOTICES OF MOTION, AND ORDERS OF THE DAY.

Friday, April 8, at 1 o'clock, p.m.

MOTIONS.

1. MR. BURNS to move the adoption of a Reply to the Address of his Honor the Superintendent.
2. MR. MACANDREW to move—"That Standing Order No. 4 be amended to the effect—That Mr. Speaker shall take the chair at half-past 10 o'clock in the morning, instead of at 1 o'clock p.m."
3. MR. DICK to move—"That a Committee be appointed to consider and report upon Standing Orders; said Committee to consist of Mr. Speaker (with his consent), Messrs. Hepburn, Rennie, E. B. Cargill, and the Mover. Report to be brought up on the 12th instant."
4. MR. DICK to move—"That a House Committee be appointed to consist of Messrs. Baldwin, Lloyd, Rennie, Murison, and the Mover."

ORDERS OF THE DAY.

1. Criminals Bill to be read a second time.
2. Kerosene and Paraffine Oils Amendment Bill to be read a second time.
3. Police Regulation Ordinance, 1862, Amendment Bill to be read a second time.
4. Dunedin Building Ordinance Amendment Bill, 1864, to be read a second time.

FRIDAY,

FRIDAY, APRIL 8.

Prayer.

Minutes—Read and confirmed.

Notice of question was given by Mr. Hughes.

Notice of motion was given by Captain Baldwin.

Mr. Burns, according to notice, moved the adoption of the Reply to his Honor's Opening Address, as follows :—

(REPLY).

“ We rejoice with your Honor that the evidences of improvement which are everywhere manifest, sufficiently indicate the sound progress made by the Province during the past year.

“ We regret that the state of the money market, together with the causes mentioned by your Honor, has so far interfered with the sale of our debentures in London. We fully appreciate the importance of this question, and the serious character of the embarrassment which may be caused, should they continue unsold, and Public Works be in consequence suspended. We coincide, however, with your Honor, in the confidence you express in the thorough soundness and stability of the Province, and have no doubt that the temporary financial difficulties with which it is threatened, may be averted by prompt and decisive action. We shall join with your Honor in devoting our earnest consideration to this end. We concur with your Honor in the propriety of maturely considering the mode in which future loans for public purposes may be most advantageously raised. The suggestions made by your Honor shall have our careful attention, in order that a suitable system may be adopted for future operations, and the Provincial Loans be based upon principles financially and politically sound. The Reports of the various Commissions appointed by your Honor, shall receive our mature consideration. The Resolutions on Railways based on the Report of the Commission on Roads and their construction, shall, when submitted to us, receive the attention which the importance of the subject demands.

“ We join with your Honor in the satisfaction expressed at the extension of road communication effected during the past year, and are glad to find that in a few months an unbroken line will exist between Dunedin and Queenstown—thus opening up communication between the chief city and some of the most valuable goldfields of the Province.

“ When the Estimates are laid before us, we will direct our attention to the various portions specially mentioned by your Honor, and will give to the whole our most careful consideration.

“ We hear with pleasure of the valuable additions made during the recess, to our geographical knowledge of the western portions of the Province, and regret that the character of the entrance to Martin's Bay, and of the surrounding country, do not in your Honor's opinion, justify any immediate steps being taken to encourage settlement in that direction.

“ We join with your Honor in the confidence expressed in the future of the goldfields of the Province, and in the belief that they will for many years to come, prove a source of remunerative employment to thousands of its population.

“ The New Land Regulations, and especially those portions of them referred to by your Honor, shall have our full consideration.

“ We shall also be prepared to give due attention to such Resolutions respecting the Proclamation of additional Hundreds as may be laid before us.

“ We fully appreciate the importance of a Panama Mail Service to New Zealand, and shall be prepared to give to any paper on the subject, which your Honor may lay before us, our careful consideration.

“ We

"We join with your Honor in the hope that the Industrial Exhibition may be carried out to a successful issue, and we rejoice to hear that the several Provinces are likely to give the undertaking their hearty support.

"The various bills which will be submitted to us, shall meet with mature deliberation.

"We lament with your Honor the death since our last session of Mr. Crawford, one of the Provincial Agents in Great Britain, and join in the expression of sympathy with his family, as well as regret for the loss of one who has faithfully served the Province during a period of many years.

"We join with your Honor in a humble hope that the Almighty Ruler of the Universe may direct and prosper our consultations, so that all things may be so ordered and settled upon the best and surest foundations."

Seconded by Mr. Blair.

Question put and carried.

Mr. Macandrew, according to notice, moved That Standing Order No. 4, be amended to the effect—That Mr. Speaker shall take the chair at half-past 10 o'clock in the morning, instead of at 1 o'clock, p.m."

Seconded by Mr. Blair.

By permission of the House, the words "10 o'clock in the morning," were struck out from the original motion, and the words "12 o'clock, noon," inserted in lieu thereof."

Mr. Murison moved as an amendment—"That Standing Order No. 4, be amended to the effect, that Mr. Speaker shall take the chair at 11 o'clock, a.m., on Mondays, Tuesdays, Thursdays and Fridays, and that the sittings terminate, at 4, p.m."

Seconded by Mr. Birch.

A debate ensued.

Amendment, by leave of House, withdrawn.

Question put on the original motion as amended, and carried.

Mr. Dick, according to notice, moved :—"That a Committee be appointed to consider and report upon Standing Orders ; said Committee to consist of Mr. Speaker (with his consent), Messrs. Hepburn, Rennie, E. B. Cargill, and the Mover. Report to be brought up on the 12th instant."

Seconded by Mr. Gillies.

Question put and carried.

Mr. Dick, according to notice, moved :—"That a House Committee be appointed to consist of Messrs. Baldwin, Lloyd, Rennie, Murison, and the Mover."

Seconded by Mr. Moss.

A debate ensued.

Mr. Vogel moved as an amendment :—"That a House Committee be appointed, to consist of Messrs. Baldwin, Lloyd, Hardy, Murison, Miller, and the Provincial Secretary, and to report from time to time."

Question put on the amendment and lost.

Question put on the original motion and carried.

The

The Provincial Secretary laid on the table—

1. Acts and Appointments of the Superintendent of Otago, under the *Goldfields Act*, 1862.

2. Acts and Appointments, &c., under the Diseased Cattle Act.

Mr. Speaker laid on the table—

1. Opinion of Counsel respecting the power of Speakers of Provincial Councils.

2. Suggested Amendments upon existing Standing Orders.

3. Certified Statements of Provincial Expenditure.

The Provincial Secretary also laid on the table—

The Immigration Correspondence.

The Provincial Treasurer laid on the table—

The *Superintendent's Indemnity Bill*, 1864.

Bill read a first time, ordered to be printed, and to be read a second time on Thursday next.

On the motion of the Provincial Secretary, the *Criminals Bill*, 1864, was read a second time and committed.

IN COMMITTEE.

The blank in Clause 1 was ordered to be filled in with the words, "first August, 1861," and the several Clauses (17) agreed to, as printed.

The House resumed, and the Chairman reported the Bill without amendment.

Bill ordered to be read a third time on Monday next.

The Provincial Secretary moved "That the *Kerosene and Paraffine Oils Ordinance Amendment Bill*, 1864, be now read a second time.

Seconded by the Provincial Treasurer.

A debate ensued.

Mr. Reynolds moved—"That the debate be adjourned."

Seconded by Mr. Paterson.

Question put on the motion for adjournment, and lost.

Question put on the original motion and carried.

Bill read a second time and committed.

IN COMMITTEE.

The several clauses (3) together with the Title and the Preamble were agreed to as read. The House resumed, and the Chairman reported the Bill without amendment.

Bill ordered to be read a second time on Monday next.

The Provincial Secretary moved—"That the *Dunedin Building Ordinance Amendment Bill*, 1864, be now read a second time."

Seconded by the Provincial Treasurer.

Mr. Hardy moved as an Amendment—"That the Bill be read a second time this day six months."

No Seconder.

Question put on the original motion and carried.

Bill read a second time.

The Provincial Secretary moved—"That the Bill be now committed."

Seconded by Mr. Moss,

Mr. Reynolds moved as an amendment—"That the *Dunedin Building Ordinance Amendment Bill*, 1864, be referred to a Select Committee consisting of Messrs. E. B. Cargill, Birch, Paterson, Moss, Hardy and the Mover, and to report on Thursday next."

Seconded by Mr. Vogel.

Question put on the Amendment and carried.

On the motion of the Provincial Secretary, the House adjourned till 12 o'clock on Monday next.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Monday, April 11, at 12 o'clock.

MOTION.

1. Mr. Vogel to move—"That a respectful address be presented to his Honor the Superintendent, requesting him to take such steps as he may deem advisable to secure the residence in Otago of the Judge newly appointed to the Otago and Southland Districts."

ORDERS OF THE DAY.

1. *Bush Fires Bill* to be read a second time.
2. *Medical Practitioners' Bill* to be read a second time.
3. *Police Regulation Ordinance, 1862, Amendment Bill* to be read a second time.
4. *Criminals Bill* to be read a third time.
5. *Kerosene and Paraffine Oils Amendment Bill* to be read a third time.

MONDAY, APRIL 11, 12 NOON.

Prayer.

Minutes—Read and confirmed.

Petition from Simon Fraser, miner, was presented by Mr. Hughes.

Petition read and received.

The Provincial Secretary laid on the table Departmental Report No. IV (Gael) ; also, the Panama Mail Service Contract.

Notices

Notices of Questions (2) for next sitting were given by Mr. Brodie.

Notice of Motion for next Sitting was given by Mr. E. B. Cargill.

Notice of Question for Wednesday was given by Mr. Vogel.

Notices of Motion for Wednesday were given by Mr. Vogel (3) and by Mr. Hardy.

Mr. Hughes, according to notice, asked the Provincial Secretary—"What arrangements are contemplated in reference to the Commonage near Havelock, comprising upwards of 14,000 acres, and described as 'Proposed Commonage'—Also; "Whether it is the intention of the Government to assess Stock Running on such Commonage?"

The Provincial Secretary replied.

Mr. Brodie (in the absence of Mr. Vogel) moved—"That a respectful address be presented to his Honor the Superintendent, requesting him to take such steps as he may deem advisable to secure the residence in Otago of the Judge newly appointed to the Otago and Southland Districts."

Seconded by Mr. Macandrew.

Motion, by leave of the House, withdrawn.

The *Criminals Bill*, 1864, and the *Kerosene and Paraffine Oils Ordinance Amendment Bill*, 1864, were read a third time, and the question being put by Mr. Speaker as to each Bill respectively "That this Bill do now pass," it was in each case agreed to, and the Bills were passed.

On the motion of the Provincial Secretary, the *Bush Fires Bill*, 1864, was read a second time and committed.

IN COMMITTEE.

Clause 1 being moved—

Mr. Lloyd moved as an amendment—"That the Chairman report progress, and ask leave to sit again."

A Debate ensued.

The question being put, the Committee divided, when there voted:—

AYES, 13.	NOES, 17.
Major Richardson	Mr. Dick
Mr. Vogel	Mr. Duncan
Mr. Brodie	Capt. Baldwin
Mr. Reynolds	Mr. Moss
Mr. Mollison	Mr. Blair
Mr. Hughes	Mr. Rennie
Mr. Kilgour	Mr. Stevenson
Mr. Steel	Mr. Hardy
Mr. Adam	Mr. Paterson
Mr. Macandrew	Mr. E. B. Cargill
Mr. Reid	Mr. Miller
Mr. Murison	Mr. Gleeson
Mr. Lloyd (Teller)	Mr. Birch
	Mr. Morris
	Mr. Burns
	Mr. Walker
	Mr. Gillies (Teller)

So it passed in the negative

Debate

Debate resumed.

Clause agreed to as read.

Clause 2 amended.

Clause 3 being read, Mr. Burns moved—"That it be struck out."

On the motion of the Provincial Secretary, the House resumed, the Chairman reported progress, asked and obtained leave to sit again.

On the motion of the Provincial Secretary, the *Police Regulations Ordinance, 1862, Amendment Bill* was read a second time and committed.

IN COMMITTEE.

Clause 1 agreed to as read.

Clause 2 amended.

Clause 3 agreed to as read.

Clause 4 agreed to as read.

Clause 5 amended.

Clause 6 agreed to as read.

Clause 7 agreed to as read.

The House resumed, and the Chairman reported the Bill with amendments.

Ordered :—"That the Amendments be taken into consideration next sitting."

On the motion of the Provincial Treasurer, the *Medical Practitioners Bill* was read a second time, and ordered to be committed next sitting."

The Provincial Treasurer laid on the table, the *Education Bill, 1864*, which was read a first time, ordered to be printed, and to be read a second time on Wednesday."

On the Motion of the Provincial Secretary, the House adjourned till 12 o'clock next day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Tuesday, April 12 at 12 o'clock.

MOTION

Mr. E. B. Cargill to move—"That leave of absence be granted to Mr. John Cargill for ten days."

ORDERS OF THE DAY.

1. *Bush Fires Bill* to be resumed in Committee.
2. *Medical Practitioners' Bill* to be committed.

3. *Police Regulations Ordinance, 1862.*—Amendments to be considered.

4. *Education Bill* to be read a second time.

TUESDAY, APRIL 12. NOON.

Prayer.

Minutes—Read and confirmed.

Notices of Questions for next sitting were given by Mr. Burns (2), Mr. Reid, and Mr. Stevenson.

Notice of Motion for next sitting was given by Mr. Dick,

Notices of Motion for Thursday next were given by Mr. Vogel and by Mr. Lloyd

The Provincial Secretary laid on the table—

1. "Manual of Police Regulations for the guidance of the Constabulary Force, Otago."
2. Correspondence relative to the Proclamation of New Hundreds.
3. Copy of Correspondence respecting purchasing from the first Presbyterian Church the site for proposed Provincial Buildings.

Mr Brodie, according to notice, asked the Provincial Secretary—"Are the Government responsible for the Address delivered by his Honor the Superintendent on Thursday last, and if they are, is it their intention in accordance with the views expressed in the paragraph referring to the objectionable nature of the Land Tax, to take any steps towards the repeal of the Land Tax Act?"

The Provincial Secretary replied.

Mr. Brodie, according to notice, asked the Provincial Secretary—"What action the Government have taken to carry out the provisions of Clause 4 of the 'Bread Ordinance'?"

The Provincial Secretary replied.

In the absence of Mr. E. B. Cargill, Mr. Walker moved—"That leave of absence be granted to Mr. John Cargill for ten days."

Seconded by Mr. Miller.

Question put and carried.

On the motion of the Provincial Treasurer, the *Medical Practitioners Bill* was committed.

IN COMMITTEE.

Clauses 1 and 2 were agreed to as read.

Clause 3 amended by striking out the word "Council" and by inserting in lieu thereof the word "Board," and ordered that the like change be made as often as the word "Council" may occur throughout the Bill.

Clauses 4 and 5 agreed to as read.

D

Clauses

Clauses 6, 7 and 8, amended.

Clauses 9, 10, 11, 12, and 13, agreed to as read.

Clause 14, amended.

Clause 15 to 22, inclusive, agreed to as read.

Clause 23, ordered that the words "1st day of January, 1865," be struck out. Clause agreed to.

Clause 24, amended.

Clauses 26 to 29, inclusive, agreed to as read.

Schedules A, B, and C, agreed to as read.

The Title and Preamble were agreed to, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill with amendments.

Bill ordered to be read a third time at next sitting.

On the motion of the Provincial Secretary, the amendments agreed to in Committee on the *Police Ordinance, 1862, Amendment Bill* were adopted by the House.

Bill ordered to be read a third time at next sitting.

The order of the day respecting the *Bush Fires Bill* was ordered to be transferred to the paper for Friday next.

On the motion of the Provincial Secretary, the House adjourned till 12 o'clock the following day.

NOTICES OF MOTION, AND ORDERS OF THE DAY.

Wednesday, April 13, at 12, noon.

MOTIONS.

1. Captain BALDWIN to move—"That this House is of opinion that an addition to the present number of Goldfields Representatives in the Council is desirable, as also an adjustment of the Mining Representation of the several fields ;
 "That with a view of carrying out this adjustment, it is expedient the Goldfields be sub-divided into Electoral Districts ;
 "That to give effect to these Resolutions an Ordinance be brought in to amend the 'Miners' Provincial Representation Ordinance, 1862."
2. Mr. VOGEL to move—"That the Provincial Secretary be requested to lay on the table a statement of the fines and fees received in the Otago Courts of Justice, and appropriated by the General Government."
3. Mr. VOGEL to move—"That a respectful address be transmitted to His Honor the Superintendent, praying that he will cause to be laid on the table of the House a statement of the fees charged for children at the various schools under the control of the Educational Department, including the High School. Also, a statement of the cost to Government each year of each of such schools, including the money expended on buildings and lands."

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4. Mr. VOGEL to move—"That a respectful Address be presented to His Honor, praying that he will be pleased to inform the Council, who, if any one, has been appointed Home Agent, in accordance with the Appropriation Act passed last session, and if not, what steps have been taken in the matter."
 5. Mr. DICK to move—"That a Printing Committee be appointed, to consist of Mr. Speaker, with his consent, and Messrs. Reynolds, Burns, Blair, Mollison, and the Mover."

ORDERS OF THE DAY.

1. *The Education Bill* to be read a second time.
 2. *The Medical Practitioners' Bill* to be read a third time.
 3. *Police Regulations Ordinance, 1862, Amendment Bill*, to be read a third time.
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WEDNESDAY, APRIL 13, NOON.

*Prayer.**Minutes*—Read and confirmed.

Notices of Questions for next sitting were given by Mr. Brodie (3), Mr. Walker, Mr. Hughes, and Mr. Macandrew.

Notices of Motions for next sitting were given by Mr. Walker and Mr. Hardy (2).

Notice of Motion for Friday next was given by Mr. Brodie.

Mr. Vogel, according to notice, asked the Provincial Secretary—"Whether it is the intention of the Government to place a sum on the Estimates for the purchase of the line of Telegraph between Dunedin and Port Chalmers?"

The Provincial Secretary replied.

Mr. Burns, according to notice, asked—"What steps the Government have taken towards introducing a 'Drainage Bill,' in accordance with the Resolution passed last session of Council?"

The Provincial Secretary replied.

Mr. Burns, according to notice, asked the Government—"What steps have been taken to publish in Britain the Report of the Select Committee of this House on Miss Rye's Letters to the London *Times*?"

The Provincial Secretary replied.

Mr. Reid, according to notice, asked the Provincial Treasurer—

"1st, the number of Districts that have applied for sums of money for opening Branch Roads under the system of Supplementary Grants.

"2nd, the names of such districts.

"3rd, the amount granted to each district.

"4th, the districts, if any, to which such grants have been refused?"

The Provincial Treasurer read a reply, and laid it on the table. (See Appendix).

Mr. Stevenson, according to notice, asked the Provincial Secretary—"What steps have been taken towards establishing Savings Banks within the Province, and what is the cause of delay?"

The Provincial Secretary replied.

Notice of Motion No 1 allowed to lapse.

Mr. Vogel, according to notice, moved—"That the Provincial Secretary be requested to lay on the table a statement of the fines and fees received in the Otago Courts of Justice, and appropriated by the General Government."

Seconded by Mr. Gleeson.

Question put and carried.

Mr. Vogel, according to notice, moved—"That a respectful Address be transmitted to his Honor the Superintendent, praying that he will cause to be laid on the table of the House a statement of the fees charged for children at the various schools under the control of the Educational Department, including the High School. Also, a statement of the cost to Government each year of each of such schools, including the money expended on buildings and lands."

Seconded by Mr. Brodie.

Question put and carried.

Mr. Dick, according to notice, moved—"That a Printing Committee be appointed to consist of Mr. Speaker, with his consent, and Messrs Reynolds, Burns, Blair, Mollison, and the Mover."

Seconded by Mr Gillies.

Question put and carried.

By permission of the House Mr. Vogel's Notices of Motion for Thursday were allowed to be held as given for to-day.

Mr. Vogel, according to notice, moved—

1st. "That in the opinion of this Council the system of local rates for educational purposes should be abolished, as it presses unfairly on one class of the community, tends to create a system of pauper education, discourages competition amongst the followers of educational pursuits, and depreciates the value of the Public Estate by creating a charge on purchased land.

2nd. "That permanent assistance should be given to people not able to afford to pay for the education of their children, and in a limited degree to those districts where the children are so few that the cost of educating them would be oppressive to the parents."

3rd. "That the High School was designed to promote an advanced class of education, and that a suitable qualification examination should be insisted on."

Seconded by Mr. Brodie.

A debate ensued.

Mr. Rennie moved—"That the debate be now adjourned till Tuesday next."

Seconded by Mr. Hughes.

Question put on the motion for adjournment and carried."

Mr. Dick, as Chairman of the Select Committee on Standing Orders, brought up the Report of that Committee.

Under suspension of Standing Orders, the House went into committee to consider the Report, together with the alterations recommended therein.

The House resumed, and the Chairman reported the recommendations with amendments, which were subsequently adopted by the House.

Order

Order of the Day, No. 1—Ordered to be transferred to the paper for Tuesday next, and Order, No. 2 for next sitting.

On the motion of the Provincial Secretary, the *Police Regulations Ordinance 1862, Amendment Bill* was read a third time, and the question being put by Mr. Speaker—"That this Bill do now pass," it was agreed to, and the Bill was passed.

The Provincial Treasurer laid on the table the *Cattle Bill, 1864*, which was read a first time, ordered to be printed, and to be read a second time, on Wednesday next.

The Provincial Treasurer also laid on the table Departmental Report, No. VI, (Immigration.)

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Thursday, April 14, at 2 o'clock, p.m.

MOTIONS.

1. Mr. LLOYD to move—"That the Council resolve itself into Committee of the whole House for the purpose of considering the propriety of changing the place of meeting to some more convenient locality."
2. Mr. WALKER to move—"That leave of absence be given to Captain M'Kenzie until Monday next."
3. Mr. HARDY to move—"That a respectful address be presented to his Honor the Superintendent, requesting him to lay upon the table a return of the lands surveyed up to March 31st last; the lands sold in each district; and the quantity available for sale and reserved."
4. Mr. HARDY to move—"That the time for bringing up the Report of Select Committee on Building Ordinance be extended to April 22nd."

ORDERS OF THE DAY.

1. *Superintendent's Indemnity Bill, 1864*, to be read a second time.
2. *Medical Practitioners' Bill* to be read a third time.

THURSDAY, APRIL 14, AT 2 O'CLOCK.

Prayer.

Minutes—Read and confirmed.

The Provincial Secretary laid on the table Report of the Commission on Roads and their Construction, appointed by his Honor the Superintendent, together with maps.

Mr. Speaker laid on the table Statement of Unauthorized Expenditure for year ending 31st March, 1864, together with memorandum respecting the auditing of Provincial accounts, and the requirements of the Audit Act.

Notices of Questions for next sitting were given by Mr. Blair, Mr. E. B. Cargill, Mr. Stevenson, and Mr. Brodie.

Notices of Motion for next sitting were given by Captain Baldwin, Mr. Burns, Mr. Adam, Mr. Rennie, and the Provincial Treasurer.

Notice of Question for Monday next was given by Mr. Hughes.

Notice of Motion for Tuesday next was given by Mr. Brodie.

Mr. Brodie, according to notice, asked—"What action the Government have taken in reference to a petition forwarded to his Honor the Superintendent, by certain miners at Mount Ida, praying that the Government would purchase a water-race in that district."

The Provincial Secretary replied.

Mr Brodie, according to notice, asked the Secretary of Public Works—"Whether the Government have any objection to lay on the table of the Council any reports they may have received from Messrs Patterson and Balfour on the road communication throughout the country, and the capability of our rivers and harbours. Also, what was the cause of the delay in calling for tenders for the construction of the Punts to be placed on the Molyneux, at the Beaumont and Teviot."

The Secretary of Public Works replied.

Mr. Brodie, according to notice, asked the Provincial Secretary—"Are the Government in possession of any correspondence in reference to the removal of the seat of the General Government from Auckland? and if they are, have they any objection to lay the same on the table of the Council? Is it the intention of the Government to submit any resolutions to the Council in reference to the above question? or are they prepared to take any action expressive of their opinion on the subject?"

The Provincial Secretary replied.

Mr. Walker, according to notice, asked the Government—"Why they have not brought in a Master's and Servant's Act? and if there be anything in the Constitution Act to prevent the Provincial Council passing such Act?"

The Provincial Secretary replied.

Mr. Hughes, according to notice, asked the Provincial Secretary—"If he has any objections to lay on the table of the House a statement showing the quantity of land held under Agricultural Lease on each of the Goldfields; also the date of first application, and date of survey; together with the date of issue of the lease in each case?"

The Provincial Secretary replied.

Mr. Macandrew, according to notice, asked the Provincial Secretary—"Whether or not the Government is aware of the fact that part of the Maori reserve at the Heads, as well as some of the public lands reserved from sale adjoining thereto, are totally overrun with thistles? and if so, whether or not the Government purposes to take any steps towards their eradication?"

The Provincial Secretary replied.

Messages Nos, 1 and 2 from His Honor the Superintendent, were introduced and read:—

(MESSAGE)

(MESSAGE No. 1).

Superintendent's Office,
Dunedin, 13th April, 1864.

Having received the Bill intituled "The Criminals Bill, 1864" as passed by the Provincial Council, on the 11th day of April instant, the Superintendent now intimates that he assents to such Bill on behalf of the Governor.

J. HYDE HARRIS, Superintendent.

(MESSAGE No 2.)

Superintendent's Office,
Dunedin, 13th April, 1864.

In conformity with the provisions of the 27th section of the Constitution Act, the Superintendent proposes the following amendments to the Bill which has been passed by the Provincial Council, intituled "Kerosene and Paraffine Oils Ordinance Amendment Ordinance, 1864." That the words, "The said recited Ordinance," in the first line of the Preamble be struck out, and the words, "The Kerosene and Paraffine Oils Ordinance, 1863" be substituted.

That after the word "Otago," in the sixth line of the second section of the Bill, be inserted the words, "and shall have all and the like powers and authorities with regard to public Kerosene Warehouses situate beyond the limits of other towns in the said Province."

The Amendment of the Preamble as suggested appears necessary. By an error, the Ordinance of 1863 is referred to as if recited in the Bill, whereas it is only mentioned in the Title, which does not strictly form part of the Bill.

The Amendment proposed in the second section, does not appear to require special explanation.

J. HYDE HARRIS, Superintendent.

No. 2 ordered to be taken into consideration before proceeding to the Orders of the Day.

Mr. Lloyd according to notice moved -- "That the Council resolve itself into Committee of the whole House for the purpose of considering the propriety of changing the place of meeting to some more convenient locality."*

Seconded by Mr. Macandrew.

Question put, and carried.

IN COMMITTEE.

Mr. Lloyd read a communication from Mr. Palmer offering Council accommodation in St. George's Hall.

Major Richardson moved—"That the House Committee be authorised "to accept the offer of Mr. Palmer, if they think it expedient, and to take such "measures as may be necessary for the use of the Hall by the Council if they "accept it."

A debate ensued.

The question being put, the Committee divided, when there voted :—

* Supreme Court.

AYES, 26.

Mr. Dick
 Mr. Gillies
 Mr. Duncan
 Mr. Mollison
 Mr. Paterson
 Mr. Birch
 Mr. Gleeson
 Mr. Moss
 Mr. Lloyd
 Mr. Baldwin
 Mr. Reynolds
 Mr. Morris
 Mr. Walker
 Mr. Kilgour
 Mr. Brodie
 Mr. Vogel
 Mr. Miller
 Mr. Adam
 Mr. Macandrew
 Mr. Blair
 Major Richardson
 Mr. Steel
 Mr. Hardy
 Mr. Burns
 Mr. Stevenson
 Mr. Murison (Teller)

NOES, 3.

Mr. Hughes
 Mr. E. B. Cargill
 Mr. Rennie (Teller)

So it passed in the affirmative.

The House resumed, and the Chairman reported the resolution, which was subsequently adopted by the House.

On the motion of Mr. Walker, leave of absence was granted to Captain McKenzie until Monday next.

Mr. Hardy, by permission of the House, amended his notice of motion (No. 3 on the Order Paper), and submitted it as follows:—"That there be laid upon the table a return of the lands surveyed up to March 31st last; the lands sold in each district; the prices realised; the amount offered at auction, and unsold in each district; the quantity available for sale; and the quantity reserved from sale.

Seconded by Mr. Blair.

Question put and carried.

On the motion of Mr. Hardy, the time for bringing up the report of the Select Committee on the Building Ordinance was extended to April 22.

Messages Nos. 3 and 4 from his Honor the Superintendent were introduced and read:—

(MESSAGE No. 3.)

Superintendent's Office,
 Dunedin, 14th April, 1864.

The Superintendent has received the Resolution of the Provincial Council praying that he will be pleased to inform the Council who, if anyone, has been appointed Home Agent, in accordance with the Appropriation Act passed last session, and if not, what steps have been taken in the matter.

In reply to the first enquiry, the Superintendent informs the Council, that as yet the appointment referred to has not been made; and in reply to the question "what steps have been taken in the matter?" the Superintendent desires to state, that shortly after

after the termination of the last session of the Provincial Council the matter received that attention and consideration from the Government which were due to its importance. During the frequent discussions which necessarily arose before any decision was arrived at, difficulties of an unforeseen character occurred. It was found that the Government were not unanimous in their views of the nature of the office itself, or of the qualifications to be possessed by its holder; while some members of the Government were of opinion that a man of ordinary business ability would satisfy all the requirements of the case, others held that the standard of qualification ought (in order to make the office of real service to the Province, and to carry out the views of the Provincial Council) to be fixed much higher; hence the difficulty in making a selection from amongst the various candidates for the office. The Government having decided that members of their own Body should be considered as excluded, carefully weighed the relative fitness of nearly every gentleman in the Province whose circumstances were believed to render its acceptance, if offered, within the bounds of probability. With regard to the qualifications of one gentleman only were the Government thoroughly united in opinion. To that gentleman an offer of the appointment was made, and by him declined. Since that time nothing has transpired to remove the difficulties which have beset the Government in this important matter.

J. HYDE HARRIS, Superintendent.

(MESSAGE No. 4.)

The Superintendent, in his Address to the Provincial Council on the opening of the present Session, alluded to the desirability of additional guarantees being afforded in connexion with the already authorised loan of £500,000. Also, to the necessity which would be found to exist for resorting to additional loans for the construction of Railways and other Public Works of permanent character and importance.

The Superintendent now begs to lay before the Council a series of draft resolutions bearing on the important subject alluded to, and expresses his earnest hope that the Council will give them a careful and favorable consideration.

J. HYDE HARRIS, Superintendent.

Dunedin, 14th April, 1864.

(DRAFT RESOLUTIONS, REFERRED TO IN THE ABOVE MESSAGE.)

That in order to afford greater facility for the negotiation of the Loan of £500,000 authorised by the Otago "Loan Ordinance, 1862" by giving additional security for the repayment thereof, it is advisable:—

- 1st. That an area of 500,000 acres of the Waste Lands of the Crown within the Province of Otago, should be reserved and set apart as an estate against which the said Loan and the interest thereon should be a first charge.
- 2nd. That His Excellency the Governor should be memorialized to sanction the selection, reservation, and appropriation of the said 500,000 acres of land for the purposes aforesaid, and also to give assurance to the Superintendent of this Province of his willingness to assent to such measures as may be introduced at the next session of the General Assembly for the purpose of giving full effect to the proposed security.
- 3rd. That the Colonial Secretary be requested to give assurance that, at the next session of the General Assembly, he will introduce such measures as may be necessary to enable such selection, reservation, and appropriation of the said 500,000 acres of land to be made, and to enable full effect to be given to the proposed security.

With reference to future loans, it is desirable:—

- 1st. That such loans should be only authorised for and devoted to such works (being of a permanent nature, and of general usefulness) as are manifestly required for the advancement of the Province, and for the construction of which works the proportion of Provincial Revenues at the disposal of the Council are inadequate.

- 2nd. That all such loans should in the first place be sanctioned by an Ordinance or Resolution of this Council, and should afterwards be sanctioned by an Act of the General Assembly.
- 3rd. That no such loans should be sanctioned by this Council, nor shall the sanction of the General Assembly be sought for any such loan, except on the security hereinafter specified :—
- 1st. By reserving and appropriating as a security for any such Loan, a number of acres of the Waste Lands of the Crown, situate in this Province, in the proportion of one acre of such land for every pound of such Loan, provided that when it is desired to effect a further Loan or further Loans, for the completion or extension of any such works, such further Loan or Loans should be sanctioned and authorised in the manner required in the case of the Original Loan, and an additional number of acres of Waste Lands of the Crown, situate in the Province, in the proportion of one acre to every pound of such further Loan or Loans should be set aside and appropriated as a further and joint security for the original and subsequent Loans, and should form jointly with the lands previously appropriated accumulative security for the whole of the original and subsequent Loan or Loans ; no one of such Loans, whether original or subsequent, having priority over another.
- 2nd. Every Ordinance and Act authorising or sanctioning any Loan should specifically define the Works upon which such Loan is to be expended, and such Loans should not be expended on any other works without the express sanction of an Act of the General Assembly.

That the due liquidation of such Loans and the interest thereon should be secured as follows :—

- 1st. By a first charge on the specific works executed with such Loans, when they are of a character to admit of a sufficiently distinct definition and appropriation ; provided that in the event of any additional loans becoming from time to time necessary, being or required for the completion or extension of such works, and being authorised as aforesaid, the due liquidation of such additional loans, and the interest thereon, should be secured on the specific Works for the completion or extension of which such loans were raised, and should rank equally with those previously raised for the same Works, and should be deemed equally with the previous loans—a first charge upon the whole works towards the completion or extension of which they are to be expended.

That in order to give full effect to these Resolutions, and to protect the interest of the persons making such loans, and the holders of any debentures or other negotiable securities that may be issued for such loans it is expedient :—

1. That the lands so to be reserved and set apart as security for the repayment of the same, should be vested in His Excellency the Governor, as trustee for such persons and such holders of debentures or other securities as aforesaid, with power to him to delegate the trust to any other person or persons as he may think fit.
2. That the terms of the trust should be defined by the particular Act or Acts of the General Assembly by which the specific loan is authorised or sanctioned.
3. That His Excellency the Governor as such trustee, or his delegate or delegates as the case may be, should be empowered to dispose in the manner and on the terms prescribed by the Regulations for the Sale of Waste Lands within the Province in force for the time being, of any portion or portions or of the whole of the said trust lands.
4. That the proceeds of such sale should be invested by His Excellency in his own name, or in the name of such other person or persons as he may think fit, and either jointly with himself or otherwise, in such Loans as may have been raised on the security of such lands, or in other real or Government securities within the Colony, for the purpose of providing a sinking fund for the repayment of such Loans and interest thereon as and when the same may respectively become due.

5. That in case default should at any time be made in payment of either interest or capital, when the same shall respectively become due, it should be made lawful for the Governor or such trustee as aforesaid, or for his delegate for the time being to appoint a Commission or Commissioner to administer the said trust estate, with full powers to lease or sell the same for the protection of the interests of the person who may have made any such loan, and of the holders of any such debentures or securities as aforesaid, provided that in the event of such lands failing to realise the full amount of the loan, together with the interest thereof secured upon them, all deficiencies, and also all the expenses connected with the administration of the said land should be chargeable on the Province, and power and authority should be given to the Governor to direct that such deficiencies should from time to time until made good and repaid, be deducted from the proportions of the land and ordinary revenue payable to the Province of Otago.

And in such case of default as aforesaid, the lands comprising such trust estate should be exempted from any conditions of improvement or liability for any tax, or by reason of the non-improvement thereof, and should be absolutely at the disposal of the Governor or his delegate, or delegates, or of any Commissioner or Commissioners appointed by him to administer the estate. That should any of the lands forming part of the said trust estate at the time of the sale thereof by the Commissioner or Commissioners appointed to administer the estate, be held by any person or persons under license from the Crown to occupy the same, or by the legal assignee of any such person or persons, the Governor should have power to cancel such license, and the holder thereof or his assignee should be compensated for any loss accruing to him on account of such cancellation, and the amount to be paid should be settled by arbitration in the manner provided for in the "Goldfields' Act, 1862," in the case of the cancellation of a license thereunder, or in the manner provided for the settlement of such questions by the arbitration clauses of the "Lands Clauses Consolidation Act, 1863;" and such amount when settled shall be payable out of the ordinary revenue of the Province, provided that upon the cancellation of the license the rights of the licensee should at once determine, and the lands be capable of immediate sale or lease by the Governor, his delegate or delegates, or any such Commissioner or Commissioners as aforesaid.

J. HYDE HARRIS, Superintendent.

Message No. 2,* considered, and the various amendments proposed therein agreed to by the House, and ordered to be made in the Bill.

On the motion of the Provincial Treasurer, the *Medical Practitioners' Bill* was recommitted, amended and reported.

Bill read a third time, and the question being put by Mr. Speaker, that this Bill do now pass, it was agreed to, and the Bill was passed.

The Provincial Secretary laid on the table, *Gazettes* containing Proclamations respecting the Bills passed during Session XVII., and indicating—1st, That the following Bills had been left to their operation by His Excellency the Governor, viz. :—

Appropriation.

Bread.

Dunedin Water Works Company Guarantee Interest.

Executive Council Amendment.

Kerosene and Paraffine Oils.

Otago Dock Companies Guaranteed Interest.

Otago Loans, Coupon's Signature, &c.

* See Page 19.

Sunday Observance.

Distress.

Lake Steam Navigation.

Town and Country Police Ordinance Amendment.

2nd. That the following have been assented to by His Excellency the Governor, viz. ;—

Mechanics Institute Reserve and

Otago Representation Ordinance, 1862, Amendment.

3rd. That His Excellency the Governor had been pleased to withhold his consent from the :—

Port of Otago Marine Board Ordinance.

4th. That the following had been disallowed by His Excellency the Governor viz. :—

The Superintendent's Incorporation.

Vaccination.

Watermen's Licensing.

The Provincial Secretary also laid on the table "Correspondence relative to the removal of the Seat of Government from Auckland."

The Provincial Treasurer laid on the table Departmental Report No. VII., also Statement of receipts and payments of public Accounts, from 1st April 1863 to 31st March, 1864.

The Provincial Treasurer moved—"That the *Superintendent's Indemnity Bill* "1864, be now read a 2nd time."

Seconded by the Provincial Secretary.

A debate ensued.

Mr. Vogel moved—"That the debate be adjourned till this day week."

Seconded by Mr. Gleeson.

A Debate ensued.

Mr Vogel asked permission to substitute the words "Wednesday next" for "this day week."

Permission withheld.

Debate resumed.

The Question being put, the House divided, when there voted—

AYES, 13.
 Mr. Paterson
 Mr. Gleeson
 Mr. Birch
 Mr. Lloyd
 Mr. Brodie
 Mr. Kilgour
 Mr. Rennie
 Mr. Steele
 Mr. Walker
 Mr. Miller
 Mr. E. B. Cargill
 Mr. Murison
 Mr. Vogel (Teller)

NOES, 13.
 Mr. Burns
 Mr. Stevenson
 Captain Baldwin
 Mr. Moss
 Mr. Hepburn
 Mr. Dick
 Mr. Hughes
 Mr. Blair
 Mr. Duncan
 Mr. Hardy
 Mr. Adam
 Mr. Mollison
 Mr. Gillies (Teller)

Mr.

Mr. Speaker gave his casting voice in favour of the ayes, and so it passed in the affirmative, and gave the following reason—"That in voting with the ayes, he desired to follow the usual practice of the British Parliament, by voting in such a manner as not to make the decision of the House final."

The House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Friday, April 15.

MOTIONS.

1. Mr. Brodie to move—"That in the opinion of this Council it is necessary for the better development of the auriferous resources of the Province, that the Government should at once undertake a survey of the various sources of Water Supply in the vicinity of each Goldfield, and ascertain the levels of the track of country along which races, to convey such water might be cut, and that the above information when completed be accessible to the public on payment of a fee."

2. Captain Baldwin to move—"Resolved that in the opinion of this House it is desirable that two additional members should be given to the Goldfields?—"

"That an Ordinance be brought in to give effect to this resolution."

3. Mr. Burns to move—"That in the opinion of this Council the letter of his Honor the Superintendent to the Home Agents, dated 17th October, 1863, accompanying the Report of the Provincial Council on Miss Rye's letters to the *London Times*, is written in terms not in accordance with the wishes of this Council; and, also, statements made in the Report adopted by this House:—"

Resolved—"That as no answer has been received from the Home Agents acknowledging receipt of said letter and Report, a respectful Address be transmitted to his Honor the Superintendent, that he be pleased to forward a second copy of said Report by the first mail to the Home Agents, to be by them published in the leading newspapers in Britain."

4. Mr. Adam to move—"That a respectful Address be presented to his Honor the Superintendent requesting him to cause an immediate extension of the boundaries of the Quarantine Ground for Diseased Sheep, at Blueskin."

5. Mr. Rennie to move—"That his resignation as a member of 'The House Committee' be accepted."

6. The Provincial Treasurer to move—"That his Honor the Superintendent's Message, No. 4, be taken into consideration in Committee of the whole House."

ORDERS OF THE DAY.

1. *Bush Fires Bill* to be resumed in Committee.

FRIDAY, APRIL 15, AT 2 O'CLOCK.

Prayer.

Minutes—Read and confirmed.

Notice of question for Monday next was given by Mr. Reynolds.

Notices of motion (2) for Monday next were given by Mr. Reynolds.

F.

The

The Provincial Secretary moved—"That this House do now adjourn till two o'clock on Monday next."

Seconded by the Provincial Treasurer.

A debate ensued.

Message No. 5, from his Honor the Superintendent, was introduced and read.

(MESSAGE No. 5.)

Superintendent's Office.

Dunedin, 15th April, 1864.

The vote of your House on the amendment to postpone the debate on the "Superintendent's Indemnity Bill" has been followed, as I was prepared to expect would be the case, by the resignation of their respective offices by the Members of the Executive Government.

Finding that the Government were fully determined not to proceed with the important work of the Session after a vote of the Council, implying that they did not possess its confidence, had been passed, it became my duty to put myself in communication with the Hon. Member for Waikouaiti (Mr. Vogel), who had proposed the amendment which resulted in the resignation of the Executive.

That gentleman, at an interview which I have had with him, informs me—

1st. That it was neither his own intention nor that of his supporters that the amendment should affect the Government. On the contrary, he believes that they would have voted differently had they considered the question to be a Ministerial one, and:—

2nd. That it would not be fair to himself, nor to his supporters on the occasion were he to assume that the vote conveyed any personal confidence in himself, or that it argued a want of confidence in the Ministry.

For these reasons Mr. Vogel desired at once to decline to accede to my request to construct a New Ministry; but upon my informing him of the decision of my interim Government, neither to retain nor resume office unless beyond the possibility of doubt they possessed the confidence of a considerable majority of the Council, he consented to withhold his decision until to-morrow.

I need scarcely express my desire for an early resumption of the business of the Province, or to assure the Council that no effort shall be wanting on my part to secure so desirable a result.

J. HYDE HARRIS, Superintendent.

Debate resumed.

Question put on the motion for adjournment, and carried.

The House adjourned accordingly.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Monday, April 18, at 2 o'clock.

MOTIONS.

1. Mr. Brodie to move—(See page 25).
2. Captain Baldwin to move—(See page 25).
3. Mr. Burns to move—(See page 25).

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4. Mr. Adam to move—(See page 25).
 5. Mr. Rennie to move—(See page 25).
 6. The Provincial Treasurer to move—(See page 25).
 7. Mr. Reynolds to move—"That the Government be requested to lay upon the table a detailed statement of the expenditure under the vote of last Session for 'Maintaining the main road through the City of Dunedin, and filling up the market reserve of Princes street south, also of the sum of £35,000 advanced to the Town Board of Dunedin.'"
 8. Mr. Reynolds to move—"That a Select Committee be appointed for the purpose of enquiring into the whole system of Government printing with a view of ascertaining whether any saving can be effected. Power to Committee to call for persons and papers, and to report on 25th inst. Said Committee to consist of Mr. Speaker (with his consent), Messrs. Duncan, Morris, Gleeson, Blair, Rennie, and the mover."

ORDERS OF THE DAY.

1. *Bush Fires Bill* to be resumed in Committee.
-

MONDAY, APRIL 18.

Prayer.

Minutes—Read and confirmed.

Mr. Speaker read and laid on the table of the House a Communication from the Hon. the Colonial Secretary, covering a Despatch from the Right Hon. the Secretary of State for the Colonies, acknowledging the receipt of an Address of Congratulation to the Prince and Princess of Wales, on the occasion of the Marriage of their Royal Highnesses, passed by the Council during its last session.

Message No. 6, from his Honor the Superintendent, was introduced and read.

(MESSAGE No. 6.)

Superintendent's Office,

Dunedin, 18th April, 1864.

The Superintendent forwards for the information of the Provincial Council, a Writ, with a Declaration thereon, to the effect, that Henry Clapcott, Esq., of Popotuna, has been duly elected to serve as a Member of the Provincial Council for the Wakatip District, in place of William Pinkerton, Esq., resigned.

J. HYDE HARRIS, Superintendent.

Mr. Vogel moved—"That this House do now adjourn till 2 o'clock on Wednesday next."

Seconded by Mr. Macandrew.

Question put and carried.

The House adjourned accordingly.

NOTICES

 NOTICES OF MOTION AND ORDERS OF THE DAY.

Wednesday, April 20, at 2 o'clock.

MOTIONS.

1. Mr. Brodie to move—(See page 25).
2. Captain Baldwin to move—(See page 25).
3. Mr. Burns to move—(See page 25).
4. Mr. Adam to move—(See page 25).
5. Mr. Rennie to move—(See page 25).
6. The Provincial Treasurer to move (See page 25).
7. Mr. Reynolds to move (See page 27).
8. Mr Reynolds to move (See page 27).
9. Mr. Brodie to move—"That a Committee—consisting of Messrs. Morris, Paterson, Adam, Steel, Birch, Mr. Speaker, with his consent, and the Mover—be appointed to take into consideration the memorandum, presented to the Council by Mr. Speaker, in reference to the Audit Act."
10. Mr. Rennie—"To resume the debate on the Education Resolutions."

RESOLUTIONS.

- 1st. "That in the opinion of this Council the system of Local rates for Educational purposes should be abolished, as it presses unfairly on one class of the community, tends to create a system of Pauper Education, discourages competition amongst the followers of Educational pursuits, and depreciates the value of the Public Estate by creating a charge on purchased land.
- 2nd. "That permanent assistance should be given to people not able to afford to pay for the education of their children, and in a limited degree to those districts where the children are so few that the cost of educating them would be oppressive to the parents."
- 3rd. "That the High School was designed to promote an advanced class of education, and that a suitable qualification examination should be insisted on."

ORDERS OF THE DAY.

1. Bush Fires Bill to be resumed in Committee.
2. Education Bill to be read a second time.
3. Cattle Bill to be read a second time.

 WEDNESDAY, APRIL 20.

Prayer.

Minutes—read and confirmed.

Henry Clapcott, Esq., the recently elected Member for Watakipu, in the room of William Pinkerton, Esq., resigned, was introduced and took his seat.

Mr. Steel presented a Petition from certain Landowners and Settlers in the Clutha District.

Petition

Petition received, read, and ordered to be printed.

Mr. Kilgour presented a petition from Mr. George Smith, of Park-house.

Petition received and read.

Notices of motions for next sitting were given by Mr. Brodie, Mr. Mansford, Mr. Walker, Mr. Blair, and Mr. Lloyd.

Mr. Lloyd, as Chairman of the House Committee, brought up the Interim Report of that Committee, and (Standing Orders being suspended) moved—"That the Report be adopted."

Seconded by Mr. Murison.

Question put and carried.

Mr. Blair brought up an Interim Report of Select Committee on Council Printing, which was received and read.

Message No. 7, from his Honor the Superintendent was introduced and read.

(MESSAGE No. 7.)

Superintendent's office,

Dunedin, 20th April, 1864.

I have now to acquaint the Council with the steps taken by me towards a reconstruction of the Executive Government since the 15th April, on which day I announced through the Honorable the Speaker the resignation of office by the then Executive.

I then intimated that the Honorable Member for Waikouaiti (Mr. Vogel), who had been requested by me to form a new Ministry, had consented to postpone his decision until the following day. Accordingly, on the 16th inst. Mr. Vogel waited on me, and stated that for the reasons he had previously assigned (and which are given in my message to your House of the 15th inst.) he must decline to accede to my request to form a new Government. He then placed in my hands the following Resolutions :—

[COPY]

Meeting of Members of the Provincial Council who voted in support of the amendment of Mr. Vogel on the second reading of the Indemnity Bill, held at the Criterion Hotel, Dunedin, 15th April, 1864, present—

Mr. Rennie
Mr. Gleeson
Mr. Morris
Mr. Hardy
Mr. Reynolds
Mr. Birch
Mr. Brodie
Mr. Walker
Mr. Miller
Mr. Murison
Mr. Lloyd
Mr. Vogel
Mr. Paterson
Mr. Kilgour
Mr. Cargill

Mr Cargill took the Chair.

Resolved—"That the Members of Council present at this meeting do record that while they see no reason to alter their opinion of the propriety of the vote of the majority on the occasion in question, they had no intention that their vote should be in any measure expressive of their want of confidence in the Government, or of any desire even to offer opposition to the particular measure, or to the measures of the Government

Government generally ; and that they had no reason to believe from any remarks or explanation given by the Government on moving the second reading of the Indemnity Bill, or in the course of the debate, that the vote they gave would have been likely to be followed by such a result.

(Signed) E. B. CARGILL, Chairman.

Mr. Vogel further informed me that it appeared to be the wish of the Honorable Members who had adopted the above Resolution, that the late Executive should resume office.

I submitted the Resolution to the late Executive, and conveyed to them the expressed wish of the Honorable Members referred to by Mr. Vogel.

After full consideration, the late Executive arrived at the unanimous opinion that, while they attached great value to the wishes of the Honorable Members who had adopted the Resolution referred to, that Resolution placed them, as a Government, in a more unfavourable position than that in which they were left by the adverse vote of the House, and that therefore it would be impossible for them to resume the Executive office while laboring under such unfavourable circumstances.

Since I have been in possession of this decision I have sought the assistance and advice of several of the leading members of your House who took a prominent part in the debate which led to the resignation of the late Government, but for various reasons these gentlemen have up to the present time declined the responsibility which their votes on that occasion appear to entail.

While I regret the want of success which has hitherto attended my endeavors to reconstruct an efficient Ministry, I am not without the hope that by a mutual concession on points of difference which may possibly be of but little real importance to the Country, but which necessarily exist to a greater or less degree in all Legislative Bodies, a satisfactory solution of the present temporary difficulty will be soon arrived at.

J. HYDE HARRIS, Superintendent.

Mr Stevenson, according to notice, asked the Government—"If they will lay on the table of the House during this Session—

"1st, The number of Wholesale Licenses issued."

"2nd, The number of Bottle Licenses."

"3rd, The number of Public House Licenses."

"4th, The number of Wine Licenses."

"5th, The number of Bush Licenses."

"And to give separately the number of each in towns and country ; and also the number of convictions for drunkenness during the last twelve months."

The Provincial Treasurer and the Provincial Secretary replied.

Mr. Burns allowed his notice of motion (No. 3 on the Order Paper) to lapse.

The Provincial Treasurer allowed his notice of motion (No. 6 on the Order Paper) to lapse.

Mr. Rennie's resignation as a Member of the House Committee was ordered to be accepted, on motion to that effect, moved by Mr. Rennie, seconded by Mr. Hepburn, and carried.

Mr. Reynolds amended his notice of motion (No. 8) and submitted it, as follows :—"That a Select Committee be appointed for the purpose of enquiring into the whole system of Government printing with a view of ascertaining whether any saving

saving can be effected. Power to Committee to call for persons and papers, and to report on 25th inst. Said Committee to consist of Mr. Speaker (with his consent), Messrs. Gillies, Morris, Walker, Blair, Rennie, and the Mover."

Seconded by Mr. Brodie.

Question put and carried.

Mr. Brodie, according to notice, moved—"That a Committee consisting of Messrs. Morris, Paterson, Adam, Steel, Moss, Mr. Speaker, (with his consent), and the mover—be appointed to take into consideration the memorandum presented to the Council by Mr. Speaker, in reference to the Audit Act."

Seconded by Mr. Reynolds.

Question put and carried.

The remainder of the business on the Order Paper was ordered to be transferred to the Paper for next sitting day.

The Provincial Secretary moved—"That this House do now adjourn till 2 o'clock to-morrow."

Seconded *pro forma* by Mr. Reynolds.

Mr. Macandrew moved as an amendment—"That this House do now adjourn till Wednesday next the 27th inst."

Seconded by Mr. Kilgour.

Question put on the Amendment and lost.

Mr. E. B. Cargill, who had an interview with his Honor the Superintendent, about the formation of an Executive, explained what took place on that occasion.

Mr. Vogel added to what he had said on a previous occasion in a similar interview.

Mr. Speaker declined to make any allusion to an interview with which he was honored by his Honor the Superintendent, because he cannot conceive that he is among those gentlemen referred to in that clause of the Message No. 7, which alludes to those who took part in the debate in question.

Question put on the original motion and carried.

The House adjourned accordingly.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Thursday, April 21 at 2 o'clock.

MOTIONS

1. Mr. Brodie to move—(See page 25).
2. Captain Baldwin to move—(See page 25).
3. Mr. Adam to move—See page 25).
4. Mr. Reynolds to move—(See page 27).
5. Mr. Rennie—"To resume the debate on the Education Resolutions." (See page 28).

6. Mr. Brodie to move—"That in the opinion of this Council it is desirable that the construction of the Punts required for the completion of the road to the Dunstan by the Valley of the Molyneux should be undertaken at once."
7. Mr. Mansford to move—"That a Select Committee be appointed to enquire into the working of the Coal Reserves throughout the Province, with a view of ascertaining if it is advisable that the whole or any part of such reserves should be thrown open for sale. With power to call for persons and papers and records. Report to be brought up on Friday, the 29th inst. ; said Committee to consist of Mr. Speaker (with his consent), Messrs. Miller, Kilgour, Brodie, Hardy, Lloyd, and the mover."
8. Mr. Walker to move—"That a select Committee, consisting of Messrs. Hardy, Baldwin, Mansford, Gleeson, Miller, Kilgour, and the mover, be appointed to enquire into the necessity for passing a Masters' and Servants' Act, with power to call for persons, papers, &c., and to report at an early date."
9. Mr. Blair to move—"That the Interim Report of the Select Committee on Council Printing be adopted."
10. Mr. Lloyd to move—"That a respectful address be presented to His Honor the Superintendent, requesting him to place a sufficient sum on the Estimates to carry out the report of the House Committee which has been adopted."

ORDERS OF THE DAY.

1. Bush Fires Bill to be resumed in Committee.
2. Education Bill to be read a second time.
3. Cattle Bill, 1864, to be read a second time.
4. Superintendent's Indemnity Bill to be read a second time.

THURSDAY, APRIL 21.

Prayer.

Minutes—read and confirmed.

Notices of motions were given by Mr. Birch, Mr. Vogel, Mr. Hughes, Mr. Lloyd, Mr. Walker, Mr. Miller, Mr. Kilgour, Mr. Brodie, and the Provincial Treasurer.

Mr. Speaker read to the House a letter from His Honor the Superintendent, assenting to the amended Standing Orders adopted by the Council.

Mr. Speaker laid on the table the opinion of the Provincial Solicitor, anent the *Superintendent's Indemnity Bill*,

Mr. Reynolds and Mr. Paterson made explanations respecting the Executive crisis.

The Provincial Secretary moved—"That No. IV. of the Orders of the Day take "precedence of other business upon the Order Paper."

Seconded by the Provincial Treasurer.

Mr. Macandrew moved, as an amendment—"The Suspension of Standing Orders," in order to submit a motion respecting the Executive Crisis.

Amendment withdrawn, and original motion put and carried.

Debate

Debate on second reading of the *Superintendent's Indemnity Bill*, was resumed by Mr. Vogel.

Question put and carried.

Bill read a second time.

Mr. Speaker read a letter from the Provincial Auditor, transmitting a Statement of Revenue and Expenditure, from 1st April, 1863 to 31st March 1864, together with a Balance Sheet of accounts, showing the liabilities and permanent debts of the Province for the same period.

Message No. 8, from His Honor the Superintendent, was introduced and read :—

(MESSAGE NO. 8.)

Superintendent's Office,
Dunedin, 21st April, 1864.

It affords me much satisfaction to find that the temporary difficulties, which during the past week have retarded the business of the Session are removed, and that I am now enabled to announce to the Council that the interim Executive have, with my concurrence, withdrawn their resignation of office.

I have, therefore, to express the hope that no further obstacles may present themselves to an earnest consideration by the Council of the important measures which will be submitted to them.

JOHN HYDE HARRIS, Superintendent.

Under Suspension of Standing Orders, the Provincial Treasurer made his Financial Statement.

Mr. Blair, according to notice, asked the Secretary of Public Works—“What are the intentions of the Government regarding the School House, Green Island?”

The Secretary of Public Works replied.

Mr. E. B. Cargill, according to notice asked the Provincial Secretary—“Whether any, and what, progress has been made towards the determination of the site for Provincial Government Buildings, and in the preparation of plans and estimates of such buildings.”

The Provincial Secretary replied.

Mr. Brodie, according to notice, asked—“What were the reasons which induced the Government to appoint as a member of the ‘Town of Port Chalmers Extension Commission,’ a gentleman who had refused to give evidence before the Select Committee appointed by this Council to enquire into the subject, and upon whose report the said Commission was appointed?”

The Provincial Secretary replied.

Mr. Adam, according to notice, moved—“That a respectful Address be presented to his Honor the Superintendent, requesting him to cause an immediate extension of the boundaries of the Quarantine Ground for Diseased Sheep, at Blueskin.”

Seconded by Mr. Stevenson.

Motion by leave of the House withdrawn.

Mr. Reynolds, according to notice, moved—"That the Government be requested to lay upon the table a detailed statement of the expenditure under the vote of last Session for 'Maintaining the main road through the City of Dunedin, and filling up the market reserve of Princes street south, also of the sum of £35,000 advanced to the Town Board of Dunedin.'"

Seconded by Mr. E. B. Cargill.

Question put and carried.

Mr. Mansford according to notice, moved—"That a Select Committee be appointed to enquire into the working of the Coal Reserves throughout the Province, with a view of ascertaining if it is advisable that the whole or any part of such reserves should be thrown open for sale. With power to call for persons, papers, and records. Report to be brought up on Friday, the 29th instant. Said Committee to consist of Mr. Speaker (with his consent) Messrs. Miller, Kilgour, Brodie, Hardy, Gillies, and the Mover."

Seconded by Mr. Adam.

Question put and carried.

Mr. Walker, according to notice, moved—"That a Select Committee, consisting of Messrs. Hardy, Baldwin, Mansford, Hughes, Miller, Kilgour, and the Mover, be appointed to inquire into the necessity for passing a Masters' and Servants' Act, with power to call for persons, papers, &c., and to report at an early date."

Seconded by Mr. Birch.

Question put and carried.

On the motion of Mr. Blair, the Interim Report on Council Printing was adopted.

Mr. Lloyd, according to notice moved—"That a respectful address be presented to his Honor the Superintendent, requesting him to place a sufficient sum on the Estimates to carry out the Report of the House Committee which has been adopted."

Seconded by Mr. Mansford.

Question put and carried.

The Provincial Treasurer laid on the table—

1st. Return of School Fees, &c.

2nd. Return of annual cost to Government of each School, including Buildings and Lands.

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION, AND ORDERS OF THE DAY.

Friday, April 22, at 2, o' Clock.

MOTIONS.

1. Mr. Brodie to move—(See page 25).
2. Captain Baldwin to move—"See page 25).
3. Mr. Rennie—"To resume the debate on the Education Resolutions" (See page 28).

4. Mr. Brodie to move—(See page 32).
5. Mr. Birch to move—“That the various items comprised in the sum of £836 2s 8d expended under the head of Commissions during the past financial year be ordered to be laid on the table of the House.”
6. Mr. Hughes to move—“That a Select Committee be appointed to take into consideration the Petition of Simon Fraser, miner, which has been laid on the table of this House, the said Committee to consist of Messrs. Brodie, Birch, Kilgour, Mollison, McKenzie, Steel, and the mover, with power to call for persons and papers, and the Report to be brought up on an early day.”
7. Mr. Lloyd to move—“That the case submitted to Mr. Sewell for his opinion relative to the powers of Speakers of Provincial Councils be laid on the table.”
8. Mr. Walker to move—“That leave of absence be extended to Captain Mackenzie to Monday next.”
9. Mr. Miller to move—“That leave of absence be granted to Mr. Gleeson for one week.”
10. Mr. Kilgour to move—“That a copy of the petition from Mr. George Smith be transmitted to His Honor the Superintendent, together with a respectful address, to the effect that he may be pleased to apprise the Council whether or not it is intended to take any action towards fulfilling the recommendation of the Council at last Session with reference to the case of the petitioner.”
11. Mr. Brodie to move—“That the Annual Balance Sheet of Accounts, stating the liabilities and permanent debts of the Province, which has been laid on the table by Mr. Speaker as received from the Auditors, be remitted to the Select Committee on the memorandum with reference to the Audit Act.”
12. Mr. Blair to move—“That Copies of all Reports be laid on the table, from the officer employed in negotiating for the closing of portions of the main and district roads throughout the Province.”

ORDERS OF THE DAY.

1. Bush Fires Bill to be resumed in Committee.
2. Education Bill to be read a second time.
3. Cattle Bill, 1864, to be read a second time.
4. Superintendent's Indemnity Bill to be considered in Committee.

FRIDAY, APRIL 22.

Prayer.

Minutes—Read and confirmed.

Notice of motion for Wednesday next was given by Mr. Hardy.

The Provincial Secretary laid on the table the *Cemetery Reserves Bill*, which was read a first time, ordered to be printed, and to be read a second time on Wednesday next.

The Provincial Treasurer laid on the table, the *Education Reserves Management and Leasing Bill*, which was read a first time, ordered to be printed, and read a second time on Wednesday next.

The Provincial Secretary laid on the table the *Education Reserves Bill*, which was read a first time, ordered to be printed, and to be read a second time on Thursday next.

The

The Provincial Treasurer laid on the table "Abstracts of Statements of Receipts and Expenditures furnished to Provincial Government of Otago by the various Charitable Institutions receiving Grants-in-aid."

Mr. Speaker laid on the table papers respecting the case submitted to Mr. Sewell, respecting the powers of Speakers of Provincial Councils.

The Provincial Secretary laid on the table further Immigration Correspondence.

The Secretary of Public Works laid on the table Departmental Reports, Nos. V, IX and X.

Mr. Hughes, according to notice asked—"Whether in the event of the Council constituting a Member of the Executive the Head of the Gold Fields Department, his Honor the Superintendent is so far likely to acquiesce in that appointment as to empower the said Member of the Executive to discharge the responsible duties appertaining thereto?"

The Provincial Secretary replied.

Mr. Reynolds, according to notice, asked the Government—"Whether the suggestions made to the Government by the Town Board of Dunedin in reference to the future Municipal Government of the City, have been embodied in the Act which the Government purposes to bring before this Council?"

The Provincial Secretary replied.

Mr. Brodie, according to notice, moved—"That in the opinion of this Council it is necessary for the better development of the auriferous resources of the province, that the Government should at once undertake a survey of the various sources of Water Supply in the vicinity of each Goldfield, and ascertain the levels of the track of country, along which races, to convey such water might be cut, and that the above information, when completed, be accessible to the public on payment of a fee."

Seconded by Mr. Hughes.

Question put and carried.

Captain Baldwin, according to notice, moved—"That in the opinion of this House it is desirable that two additional members should be given to the Gold-fields":—

"That an Ordinance be brought in to give effect to this resolution."

Seconded by Mr. Hughes.

A debate ensued.

Mr. Dick moved—"That the word 'one' be substituted for the word 'two.'"

Seconded by Mr. Duncan.

Debate resumed.

Mr. Vogel then moved—"That the debate be adjourned for a week."

Seconded by Mr. Macandrew.

Question put on the motion for adjournment and lost.

Mr. Walker moved—"That the debate be adjourned till this day six months."

Seconded by Mr. E. B. Cargill.

Debate resumed.

The Question being put the House divided, when there voted :--

AYES, 18.	NOES 10.
Mr. Hepburn	Mr. Macandrew
Mr. Adam	Mr. Moss
Mr. Steel	Mr. Dick
Mr. Stevenson	Mr. Gillies
Mr. Burns	Mr. Mansford
Mr. Reid	Mr. Brodie
Mr. Miller	Mr. Vogel
Mr. Rennie	Mr. Hughes
Mr. Paterson	Mr. Blair
Mr. Morris	Captain Baldwin (Teller).
Mr. Hardy	
Mr. Birch	
Mr. Kilgour	
Mr. Mollison	
Mr. Walker	
Mr. E. B. Cargill	
Mr. Clapcott	
Mr. Reynolds (Teller).	

So it passed in the affirmative.

Mr. Brodie, according to notice, moved—"That in the opinion of this Council it is desirable that the construction of the Punts required for the completion of the road to the Dunstan by the Valley of the Molyneux should be undertaken at once."

Seconded by Mr. Hughes.

Motion, by leave of House, withdrawn.

Mr. Birch, according to notice, moved—"That the various items comprised in the sum of £836 2s. 8d. expended under the head of Commissions during the past financial year be ordered to be laid on the table of the House."

Seconded by Mr. Kilgour.

Question put and carried.

On the motion of Mr. Miller leave of absence was granted to Mr Gleeson for one week.

Mr. Kilgour, according to notice, moved—"That a copy of the petition from Mr. George Smith be transmitted to His Honor the Superintendent, together with a respectful address, to the effect that he may be pleased to apprise the Council whether or not it is intended to take any action towards fulfilling the recommendation of the Council at last Session with reference to the case of the petitioner."

Seconded by Mr. Birch.

On the motion of Mr. Dick the debate was adjourned till Monday next.

Mr. Brodie, according to notice, moved—"That the Annual Balance Sheet of Accounts, stating the liabilities and permanent debts of the Province, which has been laid on the table by Mr. speaker as received from the Auditor, be remitted to the Select Committee on the memorandum with reference to the Audit Act."

Seconded by Mr. Birch.

Question put and carried.

On the motion of the Provincial Secretary, the *Superintendent's Indemnity Bill* was committed.

IN COMMITTEE.

Schedule I. —The various items were agreed to as read, except "Goldfields Allowance" to "Purchase of Horses," inclusive; and also the item, "Commissions of Enquiry, £836, 2s. 8d.," which were ordered to stand over.

Schedule II.—Agreed to as read.

Schedule III.—Agreed to as read.

On the motion of Mr. Paterson, the House resumed; the Chairman reported progress, asked and obtained leave to sit again.

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock on Monday next.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Monday, April 25, at 2 o'clock, p.m.

MOTIONS.

1. Mr. Rennie—"To resume the debate on the Education Resolutions." (See page 28.)
2. Mr. Hughes to move—(See page 34.)
3. Mr. Dick to resume debate on Mr. Kilgour's motion, as follows—"That a copy of the petition from Mr. George Smith, be transmitted to His Honor the Superintendent, together with a respectful address, to the effect that he may be pleased to apprise the Council whether or not it is intended to take any action towards fulfilling the recommendation of the Council at the last Session with reference to the case of the petitioner."
4. Mr. Vogel to move—
 - 1st. That in the opinion of this Council the time has arrived when the Resident Magistrates' Jurisdiction Extension Act, 1862, should be brought into operation in the Court of the Resident Magistrates of Dunedin and Port Chalmers.
 - 2nd. That the limits of the jurisdiction of the above Courts be at once extended to sums not exceeding £100.
 - 3rd. That a copy of these resolutions be forwarded to His Honor the Superintendent, with a request that he will transmit the same to the Governor, praying that in accordance with Clause X. of the above-mentioned Act, the Governor in Council will be pleased to issue the necessary proclamation to the above effect in the first Government Gazette.
5. Mr Brodie to move—"That in the opinion of this Council it is desirable that, as far as practicable, the sales of Crown Lands liable to be effected by the Land Tax Act should be delayed until the aforementioned Act is in operation."

ORDERS OF THE DAY.

1. Bush Fires Bill to be resumed in Committee.

2. Education Bill to be read a second time.
3. Cattle Bill, 1864, to be read a second time.
4. Superintendent's Indemnity Bill to be resumed in Committee.

MONDAY, APRIL 25.

Prayer.

Minutes—Read and confirmed.

Mr. Macandrew presented a petition from William Bacon.

Petition received and read.

The Provincial Secretary laid on the table Returns of Town and Rural Lands sold in the Province, &c.

The Provincial Secretary laid on the table the *Cemetery Reserves Management Bill*, which was read a first time. Ordered to be printed, and to be read a second time on Wednesday next.

The Secretary of Public Works (Mr. Moss) laid on the table the interim Report of the Commission on Roads and their Deviations.

The Secretary of Public Works laid on the table the *Hawksbury Roads Lands Bill*, which was read a first time. Ordered to be printed, and to be read a second time on Thursday next.

Notices of questions for next sitting were given by Messrs. Murison, Hepburn, and Captain Mackenzie.

Notices of motions for next sitting were given by Messrs. Burns, Vogel, Hughes, Capt. Mackenzie (2), and by Mr. E. B. Cargill.

Notice of motion for Thursday next was given by Mr. Moss.

Notice of motion for "When in Committee of Supply" was given by Mr. Vogel.

Debate resumed by Mr. Rennie on the Education Resolutions proposed by Mr. Vogel—(See page 28.)

The question being put on Resolutions Nos. 1 and 2, the House divided, when there voted:—

Ayes, 7.

Mr. Adam
Mr. Lloyd
Mr. Rennie
Mr. Macandrew
Mr. Mansford
Mr. Clapcott
Mr. Vogel (Teller).

Noes, 19.

Mr. Hughes
Mr. Paterson
Mr. Dick
Mr. Gillie
Mr. Burns
Mr. Hepburn
Mr. Steel
Mr. Stevenson
Mr. Blair
Mr. Reynolds
Mr. E. B. Cargill
Mr. Morris
Mr. Mollison
Mr. Kilgour
Capt. M'Kenzie
Mr. Walker
Mr. Miller
Mr. Reid
Mr. Moss (Teller).

So

So it passed in the negative.

The question put on the 3d Resolution and lost.

Mr. Hughes, according to notice, moved—"That a Select Committee be appointed to take into consideration the Petition of Simon Fraser, miner, which has been laid on the table of this House; the said Committee to consist of Messrs. Brodie, Birch, Kilgour, Mollison, McKenzie, Steel, and the Mover, with power to call for persons and papers, and the Report to be brought up on an early day."

Seconded by Mr. Mollison.

Question put and lost.

Mr. Dick resumed the Debate on the motion of Mr. Kilgour, respecting the petition of Mr. G. Smith- (See page 37.)

Question put and lost.

On the motion of the Provincial Secretary, the *Bush Fires Bill* was resumed in Committee.

IN COMMITTEE.

Clauses 3, 4 and 5 were agreed to as read.

The Title and Preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill with Amendments.

Amendments ordered to be considered on Wednesday next.

On the motion of the Provincial Treasurer, the *Education Bill* was read a second time and committed.

IN COMMITTEE.

Clauses 1, 2, 3, 4, 5, and 6 were agreed to, as read.

Clause 7 was amended.

Clause 8 was agreed to as read.

Clause 9 was amended.

Clauses 10, 11, 12 were agreed to as read.

Clause 13 being moved—

Mr. Hardy moved as an amendment—"That the words 'of whom the majority shall be parents of families' be struck out."

A debate ensued.

The question being put, the Committee divided, when there voted—

AYES, 13.

Mr. Macandrew
 Captain Mackenzie
 Mr. Walker
 Mr. Hughes
 Mr. Mansford
 Mr. Rennie
 Mr. Lloyd
 Mr. Adam
 Major Richardson
 Mr. Murison
 Mr. Miller
 Mr. Vogel
 Mr. Hardy (Teller)

NOES, 14.

Mr. Moss
 Mr. Steel
 Mr. Burns
 Mr. Reid
 Mr. Stevenson
 Mr. Reynolds
 Mr. Dick
 Mr. Cargill
 Mr. Morris
 Captain Baldwin
 Mr. Mollison
 Mr. Blair
 Mr. Kilgour
 Mr. Gillies (Teller)

So

So it passed in the negative.

Clause agreed to as read.

Clause 14 was amended.

Clauses 15 and 16 were agreed to as read.

Clause 17 was amended.

Clauses 18, 19, 20, 21, and 22 were agreed to as read.

Clause 23 was amended.

Clause 24 was amended by striking out all words after "provided" in line 3 from the bottom.

Major Richardson moved—"That the following words be added, viz. :—Provided also that in case any School Committee neglect such repairs and renewals the General Board shall at once withhold from that School all Government aid towards the payment of Teachers and enlargement of buildings, and apply the moneys thereby derived towards effecting the necessary repairs and renewals.

Question put and lost.

Clause agreed to as amended.

On the motion of Mr. Adam the House resumed ; the Chairman reported progress, asked and obtained leave to sit again.

Mr. Reynolds, as Chairman of the Select Committee on Government Printing, asked and obtained leave to defer the bringing up of the Report of the same till Thursday, May the 5th.

On the motion of the Provincial Secretary the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Tuesday, April 26, at 2 o'Clock.

MOTIONS.

1. Mr. Vogel to move—(See page 38).
2. Mr. Brodie to move—(See page 38).
3. Mr. Burns to move—"That a respectful address be transmitted to his Honor the Superintendent that he be pleased to lay upon the table of this House a detailed statement of the expenditure of the amount voted for the Main Line of Road through the City of Dunedin, showing the cost of the various works in every part of the said line including the detailed cost of filling up the Market Reserves and Princes-street South."
4. The Provincial Treasurer to move—"That his Honor the Superintendent's Message No. 4 be taken into consideration in Committee of the whole House."
5. Mr. Vogel to move in Committee, on his Honor's Message No. 4, as an amendment on that part of the Message following the words "with reference to future loans" —"That it is desirable that an Act should be introduced into the Assembly specifying the conditions under which, in future, Provincial Loans will be sanctioned,

sanctioned, and subject to the said conditions, providing a Colonial recognition of said Provincial Loans ; that the conditions should be as follows :—

- 1st. The reservation of all Provincial Loan Ordinances for the signification of the Governor's pleasure thereon.
- 2nd. That assent to any Loan Bill should not be given unless it distinctly states the purposes to which only the loan is to be applied, nor unless a sinking fund shall be provided which will insure the repayment of the loan with interest in a period not exceeding thirty years.
- 3rd. That no such Loan Bill should be assented to by the Governor unless, prior thereto, country lands of good average value, to be approved by the Governor in Council, shall be set apart for the purpose of repaying the loan out of the proceeds of such land, and the quantity of land so to be set apart should be at least sufficient to cover the amount of the loan, if sold at the upset price of country land within the Province to which the same shall relate.
- 5th. That on such land being set apart and approved as aforesaid, the Governor in Council should declare the land to be subject to the provisions of the Act.
- 6th. All such land should be sold in accordance with the laws for the time being in force for the sale of land within the Province, and wherever any such land is sold the proceeds arising therefrom shall be paid into the Colonial Treasury and shall be applied to the liquidation of the loan, and should be invested for that purpose by Commissioners duly appointed under virtue of an Act of the Assembly to invest such funds.
- 7th. That whenever a sufficient sum be realised to pay off the loan and the interest due thereon the land set apart as aforesaid should be released from the provisions of the Act. That the Revenues of the Province Ordinary and Territorial should further be liable for the punctual payment of the interest and sinking fund on the loan, and for the repayment of the principal."
- 8th. That the Assembly should authorise a specific power of taxation, to be applied to meeting the engagements contracted under the Provincial Loan Ordinances ; to be applied only in cases where there is an inability to meet such engagements, or where it is thought desirable to raise money in this way for the purpose of meeting such engagements."
6. Mr. Hughes to move—"That this Council fully recognise the importance of the Mining Interest, and the necessity that exists for placing the responsibilities appertaining thereto with the Executive, and that the duties thus entailed can only be efficiently discharged by a Minister specially appointed for this purpose, and who shall be constituted "Commissioner of Mines." That a respectful address be presented to his Honor the Superintendent, praying that he will give effect to this resolution."
7. Captain Mackenzie to move—"That a Select Committee be appointed to take into consideration the Petition from the Land Owners and others in the Clutha District, with power to call for persons, papers, and reports—Committee to consist of Mr. Speaker, Messrs. Moss, Mansford, Miller, Morris, and the Mover."
8. Captain Mackenzie to move—"That the Government be requested to state to this Council the cause why that portion of the Province of Otago, within the County of Wallace, has had no place within the said Province appointed where claimants to vote might register their names."
9. Mr. E. B. Cargill to move—"That extended leave of absence be granted to Mr. John Cargill for one week."

ORDERS OF THE DAY.

1. Education Bill to be resumed in Committee.
2. Cattle Bill, 1864, to be read a second time.
3. Superintendent's Indemnity Bill to be resumed in Committee.

TUESDAY,

TUESDAY, APRIL 26.

Prayer.

Minutes—Read and confirmed.

Notice of motion for next sitting was given by Mr. Reynolds.

Notices of motions for Thursday next, were given by Mr. E. B. Cargill and by Mr. Vogel.

The Provincial Treasurer laid on the table—

- 1st. "Returns showing the number of Wholesale, Bottle, Publicans, Wine and Beer, and Bush Licences issued since 31st March, 1863, to 31st March, 1864."
- 2nd. "Return of Expenses incurred for Commissions of Inquiry from the 26th of November, 1863, to the 31st March, 1864."

Message, No. 9, from his Honor the Superintendent was introduced, read, and ordered to be considered at next sitting.

(MESSAGE No 9.)

Superintendent's Office,
Dunedin, 26th April, 1864.

In conformity with the provisions of the 27th Section of the Constitution Act, the Superintendent has made and recommends to the Provincial Council for its adoption, the following amendments in the *Medical Practitioners' Bill*, 1864 :—

In Section 3, for the words "Council" in the 7th line, read "Board," and for the words "said Council," in the 9th line, read "Executive Council."

J. HYDE HARRIS, Superintendent.

Mr. Murison, according to notice, asked the Government—"Why no steps have been taken towards the erection of a public pound in the Dunstan District, in conformity with a requisition upon the subject from a number of the runholders in the neighbourhood."

The Provincial Secretary replied.

Mr. Hepburn, according to notice, asked the Provincial Secretary—"Whether tenders have been received for the Lease of Coals on the Half-way Bush Reserve; and, if so, why none have been accepted?"

The Provincial Secretary replied.

Captain Mackenzie, according to notice, asked the Government—"If they will state their reasons for proclaiming the 'Spylaw' Run an infected district under the 'Diseased Cattle Act?'"

The Provincial Treasurer replied.

Mr. Vogel according to notice moved—

- 1st. "That in the opinion of this Council the time has arrived when the Resident Magistrates' Jurisdiction Extension Act, 1862, should be brought into operation in the Courts of the Resident Magistrates of Dunedin and Port Chalmers."
- 2nd. "That the limits of the jurisdiction of the above Courts be at once extended to sums not exceeding £100.

3rd

3rd. "That a copy of these resolutions be forwarded to his Honor the Superintendent, with a request that he will transmit the same to the Governor, praying that in accordance with clause X. of the above mentioned Act, the Governor in Council will be pleased to issue the necessary proclamation to the above effect in the first Government Gazette."

Seconded by Mr. Adam.

Mr. Mollison moved as an amendment—"That the words 'of Dunedin and Port Chalmers' (in the first clause) be struck out, and the words 'throughout the Province of Otago' be inserted in *lieu* thereof.

Seconded by Mr. Hughes.

A debate ensued.

Amendment by leave of the House withdrawn.

Mr. Macandrew moved—"That the words 'and Port Chalmers' be struck out."

Seconded by Mr. Kilgour.

The question being put "that the words proposed to be omitted do stand part of the question" it passed in the negative.

Captain Baldwin moved—"That the words be added 'Wakatipu, Dunstan, and Tuapeka.'"

Seconded by Mr. Hughes

Captain Baldwin asked permission to substitute the word "Queenstown" for Wakatipu."

Permission withheld.

The question being put on the amendment, the House divided, when there voted—

AYES, 5.
Mr. Mansford
Mr. Hughes
Mr. Mollison
Captain Baldwin
Mr. Brodie (Teller).

NOES, 16.
Mr. Lloyd
Mr. Burns
Mr. Hepburn
Mr. Vogel
Mr. Blair
Mr. Stevenson
Mr. Reid
Mr. Rennie
Mr. Paterson
Mr. Hardy
Mr. Reynolds
Mr. Kilgour
Mr. Macandrew
Mr. Adam
Mr. Dick
Mr. Gillies (Teller)

So it passed in the negative.

Question put on the original motion as amended and carried.

Mr. Brodie, according to notice moved—"That in the opinion of this Council, it is desirable that as far as practicable, the sales of Crown Lands liable to be effected by the Land Tax Act should be delayed until the aforementioned Act is in operation."

Seconded by Mr. Blair.

A debate ensued.

The

The question being put, the House divided, when there voted :—

AYES, 6.	NOES, 17.
Mr. Vogel	Mr. Miller
Mr. Macandrew	Mr. Dick
Mr. Birch	Mr. Paterson
Mr. Blair	Mr. Rennie
Mr. Hughes	Mr. Adam
Mr. Brodie (Teller)	Mr. Kilgour
	Mr. Mollison
	Mr. Walker
	Mr. Hardy
	Mr. Reynolds
	Mr. E. B. Cargill
	Mr. Moss
	Mr. Burns
	Mr. Stevenson
	Mr. Hepburn
	Mr. Mansford
	Mr. Gillies (Teller)

So it passed in the negative.

Mr. Burns allowed his notice of motion (No. 3 on the Order Paper) to lapse.

On the motion of Mr. E. B. Cargill, leave of absence was granted to Mr. J. Cargill, for one week from date.

On the motion of the Provincial Treasurer, the House went again into Committee on the *Education Bill*.

IN COMMITTEE.

On the motion of the Provincial Treasurer, Clause 25 was ordered to stand over.

Clause 26 was amended.

Clauses 27 and 28 were ordered to stand over.

Clause 29 was amended.

Clauses 30, 31, 32, 33, 34, 35 and 36 were agreed to as read.

Clause 37 was amended.

Clauses 38 and 39 were agreed to as read.

Clause 40 was amended.

Clauses 41 and 42 were agreed to as read.

Schedules A and B were agreed to as read.

On the motion of the Provincial Treasurer, the House resumed, the Chairman reported progress, asked, and obtained leave to sit again next day.

On the motion of the Provincial Treasurer the *Cattle Bill* was read a second time and committed.

IN COMMITTEE.

Clauses 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12, were severally agreed to as read.

On the motion of Mr. Adam, the House resumed, the Chairman reported progress, asked, and obtained leave to sit again.

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Wednesday, April 27, at two o'clock, p.m.

MOTIONS.

1. The Provincial Treasurer to move—"That his Honor the Superintendent's Message, No. 4, be taken into consideration in Committee of the whole House."
2. Mr. Vogel to move in Committee on his Honor's Message, No. 4, as an amendment to that part of the Message following the words—"with reference to future loans."—(See page 41.)
3. Mr. Hughes to move—(See page 42.)
4. Captain Mackenzie to move—(See page 42.)
5. Captain Mackenzie to move—(See page 42.)
6. Mr. Hardy to move—"That the Report of the Select Committee on the 'Building Ordinance Amendment Ordinance, 1864,' be considered in Committee of the House."
7. Mr. Reynolds to move—"That a Select Committee be appointed for the purpose of ascertaining how far the road now being constructed from Dunedin to Portobello is of service to the residents in the Peninsula, and how far the surveys and deviations connected with said line have been necessary or warranted in view of prudent and economical administration of the votes of this Council. Said Committee to consist of Messrs. Moss, Morris, Kilgour, Burns, Miller, Macandrew, and the Mover, with power to call for papers, persons and reports, and to report on 7th proximo."

ORDERS OF THE DAY.

1. Message No. 9 to be considered.
2. Education Bill to be resumed in Committee.
3. Cattle Bill, 1864, to be resumed in Committee.
4. Superintendent's Indemnity Bill to be resumed in Committee.
5. Cemetery Reserves Bill to be read a second time.
6. Education Reserves Management and Leasing Bill to be read a second time.
7. Cemetery Reserves Management Bill to be read a second time.
8. Bush Fires Bill amendments to be adopted.

WEDNESDAY

WEDNESDAY, APRIL 27.

Prayer.

Minutes—read and confirmed.

Mr. Miller presented two Petitions from certain Inhabitants of the town of Oamaru and the Waitaki Districts.

Petitions read and received.

The Provincial Secretary laid on the table a Return of Sums collected in the Otago Courts of Justice, ordered on the motion of Mr. Vogel, April 13.

The Secretary of Public Works laid on the table the Report of the Government Gardener respecting thistles on the Maori Reserve.

The Secretary of Public Works also laid on the table the *Southern Trunk Road Lands Bill*, and the *Kaikorai District Roads Lands Bill*.

Bills severally read a first time, ordered to be printed, and to be read a second time on Monday next.

Notice of question for next sitting was given by Mr. Vogel.

Notices of motions for next sitting were given by Messrs. Miller, Brodie, and Provincial Treasurer.

Mr. Brodie brought up the Report of the Select Committee on Mr. Speaker's Memorandum relative to the *Audit Act*, 1861.

Message No. 10, from his Honor the Superintendent, was introduced, read, and ordered to be considered at next sitting.

(MESSAGE No 10.)

Superintendent's Office,
Dunedin, April 27, 1864.

In conformity with the provisions of the 27th Section of the Constitution Act, the Superintendent has made, and recommends to the Provincial Council for adoption, the following amendment in the "Police Regulations Ordinance Amendment Bill" :—

Section 5, all the words commencing "Provided always" in the ninth line, and to the end of the clause, to be omitted.

The reasons which appear to render the foregoing amendment to Section 5 advisable, will be found in an opinion of the Provincial Solicitor—a copy of which the Superintendent appends hereto for the consideration of the Council.

J. HYDE HARRIS, Superintendent.

(OPINION REFERRED TO IN ABOVE MESSAGE.)

Police Regulations Ordinance Amendment Bill.

As to the restriction put on the powers of the Commissioner I have to draw his Honor's attention to the fact that a Justice of the Peace holds his commission from the Crown, and he is assigned to keep the peace, and hear and determine matters which a Justice may by law hear and determine. The effect of the alteration limits the power of the Commissioner as a Justice of the Peace. This appears to me objectionable. Such a restriction might be enacted by the General Assembly, but I doubt whether it is not overstepping the powers of the Council.

It

It is true that by the 19th section of the Constitution Act, sub-section 2, Provincial Councils may establish or abolish Courts for trying such offences as by law are punishable in a summary way, and may alter the constitution, practice and jurisdiction of such Courts. By this it appears that the Council might create a Court for the trial of such offences as those mentioned in the clause; this in effect is done by giving two Justices jurisdiction, but the proviso directly limits the power of one who holds her Majesty's commission, and I think it might be considered by the Governor's advisers an improper interference with her Majesty's commission—not objectionable in the particular instance—but objectionable as a matter of principle and precedent. I would advise that the proviso be omitted. The law will then be as it was before the introduction of the Bill.

(Signed)

J. PREENDERGAST, A.P.S.

Captain Mackenzie, according to notice, moved—"That a Select Committee be appointed to take into consideration the Petition from the Landowners and others in the Clutha District, with power to call for persons, papers, and reports—Committee to consist of Messrs. Kilgour, Moss, Murison, Miller, Morris, and the Mover."

Seconded by Mr. Miller.

Question put and carried.

Captain Mackenzie, according to notice, moved—"That the Government be requested to state to this Council the cause why that portion of the Province of Otago, within the County of Wallace, has had no place within the said Province appointed where claimants to vote might register their names."

Seconded by Mr. Stevenson.

Question put and carried.

The Provincial Treasurer, according to notice, moved—"That his Honor the Superintendent's Message, No. 4, be taken into consideration in Committee of the whole House."

Seconded by the Provincial Secretary.

Question put and carried.

IN COMMITTEE.

The Provincial Treasurer moved the first series of 3 resolutions in reference to the negotiation of the £500,000 Loan.—(See page 21.)

Mr. Vogel moved as an amendment upon Nos. 2 and 3—"That his Excellency the Governor should be memorialised to call the Assembly together immediately, and that the Colonial Secretary be requested to give the assurance that he will introduce an Act to enable such selection, reservation, and appropriation, of the said 500,000 acres to be made, and to enable full effect to be given to the proposed security."

On the motion of Mr. Adam it was resolved to take the resolutions *seriatim*.

Upon the 1st resolution Mr. Adam moved as an amendment—"That '250,000 acres' be substituted in lieu of '500,000 acres,'"

Mr. Vogel moved as a further amendment—"That the words 'reserved and' be struck out, and the words 'selected by the Council to be' inserted in lieu thereof."

On the motion of the Provincial Secretary the House resumed. The Chairman reported progress, asked and obtained leave to sit again at next sitting.

On the motion of the Provincial Treasurer the House went into Committee on Message No. 9.—(See page 43.)

IN

IN COMMITTEE.

The amendments recommended in the Message were severally agreed to, and ordered to be made in the Bill.

The House resumed, and the Chairman reported the Bill as amended.

On the motion of the Provincial Treasurer the House went again into Committee on the *Education Bill*.

IN COMMITTEE.

Clause 25 was struck out, and a new clause ordered to stand in lieu thereof.

Clause 27 was struck out.

Clause 28 was amended.

The Title and Preamble were agreed to as read, and ordered to stand parts of the Bill. The House resumed, and the Chairman reported the Bill with amendments.

Bill ordered to be read a third time at next sitting.

Mr. Reynolds moved—"That the House do now adjourn."

Seconded by Mr. Murison.

Question put and lost.

On the motion of the Provincial Treasurer, the House went again into Committee on the *Superintendent's Indemnity Bill*.

IN COMMITTEE.

Schedule I. resumed, and the various items standing over, were agreed to as read.

Schedule IV.—The various items agreed to as read.

Clause 1 agreed to as read.

Clause 2 agreed to as read.

The Title and Preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without amendment.

Bill ordered to be read a third time at next sitting.

On the motion of the Provincial Treasurer, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Thursday, April 28, at two o'clock.

MOTIONS.

1. Mr. Hughes to move—(See page 42.)
2. Mr. Hardy to move—(See page 46.)

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3. Mr. Reynolds to move—(See page 46.)
 4. Mr. Moss to move—Resolutions on Railways.
 5. Mr. E. B. Cargill to move—“That a Select Committee be appointed to enquire into the application of the Loan of £35,000 to the Town Board of Dunedin, and of the vote of £10,000 of last Session of Council for the formation of the Market Reserve and Princes-street, Dunedin, with power to call for papers, &c., &c. Said Committee to consist of Messrs. Paterson, Reynolds, Birch, Moss, Burns, Murison, and the Mover.
 6. Mr. Vogel to move—“The production of all papers and a report of all proceedings in connection with the appointment of a Home Agent; and to recommend that the appointment be not now made, until the same are laid on the table, and the Council had the opportunity of considering them.”
 7. Mr. Miller to move—“That a Select Committee be appointed to take into consideration the Petitions from the Inhabitants of Oamaru and the Waitaki District, with power to call for persons, papers and reports: the Committee to consist of Mr. Speaker (with his consent), Messrs. Reynolds, Walker, Gillies, Morris, Paterson, and the Mover.”
 8. Mr. Brodie to move—“That the Returns recommended by the Committee appointed to consider Mr. Speaker's memorandum on the Audit Act, be laid on the table of the Council as soon as practicable, and that these Returns be furnished annually.”
 9. The Provincial Treasurer to move—“That the House resolve itself into Committee of Supply.

ORDERS OF THE DAY.

1. Message No. 4, to be resumed in Committee.
 2. Message No. 10, to be considered.
 3. Education Bill to be read a third time.
 4. Superintendent's Indemnity Bill to be read a third time.
 5. Cattle Bill, 1864, to be resumed in Committee.
 6. Cemetery Reserves Bill to be read a second time.
 7. Education Reserves Management and Licensing Bill to be read a second time.
 8. Cemetery Reserves Management Bill to be read a second time.
 9. Bush Fires Bill amendments to be adopted.
 10. Education Reserves Bill to be read a second time.
 11. Hawksbury Road Lands Bill to be read a second time.
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THURSDAY, APRIL 28.

*Prayer.**Minutes*—read and confirmed.

Mr. Burns presented a Petition from certain Settlers in the Akatore, Otakia, Saddle-hill and Neighbouring Districts.

Petition Received.

The

The Provincial Treasurer laid on the table Departmental Report No. VIII.

Notices of Questions for next Sitting were given by Mr. Morris and by Mr. Birch.

Notices of Motions for next Sitting were given by Mr. Lloyd, Mr. Paterson, the Provincial Treasurer, Mr. Mansford, and Mr. Reynolds.

Notice of motion for Monday next was given by Mr. Birch.

Mr. Vogel according to notice asked the Provincial Secretary—"How and when it is proposed to fill up the vacancies in the Executive?"

The Provincial Secretary replied.

Mr. Hughes according to notice moved:—"That this Council fully recognise the importance of the Mining Interest, and the necessity that exists for placing the responsibilities appertaining thereto with the Executive, and that the duties thus entailed can only be efficiently discharged by a Minister especially appointed for this purpose, and who shall be constituted "Commissioner of Mines." That a respectful address be presented to His Honor the Superintendent, praying that he will give effect to this resolution."

Seconded by Mr. Macandrew.

Captain Baldwin moved—"That the question be considered in Committee of the whole House."

Seconded by Mr. Mollison.

Question put and carried.

IN COMMITTEE.

Question put,—a Debate ensued.

Major Richardson moved as an amendment—"That the words, 'and that the duties thus entailed can only be efficiently discharged by a Minister specially appointed for this purpose, and who shall be constituted Commissioner of Mines' be struck out."

The question being put on the amendment, the Committee divided, when there voted—

AYES, 14.

Major Richardson
Mr. Dick
Mr. Steel
Mr. Blair
Mr. Stevenson
Mr. Morris
Mr. Moss
Mr. Walker
Mr. Hughes
Mr. Mollison
Capt. M'Kenzie
Mr. Clapcott
Mr. Mansford
Captain Baldwin (Teller).

NOES, 9.

Mr. Adam
Mr. Paterson
Mr. Birch
Mr. Gleeson
Mr. E. B. Cargill
Mr. Gillies
Mr. Murison
Mr. Miller
Mr. Burns (Teller)

PAIR.

Mr. Macandrew—Aye.

Mr. Reynolds—No.

So it passed in the affirmative.

The question being put on the original motion as amended, Mr. Gillies moved—"That the words—"That a respectful address be presented to his Honor the Superintendent praying that he will give effect to this resolution," be struck out."

Mr.

Mr. Vogel moved—"That the words stand—"That a respectful address be presented to his Honor the Superintendent communicating to him this resolution."

Mr. Dick moved as a further amendment, that the words stand—"That a respectful address be presented to his Honor the Superintendent thanking him for having hitherto given effect to this resolution."

Question put on Mr. Vogel's amendment and carried.

Mr. Dick again moved his amendment.

A debate ensued.

The question being put, the Committee divided, when there voted—

AYES, 7.

Mr. Burns
Mr. Birch
Mr. Walker
Mr. Miller
Mr. Murison
Mr. Dick
Mr. Gillies (Teller).

NOES, 15.

Mr. Stevenson
Mr. E. B. Cargill
Mr. Morris
Major Richardson
Mr. Vogel
Captain M'Kenzie
Mr. Steel
Mr. Hughes
Mr. Gleeson
Mr. Mollison
Mr. Moss
Mr. Clapcott
Mr. Blair
Mr. Mansford
Captain Baldwin (Teller)

So it passed in the negative.

The question being put on the original motion, as amended, the Committee divided, when there voted—

Ayes, 13.

Mr. Vogel
Major Richardson
Mr. Mansford
Mr. Steel
Mr. Blair
Mr. Hughes
Mr. Stevenson
Mr. Clapcott
Mr. Morris
Mr. Moss
Captain Mackenzie
Mr. Mollison
Captain Baldwin (Teller)

Noes, 10.

Mr. Paterson
Mr. Birch
Mr. Walker
Mr. Gleeson
Mr. Miller
Mr. Murison
Mr. E. B. Cargill
Mr. Dick
Mr. Gillies
Mr. Burns (Teller)

So it passed in the affirmative.

The House resumed and the Chairman reported the resolution as follows—"That this Council fully recognise the importance of the Mining Interest, and the necessity that exists for placing the responsibilities appertaining thereto with the Executive. That a respectful address be presented to His Honor the Superintendent, communicating to him this resolution."

Mr. Hughes moved—"That the resolution as agreed to in Committee be adopted by the House."

Seconded by Captain Baldwin.

The

The question being put, the House divided when there voted :—

Ayes, 12.	Noes, 11
Mr. Vogel	Mr. Burns
Captain M'Kenzie	Mr. Hepburn
Mr. Mollison	Mr. Dick
Mr. Moss	Mr. Cargill
Mr. Clapcott	Mr. Gleeson
Mr. Hughes	Mr. Murison
Mr. Morris	Mr. Miller
Mr Steel	Mr. Walker
Mr. Mansford	Mr. Paterson
Mr. Blair	Mr. Birch
Mr. Stevenson	Mr. Gillies (Teller)
Captain Baldwin (Teller)	

So it passed in the affirmative.

Mr. Hardy allowed his notice of motion (No. 2, on the order paper) to lapse. Notice of the same given on his behalf for next sitting by Mr. Moss.

Mr. Reynolds according to notice moved—"That a Select Committee be appointed for the purpose of ascertaining how far the road now being constructed from Dunedin to Portobello is of service to the residents in the Peninsula, and how far the surveys and deviations connected with said line have been necessary or warranted in view of prudent and economical administration of the votes of this Council. Said Committee to consist of Messrs. Moss, Morris, Kilgour, Burns, Miller, MacAndrew, and the Mover, with power to call for papers, persons and reports, and to report on the 7th proximo."

Seconded by Mr. Burns.

A debate ensued.

On the motion of the Provincial Secretary the debate was adjourned till next sitting.

On the motion of the Provincial Secretary the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Friday, April 29 at 2 o'clock.

MOTIONS

1. The Provincial Secretary to resume the debate on Resolution moved by Mr. Reynolds—(See page 53.)
2. Mr. Moss to move—Resolutions on Railways.
3. Mr. E. B. Cargill to move—(See page 50.)
4. Mr Vogel to move—(See page 50.)
5. Mr. Miller to move—(See page 50.)
6. Mr. Brodie to move—(See page 50.)
7. Mr. Hardy to move—"That the Report of the Select Committee on the 'Building Ordinance Amendment Ordinance 1864' be considered in Committee of the House."

8. Mr. Lloyd to move—"That leave be granted him to bring in a Bill, called 'The Licensing Amendment Bill, 1864,' for the purpose of allowing spirits, wine, ale, and beer, to be sold within the House of Assembly of the Provincial Council."
9. Mr. Paterson to move—"For a return of all revenue and expenditure immediately connected with the Gold Fields, for the year ending 31st March, 1864."
10. The Provincial Treasurer to move—"That the House go into Committee of Ways and Means."
11. Mr. Mansford to move—"That the time for bringing up the report on Coal Reserves be extended to Friday, the 6th of May."
12. Mr. Reynolds to move—"That no fresh Business be taken up after 10 o'clock p.m."

ORDERS OF THE DAY.

1. Message No. 4 to be resumed in Committee.
2. Message No. 10 to be considered.
3. Education Bill to be read a third time.
4. Superintendent's Indemnity Bill to be read a third time.
5. Cattle Bill, 1864, to be resumed in Committee.
6. Cemetery Reserves Bill to be read a second time.
7. Education Reserves Management and Leasing Bill to be read a second time.
8. Cemetery Reserves Management Bill to be read a second time.
9. Bush Fires Bill amendments to be adopted.
10. Education Reserves Bill to be read a second time.
11. Hawksbury Road Lands Bill to be read a second time.

FRIDAY, APRIL 29.

Prayer.

Minutes--Read and confirmed.

Mr. Mansford presented a petition from John Wood.

Petition received.

Notices of motion for next sitting were given by Mr. Mansford (2), and by Mr. Burns.

The Secretary of Public Works laid on the table a further Report of Commission on Roads and their Deviations.

The Provincial Secretary laid on the table the *Licensed Hawkers' Bill*, which was read a first time, ordered to be printed, and to be read a second time on Wednesday next.

The Provincial Secretary also laid on the table, the *Dunedin Town Board Dissolution Bill*, which was read a first time, ordered to be printed, and to be read a second time on Thursday next.

Mr.

Mr. Morris, according to notice, asked—"What steps the Government intend to take with reference to the Report of the Government Gardener respecting the growth of thistles on the Maori Reserve?"

The Provincial Secretary replied.

Mr. Birch, according to notice, asked the Secretary of Public Works—"Whether or not the Chairman on roads and their deviations is a permanent officer of the Government: if so, what is the nature of his duties, and what the terms in respect of salary on which he may have been engaged?"

The Secretary of Public Works replied.

Debate resumed on Mr. Reynolds' motion, No. 3 on the Order Paper of previous sitting—(See page 53.)

Mr. Reynolds asked permission to withdraw the motion.

Permission withheld.

The former part of the motion was put first and carried—"That a Select Committee be appointed, &c."

At the request of Mr. Moss, the appointment of the Committee was proceeded with, in accordance with Standing Order, No. 90, and the following names announced by Mr. Speaker:—Messrs. Moss, Blair, Miller, Burns, Morris, Birch, and Reynolds. (Mover).

In the absence of Mr. E. B. Cargill, Mr. Hardy on his behalf moved—"That a Select Committee be appointed to enquire into the application of the Loan of £35,000 to the Town Board of Dunedin, and of the vote of £10,000 of last session of Council for the formation of the Market Reserve, and Princes-street, with power to call for papers, &c. Said Committee to consist of Messrs. Paterson, Reynolds, Birch, Gillies, Burns, Murison, and the Mover."

Seconded by Mr. Blair.

Question put and carried.

Mr. Miller, according to notice moved—"That a Select Committee be appointed to take into consideration the Petitions from the inhabitants of Oamaru and the Waitaki District, with power to call for persons, papers and reports; the Committee to consist of Mr. Speaker (with his consent), Messrs. Reynolds, Walker, Gillies, Morris, Paterson and the Mover."

Seconded by Mr. Birch.

Question put and carried.

Mr. Vogel, according to notice, moved—"The production of all papers and a report of all proceedings in connection with the appointment of a Home Agent; and to recommend that the appointment be not now made until the same are laid on the table, and the Council had the opportunity of considering them."

Seconded by Mr. Birch.

A debate ensued.

The question being put, the House divided, when there voted:—

AYES,

AYES, 4.

Mr. Birch
 Mr. Rennie
 Mr. Lloyd
 Mr. Vogel (Teller).

NOES, 22.

Capt. Mackenzie
 Mr. Miller
 Mr. Murison
 Mr. Gillies
 Mr. Mansford
 Mr. Burns
 Mr. Moss
 Mr. Steel
 Mr. Hepburn
 Mr. Reynolds
 Mr. Gleeson
 Mr. Morris
 Mr. Clapcott
 Mr. Hardy
 Mr. Macandrew
 Mr. Blair
 Mr. Kilgour
 Mr. Walker
 Mr. Mollison
 Mr. Stevenson
 Captain Baldwin
 Mr. Dick (Teller)

So it passed in the negative.

Mr. Brodie allowed his notice of motion (No. 6 on the Order Paper) to lapse, and Mr. Vogel on his behalf gave notice of the same for next sitting.

Mr. Hardy, according to notice, moved—"That the Report of the Select Committee on the ' Building Ordinance Amendment Ordinance 1864 ' be considered in Committee of the House."

Seconded by Mr. Stevenson.

Question put and carried.

IN COMMITTEE.

The report was considered.

On the motion of Major Richardson the House resumed, the Chairman reported progress, asked, and obtained leave to sit again at next sitting.

Mr. Lloyd, according to notice, moved—"That leave be granted him to bring in a bill, called ' The Licensing Amendment Bill, 1864,' for the purpose of allowing spirits, wine, ale, and beer, to be sold within the House of Assembly of the Provincial Council."

Seconded by Mr. Mansford.

Question put and carried.

Bill laid on the table, read a first time, ordered to be printed, and be to read a second time next sitting.

The Provincial Treasurer, according to notice, moved—"That the House go into Committee of Ways and Means."

Seconded by the Provincial Secretary.

Mr. Vogel moved as an amendment—"That the House go into Committee of Supply before going into Committee of Ways and Means."

By leave of the House amendment was withdrawn.

Mr.

Mr. Burns moved as an amendment upon the original question—"That Standing Orders be suspended to admit of moving for the appointment of a Select Committee without notice."

Seconded by Mr. Stevenson.

Question put and carried.

Mr. Burns moved—"That a Select Committee be appointed to consider whether the usual method of introducing the question of supply be followed for the future, or the practice of the House of Commons be adopted as a modification thereof. The Committee to consist of Mr. Speaker (with his consent), Messrs. Cargill, Gillies, Morris, Reynolds, Steel, and the Mover."

Seconded by Mr. Stevenson.

A debate ensued.

Question lapsed by reason of the House proceeding to the Orders of the Day according to Standing Orders.

On the motion of the Provincial Secretary, Message No. 10 was considered in Committee of the whole House.

Progress reported and leave obtained to sit again on Monday next.

On the motion of the Provincial Treasurer, the *Education Bill* was re-committed.

IN COMMITTEE.

Clauses 7, 12, and 25 were amended, and a new clause ordered to stand in lieu of clause 27, previously struck out.

The House resumed and the Chairman reported the Bill with amendments.

On the motion of the Provincial Treasurer, the Bill was read a third time, and the Question being put by Mr. Speaker, "that this Bill do now pass," it was agreed to, and the Bill was passed.

On the motion of the Provincial Treasurer, the *Superintendent's Indemnity Bill* was read a third time, and the question being put by Mr. Speaker, "That this Bill do now pass," it was agreed to and the Bill was passed.

On the motion of the Provincial Treasurer, Message No. 4 was resumed in Committee; progress reported, and leave asked and obtained to sit again.

On the motion of the Provincial Secretary the House adjourned till 2 o'clock on Monday next.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Monday, May 2, at 2 o'clock.

MOTIONS.

1. Mr. Birch to move—"That in the opinion of this Council, it is inexpedient, under any circumstances, and especially in the present position of public finances, that a paid Commission on Roads and their Deviations should be kept up for the performance of duties which properly belong to the Department of Public Works, and that the said Department with a paid political Head ought to be perfectly competent to the fulfilment of the duties supposed to have been performed by said Commission."

2. Mr. Brodie to move—(See page 50.)
3. Mr. Paterson to move—(See page 54.)
4. Mr. Mansford to move—(See page 54.)
5. Mr. Reynolds to move—(See page 54.)
6. Mr. Burns to move—“That the Petition from the Settlers in Otakia, Akatore, Saddle Hill and neighbouring districts be taken into consideration when the Council is in Committee on the Estimates.”
7. Mr. Mansford to move—“That all reports and letters relative to the improvement of the navigation of the Clutha River, received from the Marine Engineer from the date of his first inspection to the present time, be laid on the Table.”
8. Mr. Mansford to move—“That a Select Committee be appointed to take into consideration the petition of John Wood, with power to call for persons, papers, and reports; the Committee to consist of Messrs Gillies, Mackenzie, Hardy, Reynolds, Blair, Miller, and the Mover; report to be brought up on Monday, the 9th May.”
9. Mr. Burns to move—“That a Select Committee be appointed to consider whether the usual method of introducing the question of Supply be followed for the future, or the practice of the House of Commons be adopted, or a modification thereof; the Committee to consist of Mr Speaker (with his consent), Messrs. Gillies, Cargill, Morris, Reynolds, Steel, and the Mover.”

ORDERS OF THE DAY.

1. Message No. 4 to be resumed in Committee.
2. Resolutions on Railways to be considered.
3. Message No. 10 to be resumed in Committee.
4. Cattle Bill, 1864, to be resumed in Committee.
5. Cemetery Reserves Bill to be read a second time.
6. Education Reserves Management and Leasing Bill to be read a second time.
7. Cemetery Reserves Management Bill to be read a second time.
8. Bush Fires Bill amendments to be adopted.
9. Education Reserves Bill to be read a second time.
10. Hawksbury Road Lands Bill to be read a second time.
11. Southern Trunk Road Lands Bill to be read a second time.
12. Kaikorai District Road Lands Bill to be read a second time.
13. Licensing Amendment Bill to be read a second time.
14. Report of Select Committee on Building Ordinance to be resumed in Committee.

MONDAY, MAY 2.

Prayer.

Minutes—Read and confirmed.

Notices of motions for next sitting were given by Mr. Hughes and by Mr. Vogel.

Notice of question for Wednesday was given by Mr. Hughes.

Notice of motion for Thursday next was given by Mr. Vogel.

Mr

Mr. Speaker laid on the table copy of letter to the Hon. Mr. Sewell transmitting the case for opinion of Counsel.

The Secretary of Public Works laid on the table further Reports, (11, 12, and 13) from the Commission on Roads and their deviations.

Mr. Lloyd brought up a Report from the House Committee.

The Provincial Secretary laid on the table the *Licensing Bill*, 1864, which was read a first time, ordered to be printed, and to be read a second time on Monday next.

Mr. Birch, according to notice, moved—"That in the opinion of this Council it is inexpedient, under any circumstances, and especially in the present position of public finances, that a paid Commission on Roads and their Deviations should be kept up for the performance of duties which properly belong to the Department of Public Works, and that the said Department with a paid political head ought to be perfectly competent to the fulfilment of the duties supposed to have been performed by said Commission."

Seconded by Mr. Kilgour.

Mr. Vogel moved—"That the words—'And especially in the present position of public finances,' be omitted."

Seconded by Mr. Hughes.

The question being put—"That the words proposed to be omitted, do stand part of the question," it passed in the negative.

The question being put on the original motion as amended, the House divided, when there voted—

AYES, 9.	NOES, 11.
Mr. Vogel	Mr. Moss
Mr. Gleeson	Mr. Dick
Mr. Macandrew	Mr. Murison
Mr. Reynolds	Mr. Burns
Mr. Clapcott	Mr. Mansford
Mr. Hughes	Mr. Lloyd
Mr. Kilgour	Mr. Steel
Mr. Stevenson	Mr. Morris
Mr. Birch (Teller)	Mr. Walker
	Mr. Miller
	Mr. Hardy (Teller)

So it passed in the negative.

Notices of motions Nos. 2 and 3 on the Order Paper were allowed to lapse.

On the motion of Mr. Mansford the time for bringing up the Report of the Select Committee on Coal Reserves was extended till Friday the 6th of May.

Mr. Reynolds according to notice moved—"That no fresh business be taken up after 10 o'clock p.m."

Seconded by Mr. Walker.

Question put and carried.

Mr. Burns according to notice moved—"That the Petition from the Settlers in Otakia, Akatore, Saddle Hill, and neighbouring districts be taken into consideration when the Council is in Committee on the Estimates."

Seconded by Mr. Stevenson.

Question put and carried.

Mr. Mansford allowed his notices of motions Nos. 7 and 8 on the Order Paper to lapse, and gave notice of the same for next Sitting.

Debate

Debate resumed on the motion of Mr. Burns as follows—"That a Select Committee be appointed to consider whether the usual method of introducing the Question of Supply be followed for the future, or the practice of the House of Commons be adopted, or a modification thereof; the Committee to consist of Mr. Speaker (with his consent), Messrs. Gillies, Cargill, Morris, Reynolds, Steel, and "the Mover."

Question put and carried.

On the motion of the Provincial Treasurer, the House went again into Committee on Message No. 4.

IN COMMITTEE.

Question put on Mr. Adam's Amendment for the reduction of 500,000 acres to 250,000 acres, and lost.

The question being put on the original motion, the Committee divided when there voted—

AYES 5.

Mr. Dick
Mr. Vogel
Mr. Murison
Mr. Moss
Mr. Gillies (Teller)

NOES 15.

Mr. Hughes
Mr. Macandrew
Mr. Kilgour
Mr. Blair
Mr. Birch
Mr. Lloyd
Mr. Morris
Mr. Walker
Mr. Clapcott
Mr. Gleeson
Mr. Reynolds
Captain Mackenzie
Mr. Miller
Major Richardson
Mr. Burns (Teller)

So it passed in the negative.

By permission of the Committee Resolutions 2 and 3 of the first series were withdrawn.

The Provincial Treasurer moved the adoption of the seconded series with reference to *future* loans.

Mr. Vogel moved as an amendment the first seven of the series of resolutions of which he had previously given notice, as printed on Order Papers of 26th and 27th April. See page 42.

A debate ensued.

The question being put, on the amendment, the Committee divided, when there voted :—

AYE 1.

Mr. Vogel (Teller).

NOES 16.

Mr. Murison
Mr. Adam
Mr. Mollison
Mr. Morris
Mr. Walker
Mr. Gleeson
Mr. Miller
Mr. Hardy
Mr. E. B. Cargill
Mr. Reynolds
Mr. Moss
Mr. Dick
Mr. Burns
Mr. Steel
Mr. Blair
Mr. Gillies (Teller)

So it passed in the negative.

Mr.

Mr. Vogel moved his eighth resolution.

By permission of the Committee, resolution withdrawn for the present.

Mr. Reynolds moved as an amendment upon the original motion as follows—
 “That such Loans should be issued only under the express sanction of an Act of the
 General Assembly, and in accordance with the Resolutions of this Council previously
 adopted, and that all expenditure of moneys raised by means of any such Loans
 should be restricted absolutely to the purposes specified in such Act of Assembly or
 such Resolutions of Council. That in order to secure the repayment of any such loan,
 and the due payment of interest thereon, out of the resources of the Province a
 sufficient portion of the Crown Lands within the Province should be set apart by
 the Council as security for the same and invested in such manner as the Assembly
 shall think fit.”

Question put on the amendment and lost.

Resolutions 1, 2, and 3 agreed to as read.

Sub-clause marked “A” was amended on the motion of Major Richardson, to
 the following effect—“To be selected by the Council,” after Crown in line 2; and “or
 by the appropriation of two-fifths of the annual territorial revenue of the Province,”
 after the word loan.”

Mr. Vogel moved—“That all the words after word ‘loan’ in the amended portion
 be struck out.”

A debate ensued.

The question being put, the Committee divided, when there voted:—

AYES 5.

Mr. Birch
 Mr. Lloyd
 Mr. Rennie
 Mr. Reid
 Mr. Vogel (Teller).

NOES 17.

Mr. Moss
 Mr. Clapcott
 Mr. Morris
 Mr. Gleeson
 Mr. Hughes
 Mr. Burns
 Mr. Dick
 Mr. Miller
 Mr. Reynolds
 Mr. Hardy
 Capt. Mackenzie
 Mr. Walker
 Mr. Macandrew
 Mr. Kilgour
 Mr. Mollison
 Mr. Gillies
 Mr. Murison (Teller).

So it passed in the negative.

Sub-clause agreed to as amended.

Sub-clause “B.” was amended.

Resolution 1., respecting the *liquidation* of Loans, was agreed to as read.

On the motion of the Provincial Secretary the House resumed, the Chairman
 reported progress, asked and obtained leave to sit again at next sitting.

On the motion of the Provincial Secretary the House went again into Committee
 on Message No. 10. (See page 47.)

IN COMMITTEE.

The Provincial Secretary moved—“That the amendment recommended in Message
 No 10 be agreed to.”

Question put and lost.

On the motion of the Provincial Secretary the House resumed, and the Chairman reported the Bill without further amendment.

On the motion of Mr. Lloyd the *Licensing Amendment Bill* was read a second time and committed.

IN COMMITTEE.

The several clauses (3) were agreed to as read. The Schedule was held as read, and agreed to.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without amendments. Bill ordered to be read a 3rd time next sitting.

On the motion of Mr. Adam the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION, AND ORDERS OF THE DAY.

Tuesday, May 3, at 2, o' Clock.

MOTIONS.

1. Mr. Mansford to move—"That all reports and letters relative to the improvement of the navigation of the Clutha River, received from the Marine Engineer from the date of his first inspection to the present time, be laid on the table."
2. Mr. Mansford to move—"That a Select Committee be appointed to take into consideration the petition of John Wood, with power to call for persons, papers and reports; the Committee to consist of Messrs. Gillies, Mackenzie, Hardy, Reynolds, Blair, Miller, and the Mover; report to be brought up on Monday, the 9th of May."
3. Mr. Hughes to move—"That leave of absence be given to Mr. Brodie for ten days."
4. Mr. Vogel to move—"That in the opinion of this Council it is desirable to repeal the clauses in the Waste Lands Act No. 2, which impose a tax on lands purchased after the said Act comes into operation. That, supposing effect to be given to the foregoing resolution, the Council in the terms of clause 8 of the Otago Waste Lands Act No. 1 hereby recommends that the upset price of Waste Lands be raised to two pounds per acre. That a respectful address be presented to his Honor the Superintendent praying him to take the steps calculated to give effect to this resolution."

ORDERS OF THE DAY.

1. Message No. 4 to be resumed in Committee.
2. Resolutions on Railways to be considered.
3. Cattle Bill, 1864, to be resumed in Committee.
4. Cemetery Reserves Bill to be read a second time.
5. Education Reserves Management and Leasing Bill to be read a second time.
6. Cemetery Reserves Management Bill to be read a second time.

7. Bush Fires Bill amendments to be adopted.
8. Education Reserves Bill to be read a second time.
9. Hawksbury Roads Lands Bill to be read a second time.
10. Southern Trunk Road Lands Bill to be read a second time.
11. Kaikorai District Roads Lands Bill to be read a second time.
12. Licensing Amendment Bill to be read a third time.
13. Report of Select Committee on the Building Ordinance to be resumed in Committee.

TUESDAY, MAY 3.

Prayer.

Minutes—read and confirmed.

Notices of question for next sitting were given by Mr. Adam and by Mr. Macandrew.

Notices of motions for next sitting were given by Captain Mackenzie, Mr. Murison (2), the Provincial Treasurer (2), Mr. Burns and by Mr. Paterson.

The Secretary of Public Works laid on the table Appendix (No. 14) to the Report of Commission on Roads and their Deviations.

Mr. Mansford, according to notice, moved—“That all reports and letters relative to the improvement of the navigation of the Clutha River, received from the Marine Engineer from the date of his first inspection to the present time, be laid on the table.”

Seconded by Mr. Steel.

Motion, by leave of the House, withdrawn.

Mr. Mansford allowed his notice of motion, No. 2, on the Order Paper to lapse and gave notice of the same for next sitting.

On the motion of Mr. Hughes, leave of absence was granted to Mr. Brodie for ten days from this date.

Mr. Vogel, according to notice, moved—“That in the opinion of this Council it is desirable to repeal the clauses in the Waste Lands Act, No. 2, which impose a tax on lands purchased after the said Act comes into operation. That, supposing effect be given to the foregoing resolution, the Council, in the terms of Clause 8 of the Otago Waste Lands Act, No. 1, hereby recommends that the upset price of Waste Lands be raised to Two Pounds per Acre. That a respectful address be presented to his Honor the Superintendent, praying him to take the steps calculated to give effect to this resolution.”

Seconded by Mr. Murison.

Mr. Gillies moved—“That the debate be adjourned till this day week.”

Seconded by Mr. Adam.

Question put on the motion for adjournment and carried.

On

On the motion of the Provincial Treasurer, the House went again into Committee on Message No. 4.

IN COMMITTEE.

The introduction of the series of resolutions on page 3, and resolutions 1, 2, 3, and 4 were amended by the Provincial Treasurer, and as amended agreed to.

The Provincial Treasurer amended and moved the 5th resolution.

Major Richardson moved an amendment to insert after the word "same" in line 5, the words "in accordance with the regulations for the sale of Waste Lands within the Province, in force for the time being."

Question put on the amendment and lost.

Resolution and remainder of Message agreed to as submitted.

The House resumed, and the Chairman reported the resolutions as amended. (See Appendix.)

On the motion of the Secretary of Public Works the House went into Committee on the Resolutions on Railways.

IN COMMITTEE.

The Secretary of Public Works moved the adoption of the resolutions of which he had given notice as follow :—

Resolved—

That with a view to the construction of a Railway between Port Chalmers and Dunedin, and thence to the Clutha ; and with a view also to the extension of said Railway to the Southward and to the Westward, at such times, and in such manner, as may hereafter be found most advisable, it is expedient :—

- 1st. That an accurate survey should be made, and complete plans and specifications prepared, as soon as possible, in order to ascertain the cost of a Railway, of 5 feet 3 inches gauge, as recommended by the Commission on Roads and their Construction in the Report laid before the Council.
- 2nd. That Land for a Central Terminus to the extent of 10 acres or thereabouts, should be reserved from the Harbor Reclamation in Dunedin, and that the new streets being made should be so constructed as to avoid, if practicable at a moderate cost, level crossings on that portion of the line which will traverse the Town.
- 3rd. That the Government should reserve from sale such of the Crown lands as may be necessary for the Railway and for Stations, sidings, &c., in connection with it, and should also as the survey advances, take steps to ascertain definitely from the owners of land along the Line, the terms on which a sufficient portion for the purposes of the Railway can be obtained.
- 4th. That if the Survey of the proposed Line be found to confirm the Estimates laid before the Commission as to the cost thereof, it is desirable that the Council should be specially called together, in order that an Ordinance authorizing a Loan for the requisite amount may be submitted for their consideration in time to enable an Act for the construction of the said Railway to be brought before the General Assembly at its next session.
- 5th. That, should the said Act be passed through the Assembly, it is further expedient that the value of a portion (to the extent of not less than £100,000) of the debentures to be issued for the construction of said Railway as well as the cost of at least a greater part of the land required, should be clearly ascertained

tained before any works are commenced by the Government on either the Port Chalmers or Clutha line.

- 6th. That with a view to facilitate the more speedy construction of the Port Chalmers Line, should a private company desire in the interim to undertake the same, it is expedient that a guarantee of six per cent. on a sum not exceeding £200,000 should be given to any Company that may be formed for the purpose of constructing the said Line, provided said Company be formed under the Joint Stock Companies Act, and approved by the Government before the next session of the Council.

Major Richardson moved—"That the Debate be adjourned till seven o'clock."

Question put and carried.

House resumed.

The Provincial Secretary moved—"That the '*Licensing Amendment Bill, 1864*' be now read a third time."

Seconded by the Provincial Treasurer.

Mr Rennie moved—"That the Bill be read a third time this day six months."

Seconded by Captain Mackenzie.

Question put "that the words proposed to be omitted do stand part of the question" and carried in the affirmative.

Bill read a third time.

The question being put by Mr Speaker that "this Bill do now pass" was agreed to and the Bill was passed.

On the motion of the Provincial Secretary the *Bush Fires Bill's* Amendments were adopted.

Bill ordered to be read a third time at next sitting.

On the motion of Mr. Hardy, the House went again into Committee on the Select Committee's Report on the Building Ordinance.

IN COMMITTEE.

Mr. Macandrew moved—"That the Chairman do now report progress, and ask leave to sit again for the purpose of adopting the report of Committee."

Question put and carried.

The House resumed, the Chairman reported progress, asked and obtained leave to sit again for the purpose specified.

Debate on Railway Resolutions resumed in Committee of the whole House.

IN COMMITTEE.

Resolutions taken *seriatim*.

1st resolution being moved—

Mr Adam moved as an amendment—"That a preliminary and inexpensive survey of a line for a railway between Dunedin and Clutha should be immediately undertaken for the purpose of ascertaining the willingness or otherwise of all those persons whose property will be affected by such proposed line; and also for obtaining a correct estimate of the amount of compensation that will be demanded."

Question put on the amendment and lost.

R

Major

Major Richardson moved the omission of the word "and" between the words "plans and specifications" and the insertion of the words "and estimates" after the word "specifications" in line two.

Question put on Major Richardson's amendment and carried.

Major Richardson moved the following words to be added—"Having regard to the necessity of securing land for the formation of a double line."

Question put on Major Richardson's amendment and carried.

Question being put on the resolution as amended, the Committee divided, when there voted—

AYES, 18

Mr. E. B. Cargill
Mr. Walker
Mr. Reynolds
Mr. Mollison
Mr. Morris
Mr. Burns
Mr. Hardy
Mr. Stevenson
Mr. Rennie
Mr. Mansford
Mr. Blair
Major Richardson
Mr. Steel
Mr. Kilgour
Mr. Macandrew
Mr. Dick
Mr. Gillies
Mr. Moss (Teller)

NOES, 7.

Mr. Hughes
Mr. Paterson
Mr. Gleeson
Mr. J. Cargill
Mr. Adam
Mr. Reid
Captain Mackenzie (Teller)

So it passed in the affirmative

2nd. Resolution was amended on the motion of Major Richardson by inserting the word "obtained" in lieu of "reserved" in line 2, and by inserting the words "on the Southern Side" after "Dunedin" in line 3.

Mr. Macandrew moved that the words "or Port Chalmers" be inserted after the word "side."

Question put on Mr Macandrew's amendment and lost.

Question put on the resolution as amended and carried.

3rd. Resolution—on the motion of Major Richardson the words "from north to south of the Province" were inserted after the word "sale" in line 1.

Mr. E. B. Cargill moved—"That all the words after the word 'it' in line 3 be struck out."

Question put on the amendment and carried

Question put on the resolution as amended and carried.

Major Richardson moved a new resolution to stand No. 4 as follows:—

"That as an essential element in consideration of the reproductive character of a System of Railways it is absolutely necessary towards arriving at a just conclusion, that the approximate quantity and quality of the lands of the Province should be ascertained, and the character of the Goldfields as to permanency and yield, examined into by a select Committee of this House."

By

By permission of the Committee Major Richardson's resolution was withdrawn.

Resolutions 4 and 5 were withdrawn.

Resolution 6, (now 4) being moved a debate ensued, and the question being put, the Committee divided, when there voted—

Ayes, 7.	Noes, 20.
Mr. Kilgour	Major Richardson
Mr. Burns	Mr. Vogel
Mr. Macandrew	Mr. Adam
Mr. Hardy	Mr. Paterson
Mr. Dick	Mr. Morris
Mr. Gillies	Mr. Gleeson
Mr. Moss (Teller)	Mr. Rennie
	Mr. Steel
	Captain Mackenzie
	Mr. Reid
	Mr. J. Cargill
	Mr. Walker
	Mr. Hughes
	Mr. Blair
	Mr. Stevenson
	Mr. Miller
	Mr. Lloyd
	Mr. Murison
	Mr. Mansford
	Mr. E. B. Cargill (Teller)

So it passed in the negative.

The Preamble being moved—Mr. Gleeson moved to insert the word “Northward,” after the word “Southward.”

Question put and lost.

Captain Mackenzie moved to strike out all the words between “Railway” in the first line, and “it is expedient” in the last line.

Question put and lost.

Mr. J. Cargill moved—“That the Preamble read as follows—‘That with a view to the construction of a Railway from Dunedin to the Clutha; and with a view also to the extension of said Railway to Port Chalmers, or the Southward, or elsewhere, at such times, and in such manner, as may hereafter be found most advisable, it is expedient.’”

A debate ensued.

The Question being put, the Committee divided, when there voted :—

AYES, 14.	NOES, 9.
Mr. Mansford	Mr. Rennie
Major Richardson	Mr. Gillies
Mr. Lloyd	Mr. Dick
Mr. Adam	Mr. Hardy
Mr. Steel	Mr. Burns
Mr. Stevenson	Mr. E. B. Cargill
Mr. J. Cargill	Captain Mackenzie
Mr. Reid	Mr. Vogel
Mr. Walker	Mr. Moss (Teller)
Mr. Mollison	
Mr. Gleeson	
Mr. Paterson	
Mr. Murison	
Mr. Miller (Teller)	

So it passed in the affirmative.

The

The question being put on the original motion as amended—Mr. Vogel moved—"That all the words between 'that,' in the first line, and 'it is expedient,' in the last line be struck out."

Question put and lost.

Preamble agreed to as amended.

On the motion of the Provincial Secretary the House resumed and the Chairman reported progress.

It being past 10 o'clock p.m. the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Wednesday May 4, at Two O' Clock.

MOTIONS.

1. Mr. Mansford to move—See page 58.
2. Capt. Mackenzie to move—"That the run known as "Spy-law Run," having no cattle upon it, should not have been included within the infected district. That a respectful address be presented to His Honor the Superintendent to the effect that he be pleased to suspend the declaration of an infected district so far as the said run is concerned."
3. Mr. Murison to move—"That leave of absence be granted to Captain Baldwin for ten days."
4. Mr. Murison to move—"That a select Committee be appointed to draw up congratulatory addresses to Her Majesty and the Prince and Princess of Wales, in connection with the birth of a son to the Prince and Princess; the Committee to consist of Mr. Speaker (with his consent), Messrs. Miller, Hughes, Stevenson, and the Mover."
5. The Provincial Treasurer to move—"That it is expedient a Bill be brought before this House to give power to the Government to sell the Debentures Loan, 1862, £500,000, at less than par, if they should find it absolutely necessary to do so."
6. The Provincial Treasurer to move—"That it is expedient that the Government shall sell in Dunedin the balance of the Debentures of the Otago Loan Ordinance, 1861, bearing 8 per cent., fixing principal and interest payable at the treasury, Dunedin."
7. Mr. Burns to move—"That the report of the Select Committee on 'Supply' be adopted."
8. Mr. Paterson to move—"That a Return be laid on the Table of all Revenue and Expenditure immediately connected with the Gold-Fields, for the year ending 31st March, 1864."

ORDERS OF THE DAY.

1. Bush Fires Bill to be read a third time.
2. Cattle Bill to be resumed in Committee.
3. Report of Select Committee on Building Ordinance to be adopted.

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4. Cemetery Reserves Bill to be read a second time.
 5. Education Reserves Management and Leasing Bill to be read a second time.
 6. Cemetery Reserves Management Bill to be read a second time.
 7. Education Reserves Bill to be read a second time.
 8. Hawksbury Roads Lands Bill to be read a second time.
 9. Southern Trunk Road Lands Bill to be read a second time.
 10. Kaikorai District Roads Lands Bill to be read a second time.
-

WEDNESDAY, MAY 4.

Prayer.

Minutes—read and confirmed.

Notices of motions for next sitting were given by Mr. Reynolds and by Mr. Burns.

Notices of motions for Friday next were given by Mr. Hughes and by Mr E. B. Cargill.

Notice of Question for Monday next was given by Mr. Hughes.

Notice of motion for Monday next was given by Mr. Hughes.

Mr. Hughes according to notice asked the Government—"Whether any satisfactory offer has been made by private parties and accepted by the Government for supplying the Waitabuna Goldfield with water for mining purposes, in accordance with the advertisement issued by the Government in respect thereto? Also, whether it is the intention of the Government to place on the Estimates a sum adequate to this purpose?"

The Provincial Secretary replied.

In the absence of Mr. Adam Mr. Hepburn on his behalf asked the Secretary of Public Works—

1. "Whether the construction of the road from Lovell's Creek to the Clutha Ferry is being executed by the Government or under contract?"
2. "If by the Government, whether it is their intention to complete the same or to call for tenders?"
3. "What quantity of work has already been executed, and what is the total cost thereof, specifying—
 - 1st. The cost of earthwork per cubic yard;
 - 2nd. The cost of formation per chain;
 - 3rd. The cost of pitching per chain, inclusive of quarrying, carting and laying;
 - 4th. The cost of metal per cubic yard, inclusive of quarrying, carting, breaking, and spreading?"

The Secretary of Public Works replied.

Mr. Macandrew according to notice asked the Government—"If they have any objection to recommend the General Government to appoint a Deputy Registrar of Births, Deaths, and Marriages at Port Chalmers?"

The Provincial Secretary replied.

Mr. Mansford according to notice moved—"That a select Committee be appointed to take into consideration the petition of John Wood, with power to call for persons, papers, and reports; the Committee to consist of Messrs. Gillies, Mackenzie Hardy, Reynolds, Blair, Miller, and the Mover; report to be brought up on Monday, the 9th of May."

Seconded by Mr. Lloyd.

By permission of the House and upon the suggestion of Capt. Mackenzie, Mr. Clapcott's name was substituted for the name Capt. Mackenzie.

Question put and lost.

Capt. Mackenzie allowed his notice of motion No. 2 to lapse.

On the motion of Mr. Murison, leave of absence was granted to Capt. Baldwin for ten days from date.

Mr. Murison, according to notice, moved—"That a Select Committee be appointed to draw up congratulatory addresses to Her Majesty and the Prince and Princess of Wales, in connection with the birth of a son to the Prince and Princess; the Committee to consist of Mr. Speaker (with his consent), Messrs Miller, Hughes, Stevenson, and the Mover."

Seconded by Mr. Dick.

Question put and carried.

The Provincial Treasurer, according to notice, moved—"That it is expedient a Bill be brought before this House to give power to the Government to sell the Debentures of the Loan, 1862, £500,000, at less than par, if they should find it absolutely necessary to do so."

Seconded by Mr. Murison.

Mr. Vogel moved as an amendment—"That it is expedient a Bill be brought before this House to repeal clause No. 4, of the *Otago Loan Ordinance* 1862.

Seconded Mr. Lloyd.

Question put on the amendment and lost.

Question put on the original motion and carried.

The Provincial Treasurer, according to notice moved—"That it is expedient that the Government shall sell in Dunedin the balance of the Debentures of the *Otago Loan Ordinance*, 1861, bearing 8 per cent. fixing principal and interest payable at the Treasury, Dunedin."

Seconded by the Secretary of Public Works.

Question put and carried.

Mr. Burns, according to notice, moved "That the Report of the Select Committee on Supply be adopted."

Seconded by Mr. Stevenson.

On the motion of Mr. Reynolds, debate was adjourned till Friday next.

Mr. Paterson, according to notice, moved—"That a Return be laid on the Table of all Revenue and Expenditure immediately connected with the Gold-Fields, for the year ending 31st March, 1864."

Seconded by Mr. Hughes.

Question put and carried.

On

On the motion of the Provincial Secretary, the *Bush Fires Bill* was read a third time, and the question being put by Mr. Speaker, "that this Bill do now pass," it was agreed to and the Bill was passed.

The House went again into Committee on the *Cattle Bill*.

On the motion of the Provincial Treasurer the House resumed—the Chairman reported progress, asked and obtained leave to sit again.

Under suspension of Standing Orders, Mr. Miller moved—"That the *Cattle Bill*, 1864, be referred to a Select Committee consisting of Messrs. Gillies, Gleeson, Murison, Walker, Mollison, Burns, and the Mover, with power to call for papers and persons, and to report on the 11th inst."

Seconded by Captain M'Kenzie.

Question put and carried.

On the motion of Mr. Hardy the House went again into Committee on the Report of the Select Committee on the *Building Ordinance*.

IN COMMITTEE.

Mr. Hardy moved—"That the Report be adopted."

A debate ensued.

The question being put the Committee divided, when there voted—

AYES, 19.

Major Richardson
Mr. Macandrew
Mr. Blair
Mr. Adam
Mr. Rennie
Mr. Steel
Mr. Stevenson
Mr. Burns
Mr. Kilgour
Mr. Lloyd
Mr. Mansford
Mr. Hughes
Mr. Morris
Mr. Paterson
Mr. Gleeson
Mr. Vogel
Mr. Walker
Mr. Reynolds
Mr. Hardy (Teller)

NOES, 4.

Mr. Moss
Mr. Dick
Mr. Mollison
Mr. Birch (Teller)

So it passed in the affirmative.

The House resumed, and the Chairman reported the resolution of Committee which was subsequently adopted by the the House.

On the motion of the Provincial Secretary, the *Cemetery Reserves Bill* was read a second time and committed

IN COMMITTEE.

Clauses 1, 2, 3, and 4, were agreed to as read.

Schedule A—The several Clauses were agreed to as read, with the exception of Clauses 13, 16, and 17, which were ordered to stand over.

On

On the motion of the Provincial Secretary the House resumed, the Chairman reported progress, asked and obtained leave to sit again.

On the motion of the Provincial Secretary the *Cemetery Reserves Management Bill* was read a second time and committed.

IN COMMITTEE.

Clauses 1 to 10, both inclusive, were agreed to as read.

Clause 11, Mr. Reynolds moved to insert after the word "marks," in line 8, the words "not being a dividing fence."

The question being put on the amendment the Committee divided, when there voted :—

AYES 12.	NOES 8.
Mr. Macandrew	Major Richardson
Mr. Birch	Mr. Hardy
Mr. Paterson	Mr. Gillies
Mr. Burns	Mr. Kilgour
Mr. E. B. Cargill	Mr. Dick
Mr. Hughes	Mr. Blair
Mr. Rennie	Mr. Walker
Mr. Adam	Mr. Moss (Teller).
Mr. Mollison	
Mr. Miller	
Mr. Reid	
Mr. Reynolds (Teller).	

So it passed in the affirmative.

Clause agreed to as amended.

Clauses 12 to 20, both inclusive, were agreed to as read.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill as amended.

Bill ordered to be read a third time on Friday next.

It being past 10 o'clock p.m. the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Thursday, May 5, at two o'clock, p.m.

MOTIONS.

1. Mr. VOGEL to move—"That a respectful address be presented to His Honor the Superintendent requesting him to place an amount of £600 on the Estimates for the alteration of a bridge, and for widening and fencing a portion of the roadway on the Port Chalmers and Dunedin road."
2. Mr. Reynolds to move—"That the Select Committee on the Portobello Road be discharged."
3. Mr Burns to move—"That the adoption of the Report of the Select Committee on Supply be made the first order of the day for Friday next."

ORDERS

 ORDERS OF THE DAY.

1. Cemetery Reserves Bill to be resumed in Committee.
 2. Education Reserves Bill to be read a second time.
 3. Education Reserves Management and Leasing Bill to be read a second time.
 4. Hawksbury Road Lands Bill to be read a second time.
 5. Southern Trunk Road Lands Bill to be read a second time.
 6. Kaikorai District Road Lands Bill to be read a second time.
 7. Dunedin Town Board Dissolution Bill to be read a second time.
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THURSDAY, MAY 5.

Prayer.

Minutes—Read and confirmed.

Mr. Vogel presented a petition from Messrs Teschemaker & Schlötel.

Petition read and received.

Mr. Reynolds presented a petition from certain common jurors of Dunedin.

Petition read and received.

Notices of motion for next Sitting were given by Mr. Vogel, Mr. Adam, Mr. Reynolds, Capt. Mackenzie, and by Mr. Hardy.

Notices of motion for Monday next were given by Mr Reynolds, Mr. Hardy, and by Mr. Miller.

Notice of motion for Tuesday next, was given by Mr. Macandrew.

The Secretary of Public Works, laid on the Table Reports and Letters relative to the Improvement of the Navigation of the Clutha River, received from the Marine Engineer from the date of his first inspection (October 13, 1863) to the present time, April, 1864.

Mr. Vogel, according to notice moved,—“That a respectful address be presented to his Honor the Superintendent requesting him to place an amount of £600 on the Estimates for the alteration of a bridge, and for widening and fencing a portion of the roadway on the Port Chalmers and Dunedin Road.”

Seconded by Mr. Macandrew.

Motion, by leave of the House, withdrawn.

Mr. Reynolds, according to notice, moved—“That the Select Committee on the Portobello Road be discharged.”

Seconded by Mr. Lloyd.

Question put and carried.

Mr. Burns allowed his notice of motion (No. 3.) to lapse.

On the motion of Mr. Reynolds the time for bringing up the report of the Select Committee on Government Printing was extended till this day week.

Captain Mackenzie brought up the report of the Select Committee on the Clutha Petition, and moved—"That it be printed forthwith together with the evidence and "appendix."

Seconded by Mr. Walker.

The question being put the House divided, when there voted :—

AYES, 13.	NOES, 5.
Mr. Vogel	Mr. Gleeson
Mr. Morris	Mr. Lloyd
Mr. Moss	Mr. Birch
Mr. Mansford	Mr. Rennie
Mr. Reid	Mr. Reynolds (Teller)
Mr. Burns	
Mr. Mollison	
Mr. Blair	
Mr. Steel	
Mr. Adam	
Mr. Macandrew	
Mr. Walker	
Capt. Mackenzie (Teller).	

So it passed in the affirmative.

Mr. Miller brought up the Report of Select Committee on the Oamaru Petitions. Report ordered to be printed forthwith.

On the motion of the Provincial Secretary the *Cemetery Reserves Bill* was resumed in Committee.

IN COMMITTEE.

Schedule A.

Clauses 13 and 16 were amended and agreed to.

Clause 17 was agreed to as read.

The title and preamble were agreed to, and ordered to stand parts of the Bill.

The House resumed and the Chairman reported the Bill with amendments. Bill ordered to be read a third time on Monday next.

On the motion of the Provincial Treasurer, the *Education Reserves Bill* was read a second time and committed

IN COMMITTEE.

Clauses 1, 2, 3, and 4 were agreed to as read.

The Schedule was ordered to stand as "Schedule D," held as read and agreed to.

The title and preamble were agreed to as read and ordered to stand parts of the Bill.

The

The House resumed and the Chairman reported the Bill with Amended Schedule.

Bill ordered to be read a third time at next sitting.

On the motion of the Provincial Treasurer, the *Education Reserves Management and Leasing Bill* was read a second time and committed.

IN COMMITTEE.

Clauses 1, 2, 3, 4, 5, 6, 7, and 8 were agreed to as read.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without amendment.

Bill ordered to be read a third time at next sitting.

On the motion of the Provincial Secretary, the *Licensed Hawkers' Bill* was read a second time and committed.

IN COMMITTEE.

Clauses 1 to 24 both inclusive, were agreed to as read.

Clause 25, blank filled in with the word "July" and agreed to.

Clauses 26, 27, 28, and 29, were agreed to as read.

The Schedules were held as read and agreed to.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without amendment, save as in the matter of the blank in Clause 25.

Bill ordered to be read a third time at next Sitting.

On the motion of the Secretary of Public Works, the *Hawksbury Roads Lands Bill*, the *Southern Trunk Road Lands Bill*, and the *Kaikorai District Roads Lands Bill*, were read a second time and ordered "to be committed presently."

The *Hawksbury Roads Lands Bill* was committed.

IN COMMITTEE.

Clauses 1 and 2 were agreed to as read.

Clauses 3 and 4 were amended.

Clauses 5, 6, 7, and 8, were agreed to as read.

Clause 9 was amended.

Schedule A. was agreed to as read.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill with amendments.

Bill ordered to be read a third time on Monday next.

On

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Friday, May 6, at 2 o'clock, p.m.

MOTIONS.

1. Mr. Hughes to move—"That this House, believing that the division of the Goldfields into electoral Districts is desirable, resolves that a respectful address be presented to His Honor the Superintendent praying him to take the steps calculated to give effect to this resolution."
2. Mr. Reynolds to resume the debate on Mr Burns' motion as follows:—"That the Report of the Select Committee on Supply be adopted."
3. Mr. E. B. Cargill to move—"That the Town Belt of Dunedin being a Public Reserve for the purposes of a Park and place of recreation for the inhabitants of the city, it is desirable that a Crown Grant be obtained of all the land comprised within the said Town Belt to the Superintendent in trust for the specific purposes for which it has been reserved."
4. Mr Vogel to move—"That the petition in reference to the Spy-law Run be referred to the Select Committee sitting upon the Cattle Bill."
5. Mr Adam to move—"That a respectful address be presented to His Honor the Superintendent requesting him to apply to its original purpose (for the benefit of the inhabitants of Dunedin) that piece of land on the south side Dunedin marked on the record map of the Province "Cemeteries Reserve."
6. Mr. Reynolds to move—"That the Council Printing Committee be discharged."
7. Capt. Mackenzie to move—"That the Report of the Select Committee on the Clutha Petition be adopted."
8. Mr. Hardy to move—"That the Report of the Select Committee on the Building Ordinance, adopted by the Council, be transmitted to His Honor the Superintendent, with a respectful Address to the effect that he may be pleased to embody the same in an Ordinance, to be brought before the Council."

ORDERS OF THE DAY.

1. Education Reserves Bill to be read a third time.
2. Education Reserves Management and Leasing Bill to be read a third time.
3. Licensed Hawkers' Bill to be read a third time.
4. Southern Trunk Road Lands Bill to be committed.
5. Kaikorai District Roads Lands Bill to be committed.
6. Dunedin Town Board Dissolution Bill to be read a second time.
7. Licensing Bill, to be read a second time.

FRIDAY,

FRIDAY, MAY 6.

Prayer.

Minutes—read and confirmed.

Message No. 11, from His Honor the Superintendent was introduced and read :—

(MESSAGE No 11.)

Superintendent's Office,
Dunedin, May 6, 1864.

The Superintendent forwards the enclosed writ, which has been returned to him by the Returning Office, for the North Harbor District, with the name of Charles Henry Street, Esq. endorsed thereon, as the Member of the Provincial Council elected to serve in the room of George Duncan, Esq., resigned.

J. HYDE HARRIS, Superintendent.

Mr. Street was introduced, and took his seat for the North Harbor District.

Notices of questions for next Sitting were given by Mr. Macandrew (2)

Notices of motions for next Sitting were given by Capt. M'Kenzie, Mr. Hughes, the Provincial Treasurer, Mr. Vogel, Mr. Walker, and Mr. Murison.

Notice of motion for Thursday next was given by Mr. Adam.

Mr. Walker brought up the Report of the Select Committee appointed to enquire into the necessity of a *Master and Servants Act*.

The Provincial Secretary laid on the table the "Report of the Commission of Enquiry into the Constitution and Management of the Dunedin Hospital and Lunatic Asylum."

Mr. Hughes allowed his notice No 1 to lapse, and gave notice of the same for Tuesday next.

Motion No. 2 lapsed, neither Mr. Reynolds nor Mr. Burns being present.

In the absence of Mr. E. B. Cargill Mr. Lloyd on his behalf moved—"That the Town Belt of Dunedin being a Public Reserve for the purposes of a Park and place of recreation for the inhabitants of the city, it is desirable that a Crown Grant be obtained of all the land comprised within the said Town Belt to the Superintendent in trust for the specific purposes for which it has been reserved."

Seconded by Mr. Rennie.

Question put and carried.

Mr. Vogel's motion No 4 lapsed in his absence.

Mr. Adam, according to notice, moved—"That a respectful address be presented to His Honor the Superintendent requesting him to apply to its original purpose (for the benefit of the inhabitants of Dunedin) that piece of land on the south side of Dunedin marked on the record map of the Province "Cemeteries Reserve."

Seconded *pro forma* by Mr Hughes.

Question put and lost.

Mr. Reynolds allowed his notice of motion No 6 to lapse.

Capt. M'Kenzie allowed his notice of motion No 7 to lapse, and gave notice of the same for Monday next.

Mr. Hardy's motion No. 8 lapsed in his absence.

By permission of the House, Mr. Vogel moved his motion No. 4 "That the petition in reference to the Spy-law Run be Referred to the Select Committee sitting upon the Cattle Bill."

Seconded by Mr. Clapcott."

Question put and carried.

By permission of the House Mr. Reynolds resumed the debate in accordance with notice of motion No. 2.

Question put and carried.

By permission of the House Mr. Hardy's motion No. 8, was moved by Mr Macandrew—"That the Report of the Select Committee on the Building Ordinance, adopted by the Council, be transmitted to His Honor the Superintendent, with a respectful Address, to the effect that he may be pleased to embody the same in an Ordinance, to be brought before the Council."

Seconded by Mr. Hughes.

Question put and carried.

On the motion of Mr. Mansford, the time for bringing up the Report of the Select Committee on Coal Reserves was extended till Wednesday next.

On the motion of the Provincial Treasurer, the *Education Reserves Bill*, and the *Education Reserves Management and Leasing Bill* were re-committed and reported with verbal amendments.

Bills read a third time, and the question being put by Mr. Speaker as to each Bill respectively "that this Bill do now pass," it was agreed to and the Bills were passed.

On the motion of the Provincial Secretary, the *Licensed Hawkers' Bill* was re-committed and Reported with verbal amendments.

Bill read a third time and the question being put by Mr. Speaker "that this Bill do now pass," it was agreed to and the bill was passed.

On the motion of the Provincial Secretary, the *Cemetery Reserves Management Bill* was read a third time, and the question being put by Mr. Speaker "that the Bill do now pass," it was agreed to, and the Bill was passed.

Mr. Murison brought up the Report of the Select Committee on the Congratulatory address to the Queen, and gave notice for its adoption.

On the motion of the Provincial Secretary, Standing Orders were suspended to admit of the *Licensing Bill* on the Order Paper for Monday next, to be proceeded with at this sitting.

Bill read a second time and committed

IN COMMITTEE.

Clauses 1, 2, 3, and 4, were agreed to as read.

Clauses 5 and 6 were amended.

Clause 7, Mr. Reynolds moved to insert the words "one hundred pounds" in lieu of "thirty pounds" in Sub-Clause 1.

Question

Question put and lost.

Mr. Rennie moved that the words stand "sixty pounds."

Question put and lost.

Sub-Clause agreed to as read.

Sub Clause 2, was amended on the motion of Mr. Gleeson by substituting the word "thirty" for "twenty five."

Sub-Clause 3, Mr. J. Cargill moved—That "thirty" be substituted for "twenty."

The question being put, the Committee divided when there voted :—

Ayes, 11.

Noes, 7.

Mr. Steel
Mr. Clapcott
Mr. Blair
Mr. Stevenson
Mr. Street
Mr. J. Cargill
Major Richardson
Mr. Mollison
Mr. Burns
Mr. Walker
Mr. Gleeson (Teller).

Mr. Gillies
Mr. Moss
Mr. Reynolds
Mr. Morris
Mr. Hughes
Mr. Birch
Mr. Dick (Teller)

So it passed in the affirmative.

Sub-Clause 4 was amended by substituting the word "thirty" for "ten."

Sub-Clauses 5 and 6, agreed to as read.

Clauses 8 to 31 both inclusive were agreed to as read.

Clause 32, blank filled in with the word "five."

Clause 33, amended by substituting "six" for "two" before "sleeping rooms" in line 3, on motion of Mr Birch.

Clause 34, was agreed to as read.

Clause 35, the words "or Christmas Day or Good Friday" were struck out on motion of Mr. Lloyd, and the following words added on the motion of Major Richardson :— "Provided also that on Sunday, no such hotel or house of accommodation shall be open for the supply of liquors to travellers from 10 a.m. to 1 p.m."—Clause as amended agreed to.

Clauses 36 to 60, both inclusive, were agreed to as read.

Schedules held as read and verbally amended in accordance with amended clauses of the Bill.

Title and preamble agreed to as read, and ordered to stand parts of the Bill.

The House resumed and the Chairman reported the Bill with amendments.

Bill ordered to be read a third time on Wednesday next.

On the motion of the Secretary of Public Works, the *Southern Trunk Road Lands Bill* was committed.

IN COMMITTEE.

Clause 1, was agreed to as read.

Clauses 2, 3, and 4 were amended.

Clauses 5, 6, 7, and 8 were agreed to as read.

Clause 9 was amended.

Schedule was held as read and agreed to.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed and the Chairman reported the Bill with amendments.

Bill was ordered to be read a third time on Monday next.

On the motion of the Secretary of Public Works the *Kaikorai District Roads Lands Bill* was committed.

IN COMMITTEE.

Clause 1 was agreed to as read.

Clauses 2, 3, and 4 were amended.

Clauses 5, 6, 7, and 8 were agreed to as read.

Clause 9 was amended.

The Schedule was held as read and agreed to.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed and the Chairman reported the Bill with amendments.

Bill ordered to be read a third time on Monday next.

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock on Monday next.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Monday, May 9, at two o'clock.

MOTIONS.

1. Mr. Hughes to move—"For a return of Suburban Lands, surveyed for sale adjacent to the township of Lawrence, showing the number of acres surveyed, the time occupied in surveying, and the cost of such survey, including the salary and allowance of the Surveyor, and the wages of assistants, &c.; and will also ask the Government whether any Suburban Lands are being surveyed in the Dunstan or Wakatip Districts, and, if so, when such Lands are likely to be offered for sale."
2. Mr. Reynolds to move—"That the Petition of certain Jurymen of Dunedin be taken into consideration."

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3. Mr. Hardy to move—"That a Select Committee be appointed for the purpose of enquiring into—
- 1st. The state of Properties in the Province held in trust for Religious and Educational uses, and the terms and conditions upon which the said Properties are held ;
 - 2nd. To consider whether any arrangements could be made whereby such Properties could be made available for the promotion of Education ; Committee to consist of Mr. Speaker (with his consent), Messrs. Dick, Gleeson, Morris, Rennie, Reynolds, and the Mover, with power to call for persons and reports, and to report May 16."
4. Mr. Miller to move—"That the Report of the Select Committee on the Oamaru Petitions be adopted."
5. Capt. McKenzie to move—"That the Report of the Select Committee on the Clutha Petition be adopted."
6. Mr. Hughes to move—"For all correspondence up to the present date, relative to the application of Simon Fraser, Miner, for a reward for the discovery of the West Taieri Goldfields."
7. The Provincial Treasurer to move—"That the House go into Committee of Supply."
8. Mr. Vogel to move—"That in the opinion of this Council it is desirable that three Members should be added to the Provincial Council to represent respectively the townships in the Tuapeka, Dunstan and Wakatip Districts, and that an Ordinance to give effect to this resolution should be introduced."
9. Mr. Walker to move—"That the Resolution of the Select Committee, appointed to draw up congratulatory addresses to Her Majesty and the Prince and Princess of Wales in connection with the birth of a son to the Prince and Princess, be adopted."

ORDERS OF THE DAY.

1. Cemetery Reserves Bill to be read a third time.
 2. Hawksbury Roads Lands Bill to be read a third time.
 3. Southern Trunk Road Lands Bill to be read a third time.
 4. Kaikorai District Roads Lands Bill to be read a third time.
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MONDAY, MAY 9.

Prayer.

Minutes—read and confirmed.

Mr. Macandrew presented a Petition from Messrs T. A. Mansford and J. Brownhill, of Port Chalmers.

Petition read and received.

Notices of motions for next sitting were given by Mr. J. Cargill, Mr. Street, Mr. Brodie, Mr. Dick, Mr. Miller, and by Mr. Vogel.

Notices of motions for Wednesday next were given by Mr. Brodie and by Mr. Macandrew.

The Provincial Secretary laid on the table a Return of Rural Lands, surveyed up to March 31st, 1864, ordered on the motion of Mr. Hardy, April 14.

Mr. Hughes, according to notice asked the Government—"Whether any conclusion has been arrived at respecting Hundreds, and, if so, whether there are any New Hundreds to be proclaimed near Tuapeka?"

The Provincial Secretary replied.

Mr. Macandrew, according to notice asked the Provincial Secretary—"Whether or not the Government is prepared to take any action towards vesting the municipal estate, set aside for the town of Port Chalmers, in the Town Board there, or otherwise placing said reserves under such management as shall secure their being turned to profitable account?"

The Provincial Secretary replied.

Mr. Macandrew, according to notice asked the Government—"What steps (if any) they had taken with reference to the unsatisfactory performance of the Immigration Contract on the part of Messrs. Potter, Wilson, and Co.?"

The Provincial Treasurer read in reply, as follows—"The Government are prepared to recommend the Home Agents to give up the contract with Messrs. Potter, Wilson, and Co., if they can do so without laying the Government open to an action of damages. They will forward full particulars to the Home Agents regarding the condition of the Ship "*Vectis*" on her arrival, and the disgraceful treatment of the Immigrants as elicited in the Resident Magistrate's Court."

Mr. Hughes, according to notice asked the Government—"Whether any Suburban Lands are being surveyed in the Dunstan or Wakatipu Districts, and, if so, when such Lands are likely to be offered for sale."

The Provincial Secretary replied.

Mr. Hughes, according to notice moved—"For a return of Suburban Lands, surveyed for sale adjacent to the township of Lawrence, showing the number of acres surveyed, the time occupied in surveying, and the cost of such survey, including the salary and allowance of the Surveyor, and the wages of assistants, &c."

Seconded by Mr. J. Cargill.

On the suggestion of Mr. Brodie, the motion was amended by inserting the words "Clyde and Queenstown," after the word "Lawrence."

Question put on the motion as amended and carried.

Mr. Reynolds, according to notice, moved—"That the petition of certain jury men of Dunedin be taken into consideration."

Seconded by Mr. Birch.

By permission of the House, the words were added, "and that a redress of grievances be granted."

Question put on the motion as amended and carried.

Mr. Hardy, according to notice, moved—"That a Select Committee be appointed for the purpose of enquiring into—1st, the state of properties in the Province held in trust for Religious and Educational uses, and the terms and conditions upon which

“which the said properties are held; 2nd, to consider whether any arrangements could be made whereby such properties could be made available for the promotion of Education. Committee to consist of Mr. Speaker (with his consent), Messrs Dick, Gleeson, Adam, Rennie, Reynolds, and the Mover, with power to call for persons and reports, and to report May 16.”

Seconded by Mr. Lloyd.

Mr. Speaker declined to sit upon the proposed Committee, and his name was therefore withdrawn.

Motion, by leave of the House withdrawn.

Mr. Miller, according to notice, moved—“That the Report of the Select Committee on the Oamaru Petitions be adopted.”

Seconded by Mr. Walker.

Question put and carried.

In the absence of Capt. Mackenzie, Mr. Miller, on his behalf, moved—“That the Report of the Select Committee on the Clutha Petition be adopted.”

Seconded by Mr. Walker.

Question put and carried.

Mr. Hughes, according to notice, moved—“For all Correspondence up to the present date, relative to the application of Simon Fraser, Miner, for a reward for the discovery of the West Taieri Goldfields.”

Seconded by Mr Burns.

Question put and carried.

The Provincial Secretary laid the requisite correspondence on the Table, together with an illustrative map.

Mr. Vogel, according to notice, moved—“That in the opinion of this Council it is desirable that three members should be added to the Provincial Council to represent respectively the townships in the Tuapeka, Dunstan, and Wakatipu Districts, and that an Ordinance to give effect to this resolution should be introduced.”

Seconded by Mr. Clapcott.

Question put and lost.

Mr. Walker, according to notice, moved—“That the resolutions of the Select Committee on the necessity for a Masters and Servants Act be adopted.”

Seconded by Mr. Miller.

Question put and carried.

Murison, according to notice, moved—“That the Report of the Select Committee, appointed to draw up congratulatory addresses to Her Majesty and the Prince and Princess of Wales in connection with the birth of a son to the Prince and Princess, be adopted.”

Seconded by Mr. Stevenson.

Question put and carried.

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Tuesday, May 10 at 2 o'clock.

MOTIONS

1. The Provincial Treasurer to move—"That the House go into Committee of Supply."
2. Mr. Gillies to resume debate on Mr Vogel's resolution, as follows:—"That in the opinion of this Council it is desirable to repeal the clauses in the Waste Lands Act No. 2, which impose a tax on Lands purchased after the said Act comes into operation. That, supposing effect be given to the foregoing resolution, the Council in the terms of clause 8 of the Otago Waste Lands Act No. 1, hereby recommends that the upset price of Waste Lands be raised to two pounds per acre. That a respectful address be presented to His Honor the Superintendent praying him to take the steps calculated to give effect to this resolution."
3. Mr. Macandrew to move—"That it is expedient that the Government be empowered to convert such portion of the unsold Debentures authorised to be issued under the various Loan Ordinances, as from time to time may be required, into Exchequer Bills, varying in amount from £5 and upwards, and bearing interest at the same rate as the respective Debentures represented by them; said Exchequer Bills to be sold (if necessary) in the market here, to be made the medium of payment of all Provincial expenditure, and to be taken in payment of all Provincial revenue."
4. Mr. Hughes to move—"That this House, believing that the division of the Goldfields into electoral districts is desirable, resolves that a respectful address be presented to His Honor the Superintendent praying him to take the steps calculated to give effect to this resolution."
5. Mr. J. Cargill to move—"That a Select Committee be appointed to enquire into and recommend what steps be taken in order that the Volunteer force may be put on a more permanent and efficient footing. Said Committee to consist of Mr. Speaker (with his consent) and Messrs. Moss, Blair, Gleeson, Hardy, and the Mover."
6. Mr. Street to move—"That His Honor the Superintendent be requested to take steps to provide a cemetery at the *north* end of the city of Dunedin."
7. Mr. Brodie to move—"That the returns recommended by the Committee appointed to consider Mr Speaker's memorandum on the Audit Act be laid on the table of the Council as soon as practicable, and that these returns be furnished annually."
8. Mr Dick to move—"That His Honor the Superintendent be respectfully requested to apply again to the General Government urging that the land which was proposed to be declared into Hundreds at the last session of Council should be so declared, with the exception of such land as may now be within Goldfields; and that His Honor be further respectfully requested to represent the regret of this Council that there should have been any delay in carrying out the resolutions of this Council on this subject."
9. Mr. Miller to move—"That leave of absence be granted to Captain Mackenzie for three days."
10. Mr. Vogel to move—"That a respectful address be presented to his Honor the Superintendent requesting him to cause a statement to be laid before the Council of the estimate cost of the upper Taieri Bridge, and of the amount it has actually cost to date."

ORDERS OF THE DAY.

1. Cemetery Reserves Bill to be read a third time.

2. Hawksbury Roads Lands Bill to be read a third time.
3. Southern Trunk Road Lands Bill to be read a third time.
4. Kaikorai District Roads Lands Bill to be read a third time.

TUESDAY, MAY 10.

Prayer.

Minutes—read and confirmed.

Notice of question for next sitting was given by Mr. Brodie.

Notice of motion for next sitting was given by Mr. Mansford.

The Provincial Secretary laid on the table the *Ferries Ordinances Repeal Bill*, which was read a first time, ordered to be printed, and to be read a second time on Thursday next.

Notices Nos. 1, 2, and 3 were, by permission of the House, allowed to stand "over for the present."

Mr. Hughes, according to notice moved (No. 4 on the Order Paper):—"That this House, believing that the division of the Goldfields into electoral districts is desirable, resolves that a respectful address be presented to his Honor the Superintendent praying him to take the steps calculated to give effect to this resolution."

Seconded by Mr. Brodie.

Question put and carried.

Mr. Blair, in the absence of Mr. J. Cargill, moved on his behalf :—"That a Select Committee be appointed to enquire into and recommend what steps be taken in order that the Volunteer force may be put on a more permanent and efficient footing. Said Committee to consist of Mr. Speaker (with his consent), and Mr. Moss, Mr. Blair, Mr. Gleeson, Mr. Hardy, and the Mover."

Seconded by Mr. Burns.

Question put and carried.

Mr. Street, according to notice, moved :—"That his Honor the Superintendent be requested to take steps to provide a Cemetery at the north end of the city of Dunedin."

Seconded by Mr. Hepburn.

Question put and carried.

Mr. Brodie, according to notice, moved :—"That the returns recommended by the Committee appointed to consider Mr. Speaker's memorandum on the Audit Act be laid on the table of the Council as soon as practicable, and that these returns be furnished annually."

Seconded by Mr. Morris.

Question put and carried.

Mr. Dick, according to notice, moved :—"That his Honor the Superintendent be respectfully requested to apply again to the General Government urging that the land which was proposed to be declared into Hundreds at the last session of Council should be so declared, with the exception of such land as may now be within Gold-

“ fields ; and that his Honor be further respectfully requested to represent the regret
“ of this Council that there should have been any delay in carrying out the resolutions
“ of this Council on this subject.”

Seconded by Mr. Burns.

Mr. Vogel moved—“ That the debate be adjourned for a week.”

Seconded by Mr. Clapcott.

The question being put on the motion for an adjournment, the House divided,
when there voted :—

AYES, 8

Mr. Adam
Mr. J. Cargill
Mr. Murison
Mr. Walker
Mr. Miller
Mr. Clapcott
Mr. Gleeson
Mr. Vogel (Teller)

NOES, 21.

Mr. Dick
Mr. Macandrew
Mr. Mollison
Mr. Birch
Mr. Blair
Mr. Hepburn
Mr. Lloyd
Mr. Hughes
Mr. Paterson
Mr. Morris
Mr. Brodie
Mr. Reynolds
Mr. Reid
Mr. Rennie
Mr. Steel
Mr. Street
Mr. Stevenson
Mr. Burns
Mr. Mansford
Mr. Gillies
Mr. Moss (Teller)

So it passed in the negative.

Debate resumed.

By permission of the House the Resolution was divided, and the question being
put on the former part thereof, the House divided, when there voted—

AYES, 21.

Mr. Moss
Mr. Reynolds
Mr. Brodie
Mr. Mansford
Mr. Street
Mr. Rennie
Mr. Morris
Mr. Lloyd
Mr. Hepburn
Mr. Gillies
Mr. Adam
Mr. Paterson
Mr. Steel
Mr. Blair
Mr. Hughes
Mr. Stevenson
Mr. Kilgour
Mr. Mollison
Mr. Reid
Mr. Birch
Mr. Dick (Teller)

NOES, 8.

Mr. Walker
Mr. Murison
Mr. Miller
Mr. Gleeson
Mr. J. Cargill
Mr. Clapcott
Mr. Macandrew
Mr. Vogel (Teller)

So

So it passed in the affirmative.

Question put on the latter part of the motion and carried.

The question being put on the entire motion, the House divided, when there voted—

Ayes, 21.

Mr. Gillies
Mr. Moss
Mr. Kilgour
Mr. Paterson
Mr. Brodie
Mr. Mansford
Mr. Street
Mr. Rennie
Mr. Morris
Mr. Lloyd
Mr. Hepburn
Mr. Steel
Mr. Blair
Mr. Stevenson
Mr. Birch
Mr. Burns
Mr. Reid
Mr. Mollison
Mr. Hughes
Mr. Reynolds
Mr. Dick (Teller).

Noes, 9.

Mr. Miller
Mr. Adam
Mr. Macandrew
Mr. Murison
Mr. Gleeson
Mr. J. Cargill
Mr. Walker
Mr. Clapcott
Mr. Vogel (Teller)

So it passed in the affirmative.

On the motion of Mr Miller, leave of absence was granted to Capt. Mackenzie for three days.

Mr. Vogel, according to notice, moved—"That a respectful address be presented to His Honor the Superintendent requesting him to cause a statement to be laid before the Council of the estimated cost of the Upper Taieri Bridge, and of the amount it has actually cost to date."

Seconded by Mr. Blair.

Question put and carried.

Mr. Macandrew moved his motion No. 3—"That it is expedient that the Government be empowered to convert such portion of the unsold Debentures authorised to be issued under the various Loan Ordinances, as from time to time may be required, into Exchequer Bills, varying in amount from £5 and upwards, and bearing interest at the same rate as the respective Debentures represented by them; said Exchequer Bills to be sold (if necessary) in the market here, to be made the medium of payment of all Provincial expenditure, and to be taken in payment of all Provincial Revenue."

Seconded by Mr. Mollison.

Mr. Macandrew asked permission to amend his motion to the following effect—"That it is expedient that the Government be empowered to convert such portion of the unsold Debentures authorised to be issued under the various Loan Ordinances, as from time to time may be required, into Exchequer Bills, of such amounts and at such dates as may be found advisable; the said Bills to be sold (if necessary) in the market here."

Permission withheld.

The

The Provincial Treasurer moved as an amendment on the original motion—
“That all the words after the word ‘Bills’ in line 5, be omitted, and the following
“inserted in lieu thereof—‘Of such amounts, and at such dates as may be found
“‘advisable; the said Bills to be sold, if necessary, in the market here.’”

Seconded by the Provincial Secretary.

Mr. Speaker expressed a doubt whether the motion of the member for Port
Chalmers could be taken except in “Committee of Ways and Means,” and left the
decision with the House.

It being 7 o'clock, the House proceeded to the Orders of the day.

On the motion of the Provincial Secretary, the *Cemetery Reserves Bill* was
recommitted, amended, and reported.

Bill read a third time, and the question being put by Mr. Speaker—“that this
Bill do now pass,” it was agreed to, and the Bill was passed.

On the motion of the Secretary of Public Works, the *Hawkesbury Roads Lands
Bill*, the *Southern Trunk Road Lands Bill*, and the *Kaikorai District Roads Lands
Bill*, were severally recommitted, reported, and read a third time; and the question
being put by Mr. Speaker, as to each bill respectively—“that this Bill do now pass,”
it was agreed to, and the Bills were passed accordingly.

The Orders of the day being disposed of, the motions were resumed.

The House after debate upon the point of order raised by Mr. Speaker, decided
that the question could not be entertained by the House, except in Committee of
Ways and Means.

The Provincial Treasurer laid on the table the Estimates, and according to
notice, moved—“That the House go into Committee of Supply.”

Seconded by the Provincial Secretary.

Question put and carried.

IN COMMITTEE

First item under head of “Loans,” agreed to as read.

Mr. Vogel, according to notice, moved—“That in the opinion of this Committee,
“it is desirable to limit the appropriations made during the session to the first half
“of the current financial year.”

A debate ensued.

The question being put, the Committee divided, when there voted—

AYES 17.

Mr. Miller
Major Richardson
Mr. Clapcott
Mr. Walker
Mr. Paterson
Mr. Gleeson
Mr. Brodie
Mr. Lloyd
Mr. J. Cargill
Mr. Hardy
Mr. Rennie
Mr. Mansford
Mr. Blair
Mr. Stevenson
Mr. Steel
Mr. Adam
Mr. Vogel (Teller).

NOES 11.

Mr. Street
Mr. Burns
Mr. Moss
Mr. Reynolds
Mr. Morris
Mr. Mollison
Mr. Birch
Mr. Macandrew
Mr. Dick
Mr. Gillies
Mr. Murison (Teller)

So it passed in the affirmative.

On the motion of the Provincial Secretary, the House resumed, and the Chairman reported the resolution agreed to in Committee.

Mr. Vogel moved—"That the resolution agreed to in Committee be adopted by the House."

Seconded by Mr Brodie.

The question being put, the House divided, when there voted :—

AYES, 16.	NOES, 12.
Mr. Walker	Mr. Dick
Mr. Adam	Mr. Gillies
Mr. J. Cargill	Mr. Hepburn
Mr. Hardy	Mr. Morris
Mr. Lloyd	Mr. Moss
Mr. Steel	Mr. Burns
Mr. Blair	Mr. Reynolds
Mr. Mansford	Mr. Street
Mr. Stevenson	Mr. Mollison
Mr. Rennie	Mr. Birch
Mr. Miller	Mr. Macandrew
Mr. Clapcott	Mr. Murison (Teller)
Mr. Brodie	
Mr. Gleeson	
Mr. Paterson	
Mr. Vogel (Teller.)	

So it passed in the affirmative.

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Wednesday, May 11, at 2 o'clock.

MOTIONS.

1. Mr. Brodie to move—"That this Council begs to record its approval of the resolutions proposed by the General Government for the appointment of a Lieutenant-Governor and Executive for the Middle Island ; and is, moreover, of opinion that as the largest number of the population of the Middle Island are located in the Province of Otago, it is desirable that it should be selected as the place of residence of the aforementioned functionaries."
2. Mr. Macandrew to move—"That a copy of the memorial from T. A. Mansford and J. Brownhill, as representing a public meeting of the inhabitants of Port Chalmers, be transmitted to his Honor the Superintendent, with a respectful address, that he may be pleased to take the necessary steps toward complying with the prayer of the memorialists as regards the granting of a site for a Mechanics' Institute at Port Chalmers, in the event of there being any suitable reserve available for this purpose ; and also that he may be pleased to place a sum on the Estimates in aid of the establishment of such institute."
3. Mr. Gillies to resume debate on Mr. Vogel's resolution.—(See page 84.)
4. Mr. Mansford to move—"That a respectful Address be presented to his Honor the Superintendent requesting him to place on the Estimates a sufficient sum to establish a Ferry connecting Inch Clutha with the main land."

ORDERS OF THE DAY.

1. Licensing Bill to be read a third time.
2. Dunedin Town Board Dissolution Bill to be read a second time.
3. Committee of Supply.

WEDNESDAY, MAY 11.

Prayer.

Minutes—read and confirmed.

Notices of motion for next sitting were given by Mr. Miller (2).

Notice of motion for Friday next was given by Mr. Gleeson.

Message No. 12, from his Honor the Superintendent was introduced and read.

(MESSAGE No. 12).

Superintendent's Office.

Dunedin, 11th May, 1864.

The Superintendent has to inform the Provincial Council, that the Members of the Executive Government have resigned office.

As the memorandum through which their determination is announced to him, contains the reasons which have led to their resignation, the Superintendent now transmits a copy of that document to the Council.

Impressed with the importance of avoiding delay, the Superintendent has invited the Hon. Member for Waikouaiti to undertake the formation of an Executive Government whose views of policy may meet the approval and support of your House.

The matter now remains in that gentleman's hands.

J. HYDE HARRIS, Superintendent.

(*Memorandum Enclosed in Message.*)

(COPY.)

“The Executive having carefully considered the vote of the Provincial Council last evening, against the proposed appropriation for twelve months, see no reason to alter the opinion they had formed in counsel with your Honor previous to the meeting of the Provincial Council. They continue thoroughly impressed with the evils and difficulties attending the proposed short recess of about four months at a time when the position of affairs demands the undivided energy and attention of the Government. They wish also to inform your Honor that it was distinctly stated to the Provincial Council, that if an emergency arose, the Council would be summoned in the interval.”

“Under these circumstances, they decline to re-construct the Estimates for six months, as desired by the Council, and beg to tender their resignations.”

Dunedin, 11th May, 1864.

(Signed)	THOMAS DICK, Provincial Secretary.
(Signed)	JOHN L. GILLIES, Provincial Treasurer.
(Signed)	FREDERICK J. MOSS, Secretary for Public Works.
(Signed)	W. D. MURISON.

Mr. Miller brought up the Cattle Committee's Report on the Spy-Law Run Petition.

Report

Report read.

Mr. Mansford brought up the Report of the Select Committee on Coal Reserves.

Report read and ordered to be printed.

On the motion of Mr. Blair—and under suspension of Standing Orders—leave of absence was granted to Mr. Speaker for one week.

On the motion of Mr. Vogel, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION, AND ORDERS OF THE DAY.

Thursday, May 12, at 2 o'Clock.

MOTIONS.

1. Mr. Brodie to move—(See page 89)
2. Mr. Macandrew to move—(See page 89.)
3. Mr. Gillies to resume debate on Mr. Vogel's resolution—(See page 84.)
4. Mr. Mansford to move—(See page 89.)
5. Mr. Adam to move—"That in the opinion of this Council, it is desirable that greater facilities for the call of divisions should be afforded to the House, and that in future Mr. Speaker shall limit the time for a call to divide to one minute."
6. Mr. Miller to move—"That the time for bringing up the Report of the Select Committee on the 'Cattle Bill, 1864,' be extended to the 18th inst."
7. Mr. Miller to move—"That the Report of the Select Committee appointed to inquire into the petition of Messrs. Teschemaker and Schlotel be adopted."

ORDERS OF THE DAY.

1. Licensing Bill to be read a third time.
2. Dunedin Town Board Dissolution Bill to be read a second time.
3. Ferries Ordinances Repeal Bill to be read a second time.
4. Committee of Supply.

THURSDAY, MAY 12.

In the absence of Mr. Speaker, the Chairman of Committees took the chair in accordance with Standing Orders.

Prayer.

Minutes—read and confirmed.

Notices of motions for next sitting were given by Mr. Walker, by Mr. Blair, and by Mr. Reynolds.

Mr.

Mr. Vogel moved—"That the House do now adjourn till two o'clock to-morrow."

Seconded by Mr. Brodie.

Mr. Reynolds moved as an amendment—"That the House do now adjourn till two o'clock on Monday next."

Seconded by Mr. Burns.

By leave of the House the amendment was withdrawn.

Question put on the original motion and carried.

The House adjourned till two o'clock the following day

NOTICES OF MOTION AND ORDERS OF THE DAY.

Friday, May 13, at two o'clock.

MOTIONS.

1. Mr. Brodie to move—(See page 89.)
2. Mr. Macandrew to move—(See page 89.)
3. Mr. Gillies to resume debate on Mr. Vogel's resolution—(See page 84.)
4. Mr. Mansford to move—(See page 89.)
5. Mr. Adam to move—(See page 91.)
6. Mr. Miller to move—(See page 91.)
7. Mr. Miller to move—(See page 91.)
8. Mr. Gleeson to move—"That a respectful Address be presented to His Honor the Superintendent, requesting His Honor to appoint a Commission to enquire into the value of the unsold lands of the Province, and to classify the same, shewing the natural position value of said lands, and those lands which have acquired position value from the formation of roads and other circumstances, and the capabilities of said land."
9. Mr. Walker to move—"That leave of absence be given to Mr. E. B. Cargill until Monday next."
10. Mr. Blair to move—"That leave of absence be granted to Mr. Steel for four days."
11. Mr. Reynolds to move—"That a call of the House be made for the earliest possible date."

ORDERS OF THE DAY.

(Same as Thursday, May 12.)

FRIDAY, MAY 13.

Prayer.

Minutes—read and confirmed.

Mr. Dick moved—"That the Chairman of Committees do take the chair till the return of Mr. Speaker."

Seconded

Seconded by Mr. Gillies.

Question put and carried.

The Chairman of Committees took the chair accordingly.

On the motion of Mr. Blair, leave of absence was granted to Mr. Steel for four days.

Mr. Macandrew moved—"That this House do now adjourn till Monday next."

Seconded by Mr. Burns.

Mr. Lloyd moved as an amendment—"That this House do now adjourn for half an hour."

Seconded by Mr. Rennie.

Mr. Lloyd asked permission to withdraw his amendment.

Permission withheld.

The question being put on the amendment, Mr. Acting Speaker pronounced it lost.

Mr. Walker called for a division, and the bell being rung, the attention of Mr. Acting Speaker was called to the fact of there being "no House."

Time—Half-past two, p.m.

Members present—Mr. Dick, Mr. Reynolds, Mr. Moss, Mr. Rennie, Mr. Lloyd, Mr. Walker—and so Mr. Acting Speaker left the Chair.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Monday, May 16.

(Same as previous day.)

MONDAY, MAY 16.

Prayer.

Minutes—read and confirmed.

A petition was presented by Mr. Reynolds from certain "Owners and Occupiers of land in and around Moray-place."

Petition read and received.

Notices of questions (2) for next sitting were given by Mr. Hughes.

Notices of motions for next sitting were given by Mr. Murison, Mr. Reynolds, and Mr. Kilgour.

Mr. Adam moved—"That this House do now adjourn till 2 o'clock to-morrow."

Seconded by Mr. Miller.

Question put and carried.

The House adjourned till 2 o'clock the following day.

NOTICES

NOTICES OF MOTION AND ORDERS OF THE DAY.

Tuesday, May 17, at 2, o' Clock.

MOTIONS.

1. Mr. Brodie to move—(See page 89.)
2. Mr. Macandrew to move—(See page 89.)
3. Mr. Gillies to resume debate on Mr. Vogel's resolution—(See page 84.)
4. Mr. Mansford to move—(See page 89.)
5. Mr. Adam to move—(See page 91.)
6. Mr. Miller to move—(See page 91.)
7. Mr. Miller to move—(See page 91.)
8. Mr. Gleeson to move—(See page 92.)
9. Mr. Walker to move—(See page 92.)
10. Mr. Reynolds to move—(See page 92.)
11. Mr. Murison to move—"That leave of absence be granted to Capt. Baldwin for one week."
12. Mr. Reynolds to move—"That the appropriation for the Public Service be granted by this Council for twelve months from the 1st of April last."
13. Mr. Kilgour to move—"That the late Executive be requested to resume their functions."

ORDERS OF THE DAY.

(Same as Thursday, May 12.)

TUESDAY, MAY 17.

*Prayer.**Minutes*—read and confirmed.

Mr. Gleeson presented a petition from John Hughes of Morakie

Petition read and received.

Notices of motion for next sitting were given by Capt. Mackenzie, Mr. Brodie, Mr. Reynolds, and Mr. Gleeson.

Message, No. 13, from his Honor the Superintendent was introduced and read :—

(MESSAGE No. 13.)

Superintendent's Office,
Dunedin, 17th May, 1864.

The Superintendent has to announce to the Provincial Council that the following gentlemen have become members of the Executive Council, namely—

JAMES PATERSON, Esquire, M.P.C., Provincial Secretary.	
HENRY CLAPCOTT, Esquire, M.P.C., Provincial Treasurer.	
HENRY JOHN MILLER, Esquire, M.P.C., Secretary for Public Works.	
JOHN CARGILL, Esquire, M.P.C.,	} Without office.
and	
JAMES ADAM, Esquire, M.P.C.,	

JOHN HYDE HARRIS, Superintendent.

On the motion of the Provincial Secretary (Mr. Paterson) the House adjourned till 4 o'clock.

House

House resumed at 4 P.M.

The Secretary of Public Works (Mr. Miller) laid on the table, the *Tokomariro District Roads Lands Bill*, and the *Anderson's Bay District Roads Lands Bill*.

Bills read a first time, ordered to be printed, and to be read a second time at next sitting.

The Provincial Secretary laid on the table the *Otago Loan Ordinance, 1862, Amendment Bill, 1864*, which was read a first time and ordered to be printed.

The Provincial Secretary moved—"That Standing Orders be so far suspended as to allow the Bill to pass through all its stages at this sitting."

Seconded by the Provincial Treasurer (Mr. Clapcott).

Question put and carried.

The Provincial Secretary moved—"That the Bill be now read a second time."

Seconded by Mr. J. Cargill.

Question put and carried, and Bill read a second time accordingly.

On the motion of the Provincial Secretary the Bill was committed.

IN COMMITTEE.

Clauses 1 & 2 were agreed to as read.

Clause 3 was struck out.

The title and preamble were agreed to and ordered to stand parts of the Bill.

On the motion of the Provincial Secretary the House resumed, and the Chairman reported the Bill as amended.

Bill read a third time, and the question being put by Mr. Acting Speaker, "that this Bill do now pass," it was agreed to, and the Bill was passed.

The Provincial Secretary moved—"That this House do now adjourn till to-morrow week."

Seconded by Mr. Adam.

Mr. Gleeson moved as an amendment—"That this House do now adjourn till Monday week."

Seconded by Mr. Vogel.

Question put on the amendment and lost.

Question put on the original motion and carried.

The House adjourned till May the 25th at 2 p.m.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Wednesday, May 25, at 2 o'clock,

MOTIONS.

1. Mr. Brodie to move—(See page 89.)
2. Mr. Macandrew to move—(See page 89.)
3. Mr. Gillies to resume debate on Mr. Vogel's resolution—(See page 84.)
4. Mr. Mansford to move—(See page 89.)

5. Mr. Adam to move—(See page 91.)
6. Mr. Miller to move—(See page 91.)
7. Mr. Miller to move—(See page 91.)
8. Mr. Gleeson to move—"That a respectful Address be presented to his Honor the Superintendent requesting his Honor to appoint a Commission to enquire into the value of the unsold Lands of the Province, and to classify the same, shewing the natural position value of said lands, and those lands which have acquired position value from the formation of roads and other circumstances, and the capabilities of said land."

Contingent on the above being carried—

- Mr. Brodie to move the following addition—"And also to ascertain the auriferous character of the aforesaid land, and what portions it would be desirable to withdraw from sale in consequence; 2nd, that the Commission should enquire into the extent and permanency of our Goldfields, with a view to obtain an approximate estimate of the natural capital of the Province."
9. Mr. Reynolds to move—"That a call of the House be made for the earliest possible date."
 10. Mr. Murison to move—"That leave of absence be granted to Capt. Baldwin for one week."
 11. Mr. Reynolds to move—"That the appropriation for the Public Service be granted by this Council for twelve months from the 1st April last."
 12. Mr. Kilgour to move—"That the late Executive be requested to resume their functions."
 13. Capt. McKenzie to move—"That it is necessary that a strict enquiry be instituted by the Government as to the nature of the stone now being used as road metal between the bridge, South Branch Tokomariro River and Lovel's Creek, about 10 miles, before any money be disbursed to the Contractors on account of the same."
 14. Mr. Reynolds to move—"That the Government take the necessary steps to prevent any encroachment on the Reserve in Moray Place, or on any other of the Reserves connected with the Town of Dunedin."
 15. Mr. Gleeson to move—"That the Petition of John Hughes be referred to a Select Committee, with power to call for persons and papers, and to report on a future day; said Committee to consist of Mr. Miller, Mr. Adam, Mr. Gillie, Mr. John Cargill, Mr. Morison, Mr. Rennie, and the Mover."

ORDERS OF THE DAY.

1. Licensing Bill, to be read a third time.
2. Dunedin Town Board Dissolution Bill to be read a second time.
3. Ferries Ordinances Repeal Bill to be read a second time.
4. Anderson's Bay District Roads Lands Bill to be read a second time.
5. Tokomariro District Roads Lands Bill to be read a second time.
6. Committee of Supply

WEDNESDAY,

WEDNESDAY, MAY 25.

(Mr. Speaker in the Chair.)

Prayer

Minutes—read and confirmed.

Mr. Morris presented a petition from certain Settlers in the North East Harbor.

Petition read and received.

Notices of questions for next sitting were given by Mr. Dick, (2) Mr. Burns, Mr. Macandrew, and by Mr. Birch.

Notices of motions for next sitting were given by Mr. Hardy, Mr. Hughes, Mr. Gillies, (3) and by Mr Dick, (2).

Notice of motion for Friday next was given by Mr. Macandrew.

Notices of motions for Monday next were given by Mr. Morris, and Mr. Reynolds.

Notices of motions for “when in Committee of Supply,” were given by Mr. Reynolds, and by Mr. Dick.

The Provincial Secretary laid on the Table—

1st. Statement of estimated cost of Upper Taieri Bridge.

2nd. Return of Suburban Lands surveyed for sale adjacent to the townships of Lawrence, Clyde, and Queenstown.

3rd. Number of Convictions for Drunkenness, during the year ending 31st March, 1864.

Mr. Speaker laid on the table (from the Provincial Auditor)—

The returns recommended by the Select Committee on Mr. Speaker's memorandum on the *Audit Act*.

Returns ordered to be printed forthwith.

The Provincial Secretary laid on the table Departmental Report, No. XIII., (Gold Fields), also return of Revenue and Expenditure connected with the Gold Fields for the year ending 31st March, 1864.

The Provincial Secretary laid on the table the *Dunedin Building Ordinance, 1862 Amendment Bill*; the *Otago Harbor Loan Ordinance 1862, Amendment Bill*; and the *Otago Public Buildings Loan Ordinance, 1862, Amendment Bill*.

Bills severally read a first time, ordered to be printed, and to be read a second time at next sitting.

Mr. Reynolds, as Chairman of the Select Committee on Government Printing, brought up the Report of that Committee.

Mr. Brodie, according to notice, asked—“If it is the intention of the Government to place a sum upon the Estimates for the purpose of relieving the Dunstan Hospital Committee from the debt incurred during the first year of its existence?”

The Provincial Treasurer replied.

Mr. Hughes, according to notice, asked—"Whether the Government allow the Banks on the Goldfields the service of Constables for the purpose of enabling them to carry on their private business of gold buying, and if this is the case, do the Banks pay any portion of the expenses of the aforementioned Constables?"

The Provincial Secretary read a reply.

Mr. Hughes, according to notice, asked—"Whether the Government intends taking any steps towards securing the prompt payment of the laborers who may be working under the Government contractors?"

The Secretary of Public Works replied.

Mr. Brodie allowed his notice of motion (No. 1) to lapse.

Mr. Macandrew, according to notice, moved—"That a copy of the memorial from T. A. Mansford and J. Brownhill, as representing a public meeting of the inhabitants of Port Chalmers, be transmitted to his Honor the Superintendent, with a respectful address that he may be pleased to take the necessary steps toward complying with the prayer of the memorialists as regards the granting of a site for a Mechanics' Institute at Port Chalmers, in the event of there being any suitable reserve available for this purpose; and also that he may be pleased to place a sum on the Estimates in aid of the establishment of such institute."

Seconded by Mr. Hughes.

Question put and carried.

Mr. Gillies, according to motion of adjournment, resumed the debate on Mr. Vogel's resolution, as follows—"That in the opinion of this Council it is desirable to repeal the clauses in the Waste Lands Act, No. 2, which impose a tax on lands purchased after the said Act comes into operation. That, supposing effect be given to the foregoing resolution, the Council, in the terms of clause 8 of the Otago Waste Lands Act, No. 1, hereby recommends that the upset price of Waste Lands be raised to two pounds per acre. That a respectful address be presented to his Honor the Superintendent praying him to take the steps calculated to give effect to this resolution."

On the motion of Mr. Gillies, seconded by Mr. Adam, the House went into Committee.

IN COMMITTEE.

Debate continued.

Mr. Vogel asked permission to have the motion put in two parts.

Permission withheld.

Question put on the resolution as read, and lost.

The House resumed, and the Chairman reported the decision of the Committee, which (on the motion of Mr. Gillies) was subsequently adopted by the House.

It being seven o'clock, the House proceeded to the Orders of the Day.

No. 1, (Licensing Bill) ordered to be transferred to the Order Paper for Monday next.

No. 2, (Town Board Dissolution Bill) ordered to be transferred to the Order Paper for Tuesday next.

On the motion of the Secretary of Public Works, the *Tokomairiro District Roads Lands Bill* was read a second time and committed.

IN

IN COMMITTEE.

The several clauses (9) together with the Schedule were agreed to as printed.

The title and preamble were agreed to and ordered to stand parts of the Bill.

The House resumed and the Chairman reported the Bill without amendments.

Bill ordered to be read a third time on Tuesday next.

On the motion of the Secretary of Public Works the *Anderson's Bay District Roads Lands Bill* was read a second time and committed.

IN COMMITTEE.

The several clauses (9) were agreed to as printed.

The Schedule was amended.

The title and preamble were agreed to as read and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported as amended.

Bill ordered to be read a third time on Tuesday next.

On the motion of the Provincial Secretary the *Ferries Ordinances Repeal Bill* was read a second time and committed.

IN COMMITTEE.

Clause 1 being read—a debate ensued.

On the motion of the Provincial Secretary the House resumed, the Chairman reported progress, asked and obtained leave to sit again on Tuesday next.

Orders of the Day being disposed of, motions were resumed.

Mr. Adam according to notice moved—"That in the opinion of this Council, it is desirable that greater facilities for the call of divisions should be afforded to the House, and that in future Mr. Speaker shall limit the time for a call to divide to one minute."

Seconded by Mr. Clapcott.

Mr. Brodie moved as an amendment—"That the word 'two' be substituted for 'the word 'one.'"

Question put that the word proposed to be omitted do stand part of the question which passed in the negative.

Question put that the word proposed to be added be so added, which also passed in the negative.

Mr. Miller allowed his notice of motion No. 6. to lapse, and gave notice of the same for next sitting.

Mr. Miller amended his notice of motion No. 7., and submitted it as follows—"That the interim Report of the Select Committee on the Cattle Bill appointed to enquire on the petition of Messrs. Teschemaker and Schlotel be adopted."

Seconded by Mr. Murison.

Question

Question put and carried.

Mr. Gleeson's motion, No. 8, lapsed in his absence, Mr. Brodie in his behalf, giving notice of the same for next sitting.

Mr. Reynolds allowed his notice of motion (No. 9) to lapse.

On the motion of Mr. Murison, leave of absence was granted to Capt. Baldwin for one week.

Mr. Reynolds allowed his notice of motion (No. 11) to lapse.

Mr. Kilgour's motion (No. 12) lapsed in his absence.

Capt. Mackenzie, according to notice, moved—"That it is necessary that a strict inquiry be instituted by the Government as to the nature of the stone now being used as road metal between the bridge, South Branch Tokomariro River and Lovel's Creek, about 10 miles, before any money be disbursed to the Contractors on account of the same."

Seconded by Mr. Hughes.

Question put and carried.

Mr. Reynolds amended his notice of motion, No. 14, and moved it as follows—"That the Government take the necessary steps to prevent any encroachment on the Reserve known as the Octagon, or on any other of the Reserves connected with the Town of Dunedin."

Seconded by Mr. Burns.

Question put and carried.

In the absence of Mr. Gleeson, Mr. Moss on his behalf, moved—"That the Petition of John Hughes be referred to a Select Committee, with power to call for persons and papers, and to report on a future day; said Committee to consist of Mr. Miller, Mr. Adam, Mr. Gillies, Mr. J. Cargill, Mr. Murison, Mr. Rennie, and the Mover."

Seconded by Mr. Burns.

A debate ensued.

On the motion of Mr. Dick, the debate was adjourned till Monday next.

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Thursday, May 26, at two o'clock.

MOTIONS.

1. Mr. Miller to move—"That the time for bringing up the Report of the Select Committee on the Cattle Bill, 1864," be extended to the 30th inst.
2. Mr. Gleeson to move—(See page 96.)

3.

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3. Mr. Hardy to move—"That his Honor the Superintendent be respectfully requested to give his assent to the Education Ordinance, 1864, for the purpose that it may be brought into operation without delay."
 4. Mr. Hughes to move—"That this House, seeing cause to regret that the exaggerated reports which were received in this Province regarding the discovery of gold in the Province of Marlborough should have induced so great an exodus from Otago, whereby a vast number of miners have been left in a state of destitution on that goldfield, recognises the propriety of relieving parties so circumstanced by sending the steamboat St. Kilda to enable them to return to their former occupations in this Province; and that a respectful address be presented to his Honor the Superintendent praying him to give effect to this resolution."
 5. Mr. Gillies to move—"That in the opinion of this House, the present financial difficulties of the Province of Otago arise principally from the slow sale of the Debentures in the home market, and such slow sale arises from the fact that they will not be admitted to be quoted on the Stock Exchange without the guarantee of the General Government; and that believing that the General Government would be willing to pledge itself to support such a proposed guarantee in the Assembly, it is expedient that a respectful Address be presented to his Honor the Superintendent requesting him to communicate with the Governments of the other Provinces of New Zealand with a view to a combined effort to take such steps as will secure the placing of the debentures on the Stock Exchange in London."
 6. Mr. Gillies to move—"That a return be made of all Contracts for Public Works entered into by the late Government during the last three months."
 7. Mr. Gillies to move—"That a return be made to this House of the whole expense of last Session of Council till date, including Rent, Alterations of Place of Meeting, Expenses of Members, Printing, &c."
 8. Mr. Dick to move—"For a copy of any Correspondence that may have taken place regarding the appointment of Mr. Swyer as Provincial Engineer."
 9. Mr. Dick to move—"For a copy of any Correspondence that may have taken place regarding the appointment of Mr. Braunnigan to the office of Commissioner of Police."

ORDERS OF THE DAY.

1. Dunedin Building Ordinance, 1862, Amendment Bill to be read a second time.
 2. Otago Harbor Loan Ordinance, 1862, Amendment Bill to be read a second time.
 3. Otago Public Building Loan Ordinance, 1862, Amendment Bill to be read a second time.
 4. Committee of Supply.
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THURSDAY, MAY 26th.

Prayer.

Minutes—read and confirmed.

Notices of questions for next sitting were given by Mr. Macandrew, and by Mr. Street.

Notices of motions for next sitting were given by Mr. Street (2) and by Mr. Street.

Notices of questions for Monday next were given by Mr. Macandrew, and by Mr. Birch.

Notices of motions for Monday next were given by Mr. Dick, Mr. Brodie, and by the Provincial Treasurer-

The Secretary of Public Works laid on the table, the *Taieri Districts Roads Lands Bill*, which was read a first time, ordered to be printed, and to be read a second time on Monday next.

Mr. Dick according to notice, asked the Provincial Secretary—"Whether any, and if any, what steps have been taken to carry out the Resolutions adopted by the Council regarding the Proclamation of New Hundreds?"

The Provincial Secretary replied.

Mr. Burns according to notice asked the Secretary of Public Works—"What steps are being taken towards metalling the old formation on the Road from Saddle Hill to West Taieri?" Also—"Whether the Government intend this winter, to open up that portion of the Road from Saddle Hill to West Taieri, that passes through the property of Mr. Turnbull?"

The Secretary of Public Works, replied.

Mr. Macandrew according to notice, asked—"Whether or not it is intended to continue the Geological Department as a permanent Establishment, and if so, what are the nature and extent of the operations expected to be accomplished by means of the present staff?"

The Provincial Secretary read a reply.

In the absence of Mr. Birch, Mr. Hughes in his behalf asked—"Why the provisions of the Bread Ordinance, passed last Session, have not been put in force; and whether or not, and when, it is intended to give effect to said Ordinance?"

Mr. Adam replied.

Mr. Dick according to notice, asked the Provincial Treasurer—"What amount of debentures had been sold and placed to the credit of the Province, of the £500,000 Loan, as reported by the last mail from England?"

The Provincial Treasurer in reply, laid on the table "Debtenture Sale Notes," received by last mail.

On the motion of Mr. Miller, the time for bringing up the Report of Select Committee on the Cattle Bill was extended till the 30th instant.

Mr. Gleeson's notice of motion No. 2 in his absence lapsed.

Mr. Hardy, according to notice moved—"That his honor the Superintendent be respectfully requested to give his assent to the Education Ordinance, 1864, for the purpose that it may be brought into operation without delay."

Seconded by Mr. Macandrew.

Question put and carried.

Mr. Hughes, according to notice moved—"That this House, seeing the cause to regret that the exaggerated reports which were received in this Province regarding the discovery of gold in the Province of Marlborough should have induced so great an exodus from Otago, whereby a vast number of miners have been left in a state of destitution on that goldfield, recognises the propriety of relieving parties so circumstanced by sending the steamboat *St. Kilda* to enable them to return to their former occupations"

“occupations in this Province ; and that a respectful address be presented to his Honor the Superintendent praying him to give effect to this resolution.”

Seconded by Mr. Gillies.

A debate ensued.

Motion by leave of the House withdrawn.

Mr. Gillies amended his notice of motion No. 5, and moved it as follows—“That in the opinion of this House, the present financial difficulties of the Province of Otago arise principally from the slow sale of the Debentures in the home market, and such slow sale arises from the fact that they will not be admitted to be quoted on the Stock Exchange without the guarantee of the General Government ; and that believing that the General Government would be willing to pledge itself to support such a proposed guarantee in the Assembly, it is expedient that a respectful Address be presented to his Honor the Superintendent requesting him to communicate with the Governments of the other Provinces of New Zealand with a view to a combined effort to take such steps as will place Provincial loans in such a position as will secure the placing of the debentures on the Stock Exchange in London.”

Seconded by Mr. Dick.

A debate ensued.

Mr. Vogel moved as an amendment the motion as moved by Mr. Gillies, with the following words added thereto, viz :—“Always provided that the General Government, before guaranteeing a Provincial Loan, should require security from the Provinces for the due fulfilment of its engagements.”

Seconded by Mr. Mansford.

Question put on the amendment and lost.

Debate resumed.

Mr. Reynolds moved as a further amendment—“That in the opinion of this Council, it is expedient that the Otago Provincial Debentures be placed upon the London Stock Exchange, and that with a view to their being so placed, it is expedient that the General Government should communicate to the Committee of the Stock Exchange the actual position of said debentures, as security, not only of the Province of Otago, but of the Colony of New Zealand ; and that a respectful Address to be transmitted to his Honor the Superintendent, to the effect that he may be pleased to take the necessary action towards inducing the General Government to comply with this resolution.”

Seconded by Mr. Birch.

Debate resumed.

It being seven o'clock, the House proceeded to the Orders of the Day.

On the motion of the Provincial Secretary, the *Dunedin Building Ordinance, 1862 Amendment Bill*, was read a second time and committed.

IN COMMITTEE.

The several clauses (4) were agreed to as read, together with Schedule 1, and Schedule A.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without amendments.

Bill

Bill ordered to be read a third time on Monday next.

On the motion of the Provincial Secretary, the *Otago Harbor Loan Ordinance, 1862, Amendment Bill* was read a second time and committed.

IN COMMITTEE.

The several Clauses (3) were agreed to as read.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without amendments.

Bill ordered to be read a third time on Monday next.

On the motion of the Provincial Secretary the *Otago Public Buildings Loan Ordinance, 1862, Amendment Bill*, was read a second time and committed.

IN COMMITTEE.

The several Clauses (3) were agreed to as read.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without amendments.

Bill ordered to be read a third time on Monday next.

The Orders of the Day being disposed of, the debate on Mr. Gillies' motion, No. 5, resumed.

Question put on Mr. Reynolds's amendment and lost.

Debate resumed.

Mr. E. B. Cargill moved as a further amendment—"That with the view to meet the difficulty which has been raised in the sale of Otago Provincial Debentures in London, by the refusal of the London Stock Exchange to allow them to be placed on their list, it is desirable that the direct guarantee of the General Government should be obtained to the Provincial Loans, and that an address be transmitted to his Honor the Superintendent, requesting him to take such action for obtaining such guarantee, as may be necessary, by communicating with the General Government and also with the Governments of the other Provinces so as to secure their co-operation.

Seconded by Mr. Brodie.

Debate continued.

Mr. E. B. Cargill asked permission to withdraw his amendment—permission withheld.

The question being put on Mr. E. B. Cargill's amendment, the House divided when there voted—

AYES 13.

Mr. Hepburn
Mr. Hardy
Mr. Steel
Mr. Blair
Mr. Stevenson
Mr. Reid
Mr. Mansford
Mr. Brodie
Mr. Walker
Capt. McKenzie
Mr. Morris
Mr. Murison
Mr. E. B. Cargill (Teller)

NOES 15.

Mr. Dick
Mr. Paterson
Mr. Hughes
Mr. Macandrew
Mr. Kilgour
Mr. Clapcott
Mr. Birch
Mr. Moss
Mr. J. Cargill
Mr. Street
Mr. Rennie
Mr. Reynolds
Mr. Miller
Mr. Adam
Mr. Gillies (Teller)

So

So it passed in the negative.

By permission of the House, Mr. Gillies amended his motion and submitted it as follows—"That it is expedient a respectful address be presented to his Honor the Superintendent requesting him to obtain the guarantee of the General Government if possible, and communicate with the Governments of the other Provinces of New Zealand, with a view to a combined effort to take such steps as will place Provincial Loans in such a position as will secure the placing of the Debentures on the Stock Exchange, London."

Question put on the motion as amended, and carried.

Mr. Gillies amended his notice of motion No. 6, and moved it as follows—"That a return be made of all Contracts for Public Works entered into, and the sum expended in day labor, by the late Government during the last three months, specially stating the specific works on which the same has been expended."

Seconded by Mr. Moss.

The Secretary for Public Works moved—"That the words 'and works authorised' be inserted after the word 'into.'"

Proposed words accepted and incorporated in the motion.

Question put on the motion as amended and carried.

Mr. Gillies according to notice moved—"That a return be made to this House of the whole expense of the last and present Session of Council till date, including rent, alterations of place of meeting, expenses of members, printing, &c."

Seconded by Mr. Dick.

Question put and carried.

Mr. Dick according to notice moved—"For a copy of any Correspondence that may have taken place regarding the appointment of Mr. Swyer as Provincial Engineer."

Seconded by Mr. Moss.

Question put and carried.

Mr. Dick allowed his notice of motion No. 9 to lapse.

On the motion of the Provincial Secretary the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION, AND ORDERS OF THE DAY.

Friday, May 27, at Two O'Clock.

MOTIONS.

1. Mr. Macandrew to move that the following address be transmitted to his Honor the Superintendent:—

The Provincial Council having carefully considered the printed Estimates of Expenditure for the current Financial Year, and having a due regard to the present position of the Province, beg most respectfully to call your Honor's attention to the imperative necessity for retrenchment in almost every department of the public service.

The Council is fully alive to the delicacy, and to the difficulty which must needs be felt in reducing establishments once formed, they feel, however, that rigid economy and true policy, alike demand an unsparing application of the pruning knife.

The Council would deprecate any specific allusion to those Departments, the curtailment of which would be least detrimental to the public service, inasmuch as this more properly comes within the sphere of Executive duty; with which the Council desires to avoid even the semblance of undue interference; at the same time, it is hoped that the general scope and intent of this address will be fully reciprocated by your Honor, and that in the exercise of your constitutional functions, you may be pleased to take the initiative towards such a re-organization of the whole Civil Service of the Province as shall result in a much less lavish permanent expenditure than at present—an expenditure more in accordance with the absolute requirements of a wise economy, and with the means at our disposal."

2. Mr. Dick to move—"That a copy of the award given to Messrs. Grant and Gammie as compensation for the cancelling of their depasturing license, over a run in the Wakatip Goldfield, be laid on the table."
3. Mr. Gillies to move—"That the Government be requested to furnish, in writing, all particulars connected with Peter Williams' claim for Land at Moeraki, and how the claim referred to has been settled."
4. Mr. Gillies to move—"That the Government be requested to furnish, in writing, all particulars connected with Mr. Shand's claim for land at Taieri, and how the claim referred to has been settled."
5. Mr. Gillies to move—"That all particulars be furnished this House of an account called 'The Police Clothing Account.'"
6. Mr. Street to move—"That his Honor the Superintendent be respectfully requested to place a sum on the Estimates for the purpose of forming a Track from Port Chalmers to Purakanui."

FRIDAY, MAY 27.

Prayer.

Minutes—read and confirmed.

Notice of question for next sitting was given by Mr. Morris.

Notices of motions for next sitting were given by Mr. Brodie, (2) Mr. Birch, Mr. Mansford, Mr. Macandrew, Mr. Street, Mr. Burns, and by Mr. Miller.

Notices of motions for Tuesday next were given by Mr. Mansford (2)

The Provincial Secretary laid on the table—

1st. Correspondence relative to the appointment of C. R. Swyer, Esq., as Provincial Engineer.

2nd. Police clothing account.

Messages Nos. 14 & 15 from his Honor the Superintendent were introduced and read.

(MESSAGE)

(MESSAGE No 14.)

Superintendent's Office,
Dunedin, 27th May, 1864.

The Superintendent declares his assent on behalf of the Governor, to the following Bills as finally passed by the Provincial Council, intituled respectively :—

The Medical Practitioners' Bill, 1864.

The Superintendent's Indemnity Bill, 1864.

The Education Bill, 1864.

The Licensing Amendment Bill, 1864.

The Bush Fires Bill, 1864.

The Licensed Hawker's Bill, 1864.

The Cemetery Reserves Bill, 1864.

The Cemetery Reserves Management Bill, 1864.

The Education Reserves Bill, 1864.

JOHN HYDE HARRIS, Superintendent.

(MESSAGE No. 15.)

Superintendent's Office,
Dunedin, 27th May, 1864.

The Superintendent has received an address from the Provincial Council, "requesting him to obtain the guarantee of the General Government, if possible, and communicate with the Governments of the other Provinces of New Zealand, with a view to a combined effort to take such steps as will place Provincial Loans in such a position as will secure the placing of the Debentures on the Stock Exchange in London."

The Superintendent has the satisfaction to find, that he has anticipated the wishes of the Provincial Council, by having already placed himself in communication with the Governments of Canterbury and Southland, in order to secure the united efforts of the three Governments to promote the adoption of measures whereby Provincial Loans may be placed on an equal footing with a New Zealand Loan. The steps thus taken to attain so desirable an object, the Superintendent has reason to hope will issue in its attainment.

JOHN HYDE HARRIS, Superintendent.

Mr. Macandrew, according to notice, asked the Provincial Secretary—"Whether or not it is the intention of the Government to take any steps towards the introduction of salmon into the rivers of this Province?"

Mr. Adam replied.

Mr. Street, according to notice, asked the Secretary of Public Works—"If it is the intention of the Government to continue the formation of the Pine Hill Road?"

The Secretary of Public Works replied.

Mr. Macandrew, according to notice, asked the following address be transmitted to his Honor the Superintendent:

“ ‘ The Provincial Council having carefully considered the printed Estimates of
 “ ‘ Expenditure for the current financial year, and having a due regard to the pre-ent
 “ ‘ position of the Province, beg most respectfully to call your Honor’s attention to
 “ ‘ the imperative necessity for retrenchment in almost every department of the public
 “ ‘ service.

“ ‘ The Council is fully alive to the delicacy, and to the difficulty which must
 “ ‘ needs be felt in reducing establishments once formed ; they feel, however, that
 “ ‘ rigid economy and true policy, alike demand an unsparing application of the
 “ ‘ pruning knife.

“ ‘ The Council would deprecate any specific allusion to those Departments, the
 “ ‘ curtailment of which would be least detrimental to the public service, inasmuch
 “ ‘ as this more properly comes within the sphere of Executive duty, with which the
 “ ‘ Council desires to avoid even the semblance of undue interference ; at the same
 “ ‘ time, it is hoped that the general scope and intent of this address will be fully
 “ ‘ reciprocated by your Honor, and that in the exercise of your constitutional func-
 “ ‘ tions, you may be pleased to take the initiative towards such a re-organisation of
 “ ‘ the whole Civil Service of the Province as shall result in a much less lavish per-
 “ ‘ manent expenditure than at present—an expenditure more in accordance with the
 “ ‘ absolute requirements of a wise economy, and with the means at our disposal.”

Seconded by Mr. Bireh.

Question put and carried.

Mr. Dick, according to notice, moved—“ That a copy of the award given to
 “ Messrs. Grant and Gammie as compensation for the cancelling of their depasturing
 “ license, over a run in the Wakatip Goldfield, be laid on the table.”

Seconded by Mr. Gillies.

Question put and carried.

Mr. Gillies, according to notice, moved—“ That the Government be requested to
 “ furnish, in writing, all particulars connected with Peter Williams’ claim for land at
 “ Moeraki, and how the claim referred to has been settled.”

Seconded by Mr. Dick.

Question put and carried.

Mr. Gillies, according to notice, moved—“ That the Government be requested
 “ to furnish, in writing, all particulars connected with Mr. Shand’s claim for land at
 “ Taieri, and how the claim referred to has been settled.”

Seconded by Mr. Dick.

Question put and carried.

Mr. Gillies, according to notice, moved—“ That all particulars be furnished to
 “ this House of an account called ‘ The Police Clothing Account.’”

Seconded by Mr. Burns.

Question put and carried.

Mr. Street, according to notice, moved—“ That his Honor the Superintendent
 “ be respectfully requested to place a sum on the Estimates for the purpose of forming
 “ a Track from Port Chalmers to Purakanui.”

Seconded by Mr. Macandrew.

By permission of the House the words—"One Hundred Pounds" were inserted.

Question put on the motion as amended, and carried.

On the motion of Mr. J. Cargill, seconded by the Provincial Secretary, the House went into Committee of Supply.

IN COMMITTEE.

Mr. Reynolds according to notice moved—"That the recommendations of the "Select Committee on Government Printing be adopted."

The question being put on the first recommendation, viz.—"That all Government advertising in newspapers be discontinued," the Committee divided, when there voted—

AYES, 14.

Major Richardson
Mr. Burns
Mr. Gillies
Mr. Dick
Mr. Moss
Mr. Steel
Mr. Morris
Mr. Blair
Mr. Stevenson
Mr. Macandrew
Mr. Rennie
Mr. Kilgour
Mr. Birch
Mr. Reynolds (Teller)

NOES, 6.

Mr. Hughes
Capt. McKenzie
Mr. Lloyd
Mr. Murison
Mr. E. B. Cargill
Mr. Brodie (Teller)

So it passed in the affirmative.

Mr. Reynolds moved the second recommendation as follows;—"That a Government Advertising Sheet be issued weekly as a supplement to the Gazette, and "circulated gratuitously, or, at a nominal price, at the discretion of the Government."

On the motion of Major Richardson the following words were added, viz.—
"Provided that the Government may at any time, issue the Advertising Sheet more than once a week, if they deem it necessary, and also charge for private advertisements (such as are required by law to appear in the Gazette) at such a rate, as will most effectually encourage the fullest circulation, at the cheapest rate to the public."

Question put on the recommendation as amended and carried.

Recommendations 3, 4, 5, 6, 7, 8, 9, 10, and 11, (see report) were agreed to.

Recommendation 12 was amended by striking out therefrom the words "when practicable from Great Britain," and, as amended, agreed to.

Recommendation 13 was agreed to as read.

Mr. Brodie moved—"That the Committee further recommend that if after due inquiry, the Government find, that having ascertained the cost of the proper distribution of the aforementioned Advertising Sheet, and the amount required for its production, it shall be found that no material saving has been effected, it may continue the system of advertising in the newspapers of the province."

The question being put the Committee divided when there voted—

21

AYES

AYES, 9,
 Mr. Paterson
 Mr. Miller
 Mr. Adam
 Mr. Lloyd
 Mr. Hardy
 Mr. Mansford
 Capt. McKenzie
 Mr. Murison
 Mr. Brodie (Teller)

NOES, 15.
 Mr. Macandrew
 Mr. Kilgour
 Mr. Birch
 Major Richardson
 Mr. Burns
 Mr. Rennie
 Capt. Baldwin
 Mr. Steel
 Mr. Stevenson
 Mr. Walker
 Mr. Blair
 Mr. Hughes
 Mr. Gillies
 Mr. Dick
 Mr. Reynolds (Teller)

So it passed in the negative.

The House resumed, and the Chairman reported the recommendations as agreed to in Committee, which were subsequently adopted by the House.

On the motion of Capt. Mackenzie Standing Orders were suspended to admit of his moving a motion without notice.

Capt. Mackenzie moved—"That a return, showing the quantity of land surveyed during the year 1863-64 be laid on the table on Monday."

Question put and carried.

On the motion of the Secretary of Public Works the House adjourned till 2 o'clock on Monday next.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Monday, May 30, at 2 o'clock.

MOTIONS.

1. Mr. Dick to resume the debate on Mr. Gleeson's motion as follows:—"That the Petition of John Hughes be referred to a Select Committee, with power to call for persons and papers, and to report on a future day; said Committee to consist of Mr. Miller, Mr. Adam, Mr. Gillies, Mr. John Cargill, Mr. Murison, Mr. Rennie, and the Mover."
2. Mr. Morris to move—"That a copy of the Petition from the Settlers in the North East Harbor Peninsula be presented to his Honor the Superintendent, with a respectful request that he may be pleased to take such action as he may deem best towards redressing the grievances of the Memorialists."
3. Mr. Reynolds to move—"That a respectful address be presented to his Honor the Superintendent requesting him to appoint a Civil Service Commission composed of Members of this House, said Commission to report to his Honor prior to the next meeting of Council."
4. Mr. Dick to move—"That it is desirable that a scale of compensation for the cancelling of depasturing licenses over Runs in Gold Fields should, as far as possible, be fixed by law; and that his Honor the Superintendent be respectfully requested to give effect to this resolution by asking the General Government to introduce a Bill for the purpose at the next Session of the General Assembly."

5. Mr. Brodie to move—"That the document furnished to the Council, and purporting to be a return of Gold Fields expenditure, is incorrect, and should be referred back to the Government for correction."
6. The Provincial Treasurer to move—"That the House go into Committee of Supply."
7. Mr. Brodie to move—"That, in the opinion of this Council, it is desirable that a Commission should be appointed to inquire into the Sanitary State of the town of Dunedin. That a respectful address be presented to his Honor the Superintendent praying that he would give effect to the above resolution."
8. Mr. Brodie to move—"That a respectful Address be presented to his Honor the Superintendent requesting his Honor to appoint a Commission to enquire into the value of the unsold Lands of the Province, and to classify the same, showing the natural position value of said lands, and those lands which have acquired position value from the formation of roads and other circumstances, and the capabilities of said land; and also to ascertain the auriferous character of the aforesaid land, and what portions it would be desirable to withdraw from sale in consequence, and that the Commission should inquire into the extent and permanency of our Goldfields, with a view to obtain an approximate estimate of the natural capital of the Province."
9. Mr. Birch to move—"That a respectful address be presented to his Honor the Superintendent urging him to take such steps as he may consider advisable, to bring the provisions of the Bread Ordinance forthwith into practical operation."
10. Mr. Mansford to move—"That a respectful Address be presented to his Honor the Superintendent, requesting him to place on the Estimates a sufficient sum to establish a Ferry connecting Inch Clutha with the Main Land."
11. Mr. Macandrew to move—"That a respectful Address be transmitted to his Honor the Superintendent to the effect that he may be pleased to place a sufficient sum upon the Estimates towards the immediate introduction of salmon ova into the rivers of the Province."
12. Mr. Street to move—"That his Honor the Superintendent be respectfully requested to place a sum on the Estimates for the purpose of continuing the formation of the Pine Hill Road."
13. Mr. Burns to move—"That his Honor the Superintendent be respectfully requested to place the sum of £500 on the Estimates for opening up the Coast Road in terms of the petition from the settlers in the districts of Akatore, Otakia, Saddle Hill, and neighbouring districts, as received by this Council on the 28th April last."
14. Mr. Miller to move—"That his Honor the Superintendent be respectfully requested to place the sum of Three Thousand Pounds upon the Estimates for the purpose of carrying out certain improvements in the Town of Oamaru."

ORDERS OF THE DAY.

1. Licensing Bill to be read a third time.
2. Dunedin Building Ordinance, 1862, Amendment Bill to be read a third time.
3. Otago Harbor Loan Ordinance, 1862, Amendment Bill to be read a third time.
4. Otago Public Building Loan Ordinance, 1862, Amendment Bill to be read a third time.
5. Taieri Districts Roads Lands Bill to be read a second time.

MONDAY,

MONDAY, MAY 30.

Prayer.

Minutes—read and confirmed.

Notices of questions for next sitting were given by Mr. Morris and Mr. Reynolds.

Notices of motions for next sitting were given by Mr. Gillies, Mr. Dick, and Mr. Burns.

Notices of questions for Wednesday next were given by Mr. Vogel and Mr. Gleeson.

Notices of motions for Wednesday next were given by Mr. Hughes (2), and Mr. Gleeson.

Notice of motion for Thursday next was given by Mr. Miller.

The Provincial Secretary laid on the table copy of the compensation Award to Messrs. Grant and Gammie.

Message (No. 16) from his Honor the Superintendent was introduced and read.

(MESSAGE No. 16.)

Superintendent's Office,
Dunedin, May 30, 1864.

The Superintendent, with the advice of the Executive Council, transmits to the Provincial Council, Estimates of the Revenue and Expenditure for the half-year ending 30th September, 1864, and recommends an appropriation of the Revenue accordingly.

J. HYDE HARRIS, Superintendent.

Mr. Miller, as Chairman of the Select Committee on the Cattle Bill brought up the Report of that Committee, and moved—"That it be printed together with the "evidence forthwith."

Seconded by Mr. Walker.

Question put and carried.

Mr. Macandrew, according to notice, asked the Provincial Secretary—"Whether or not the Government will be prepared to grant the necessary protection to induce "private individuals to undertake the formation of Oyster Beds within the Port of "Otago?"

The Provincial Secretary replied.

Mr. Birch, according to notice, asked the Government—"Whether or not the "Commissioner on Roads and their Deviations is in receipt of fourteen guineas per "week, and whether in addition to the above sum, said Commissioner receives one "pound per diem, as representing a country district?"

The Secretary of Public Works replied.

Mr. Morris, according to notice, asked the Provincial Secretary—"What the Government intend doing with the steamer St. Kilda?"

The Provincial Secretary replied.

Mr. Dick, according to notice of adjournment, resumed the Debate on Mr. Gleeson's motion, as follows—"That the Petition of John Hughes be referred to a Select

“Select Committee, with power to call for persons and papers, and to report on a future day; said Committee to consist of Mr. Miller, Mr. Adam, Mr. Gillies, Mr. John Cargill, Mr. Murison, Mr. Rennie, and the Mover.”

By leave of the House (and on motion of Mr. Gleeson), the motion was withdrawn.

Mr. Morris, according to notice, moved—“That a copy of the Petition from the Settlers in the North East Harbor Peninsula be presented to his Honor the Superintendent, with a respectful request that he may be pleased to take such action as he may deem best towards redressing the grievances of the memorialists.”

Seconded by Mr. Birch.

Question put and carried.

Mr. Reynolds, according to notice, moved—“That a respectful Address be presented to his Honor the Superintendent requesting him to appoint a Civil Service Commission composed of members of this House; said Commission to report to his Honor prior to next meeting of Council.”

Seconded by Mr. Eurns.

Question put and lost.

Mr. Dick allowed his notice of motion (No. 4) to lapse and gave notice of the same for next sitting.

Mr. Brodie, according to notice, moved—“That the document furnished to the Council, and purporting to be a return of Gold Fields expenditure, is incorrect, and should be referred back to the Government for correction.”

Seconded by Capt. Baldwin.

A debate ensued.

Mr. Brodie asked permission to withdraw his motion—permission withheld.

Question put and carried.

Mr. Brodie, according to notice, moved—“That, in the opinion of this Council, it is desirable that a Commission should be appointed to inquire into the sanitary state of the town of Dunedin. That a respectful address be presented to his Honor the Superintendent, praying that he would give effect to the above resolution.”

Seconded by Mr. Vogel.

Question put and carried.

Mr. Brodie, according to notice, moved—“That a respectful Address be presented to his Honor the Superintendent requesting his Honor to appoint a Commission to enquire into the value of the unsold Lands of the Province, and to classify the same, showing the natural position-value of said lands, and those lands which have acquired position-value from the formation of roads and other circumstances, and the capabilities of said land: and, also, to ascertain the auriferous character of the aforesaid land, and what portions it would be desirable to withdraw from sale in consequence, and that the Commission should enquire into the extent and permanency of our Goldfields, with a view to obtain an approximate estimate of the natural capital of the Province.”

Seconded by Mr. Gleeson.

It being 7 o'clock, the House proceeded to the Orders of the Day.

On the motion of Mr. J. Cargill, the Standing Orders were suspended, so as to allow of motion, No. 6, taking precedence of the Orders of the Day.

The Provincial Treasurer accordingly moved—"That the House go into Committee of Supply."

Seconded by Mr. J. Cargill.

Question put and carried.

IN COMMITTEE.

"Loans" resumed.

Item, "Interest on Loan, 1856, £2,050," agreed to as read.

On the motion of the Provincial Treasurer, the House resumed, the Chairman reported progress, asked and obtained leave to sit again at next sitting,

On the motion of the Provincial Secretary, the *Licensing Bill* and *Taiari Districts Roads Lands Bill* were ordered to be transferred to the Order Paper for Thursday next.

On the motion of the Provincial Secretary, the *Dunedin Building Ordinance, 1862, Amendment Bill* was read a third time, and the question being put by Mr. Speaker—"That this Bill do now pass," it was agreed to, and the Bill was passed.

On the motion of the Provincial Secretary, the *Otago Harbor Loan Ordinance, 1862, Amendment Bill* was recommitted.

IN COMMITTEE.

On the motion of the Provincial Secretary, Clause 3, was ordered to be struck out.

The House resumed, and the Chairman reported the Bill as amended.

Bill read a third time, and the question being put by Mr. Speaker—"That this Bill do now pass," it was agreed to, and the Bill was passed.

On the motion of the Provincial Secretary, the *Otago Public Buildings Loan Ordinance, 1862, Amendment Bill* was recommitted.

IN COMMITTEE.

On the motion of the Provincial Secretary, Clause 3 was ordered to be struck out.

The House resumed, and the Chairman reported the Bill as amended.

Bill read a third time, and the question being put by Mr. Speaker—"That this Bill do now pass," it was agreed to, and the Bill was passed.

It being past 10 o'clock, the House adjourned till 2 o'clock, the following day.

NOTICE

 NOTICES OF MOTION AND ORDERS OF THE DAY.

Tuesday, May 31, at 2, o' Clock

MOTIONS.

1. Mr. Mansford to move—"That the Report of the Select Committee on Coal Reserves be adopted."
2. Mr. Mansford to move the adoption of the following resolutions with reference to the coal reserves of the Province :—
 - 1st. That all engagements entered into by the Government should be fulfilled where the applicants have fairly gone into the working of the various coal seams which they have been permitted to work.
 - 2nd. That in such leases due precaution should be taken for effectual supervision—the periodical production of plans of the workings open and closed, and power of resumption where wasteful expenditure of the Coal is found to exist.
 - 3rd. That reserves not exceeding fifty acres of the Coal Fields, in each locality, should alone be retained as Government property, and should so be situated as to prevent monopoly, and the remainder, where practicable, should be disposed of.
 - 4th. That a minute examination should be made of the various coal measures on the eastern coast of the Province, which contains a most valuable material, in order to ascertain as nearly as may be the Coal resources of the Province.
3. Mr. Dick to move—(See page 110).
4. Debate to be resumed on Mr. Brodie's motion—(No. 8 on yesterday's paper, page 113).
5. Mr. Birch to move—(See page 111).
6. Mr. Mansford to move—(See page 111).
7. Mr. Macandrew to move—(See page 111).
8. Mr. Street to move—(See page 111).
9. Mr. Burns to move—(See page 111).
10. Mr. Miller to move—(See page 111).
11. Mr. Gillies to move—"That a Select Committee be appointed to inquire into the position and working of the Storekeeper's Department, with the view specially to ascertain and report to this House,—
 - 1st, Whether the Department is necessary, and calculated to economise the public expenditure.
 - 2nd. If necessary, whether its organisation, powers, and position, as relates to the other departments of the service are such as to secure its effective performance of the duties assigned to it; and :—
 - 3rd. If its position and powers shall seem inadequate to the performance of its proper functions, to recommend such alterations as may be deemed necessary or expedient. Committee to consist of Mr. Speaker (with his consent), Mr. Paterson

Paterson, Mr. Blair, Mr. Brodie, Mr. Gleeson, Mr. Morris, and the Mover.
Report to be brought up on Thursday next, 2nd June.

12. Mr. Dick to move—"That leave of absence be granted to Mr. Moss till Monday next.
13. Mr. Burns to move—"That this Council being desirous of preventing the extinction of the wild fowl of this Province, a respectful address be transmitted to his Honor the Superintendent that he be pleased to communicate with the General Government for the purpose of a Bill being introduced at next session of Assembly.

ORDERS OF THE DAY.

1. Anderson's Bay District Roads Lands Bill to be read a third time.
2. Tokomariro District Roads Lands Bill to be read a third time.
3. Ferries Ordinances Repeal Bill to be resumed in Committee.
4. Dunedin Town Board Dissolution Bill to be read a second time.
5. Committee of Supply.

TUESDAY, MAY 31

Prayer.

Minutes—read and confirmed.

Capt. Mackenzie presented a petition from Messrs. Chalmers, Brothers.

Petition read and received.

The Secretary of Public Works laid on the table (from his Honor the Superintendent) a petition from certain residents in the town of Hampden and the District of Moeraki.

Notices of motions for next sitting were given by Capt. Mackenzie, Mr. Miller Mr. Dick and Mr. Vogel.

Notice of question for Thursday next was given by Mr. Hughes.

Notice of motion for Friday next was given by Mr. Birch.

In the absence of Mr. Morris, Mr. Reynolds on his behalf, asked the Provincial Secretary—"Whether the Government have taken any action in the matter of the spread of thistles on the Native Reserves at the Heads, and if not, what course they intend to pursue?"

The Provincial Secretary replied.

Mr. Reynolds, according to notice, asked the Provincial Secretary—"Whether the Government are aware that a considerable quantity of gold dust is being taken away from this to other Provinces, and if so, whether they are prepared to take any steps to secure the ultimate payment of the duty upon such gold?"

The Provincial Secretary replied.

Mr. Mansford allowed his notice of motion (No. 1) to lapse.

Mr. Mansford, according to notice, moved (with reference to the Coal Reserves of the Province)—"1st. That all engagements entered into by the Government should be fulfilled, where the applicants have fairly gone into the working of the various coal seams which they have been permitted to work.

"2nd

“ 2nd. That in such leases due precaution should be taken for effectual supervision ; the periodical production of plans of the workings open and closed, and power of resumption where wasteful expenditure of the coal is found to exist.

“ 3rd. That reserves not exceeding fifty acres of the coal fields in each locality, should alone be retained as Government property, and should so be situated as to prevent monopoly, and the remainder, where practicable, should be disposed of.

“ 4th. That a minute examination should be made of the various coal measures on the eastern coast of the Province, which contains a most valuable material in order to ascertain as nearly as may be, the coal resources of the Province.”

Seconded by Mr. Brodie.

By permission of the House, resolution No. 4, was withdrawn.

Question on Nos. 1, 2, and 3 put and carried.

Mr Dick, according to notice, moved—“ That it is desirable that a scale of compensation for the cancelling of depasturing licenses over runs in Goldfields should as far as possible, be fixed by law ; and that His Honor the Superintendent be respectfully requested to give effect to this resolution by asking the General Government to introduce a Bill for the purpose at next Session of the General Assembly.”

Seconded by Mr. Rennie.

A debate ensued.

On the motion of Mr. Gillies the House went into Committee.

IN COMMITTEE.

Debate resumed.

Question put and lost.

The House resumed and the Chairman reported the decision of the Committee.

Mr. J. Cargill resumed the debate on Mr. Brodie's motion, as follows—“ That a respectful Address be presented to His Honor the Superintendent, requesting His Honor to appoint a Commission to enquire into the value of the unsold lands of the Province, and to classify the same, shewing the natural position-value of said lands, and those lands which have acquired position-value from the formation of roads and other circumstances, and the capabilities of said land ; and, also, to ascertain the auriferous character of the aforesaid land, and what portions it would be desirable to withdraw from sale in consequence, and that the Commission should enquire into the extent and permanency of our Goldfields, with a view to obtain an approximate estimate of the natural capital of the Province.”

The question being put the House divided, when there voted :—

Ayes, 17.	Noes, 9.
Mr. J. Cargill	Mr. Lloyd
Mr. Clapcott	Capt. M'Kenzie
Mr. Miller	Mr. Dick
Mr. Birch	Mr. Mollison
Mr. Hughes	Mr. Macandrew
Mr. Gleeson	Mr. Gillies
Mr. E. B. Cargill	Mr. Street
Mr. Mansford	Mr. Burns
Mr. Hepburn	Mr. Reynolds (Teller)
Mr. Paterson	
Mr. Blair	
Mr. Stevenson	
Mr. Adam	
Mr. Walker	
Mr. Vogel	
Mr. Murison	
Mr Brodie (Teller)	

So it passed in the affirmative.

Mr. Birch, according to notice, moved—"That a respectful address be presented to his Honor the Superintendent, urging him to take such steps as he may consider advisable, to bring the provisions of the Bread Ordinance forthwith into practical operation."

Seconded by Mr. Macandrew.

Question put and carried.

It being past seven o'clock, the House proceeded to the Orders of the Day.

On the motion of the Provincial Secretary the *Anderson's Bay District Roads Lands Bill* and the *Tokomairiro District Roads Lands Bill* were read a third time, and the question being put by Mr. Speaker as to each bill respectively "that this Bill do now pass," it was agreed to, and the Bills were passed accordingly.

The *Ferries Ordinances Repeal Bill* and the *Dunedin Town Board Dissolution Bill* were withdrawn by the Provincial Secretary.

On the motion of Mr. Adam the House went into Committee of Supply.

IN COMMITTEE.

The remaining items under the head of "Loans" were agreed to as read.

SUPERINTENDENT AND EXECUTIVE COUNCIL.

The item, "Superintendent £500," was agreed to as read.

Mr. Adam moved,— "That all salaries be reduced 10 per cent."

A debate ensued.

Major Richardson moved as an amendment—"It is desirable that the question of the proposed reduction of salaries should be postponed until next session: due notice to be given in the meantime to all salaried servants of the Province of the probability of such a reduction."

Debate continued.

The question being put on the amendment, the Committee divided when there voted—

AYES 13.

Mr. Dick
Mr. Macandrew
Mr. Stevenson
Mr. Brodie
Mr. E. P. Cargill
Mr. Hughes
Mr. Gillies
Mr. Burns
Mr. Struet
Mr. Mollison
Mr. Gleeson
Major Richardson
Mr. Reynolds (Teller)

NOES, 12.

Mr. Clapcott
Capt. Baldwin
Mr. Miller
Mr. Mansford
Mr. Paterson
Mr. Walker
Capt. McKenzie
Mr. Adam
Mr. Lloyd
Mr. Birch
Mr. Blair
Mr. J. Cargill (Teller)

So it passed in the affirmative.

Remaining item agreed to as read.

EXECUTIVE

EXECUTIVE.

The various items agreed to as read.

PROVINCIAL COUNCIL.

The various items under this head agreed to, or read, with the exception of the item, "Printing, Advertising, and Stationery," which are ordered to stand over.

PROVINCIAL SECRETARY'S OFFICE.

The various items agreed as read, except the item—"Printing, Advertising, and Stationery," which was ordered to stand over.

PROVINCIAL SOLICITOR.

Items agreed to as read.

CROWN LANDS' OFFICE.

The item, "Chief Commissioner, £350," being moved,—

Mr. Birch moved as an amendment, "That the amount be £300."

Question put on the amendment and lost.

Item agreed to as read.

The remaining items were agreed to as read, except "Advertising, &c.," which was ordered to stand over.

SURVEY.

The items agreed to as read, except "Printing, &c.," which was ordered to stand over.

On the motion of the Provincial Secretary the House resumed, and the Chairman reported progress, asked and obtained leave to sit again at next sitting.

It being past 10 o'clock, the House adjourned till 2 o'clock the following da

NOTICES OF MOTION AND ORDERS OF THE DAY

Wednesday, June 1, at 2 o'clock.

MOTIONS,

1. Mr. Hughes to move—"That the inducement which the Waitahuna Goldfields offer for greatly extended mining operations, upon a general and economical principle, render it desirable that every facility should be afforded by the Government for prosecuting this object, and that this House therefore recommend that a respectful Address be presented to his Honor the Superintendent, praying that he will place a sum on the Estimates for the purpose herein contemplated."
2. Mr. Hughes to move—"That convenience, facility, and economy in the transmission of goods to the Goldfields are of permanent importance to the mining interest, and urgently call for improvements where practicable: and that with a view of promoting the advantages so obtainable, it is desirable that a respectful Address be presented to his Honor the Superintendent praying that he will be pleased to place a sum upon the Estimates for the construction of a road from the junction of the Tuapeka River with the Molyneux to the Tuapeka township."

3. Mr. Mansford to move—(See page 111.)
4. Mr. Macandrew to move—(See page 111.)
5. Mr. Street to move—(See page 111.)
6. Mr. Burns to move—(See page 111.)
7. Mr. Miller to move—(See page 111.)
8. Mr. Gillies to move—(See page 115.)
9. Mr. Dick to move—“That leave of absence be granted to Mr. Moss till Monday next.”
10. Mr. Burns to move—(See page 116.)
11. Mr. Gleeson to move—“That a respectful Address be presented to his Honor the Superintendent, requesting him to take action in the matter of John Hughes's petition, by representing to the General Government that this Council acquiesces in the prayer of that petition.”
12. Capt. Mackenzie to move—“That the petition of Messrs. Chalmers, Bros., be remitted to the Select Committee on the Cattle Bill.”
13. Mr. Miller to move—“That the petition of the inhabitants of the Town of Hampden and the Districts of Moeraki, addressed to his Honor the Superintendent, and by direction of his Honor the Superintendent laid on the table, be taken into consideration.”
14. Mr. Dick to move—“That a statement of the cost of Public Works performed by the Provincial Engineer's Department be laid on the table, such statement to show the rate per cent. which the works have cost up to date for the last twelve months.”
15. Mr. Vogel to move—“That a respectful Address be presented to his Honor the Superintendent, that he will be pleased to increase the item of fifty pounds, on the Estimates for the Road through the Waikoutaiti Township, to five hundred pounds.”

ORDERS OF THE DAY.

1. Committee of Supply.

WEDNESDAY, JUNE 1.

Prayer.

Minutes—read and confirmed.

Notice of question for next sitting was given by Mr. Burns.

Notices of motion for next sitting were given by Mr. Reynolds, Mr. Gillies, Mr. Dick, Mr. Stevenson and by Mr. Vogel.

Notice of question, for Friday next, was given by Mr. E. B. Cargill.

Notices of motions, for Friday next, were given by the Provincial Secretary, and by Mr. Adam.

Notices of motions, for Monday next, were given by Mr. Dick, and by Mr. Gillies.

Notice of question for when in “Committee of Supply” was given by Mr. Gillies.

Mr.

Mr. Speaker laid on the table (from the Provincial Auditor) Statement of the Funded Debt of the Province on 31st March, 1864.

The Provincial Secretary laid on the table:—

1. Departmental Report, No. XI. (Geological)
2. Correspondence relative to Mr. William Shand's claim for compensation for non-survey of his land at West Taieri.

Message No. 17, from his Honor the Superintendent, was introduced and read:—

(MESSAGE NO. 17.)

Superintendent's Office, Dunedin,
1st June, 1864.

The Superintendent begs to forward for the consideration of the Provincial Council the accompanying memorial, which has been presented to him by residents in and near Maclaggan-street, praying that a sum may be placed on the Estimates for forming and metalling that road, by way of Mornington and Richmond Hill, towards Look-out Point, and also by way of Rosslyn towards the Half-way Bush.

J. HYDE HARRIS, Superintendent.

The Secretary of Public Works laid on the table the *Northern Trunk Road Lands Bill*, which was read a first time; ordered to be printed, and to be read a second time on Friday next.

Mr. Vogel according to notice asked—"Do the Government intend to take any action on the Report of the Hospital and Lunatic Asylum Commission?"

After remarks from the Secretary of Public Works, question postponed till Monday next.

Mr. Gleeson according to notice asked the Government—"Why the Township of Moeraki has not been sold, and when it will be sold?"

The Provincial Secretary replied.

Notices of motions Nos. 1 and 2, ordered to be transferred to the Paper for next sitting.

Mr. Mansford according to notice moved—"That a respectful Address be sent to His Honor the Superintendent, requesting him to place on the Estimates a sufficient sum to establish a Ferry connecting Inch Clutha with the Main Land." ^{pro}

Seconded by Mr. Hepburn.

Question put and carried.

Mr. Macandrew according to notice moved—"That a respectful Address be transmitted to His Honor the Superintendent to the effect that he may be pleased to place a sufficient sum upon the Estimates towards the immediate introduction of salmon ova into the rivers of the Province."

Seconded by Mr. Murison.

Question put and carried.

Mr. Street according to notice moved—"That His Honor the Superintendent be respectfully requested to place a sum on the Estimates for the purpose of continuing the formation of the Pine Hill Road."

Seconded pro forma by Mr. Gillies.

pl

Question

Question put and carried.

Mr. Burns, according to notice, moved—"That his Honor the Superintendent be respectfully requested to place the sum of £500 on the Estimates for opening up the Coast Road, in terms of the petition from the settlers in the districts of Akatore, Otakia, Saddle Hill, and neighbouring districts, as received by this Council on the 28th April last."

Seconded by Mr. Stevenson.

A debate ensued, and the question being put, the House divided, when there voted :

AYES 4.	NOES 20.
Mr. Stevenson	Mr. Adam
Mr. Mansford	Mr. Dick
Mr. Mollison	Mr. Gillies
Mr. Burns (Teller).	Mr. Morris
	Mr. Macandrew
	Mr. Birch
	Mr. Lloyd
	Capt. Mackenzie
	Mr. Blair
	Mr. Steel
	Mr. Clapcott
	Mr. Walker
	Mr. J. Cargill
	Mr. Gleeson
	Capt. Baldwin
	Mr. Reynolds
	Mr. Paterson
	Mr. Hepburn
	Mr. Miller
	Mr. Brodie (Teller).

So it passed in the negative.

Mr. Miller, according to notice, moved—"That his Honor the Superintendent be respectfully requested to place the sum of Three Thousand Pounds upon the Estimates for the purpose of carrying out certain improvements in the town of Oamaru."

Seconded by Mr. Gleeson.

Mr. Vogel moved, as an amendment—"That the words 'Three Thousand Pounds' be expunged, and that the words 'One Thousand Pounds' be inserted in lieu thereof."

Seconded by Mr. Birch.

Amendment withdrawn.

By permission of the House, the original motion was amended by inserting the words proposed in the amendment in lieu of those in the original motion.

The question being put on the motion as amended, the House divided, when there voted :—

AYES.	NOES, 18.
Mr. Mansford	Mr. Dick
Mr. Gleeson	Mr. Gillies
Mr. Walker	Mr. Morris
Mr. Burns	Capt. Baldwin
Mr. Vogel	Mr. Reynolds
Mr. Street	Mr. Murison
Mr. Birch	Mr. Lloyd
Mr. Miller (Teller)	Capt. Mackenzie
	Mr. Stevenson
	Mr. Mollison
	Mr. Blair
	Mr. Paterson
	Mr. Steel
	Mr. Hepburn
	Mr. Clapcott
	Mr. J. Cargill
	Mr. Adam
	Mr. Brodie (Teller)

So

So it passed in the negative

Mr. Gillies, according to notice moved—"That a Select Committee be appointed to enquire into the position and working of the Storekeeper's Department, with the view specially to ascertain and report to this House :—

" 1st. Whether the Department is necessary, and calculated to economise the public expenditure ;

" 2nd. If necessary, whether its organisation, powers, and position, as relates to the other departments of the service are such as to secure its effective performance of the duties assigned to it ; and—

" 3rd. If its position and powers shall seem inadequate to the performance of its proper functions, to recommend such alterations as may be deemed necessary or expedient. Committee to consist of Mr. Speaker (with his consent), Messrs. Paterson, Blair, Brodie, Gleeson, Morris, and the Mover. Report to be brought up on Monday next, 6th June."

Seconded by Mr. Dick.

Mr. Vogel moved,—“That the debate be now adjourned till next sitting.”

Seconded by Mr. J. Cargill.

Question put and carried.

On the motion of Mr. Dick, leave of absence was granted to Mr. Moss till Monday next.

Mr. Burns according to notice moved—"That this Council being desirous of preventing the extinction of the wild fowl of this Province, a respectful address be presented to his Honor the Superintendent that he be pleased to communicate with the General Government for the purpose of a Bill being introduced at next session of Assembly to effect the desired object."

Seconded by Mr. Walker.

It being seven o'clock the House proceeded to the Orders of the Day.

On the motion of the Provincial Treasurer the House went again into Committee of Supply.

IN COMMITTEE.

POLICE.

The whole of the items under this head were agreed to as read, except the item—"Clerk and Accountant £150," which being moved—Mr. Birch moved as an amendment—"That the item be struck out."

Question put on the amendment and lost.

On the motion of Mr. Adam the item was amended to—"£137 10s," and as amended agreed to.

(Sub-Division No. 6.)

The item—"Gold-fields allowance £1,000" being moved--

Mr. Hughes moved as an amendment—"That the amount be £500."

Question put on the amendment and lost.

Item agreed to as read.

The item—"Allowance to 2 Policemen Drill Instructors £18 6s." was put and lost.

Remaining

Remaining items agreed to as read.

HARBOR DEPARTMENT.

The whole of the items under this head were agreed to as read, except—"Printing, Advertising, and Stationery," which was ordered to stand over.

GOLD FIELDS DEPARTMENT.

The item—"4 Mining Surveyors at £500 per annum, £1,000" being moved—

Mr. Reynolds moved as an amendment—"That the item stand—"4 Mining Surveyors at £400 per annum, £800."

Question put on the amendment and carried.

The item—"1 Assistant Gold Receiver £85" being moved—

Mr. Reynolds moved as an amendment—"That the amount be £35."

Question put on the amendment and carried.

Item—"Printing, Advertising and Stationery £150" ordered to stand over.

The remaining items under this head were agreed to as read.

GAOL, DUNEDIN.

Items agreed to as read, except—"Printing, &c." which was ordered to stand over.

PRISON HULK.

Items agreed to as read.

GEOLOGICAL DEPARTMENT.

Items agreed to as read.

DIVISION, NO. 15, MISCELLANEOUS.

The item, "Commissions of Inquiry, &c., £500," being moved,—

Mr. Reynolds moved—"That the Chairman report progress, and ask leave to sit again."

The question being put on the motion for reporting progress, the Committee divided, when there voted—

AYES, 6.

Mr. Gillies
Mr. Mansford
Mr. Hughes
Mr. Birch
Mr. Macandrew
Mr. Reynolds (Teller)

NOES, 9.

Mr. Adam
Major Richardson
Mr. Paterson
Mr. J. Cargill
Mr. Stevenson
Mr. Brodie
Mr. Walker
Mr. Clapcott
Mr. Miller (Teller)

So it passed in the negative.

Item ordered to stand over.

The several items, ("Printing, &c.," excepted), under the following heads, were agreed to, as read, viz. :—

"Treasurer's Department."

"Sheep

“ Sheep and Cattle Inspectors’ Department.”

“ Immigration Department.”

“ Education Department.”

“ Hospital.”

“ Lunatic Asylum.”

“ Weights and Measures ;” and

“ Quarantine.”

Division, No. 24—STOREKEEPER.—Ordered to stand over.

“ Courts of Justice,” agreed to as read.

“ Steam Service,” ordered to stand over.

GRANTS IN AID.

Sub-Division, No. 1, agreed to as read.

Sub-Division, No. 2, “ Benevolent Institution’s Building, £500,” and “ Benevolent Institution’s Maintenance, £500,” were agreed to as read.

Remaining items ordered to stand over.

MISCELLANEOUS.

Sub-Divisions,

1, ordered to stand over.

2, 3, 4, 5, agreed to as read.

6, ordered to stand over.

7 and 8 agreed to as read.

9 and 10 ordered to stand over.

11 and 12 agreed to.

13 ordered to stand over.

14 to 20 both inclusive agreed to as read.

SECRETARY OF PUBLIC WORKS OFFICE.

Items agreed to as read except—“ Printing, &c.,” which was ordered to stand over.

On the motion of Major Richardson the House resumed, the Chairman reported progress, asked and obtained leave to sit again at next sitting.

It being past 10 o’clock p.m. the House adjourned till 2 o’clock the following day.

NOTICES OF MOTION, AND ORDERS OF THE DAY.

Thursday, June 2, at Two O’Clock.

MOTIONS.

1. Mr. Hughes to move—(See page 119)

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2.

2. Mr. Hughes to move—(See page 119)
3. Mr. Vogel to resume debate on Mr. Gillies' motion as follows :—" That a Select Committee be appointed to enquire into the position and working of the Storekeeper's Department, &c.—(See page 123)
4. Mr. Gleeson to move— (See page 120)
5. Capt. Mackenzie to move—(See page 120)
6. Mr. Miller to move—(See page 120)
7. Mr. Dick to move—(See page 120)
8. Mr. Vogel to move—(See page 120)
9. Mr. Miller to move—" That the Report of the Select Committee on the Cattle Bill be considered."
10. Mr. Reynolds to move—" That in the opinion of this Council individuals whose services may be dispensed with by the Government in pursuance of a retrenchment policy, should have the first offer of any new appointment which they may be competent to hold, and also in the event of the staff of any reduced Department being hereafter augmented, the applications of those whose services are at present dispensed with should be preferred, and that an Address be transmitted to His Honor the Superintendent, embodying the foregoing resolution."
11. Mr. Gillies to move—" That the Government be requested to obtain the opinion of the Provincial Solicitor on the following case :—The Government advertise as follows—' Appointment to be made. Clerk for ——— Department. Applications to be made to the Provincial Secretary.' A party applies, and obtains the appointment, receiving the intimation that his salary is £300 per annum. Can he be dismissed at any time on a month's notice, without laying the Government open to a claim for compensation ?"
12. Mr. Dick to move—" That it is not expedient to declare any unsurveyed lands within hundreds open for purchase until the road lines have been laid off within all the district to be declared open ; and that should any unsurveyed land be sold it is desirable that the survey of the land should be made under the direction of the chief surveyor."
13. Mr. Stevenson to move—" That leave of absence be granted to Mr. Reid for three days."
14. Mr. Vogel to move—" That an Address be presented to His Honor the Superintendent, requesting him to cause to be laid upon the table of the Council, a return of the amount of business transacted in the Storekeeper's Department ; specifying the number of purchases made, the purchases made by private arrangement, and those by public tender, the several amounts and nature of each, and of the whole of the purchases and the value and return of the goods remaining in stock."

ORDERS OF THE DAY.

1. Licensing Bill to be read a third time.
2. Taieri Districts Roads Lands Bill to be read a second time.
3. Committee of Supply.

THURSDAY,

THURSDAY, JUNE 2.

Prayer.

Minutes—read and confirmed.

Notice of question for next sitting was given by Mr. Vogel.

Notices of motions for next sitting were given by Mr. Gillies, Mr. Blair, and Mr. Miller.

Notice of motion for Monday next was given by Mr. Macandrew.

The Secretary of Public Works laid on the table Returns of Contracts for Public Works, &c., asked for on the motion of Mr. Gillies, May 26.

Mr. Hughes, according to notice, asked—“Whether the Government has any objection to the production of Mr. Commissioner Worthington’s Report on Mining Regulations; and also, whether the Government intends issuing a new code of Regulations in conformity with suggestions so received?”

The Provincial Secretary replied, and laid on the Table the Report referred to, together with a Report from the Goldfields’ Secretary.

Mr. Burns, according to notice, asked the Government—“Whether the Punt now in use at the West Taieri Ferry will be placed at the disposal of the Settlers, in the neighbourhood of Scrogg’s Creek, as soon as the new bridge at West Taieri be opened for traffic, in accordance with a resolution of this Council last Session?”

The Secretary of Public Works replied.

Mr. Gleeson, according to notice, moved—“That a respectful address be presented to his Honor the Superintendent, requesting him to take action in the matter of John Hughes’s petition by representing to the General Government, that this Council acquiesces in the prayer of that petition.”

Seconded by Mr. Walker.

By permission of the House, the motion was amended as follows:—“That a respectful Address be presented to his Honor the Superintendent, requesting him to take action in the matter of John Hughes’s petition, by forwarding it to the General Government.”

Question put on the motion as amended, and carried.

Capt. Mackenzie, according to notice, moved—“That the petition of Messrs. Chalmers Bros., be remitted to the Select Committee on the Cattle Bill.”

Seconded *pro forma*, by Mr. Morris.

Question put and carried.

Mr. Miller, according to notice, moved—“That the petition of the inhabitants of the Town of Hampden and the District of Moeraki, addressed to his Honor the Superintendent, and by direction of his Honor the Superintendent, laid on the table, be taken into consideration.”

Seconded by Mr. Burns.

Question put and lost.

Mr. Dick amended his notice of motion, No. 7, and moved it as follows:—
“That a statement of the cost of Public Works performed by the Provincial Engi-
“neers”

“neer’s Department be laid on the table, such statement to show the rate per cent. which the works have cost up to date for the last two years.”

Seconded by Mr. Blair.

Question put and carr’ed.

Mr. Vogel, according to notice, moved—“That a respectful Address be presented to His Honor the Superintendent that he will be pleased to increase the item of sixty pounds, on the Estimates for the road through the Waikouaiti township, to five hundred pounds.”

Seconded by Mr. Murison.

Mr. Vogel asked permission to amend his motion by substituting the words “three hundred pounds” for the words “five hundred pounds”—permission withheld.

Question put on the motion as moved and lost.

Mr. Reynolds, according to notice, moved—“That, in the opinion of this Council, individuals whose services may be dispensed with by the Government, in pursuance of a retrenchment policy, should have the first offer of any new appointment which they may be competent to hold; and, also, that in the event of the staff of any reduced Department being hereafter augmented, the applications of those whose services are at present dispensed with should be preferred, and that an Address be transmitted to His Honor embodying the foregoing resolution.”

Seconded by Mr. Blair.

A debate ensued.

Mr. Reynolds asked permission to withdraw the motion—permission withheld.

Question put and lost.

Mr. Gillies, according to notice, moved—“That the Government be requested to obtain the opinion of the Provincial Solicitor on the following case:—‘The Government advertise as follows: ‘Appointments to be made. Clerk for — Department. Applications to be made to the Provincial Secretary.’ A party applies and obtains the appointment, receiving the intimation that his salary is £300 per annum. Can he be dismissed at any time on a month’s notice, without laying the Government open to a claim for compensation?’”

Seconded by Mr. Kilgour.

The question being put, the House divided, when there voted:—

AYES 6.	NOES 15.
Mr. Dick	Mr. Vogel
Mr. Street	Mr. Hepburn
Mr. Murison	Mr. Paterson
Mr. Macandrew	Mr. Walker
Mr. Reynolds	Mr. Reid
Mr. Gillies (Teller)	Mr. Morris
	Mr. Clapcott
	Mr. Birch
	Mr. Mollison
	Mr. Blair
	Mr. Gleeson
	Mr. Stevenson
	Mr. Hughes
	Mr. Adam
	Mr. Miller (Teller)

So it passed in the negative.

Mr.

Mr. Dick, according to notice, moved—"That it is not expedient to declare any unsurveyed lands within hundreds open for purchase until the road lines have been laid off within all the districts to be declared open; and that, should any unsurveyed land be sold, it is desirable that the survey of the land should be made under the direction of the chief surveyor."

Seconded by Mr. Gleeson.

Mr. Adam moved as an amendment—"That it is expedient, should the unsurveyed lands in hundreds be thrown open for sale, that no survey of sections should be permitted until the survey of Main and District roads has been completed."

Seconded by Mr. Hughes.

A debate ensued.

It being seven o'clock, the House proceeded with the Orders of the Day.

The first Order of the Day being called—

The Provincial Secretary moved—"That the *Licensing Bill* be re-committed."

Seconded by Mr. J. Cargill.

Question put and carried.

IN COMMITTEE.

Mr. Brodie moved—"That the Chairman do leave the chair."

Question put and carried.

The Chairman left the chair accordingly.

On the motion of the Secretary of Public Works the *Tairi Districts Roads Lands Bill* was read a second time and committed.

IN COMMITTEE.

The several clauses (9) together with the Schedule were agreed to as read.

The title and preamble were agreed to, and ordered to stand parts of the Bill.

The House resumed and the Chairman reported the Bill without amendment.

Bill ordered to be read a third time on Monday next.

On the motion of the Provincial Treasurer the House went again into Committee of Supply.

IN COMMITTEE.

Mr. Gillies, according to notice, asked the Provincial Treasurer the following question—"In the event of the Debentures of the various Loans being disposed of, how will he distribute the sum of £340,025 0s. 3d., charged against the various Loans on 31st March last: keeping in view his statement that the Surplus Revenue had not been charged?"

The Provincial Treasurer replied.

MISCELLANEOUS.—*Division No. 15.*

Item agreed to as read.

PROVINCIAL TREASURY.—GENERAL—*Sub-Division No. 2.*

The Item—"Local Committee, Industrial Exhibition £500" being moved—

A debate ensued.

The question being put the Committee divided, when there voted:—

(AYES, 18.)	NOES, 3.
Mr. Paterson	Mr. Macandrew
Mr. Reynolds	Mr. Birch
Mr. Murison	Mr. Burns (Teller)
Mr. Dick	
Mr. Morris	
Mr. Street	
Mr. Mollison	
Mr. Brodie	
Mr. Miller	
Mr. Mansford	
Mr. Reid	
Mr. Stevenson	
Mr. Blair	
Mr. J. Cargill	
Mr. Gillies	
Major Richardson	
Mr. Adam	
Mr. Clapcott (Teller)	

So it passed in the affirmative.

The item, "Supplemental vote, £500," being moved, the Committee divided, when there voted—

AYES, 13	NOES, 12.
Mr. Murison	Mr. Adam
Mr. Paterson	Major Richardson
Mr. J. Cargill	Capt. McKenzie
Mr. Vogel	Mr. Street
Mr. Dick	Mr. Morris
Mr. Miller	Mr. Hughes
Mr. Walker	Mr. Gillies
Mr. Reynolds	Mr. Mollison
Mr. Brodie	Mr. Birch
Mr. Mansford	Mr. Macandrew
Mr. Stevenson	Mr. Blair
Mr. Reid	Mr. Burns (Teller)
Mr. Clapcott (Teller)	

So it passed in the affirmative.

The item, "Acclimatisation Society, £500," was (on the motion of Major Richardson) amended to—

"Acclimatisation Society, { 1. General Purposes, £250,
2. Introduction of Salmon, £250."

The item, "Gratuity to Drivers, £300," was, upon the suggestion of Capt. Mackenzie, amended to "£500," and agreed to.

PROVINCIAL ENGINEER'S DEPARTMENT.

1. "Provincial Engineer, £350," agreed to, as read.

Remaining items under this head, ordered to stand over.

ROADS'

ROADS' DEPARTMENT.

Items agreed to as read, except "Printing, &c."

MARINE ENGINEER.

Items agreed to as read, except "Printing, &c.," which was ordered to stand over.

RECREATION GROUNDS.

"Gardener, £125," agreed to.

Remaining item ordered to stand over.

Mr. Reynolds moved—"That the Chairman report progress and ask leave to sit again."

Question put and lost.

ESTIMATE OF WORKS, &c.

General—Items agreed to as read, except—"Balance of Loan, Town Board, Dunedin," which was ordered to stand over.

Harbor Endowment Loan—Items agreed to as read.

Jetties—Items agreed to as read.

Moorings—Items agreed to as read.

Additions—Items agreed to as read.

Court-houses—Items agreed to as read.

Police—Items agreed to as read.

Schools—Items agreed to as read.

On the motion of the Provincial Secretary the House resumed, the Chairman reported progress, asked and obtained leave to sit again.

It being past 10 o'clock the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Friday, June 3, at 2 o'clock.

MOTIONS.

1. Mr. Gleeson to resume the debate on Mr. Dick's motion, and Mr. Adam's amendment, as follow:—

Motion.—"That it is not expedient to declare any unsurveyed lands within hundreds open for purchase until the road lines have been laid off within all the districts to be declared open; and that, should any unsurveyed land be sold it is desirable that the survey of the land should be made under the direction of the chief surveyor."

Amendment—

Amendment. —“That it is expedient, should the unsurveyed lands in hundreds be thrown open for sale, that no survey of sections should be permitted until the survey of Main and Districts Roads has been completed.”

2. Mr. Hughes to move—(See page 119).
3. Mr. Hughes to move—(See page 119).
4. Mr. Vogel to resume debate on Mr. Gillies' motion, as follows:—“That a Select Committee be appointed to inquire into the position and working of the Store-keeper's Department, &c.—(See page 123).
5. Mr. Vogel to move—(See page 126).
6. Mr. Birch to move—“That in the opinion of this Council the Government is inflicting an act of disfranchisement upon the constituency of Tokomairiro, in permitting one of the seats for that district in this Council to remain vacant, in consequence of the gentleman who has been returned to fill said seat being otherwise employed by the Government.”
7. The Provincial Secretary to move—“That the message of His Honor the Superintendent, No. 17, be taken into consideration.”
8. Mr. Adam to move—“That the Council, having considered the report of the Commission on the future management of the Hospital, desire to record its high sense of the labors of said Commission, and recommend that the suggestion contained in the report, so far as it may be deemed advisable, be carried out, so soon as the Government are in a position to do so.”
9. Mr. Gillies to move — “That Mr. Speaker be requested to obtain the opinion of the Provincial Solicitor on the following points:—First, has the Provincial Council any power to alter the provisions of Clause 22 of the Constitution Act? Second, if not, is the number eleven a sufficient number under that Clause ‘competent to the despatch of any business.’”
10. Mr. Blair to move—“That leave of absence be granted to Mr. Rennie for three days.”
11. Mr. Miller to move—“That this House resume the consideration of the Cattle Bill in Committee, and that the report of the Select Committee on the Cattle Bill be then first taken into consideration.”

ORDERS OF THE DAY.

1. Northern Trunk Road Lands Bill to be read a second time.
2. Committee of Supply.

FRIDAY, JUNE 3rd.

Prayer.

There not being a quorum present, the names were taken down in accordance with Standing Order No. 7, and only 10 being present, Mr. Speaker was about to adjourn the House in conformity with the Order, when the Member for Tokomairiro (Mr. Gillies) brought to his notice the arrival of another Member, which Mr. Speaker, accepting this expression of the House as a confirmation of his (Mr. Speaker's) view of a quorum, proceeded to the business of the day.

Minutes—read and confirmed.

Notices

Notices of questions for next sitting were given by Mr. Reynolds, Mr. Moss, and by Mr. E. B. Cargill.

Notice of motion for next sitting was given by Mr. Vogel.

The Provincial Secretary laid on the table additional Immigration Correspondence.

The Secretary of Public Works laid on the table a Return of the cost of Public Works performed by the Provincial Engineer's Department.

Mr. E. B. Cargill's notice of question lapsed in his absence.

Mr. Vogel, according to notice, asked the the Provincial Secretary—"Whether in the remarks he lately made about the Geological Surveyor, he desired the Council to understand that himself individually, or his colleagues entertained any doubt as to the valuable nature of the services rendered by that Officer?"

The Provincial Secretary replied.

Message No 18 from his Honor the Superintendent was introduced and read :—

(MESSAGE No. 18.)

Superintendent's Office,
Dunedin, June 3, 1864.

The Superintendent has received the Address of the Provincial Council, of date, 30th May, ultimo, expressive of their desire for the appointment of a Commission to inquire into the sanitary state of the city.

The subject is one which has occasioned much anxiety both to the late and to the present Government, and their position with regard to it has been rendered the more irksome from the knowledge, that such remedial measures as the case imperatively demands, have hitherto been beyond their power to adopt.

While fully appreciating the importance of the results to be obtained by the appointment of a Sanitary Commission, the Superintendent is of opinion, that as the main causes of disease within the city, are already clearly recognised, immediately practical steps should also be taken to arrest its progress.

It is almost unnecessary to point to the almost total absence of sewerage throughout the city, and to the pernicious quality of the water which a large proportion of its inhabitants are compelled to use, as the undoubted sources of those diseases which of late have been so fatally prevalent amongst our town population.

It is well known to the Provincial Council, that the Town Board of Dunedin are powerless to provide the requisite means for the construction of sewers, and for providing the city with a sufficient supply of pure water. It is, doubtless, equally well known to the Council, that all the efforts of private individuals to supply the city with water through the operation of a Public Company have hitherto failed.

Impressed with the importance of decisive action on a matter where the considerations involved, are no less than those of life and death, the Superintendent, in addition to the appointment of a Commission, as recommended by the Council, submits the proposal to introduce a Bill for their consideration, authorising a Loan of £125,000 for providing the means to supply the City with Water and Sewerage.

The proposed Bill will be transmitted to the Council on an early day, when its intended operation will be explained in detail by the Government.

In conclusion, the Superintendent informs the Council, that the Commission shall be appointed without unnecessary delay, and requests their earnest co-operation

in effecting those sanitary reforms, without which the labors of the Commission will be unproductive of practical benefits to the community.

J. HYDE HARRIS, Superintendent.

Mr Gleeson resumed the debate on Mr. Dick's motion and Mr. Adam's amendment, (not concluded at last sitting) as follow :—*Motion*—“That it is not expedient to declare any unsurveyed lands within Hundreds open for purchase until the road lines have been laid off within all the districts to be declared open ; and that, should any unsurveyed land be sold, it is desirable that the survey of the land should be made under the direction of the chief surveyor.” *Amendment*—“That it is expedient should the unsurveyed lands in Hundreds be thrown open for sale ; that no survey of sections should be permitted until the survey of Main and District Roads has been completed.”

The question being put on the amendment, the House divided when there voted :—

AYES, 13.	NOES, 11.
Mr. Clapcott	Mr. Gilles
Mr. Hughes	Mr. Morris
Mr. Gleeson	Mr. Blair
Mr. Brodie	Mr. Reynolds
Mr. Mansford	Mr. Murison
Mr. Hepburn	Mr. Moss
Mr. Paterson	Mr. Birch
Mr. Stevenson	Mr. Kilgour
Mr. Reid	Mr. Macandrew
Mr. Walker	Mr. Burns
Mr. Miller	Mr. Dick (Teller.)
Mr. J. Cargill	
Mr. Adam (Teller.)	

So it passed in the affirmative.

The question being put on the amendment as a substantive motion—

Mr. Gleeson moved— “That it be amended as follows :—That it be expedient should the unsurveyed lands in Hundreds be thrown open for sale, that no survey of sections should be permitted until the survey of Main and District Loads and Reserves has been completed. The said survey to be made under the direction of the Government surveyors.”

Seconded by Mr. Walker.

Question put and carried.

Mr. Hughes amended his notice (No. 2,) and moved it as follows :—“That the inducement which the Waitahuna Goldfields offer for greatly extending mining operations upon a general and economical principle render it desirable that the Government should construct the water-race already surveyed for prosecuting this object, and that this House therefore recommend that a respectful Address be presented to His Honor the Superintendent, praying that he will place a sum on the Estimates for the purpose herein contemplated.”

Seconded by Mr. Brodie.

Motion by leave of the House withdrawn.

Mr. Hughes according to notice moved—“That convenience, facility, and economy, in the transmission of goods to the Goldfields are of permanent importance to the mining interest, and urgently call for improvements where practicable ; and that, with a view of promoting the advantages so obtainable, it is desirable that a respectful address be presented to his Honor the Superintendent praying that he will be

“be

“be pleased to place a sum upon the Estimates for the construction of a road from the junction of the Tuapeka River with the Molyneux to the Tuapeka township.”

Seconded *pro-forma* by Mr. Stevenson.

Question put and lost.

Mr. Vogel asked permission to move his motion (No. 5 on the Order Paper) before resuming the debate in accordance with No. 4.

The question being put—“That permission be granted” the House divided when there voted—

AYES, 7.	NOES, 16.
Mr. Adam	Mr. Burns
Mr. Walker	Mr. Miller
Mr. Gleeson	Mr. Clapcott
Mr. Mansford	Mr. Hepburn
Mr. J. Cargill	Mr. Reynolds
Mr. Paterson	Mr. Street
Mr. Vogel (Teller)	Mr. Morris
	Mr. Hughes
	Mr. Macandrew
	Mr. Kilgour
	Mr. Birch
	Mr. Blair
	Mr. Moss
	Mr. Brodie
	Mr. Stevenson
	Mr. Gillies (Teller)

So it passed in the negative.

(Motion No. 4)—Mr. Vogel pursuant of motion of adjournment resumed the debate on Mr. Gillies's motion as follows:—“That a Select Committee be appointed to inquire into the position and working of the Storekeeper's Department, with the view specially to ascertain and report to this House—

“1st. Whether the Department is necessary, and calculated to economise the public expenditure.

“2nd. If necessary, whether its organisation, powers, and position, as relates to the other departments of the service are such as to secure its effective performance of the duties assigned to it; and:—

“3rd. If its position and powers shall seem inadequate to the performance of its proper functions, to recommend such alterations as may be deemed necessary or expedient. Committee to consist of Mr. Speaker (with his consent), Messrs. Paterson, Blair, Brodie, Gleeson, Morris, and the Mover. Report to be brought up on Monday next, 6th June.”

The question being put the House divided, when there voted:—

AYES, 10.	NOES, 13.
Mr. Macandrew	Mr. Blair
Mr. Kilgour	Mr. J. Cargill
Mr. Moss	Mr. Morris
Mr. Dick	Mr. Adam
Mr. Street	Mr. Gleeson
Mr. Hughes	Mr. Walker
Mr. Burns	Mr. E. B. Cargill
Mr. Stevenson	Mr. Mansford
Mr. Reynolds	Capt. Baldwin
Mr. Gillies (Teller)	Mr. Paterson
	Mr. Miller
	Mr. Clapcott
	Mr. Vogel (Teller)

So it passed in the negative.

Mr.

Mr. Vogel, according to notice (No. 5 on the Order Paper), moved—"That an Address be presented to his Honor the Superintendent, requesting him to cause to be laid upon the table of the Council, a return of the amount of business transacted in the Storekeeper's Department; specifying the number of purchases made, the number of persons from whom they have been made; the purchases made by private arrangement, and those by public tender, the several amounts and nature of each, and of the whole of the purchases and the value, and return of the goods remaining in stock."

Seconded by the Provincial Treasurer.

Mr. Macandrew proposed—"That the words 'and names' be inserted after the word 'number,' in line 5."

Seconded by Mr. Burns.

Amendment accepted and embodied in the motion.

Question put on the motion as amended and carried.

Mr. Birch allowed his notice of motion No. 6, to lapse.

The Provincial Secretary according to notice moved—"That the Message of his Honor the Superintendent, No. 17,* be taken into consideration."

Mr. Brodie moved—"The previous question," which was carried.

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock on Monday next.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Monday, June 6, at two o'clock.

MOTIONS.

1. Mr. Dick to move—"That it is desirable that the Government should proceed without delay to have lines surveyed for Railways between Dunedin and the Clutha, and between Dunedin and Port Chalmers; also, that it is expedient to reserve without delay such lands, still unsold, along the proposed line, as may be necessary for railway purposes."
2. Mr. Gillies to move—"That the Report of the Hospital and Lunatic Asylum Commission be taken into consideration, and that the Executive Government be requested to submit a series of resolutions on the subject."
3. Mr. Macandrew to move—"That in the opinion of this Council it is advisable to grant protection to such parties as may be desirous of laying down oyster beds at their own expense, within Otago Harbor; and that the Government be respectfully requested to give effect to this resolution in the event of their being applied to for such a protection."
4. Mr. Adam to move—(See page 132).
5. Mr. Gillies to move—(See page 132).
6. Mr. Blair to move—"That leave of absence be granted to Mr. Rennie for three days."
7. Mr. Miller to move—(See page 132).

*See page 121.

8. Mr. Vogel to move—"That whilst the Council sees no objection to making the interest on the loans, disposed of in the local market, payable in Melbourne and Sydney, as well as at Dunedin, it deems it highly inexpedient that the interest or principal should be made payable at home."

ORDERS OF THE DAY.

1. Northern Trunk Road Lands Bill to be read a second time.
2. Taieri Districts Roads Lands Bill to be read a third time.
3. Committee of Supply.

MONDAY, JUNE 6.

Prayer.

Minutes—read and confirmed.

Mr. Dick presented a Petition from certain officers of the Provincial Engineer's Department.

Petition read and received.

Notices of questions for next sitting were given by Mr. Hughes and by Mr. Brodie.

Notices of motions for next sitting were given by Mr. Dick, Mr. Reynolds, and Mr. J. Cargill (2).

Notices of questions for Monday next were given by Mr. Lloyd (2).

The Provincial Secretary laid on the table, the Departmental Report, No. XII. (Police).

The Secretary of Public Works laid on the table addition to the Return of Cost of Works performed by the Provincial Engineer's Department.

The Provincial Treasurer laid on the table a Return of the amount of business transacted in the Storekeeper's Department.

Mr. J. Cargill brought up the Report of Select Committee on the Volunteer Force.

Mr. J. Cargill laid on the table the *Turnpikes Ordinance Amendment Bill*, which was read a first time, ordered to be printed, and to be read a second time at next sitting.

The question submitted by Mr. Speaker to the following effect, was moved by Mr. Macandrew, seconded by Mr. Birch, and carried:—"That all motions lapsed under the 4th Division of the Standing Orders, should take precedence of all other motions, including those which may be put on the Order Paper some days previously, and which would in their order appear on the day on which the lapsed questions would be taken up?"

Mr. Vogel's notices of question (No. 2), lapsed in his absence.

Mr. Reynolds, according to notice, asked the Provincial Secretary—"Whether it is the intention of the Government to bring in a Bill for the purpose of granting Municipal powers to the Town of Dunedin?"

The Provincial Secretary replied.

Mr. Moss, according to notice, asked—"If it is the intention of the Government to lay on the table of this House the Supplementary Report sent in by Mr. Swyer to the Commission on Roads and their Construction?"

The Secretary of Public Works replied.

Mr. E. B. Cargill's notice of question lapsed in his absence.

Mr. Dick, according to notice, moved—"That it is desirable that the Government should proceed without delay to have lines surveyed for Railways between Dunedin and the Clutha, and between Dunedin and Port Chalmers; also, that it is most expedient to reserve without delay, such lands, still unsold, along the proposed line, as may be necessary for railway purposes."

Seconded by Mr. Gillies.

Question put and carried.

Mr. Gillies allowed his notice of motion (No. 2) to lapse.

Mr. Macandrew according to notice moved—"That in the opinion of this Council it is advisable to grant protection to such parties as may be desirous of laying down oyster beds, at their own expense, within Otago Harbor; and that the Government be respectfully requested to give effect to this resolution in the event of their being applied to for such protection."

Seconded by Mr. Hughes.

Motion by leave of the House withdrawn.

Mr. Adam according to notice moved—"That the Council, having considered the report of the Commission, on the future management of the Hospital, desire to record its high sense of the labors of said Commission, and recommend that the suggestions contained in the report, so far as they may be deemed advisable, be carried out, so soon as the Government are in a position to do so."

Seconded by Mr. J. Cargill.

Question put and carried.

Mr. Gillies according to notice moved—"That Mr. Speaker is requested to obtain the opinion of the Provincial Solicitor on the following points:—First has the Provincial Council power to alter the provisions of Clause 22 of the Constitution Act? Second, if not, is the number eleven a sufficient number under that Clause 'competent to the despatch of any business?'"

Seconded by Mr. Reynolds.

Mr. Gillies by permission of the House amended his motion as follows—"That Mr. Speaker be requested to obtain the opinion of Counsel on the following points:—1st., has the Council power to alter any provision of the Constitution Act? 2nd, is the number eleven a sufficient number under Clause 22, competent to the despatch of business in this Council."

Question put on the motion as amended and carried.

On the motion of Mr. Blair leave of absence was granted to Mr. Rennie for three days.

Mr. Miller according to notice moved—"That the House resume the consideration of the *Cattle Bill* in Committee, and that the report of the Select Committee on the *Cattle Bill* be then first taken into consideration."

Seconded by Mr. J. Cargill.

Question put and carried.

The House accordingly went into Committee on the Bill and Report.

IN COMMITTEE.

Mr. Miller moved—"That all clauses relating to the inoculation of Cattle be expunged from the Cattle Bill."

A debate ensued.

Question put and carried.

On the motion of Mr. Vogel the House resumed, the Chairman reported progress, asked and obtained leave to sit again at next sitting.

The resolution of Committee was (on the motion of Mr. Miller) adopted by the House.

At the request of Mr Vogel his notice of motion No. 8 on the Order Paper was ordered to be taken up in Committee of Supply.

It being seven o'clock, the House proceeded to the Orders of the Day.

On the motion of the Secretary of Public Works, the *Northern Trunk Road Lands Bill* was read a second time and committed.

IN COMMITTEE.

The several Clauses (9) were agreed to as printed, together with the Schedule.

The preamble and title were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without Amendments.

Bill ordered to be read a third time at next sitting.

On the motion of the Secretary of Public Works, the *Taiari Districts Roads Lands Bill* was read a third time, and the question being put by Mr. Speaker—"That the Bill do now pass?" it was agreed to, and the Bill was passed.

On the motion of the Secretary of Public Works, the House went again into Committee of Supply.

IN COMMITTEE.

Division, No. 26—"River, £900"—agreed to.

ESTIMATES OF WORKS, ETC. (CONTINUED).

Miscellaneous—The items, "Goldfields' Buildings," "Works not provided for," Provincial Council Accommodation," were ordered to stand over.

The remaining items were agreed to as read.

Mr. Vogel, according to notice, moved—"That, whilst the Council sees no objection to making the interest on the loans disposed of in the local market, payable in Melbourne and Sydney, as well as at Dunedin, it deems it highly inexpedient that the interest or principal should be made payable at home."

A debate ensued.

The

The question being put, the Committee divided, when there voted :—

AYES, 11.	NOES, 14.
Major Richardson	Mr. Adam
Mr. Murison	Mr. Macandrew
Mr. Rennie	Mr. Kilgour
Mr. Gillies	Mr. Birch
Mr. Gleeson	Mr. Brodie
Mr. Morris	Mr. Stevenson
Mr. Moss	Mr. Reynolds
Mr. Lloyd	Mr. Blair
Mr. Mollison	Mr. Steel
Mr. Burns	Mr. Clapcott
Mr. Vogel (Teller)	Mr. Walker
	Mr. Miller
	Mr. E. B. Cargill
	Mr. J. Cargill (Teller)

So it passed in the negative.

ROADS.

Northern Trunk—Items agreed to as read.

Southern Trunk—Items agreed to as read.

Northern Interior—Items agreed to as read.

Central Interior—Items agreed to as read.

Southern Interior.—Items agreed to as read.

Main Branch Roads, North.—The item “Northern Trunk to Waikouaiti Bay, £50” being moved, Mr. Vogel moved as an amendment,—“That the amount be £300.”

Question put and lost.

Item agreed to as read.

Remaining items agreed to as read.

Main Branch Roads, Central.—Items agreed to a read.

Main Branch Roads, Southern.—Items agreed to as read.

Main Branch Roads, Interior.—Items agreed to as read.

Bridges.—Items agreed to as read.

Telegraphs.—Items agreed to as read.

The House resumed—the Chairman reported progress, asked and obtained leave to sit again next sitting.

It being past 10 o'clock the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Tuesday, June 7, at two o'clock.

MOTIONS.

1. Mr. Dick to move—“That the petition of certain Officers of the Provincial Engineers' Department be taken into consideration in Committee of Supply, with a view to deciding whether any, and if any, what compensation should be awarded to the Petitioners.”

2. Mr. Reynolds to move—"That this House recommends that, where practicable the Government should furnish members with copies of all Bills to be brought before the Council, as also, the Estimates, at least one week before the commencement of the Session; and that all Bills of an important character should be introduced within a fortnight after the commencement of each Session."
3. Mr. J. Cargill to move—"That, to meet present emergencies, Debentures to the extent of £40,000 of the 8 per cents., under "Loan Ordinance, 1861," may be made payable in London, should a sufficient number not sell with principal and interest payable in the colonies."
4. Mr. J. Cargill to move—"That the Report of the Select Committee on the Volunteer Force be adopted."

ORDERS OF THE DAY.

1. Northern Trunk Road Lands Bill to be read a third time.
2. Turnpikes Ordinance Amendment Bill to be read a third time.
3. Committee of Supply.

TUESDAY, JUNE 7.

Prayer.

Minutes—read and confirmed.

*Mr. Dick presented a petition from John Graham, market gardener.

Notices of questions for next sitting, were given by Mr. Lloyd and by Mr. Mollison.

Notices of motions for next sitting were given by Mr. Adam, Mr. Vogel (2), and by Mr. J. Cargill.

Notice of question for—"when in Committee of Supply," was given by Mr. Gillies.

Notices of motions for—"when in Committee of Supply," were given by Mr. Vogel and by Mr. Rennie.

Notice of question for—"when in Committee of Ways and Means," was given by Mr. Macandrew.

The Provincial Secretary laid on the table.

1st. Correspondence relative to the claim of Peter Williams for land at Moeraki.

2d. Return respecting Agricultural Leases on the Goldfields.

The Secretary of Public Works laid on the table the Report of the Commission on Roads and their Deviations, on the claims of Mr. Sidy, and on the Roads generally in the Green Island District.

Messages Nos. 19 and 20 from his Honor the Superintendent were introduced and read :—

(MESSAGE No. 19.)

Superintendent's Office,
Dunedin, 7th June, 1864.

The Superintendent forwards for the consideration of the Provincial Council, Resolutions adopted at a public meeting of unemployed laborers and others, held at the Octagon on the 6th inst.

The Resolutions were subsequently presented to him by a large section of the meeting, consisting of several hundreds of men, who requested that their case might be laid before the Provincial Council.

While deprecating undue interference on the part of the Public, with the exercise of the Executive functions of Government, it is nevertheless a subject for regret that a large number of unemployed should be found in the Province.

The Superintendent will have much satisfaction in carrying into effect any Resolutions of the Council for ameliorating the condition of the laboring classes, who are unemployed through circumstances of necessity.

J. HYDE HARRIS, Superintendent.

(MESSAGE No. 20.)

Superintendent's Office,
Dunedin, 7th June, 1864.

The Superintendent, with the advice of his Executive Council, transmits to the Provincial Council, Supplementary Estimates of Expenditure for the half-year ending 30th September, 1864, and recommends the Council to make provision for the services therein specified.

J. HYDE HARRIS, Superintendent.

Message No. 19—Ordered, "To be considered presently."

Message No. 20—Ordered, "To be considered in Committee of Supply."

Mr. Hughes, according to notice, asked—"Whether any intimation has been made to the Government by his Honor the Superintendent, in regard to the Resolution passed by this House, recommending the appointment of a Commissioner of Mines, as a member of the Executive?"

The Provincial Secretary replied.

Mr. Brodie, according to notice, asked the Provincial Secretary—"If the Government have any objection to assist in procuring a set of boring rods for the use of the various Goldfields?"

The Provincial Secretary replied.

"Mr. Dick, according to notice, moved—"That the Petition of certain Officers of the Provincial Engineer's Department be taken into consideration in Committee of Supply, with a view to deciding whether any, and if any, what compensation should be awarded to the Petitioners."

Seconded by Mr. Brodie.

Question put and carried.

Mr. Reynolds, according to notice, moved—"That this House recommends that, where practicable, the Government should furnish members with copies of all Bills

“ Bills to be brought before the Council ; as also, the Estimates, at least one week before the commencement of the Session ; and that all Bills of an important character should be introduced within a fortnight after the commencement of each Session.”

Seconded by Mr. Rennie.

Question put and carried.

Mr. J. Cargill, according to notice moved—“ That the Report of the Select Committee on the Volunteer force be adopted.”

Seconded by Mr. Macandrew.

Question put and carried.

On the motion of the Secretary of Public Works, the *Northern Trunk Road Lands Bill* was read a third time ; and the question being put by Mr. Speaker, “ That this Bill do now pass,” it was agreed to, and the Bill was passed.

On the motion of the Secretary of Public Works, the *Turnpikes Ordinance Amendment Bill* was read a second time and committed.

IN COMMITTEE.

Clauses 1, 2, 3, 4, 5, and 6 were agreed to as read.

Clause 7 being moved :—

Mr. Gleeson moved—“ That the word ‘exclusively’ be struck out.”

Mr. Vogel moved—“ That the clause be struck out.”

Mr. Vogel moved—“ That the consideration of the clause be postponed.”

The question being put (for postponement of Clause) the Committee divided, when there voted—

AYE, 1.

Mr. Vogel (Teller)

NOES, 26.

Mr. J. Cargill
Mr. Paterson
Mr. Mansford
Major Richardson
Mr. Moss
Mr. Gleeson
Mr. Reynolds
Mr. Reid
Mr. Stevenson
Mr. Rennie
Mr. Burns
Mr. Street
Mr. Morris
Mr. Dick
Mr. Clapcott
Mr. Lloyd
Mr. Macandrew
Mr. Kilgour
Mr. Mollison
Mr. Birch
Mr. Murison
Mr. Blair
Mr. Gillies
Mr. Adam
Mr. Brodie
Mr. Miller (Teller)

Mr.

Mr. Vogel moved—"That any coaches, or other conveyance, conveying her Majesty's Mail, be exempted from the payment of toll."

Mr. Macandrew moved—"That the question be now put," which being agreed to, the Committee divided, when there voted :—

AYES, 5.

Mr. Brodie
Mr. Macandrew
Mr. Mansford
Mr. Gleeson
Mr. Vogel (Teller)

NOES, 23.

Mr. Clapcott
Major Richardson
Mr. Paterson
Mr. J. Cargill
Mr. Reynolds
Mr. Lloyd
Mr. Reid
Mr. Stevenson
Mr. Rennie
Mr. Murison
Mr. Street
Mr. Birch
Mr. Hughes
Mr. Gillies
Mr. Blair
Mr. Mollison
Mr. Kilgour
Mr. Moss
Mr. Walker
Mr. Dick
Mr. Morris
Mr. Adam
Mr. Miller (Teller)

So it passed in the negative.

Mr. Vogel moved—"That the Chairman report progress, and ask leave to sit again."

Motion by leave of the Committee, withdrawn.

Mr. Reynolds moved—"That the Chairman do now leave the Chair."

Question put and lost.

The original question (for adoption of clause) being put, the Committee divided, when there voted :—

AYES, 19.

Mr. Burns
Mr. Clapcott
Mr. Mollison
Mr. Gillies
Mr. Street
Mr. Walker
Major Richardson
Mr. Hughes
Mr. Blair
Mr. Lloyd
Mr. Rennie
Mr. Adam
Mr. Reid
Mr. Morris
Mr. Kilgour
Mr. Paterson
Mr. Miller
Mr. Dick
Mr. J. Cargill (Teller)

NOES, 8.

Mr. Brodie
Mr. Reynolds
Mr. Murison
Mr. Mansford
Mr. Gleeson
Mr. Stevenson
Mr. Macandrew
Mr. Vogel (Teller)

So it passed in the affirmative.

Clause

Clause 8 agreed to as read.

Schedule agreed to as read.

The Preamble and Title were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without amendment.

Bill ordered to be read a third time at next sitting.

The Provincial Secretary moved—"That Message No. 19,* be taken into consideration."

Mr. Vogel moved—"That the House go into Committee to consider Message "No. 19."

Seconded by Mr. Gleeson.

Question put and carried.

IN COMMITTEE.

Mr. Vogel moved—"That the Petition be referred back to his Honor the Superintendent to enable him to confer with the Executive upon it."

Question put and carried.

The House resumed, and the Chairman reported the resolution of Committee, which was subsequently adopted by the House.

On the motion of the Provincial Treasurer, the House went again into Committee of Supply.

IN COMMITTEE.

(Petition of certain Officers of the Provincial Engineer's Department considered, in accordance with motion No. 1, previously carried.)

Mr. Dick moved—"That the Salaries of the Officers in the Provincial Engineer's Department, be voted for Six Months, instead of only for three months as at present proposed."

A debate ensued.

The question being put, the Committee divided, when there voted :—

AYES, 15.

Mr. Rennie
Mr. Street
Mr. Reynolds
Mr. Gleeson
Mr. Mollison
Mr. Brodie
Mr. Moss
Major Richardson
Mr. Eurns
Mr. Reid
Mr. E. B. Cargill
Mr. Stevenson
Mr. Gillies
Mr. Marison
Mr. Dick (Teller)

NOES, 13.

Mr. J. Cargill
Mr. Macandrew
Mr. Hughes
Mr. Kilgour
Mr. Blair
Mr. Birch
Mr. Clapcott
Mr. Walker
Mr. Paterson
Mr. Lloyd
Mr. Vogel
Mr. Miller
Mr. Adam (Teller)

So it passed in the affirmative.

* See page 142.

Major Richardson moved—"That the following words be added, viz.: 'To avoid any misconstruction in future, it is expedient that a written engagement should be entered into, defining the terms of service.'"

Question put and carried.

The House resumed, and the Chairman reported the resolution to the House.

Mr. Dick moved—"That the resolution agreed to in Committee be adopted by the House."

Seconded by Mr. Moss.

The question being put, the House divided, when there voted:—

AYES, 15.	NOES, 13.
Mr. Rennie	Mr. Vogel
Mr. Hepburn	Mr. Walker
Mr. Reynolds	Mr. Paterson
Mr. Brodie	Mr. Clapcott
Mr. Moss	Mr. Hughes
Mr. Gleeson	Mr. J. Cargill
Mr. Street	Mr. Lloyd
Mr. Stevenson	Mr. Birch
Mr. Mollison	Mr. Blair
Mr. Reid	Mr. Kilgour
Mr. E. B. Cargill	Mr. Macandrew
Mr. Gillies	Mr. Adam
Mr. Burns	Mr. Miller (Teller)
Mr. Murison	
Mr. Dick (Teller)	

So it passed in the affirmative.

The House went again into Committee of Supply.

IN COMMITTEE.

Division, No. 24—STOREKEEPER.

The item—"Storeman, £45 10s." was withdrawn by the Provincial Treasurer.

The remaining items were agreed to as read, except "Printing, &c."

Division, No. 28—"Volunteers, £2,500," agreed to as read.

*Division, No. 32—(Provincial Engineer's Department)—*remaining items agreed to as read.

RECREATION GROUNDS.

The item—"Planting Recreation Grounds, &c., £1000," agreed to as read.

On the motion of Mr. Vogel, the House resumed, the Chairman reported progress, asked and obtained leave to sit again at next sitting.

It being past 10 o'clock, the House adjourned till to 2 o'clock the following day

NOTICES OF MOTION AND ORDERS OF THE DAY.

Wednesday, June 8, at 2 o'clock.

MOTIONS.

1. Mr. Adam to move—"That it is expedient that a portion of the Town Belt be set aside

aside for a limited period to the use of the Acclimatisation Society, subject to such rules and regulations as will secure the rights of the public on the one hand, and the objects of the Society on the other ; and that a respectful address be presented to his Honor, praying that he will be pleased to give effect to the foregoing resolution."

2. Mr. Vogel to move—"That a respectful Address be presented to his Honor, requesting him to place on the Estimates a sum of five hundred pounds to meet the expenses of selling the Waste and Town Lands by public auction."
3. Mr. J. Cargill to move—"That his Honor the Superintendent be requested to forward a copy of the Report on Volunteer Force, to the General Government, soliciting their active co-operation in carrying out the same."
4. Mr. Vogel to move—"That an Address be presented to his Honor the Superintendent begging him to disallow the Licensed Hawkers' Ordinance."

ORDERS OF THE DAY.

1. Turnpikes Ordinance Amendment Bill to be read a third time.
2. Cattle Bill to be resumed in Committee.
3. Committee of Supply.

WEDNESDAY, JUNE 8.

Prayer.

Minutes—read and confirmed.

One James Gordon Stuart Grant did interrupt the proceedings of this House by addressing the Chair, and being ordered by Mr. Speaker to be silent, did further interrupt the proceedings by addressing the strangers present.

Grant, (by order of Mr. Speaker) taken in charge by the Serjeant-at-arms, and removed from the chambers.

Notices of questions for next sitting were given by Mr. Macandrew and by Mr. Birch.

Notices of motions for next sitting were given by Mr. Macandrew, Mr. Vogel and Mr. E. B. Cargill.

The Secretary of Public Works laid on the table the *Caversham and Green Islands Districts Roads Lands Bill*, which was read a first time, ordered to be printed, and to be read a second time, at next sitting.

Mr. Gillies, in the absence of Mr. E. B. Cargill, brought up the Report of the Select Committee on the Town Board Loan.

Mr. Lloyd, according to notice, asked the Government—"What steps they intend to take to remedy the present disgraceful state of the Swamp Road between Mr. E. B. Cargill's house and the town: also, if they have any power to compel the Town Board to put it into proper order?"

The Secretary of Public Works replied.

Mr. Lloyd, according to notice, asked the Government—"If it is the intention of Government to place a Toll Gate at the entrance of the town from Anderson's Bay District, and why that District has been favored more than any other District?"

The

The Provincial Secretary replied.

Mr. Lloyd, according to notice, asked the Government—"If it is their intention during the recess, to take steps to induce the General Government to refund all fees, fines, and forfeitures taken and recovered before the various Benches of Magistrates in Otago?"

The Provincial Secretary replied.

Mr. Mollison, according to notice, asked the Government—"To lay on the table a return from the various Toll-bars in the Province, and also if it is intended to let them; if so, whether by public tender or private arrangement?"

Mr. Adam replied.

Mr. Adam, according to notice, moved—"That it is expedient that a portion of the Town Belt be set aside for a limited period for the use of the Acclimatisation Society, subject to such rules and regulations as will secure the rights of the public on the one hand, and the objects of the Society on the other; and that a respectful Address be presented to his Honor, praying that he will be pleased to give effect to the foregoing resolution."

Seconded by Mr. J. Cargill.

Question put and carried.

Mr. Vogel, according to notice, moved—"That a respectful Address be presented to his Honor, requesting him to place on the Estimates a sum of five hundred pounds to meet the expenses of selling the Waste and Town Lands by public auction."

Seconded by Mr. Hepburn.

Question put and lost.

Mr. J. Cargill, according to notice, moved—"That his Honor the Superintendent be requested to forward a copy of the Report on Volunteer Force to the General Government, soliciting their active co-operation in carrying out the same."

Seconded by Mr. Adam.

Question put and carried.

Before proceeding to the Orders of the Day, the prisoner Grant was brought up to the Bar of the House, addressed by Mr. Speaker, and having made a statement in defence, was removed.

After deliberation, the prisoner being re-called, made acknowledgment as follows:—"I, James Gordon Stuart Grant, hereby express my deep regret, that I should have been guilty in the opinion of your House of contempt, and I hereby offer my sincere apology for this offence, and promise not again to offend."

The prisoner, by order of Mr. Speaker, was discharged.

Under suspension of Standing Orders, Mr. Adam moved—"That this Council desires to express its high satisfaction with, and cordial approval of, the conduct of Mr. Speaker, in regard to the removal of a stranger from the gallery attempting to obstruct the business of the Council, and resolve to uphold the authority of Mr. Speaker in securing the deliberative character and dignity of this House."

Seconded by the Provincial Secretary.

Question

Question put and carried.

The Secretary of Public Works moved—"That the *Turnpikes Ordinance Amendment Bill* be read a third time."

Seconded by the Provincial Secretary.

Mr. Brodie moved as an amendment—"That the Bill be read a third time this day six months."

Seconded by Mr. Murison.

A debate ensued.

On the motion of Mr. Gillies, the debate was adjourned.

On the motion of the Secretary of Public Works, the *Cattle Bill* was resumed in Committee.

Clauses 13 and 14 were agreed to as read.

Clauses 15 and 16 were amended.

Clause 17 was agreed to as read.

Clauses 18, 19, 20 and 21 were ordered to be struck out.

Clause 22—now 18—being moved :—

Major Richardson moved—"That the Chairman do now leave the chair."

Question put and carried.

The Chairman left the chair accordingly.

Debate on the *Turnpikes Ordinance Amendment Bill* resumed by Mr. Gillies.

Question put on Mr. Brodie's amendment and lost.

Bill recommitted on motion of the Secretary of Public Works.

IN COMMITTEE.

The Schedule was amended, and a new Sub-clause (No. 3) added on the motion of the Secretary of Public Works.

Mr. Adam moved the following, to stand as Sub-clause 8—"All drays, carts, and waggons returning to Dunedin empty, or laden with agricultural produce, shall be charged at half rates."

Question put and lost.

The House resumed, and the Chairman reported the Bill with amendments.

Bill read a third time, and the question being put by Mr. Speaker "that the Bill do now pass," it was agreed to and the Bill was passed.

On the motion of the Provincial Treasurer, the House went again into Committee of Supply.

IN COMMITTEE.

Mr. Gillies, according to notice, asked the Provincial Treasurer—"The amount
N 1 " of

“ of present Liabilities of the Government, on account of Claims for Compensation
“ for loss of Runs and for Land Claims ?”

The Provincial Treasurer replied.

Mr. Vogel, according to notice, moved—“ That the Council recommends to the
“ Government not to enter into any expenditure unauthorised by vote of the House,
“ unless in cases of great necessity ; and that in all contracts entered into by the
“ Government, the words ‘ out of monies voted by the Council,’ or when unauthorised
“ ‘ out of monies to be voted by the Council,’ be inserted.”

A debate ensued.

Mr. Moss moved as an amendment—“ That the words ‘ for contracts to extend
“ ‘ over a long period,’ be inserted after the word ‘ or,’ in line 5.”

Question put on the amendment and lost.

Question put on the original motion and carried.

Mr. J. Cargill, according to notice, moved—“ That, to meet present emergencies,
“ Debentures to the extent of £40,000 of the 8 per cents., under ‘ Loan Ordinance,
“ ‘ nance, 1861,’ may be made payable in London, should a sufficient number not
“ sell with principal and interest payable in the Colonies.”

Question put and carried.

Mr. Rennie, according to notice, moved—“ That a respectful Address be pre-
“ sented to his Honor the Superintendent, that he may be pleased to place on the
“ Supplementary Estimates the sum of £200, for the purpose of erecting some pro-
“ tection from accident, on that portion of the South Main Line of Road at Saddle-
“ Hill Cutting.”

Motion, by leave of the House, withdrawn.

The House resumed, and the Chairman reported the resolutions agreed to in
Committee, which were subsequently adopted by the House.

The House went again into Committee of Supply.

IN COMMITTEE

Sub-Division, No. 2, amended.

(Supplementary Estimates considered.)

Provincial Council, Land, Police and Harbors—Items agreed to as read.

Miscellaneous—Items agreed to as read, except “ Compensation to Capt. Saunders,
£427 7s. 9d.,” which was withdrawn.

*Cattle Inspectors, Immigration, Weights and Measures, Courts of Justice, and
Pounds,* were agreed to as read.

Miscellaneous—The item, “ Purchase of photographic views, £65,” was passed
in the negative ; “ Health Officer, Port Chalmers,” was ordered to stand over ; the
remaining items were agreed to as read.

Grants-in-Aid—Items agreed to as read.

Roads

Roads Commission—The item, “Chairman, £500 *per annum*, 4 months, £166 “13s. 4d.,” being moved—

A debate ensued.

Mr. Gillies moved as an amendment—“That the words ‘£500 *per annum*’ be “struck out.”

Question put on the amendment and lost.

The question being put on the original motion, the Committee divided, when there voted :—

AYES, 17.	NOES, 6.
Mr. J. Cargill	Mr. Hughes
Major Richardson	Mr. Reynolds
Mr. Blair	Mr. Kilgour
Mr. Macandrew	Mr. Burns
Mr. Stevenson	Mr. Birch
Mr. Mansford	Mr. Gillies (Teller)
Mr. Clapcott	
Mr. Street	
Mr. Mollison	
Mr. Adam	
Mr. Morris	
Mr. Walker	
Mr. Gleeson	
Mr. Lloyd	
Mr. Paterson	
Mr. Miller	
Mr. Brodie (Teller)	

So it passed in the affirmative.

District Gaols—Item agreed to as read.

Works, Buildings, &c.—The items, “District Police Stations, £145 10s. ; “Lawrence School, £600,” “Turnpikes, £179 17s. 6d.”—were agreed to as read.

Mr. Reynolds moved—“That the Chairman report progress and ask leave to sit again.”

The question being put, the Committee divided, when there voted—

AYES, 12.	NOES, 5.
Major Richardson	Mr. J. Cargill
Mr. Burns	Mr. Walker
Mr. Street	Mr. Blair
Mr. Morris	Mr. Clapcott
Mr. Hughes	Mr. Brodie (Teller)
Mr. Gleeson	
Mr. Mansford	
Mr. Gillies	
Mr. Macandrew	
Mr. Stevenson	
Mr. Birch	
Mr. Reynolds (Teller)	

So it passed in the affirmative.

The House resumed, the Chairman reported progress, asked, and obtained leave to sit again at next sitting.

It being past midnight the House adjourned till 2 o'clock, p.m., this day.

NOTICES

 NOTICES OF MOTION, AND ORDERS OF THE DAY.

Thursday, June 9, at Two o'clock.

MOTIONS.

1. Mr. Macandrew to move—"That in the opinion of this Council it would conduce to the greater efficiency of the Pilot Service, and give effect to retrenchment policy, without injustice to individuals, were the service made self-sustaining, as suggested by the Pilot Staff, on such terms and conditions as to the Government may seem most expedient."
2. Mr. Vogel to move—"That a respectful Address be presented to his Honor the Superintendent, pointing out to him the harsh nature of the 24th Clause of the Licensed Hawkers' Act, and begging him to take such means as may seem to him fit, to secure the disallowance of the Ordinance, or the suspension of its operation till next Session, when an Ordinance amending the objectionable clause can be introduced."
3. Mr. E. B. Cargill to move—"That the recommendation of the Select Committee on the Loan to the Town Board, contained in the Report of said Committee, be adopted."

ORDERS OF THE DAY.

1. Caversham and Green Island Districts Roads Lands Bill to be read a second time.
 2. Committee of Supply.
-

THURSDAY, JUNE 9.

Prayer.

Minutes—read and confirmed.

Notices of motions for next sitting were given by Mr. Murison, Provincial Secretary (2), and by Mr. Gillies.

Messages, Nos. 21 and 22, from his Honor the Superintendent, were introduced and read :—

(MESSAGE No. 21.)

Superintendent's Office, Dunedin,
9th June, 1864.

In conformity with the provisions of the 27th section of the Constitution Act, the Superintendent has made the following amendment to the Bill, which has passed the Provincial Council, intitled "The Taieri Districts Roads Lands Bill, 1864" and which he submits for the consideration of the Council, viz. :—After the word "Thoroughfares" in the latter portion of the Interpretation Clause, the substitution of the words "in the North Taieri and East Taieri Road Districts of" for the words "in the Taieri Districts in."

J. HYDE HARRIS, Superintendent.

(MESSAGE No. 22.)

Superintendent's Office,
Dunedin, 9th June, 1864.

The Superintendent with the advice of the Executive Council, transmit to the Provincial

Provincial Council further supplementary Estimates of Expenditure for the half-year ending 30th September, 1864, and recommends the Council to make provision for the services therein specified.

J. HYDE HARRIS, Superintendent.

Mr. Murison brought up Interim Report, (No. 2) of the Select Committee on the *Cattle Bill*.

The Provincial Secretary laid on the table—1st. “Further acts done by his Honor the Superintendent, under the delegated authority of his Excellency the Governor, “under the ‘*Diseased Cattle Act*, 1861.’”

2nd. “Further acts done by his Honor the Superintendent, under the delegated “authority of his Excellency the Governor, under the *Goldfields Act*, 1862.”

The Secretary of Public Works laid on the table, a Return of Toll-Dues collected at the several Toll-Bars, from date of opening, &c.

The Provincial Secretary laid on the table the *Provincial Public Notices Bill*, the *Dunedin Waterworks and Sewerage Bill*, and the *Bread Ordinance Amendment Bill*.

Bills severally read a first time, ordered to be printed, and to be read a second time at next sitting.

Mr. Macandrew according to notice asked the Government—“If they have any “objection to lay on the Table copy of proposal on the part of the Pilot staff to take “the service into their own hands ; and whether or not, the Government is disposed “to give effect to this proposition?”

The Provincial Secretary replied and laid the required copy of proposal on the Table.

Mr. Birch according to notice asked the Government—“What sum of money the “Government pay as house rent for Dr. Eurns.”

Mr. Adam replied.

Mr. Macandrew allowed his notice of motion (No. 1) to lapse.

Mr. Vogel according to notice moved—“That a respectful Address be presented “to His Honor the Superintendent pointing out to him the harsh nature of the 24th “clause of the Licensed Hawkers’ Act, and requesting him to take such means as may “seem to him fit to secure the disallowance of the Ordinance, or the suspension of its “operation till next Session, when an Ordinance amending the objectionable clause “can be introduced.”

Seconded by Mr. Gleeson.

A debate ensued.

The question being put, the House divided, when there voted—

AYES, 5.

NOES, 16.

Mr. Birch
Mr. Gleeson
Mr. Murison
Mr. Lloyd
Mr. Vogel (Teller)

Mr. Miller
Mr. Dick
Mr. Gillies
Mr. Morris
Mr. Street
Mr. Burns
Mr. Reynolds
Mr. Paterson
Mr. Steel
Mr. Hepburn
Mr. Moss
Mr. Rennie
Mr. Blair
Mr. Mollison
Mr. Macandrew
Mr. Adam (Teller)

So it passed in the negative.

Mr. Gillies, in the absence of Mr. E. B. Cargil moved—“ That the recommendations of the Select Committee on the Loan to the Town Board, contained in the “ Report of said Committee, be adopted.”

Seconded by Mr. Burns.

On the motion of Mr. Brodie, the House went into Committee.

IN COMMITTEE.

On the motion of Mr. Reynolds, the following resolutions were agreed to :—

- 1st. “ That the Government be requested to take the charge of the maintenance of the Main Road through Dunedin, for the future ; and that a more thorough supervision over the expenditure committed to the Town Board of Dunedin, be enforced.”
- 2nd. “ That the liability for payment of interest, and repayment of principal, of money lent for the formation of streets within the city, should, as well as securing the payment of the interest, and the repayment of the Loan by the Town generally, be localised, so that the several wards of the City, be made liable for the amounts actually expended within the same, and that the Executive be requested to introduce an Ordinance for the purpose next session.”
- 3rd. “ That the Government be requested not to authorise *any* further Contracts, until the Government are satisfied on the Report of the Provincial Road Engineer, that work to the extent of £10,000 has been executed on the Market Reserve, and the Main Road, Dunedin South, in terms of the resolution of this House, passed last session.”

The House resumed, and the Chairman reported the resolutions agreed to in Committee, which were subsequently adopted by the House.

On the motion of the Secretary of Public Works the *Caversham and Green Island Districts Roads Lands Bill* was read a second time and committed.

IN COMMITTEE.

The several Clauses (9) were agreed to as printed, together with the Schedule.

The Title and preamble were agreed to as read and ordered to stand parts of the Bill.

The House resumed and the Chairman reported the Bill without amendment.

Bill ordered to be read a third time at next sitting.

On the motion of the Provincial Secretary, Message No. 21* together with the Bill was considered in Committee, and the amendment suggested agreed to, and ordered to be made in the Bill.

On the motion of the Provincial Treasurer the House went again into Committee of Supply.

IN COMMITTEE.

Estimates of Works, &c.—resumed.

The Item “ Balance of Loan Town Board Dunedin, £25,285 19s. 7d.” was agreed to as read.

Miscellaneous

*See page 152.

Miscellaneous—resumed—The Item “ Works not provided for, £100,” was agreed to as read.

Works, Buildings, &c. (Supplementary) resumed—The item “ Port Chalmers Telegraph (purchase of) £1,300 ” was struck out.

The item—“ North Dunedin Cemetery £850 ” being moved—

Mr. Adam moved as an amendment—“ That the amount be £100.”

Question put on the amendment and carried.

The amendment being put as a substantive motion, Mr. Walker moved as an amendment—“ That it be struck out,” and the question being put on the amendment the Committee divided when there voted—

AYES, 8.

Mr. Paterson
Mr. Gleeson
Mr. Birch
Mr. Walker
Mr. Lloyd
Mr. Stevenson
Mr. Murison
Mr. Brodie (Teller.)

NOES, 18.

Mr. Blair
Mr. Dick
Mr. Morris
Mr. Macandrew
Mr. Hughes
Mr. Mollison
Major Richardson
Mr. Street
Mr. Miller
Mr. Steel
Mr. Mansford
Mr. Rennie
Mr. Reynolds
Mr. Moss
Mr. J. Cargill
Mr. Gillies
Mr. Clapcott
Mr. Adam (Teller.)

So it passed in the negative.

The question being again put as a substantive motion the Committee divided when there voted—

AYES, 14.

Major Richardson
Mr. Adam
Mr. Mansford
Mr. Rennie
Mr. Stevenson
Mr. Steel
Mr. Blair
Mr. Mollison
Mr. Walker
Mr. Paterson
Mr. Morris
Mr. Macandrew
Mr. Reid
Mr. Brodie (Teller)

NOES, 10.

Mr. Murison
Mr. J. Cargill
Mr. Lloyd
Mr. Dick
Mr. Miller
Mr. Gillies
Mr. Birch
Mr. Hughes
Mr. Moss
Mr. Street (Teller)

So it passed in the affirmative.

Remaining items were agreed to as read.

Ferries—The item, “ Inch Clutha, £500,” being moved, Mr. Gillies moved as an amendment, “ That it be struck out.”

Question put on the amendment and lost.

Mr.

Mr. Gillies moved as a further amendment—"That the amount be £250."

Question put on the amendment and carried.

Remaining item agreed to as read.

Telegraphs—Items agreed to as read.

Roads—The items, "Pine Hill Road, £100," was put and lost; "Kaikorai, £200," was amended to £50. The item, "Peninsula Beach Road to Portobello, £100," being moved—

Mr. Morris moved—"That the amount be £500."

Question put on the amendment and lost. Item agreed to as read.

Remaining items agreed to as read.

Supplementary Roads; Railway Survey and Steam-Coastal—Items agreed to as read.

Supplementary Estimates, (No. 2.)

The item, "Health Officer, Port Chalmers, £187 10s.," being moved, the Committee divided, when there voted:—

AYES, 10.

Major Richardson
Mr. J. Cargill
Mr. Walker
Mr. Mansford
Mr. Adam
Mr. Paterson
Mr. Blair
Mr. Stevenson
Mr. Macandrew
Mr. Miller (Teller)

NOES, 7.

Mr. Reid
Mr. Morris
Mr. Reynolds
Mr. Dick
Mr. Mollison
Mr. Street
Mr. Gillies (Teller)

So it passed in the affirmative.

Remaining items agreed to as read.

The House resumed, the Chairman reported progress, asked, and obtained leave to sit again.

It being past 10 o'clock, the House adjourned till 2 o'clock the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Friday, May, 10 at 2, o' Clock

MOTIONS.

1. Mr. Murison to move—"That the Interim (No. 2) Report of the Select Committee on the "Cattle Bill, 1864," with reference to the petition of Messrs. Chalmers Bros., be adopted."
2. The Provincial Secretary to move—"That the Superintendent shall be, and he is hereby authorised and empowered, in the event of any claim being made, to return to any person, who, at the time of the first sale of Debentures after the coming into operation of the "Otago Loan Ordinance, 1862, Amendment Ordinance, 1864," shall be the holder of any Debenture sold before the coming into operation of the said Ordinance, so much of the money paid for such Debenture as exceeds the average price realised at the sale of the first £100,000 worth of Debentures, sold after the coming into operation of the said Ordinance."

3.

3. Mr. Gillies to move—"That in the opinion of this House it is desirable that a decision be arrived at, with as little delay as possible, with regard to the appointment of a Home Agent; and that no Debentures should be sold under par until every effort is expended to prevent that result, such necessity to be certified by both our present Home Agent and the Special Agent to be now appointed."
4. The Provincial Secretary to move—"That the House go into Committee of Ways and Means."

ORDERS OF THE DAY.

1. Dunedin Water Works and Sewerage Bill to be read a second time.
2. Public Notices Bill to be read a second time.
3. Bread Ordinance Amendment Bill to be read a second time.
4. Caversham and Green Island Districts Roads Lands Bill to be read a third time.
5. Committee of Supply.

FRIDAY, JUNE 10.

*Prayer.**Minutes*—read and confirmed.

Notices of motions for next sitting were given by Mr Brodie and by Mr. Vogel.

The Secretary of Public Works laid on the table—Report from the Commission on Roads and their Deviations.

Message No. 23 from His Honor the Superintendent was introduced and read, and ordered to be considered in Committee of Supply.

(MESSAGE No. 23.)

Superintendent's Office,
Dunedin, 10th June, 1864.

The urgent demand for a Cemetery near the Northern boundary of the City induces the Superintendent to request the Provincial Council to re-consider the question.

The Council having limited their vote to (£100) one hundred pounds, and it being ascertained that no reasonable probability exists of obtaining a suitable site for a less sum than (£400) four hundred pounds, the Superintendent recommends that that sum be added to the Supplementary Estimates as a Loan to Trustees to be appointed by the Superintendent; such loan to be repaid by them from proceeds of sale of the ground, and from Interment Fees.

J. HYDE HARRIS, Superintendent.

Mr. Murison according to notice moved—"That the Interim (No.2) Report of the Select Committee on the 'Cattle Bill, 1864,' with reference to the petition of Messrs. Chalmers, Brothers, be adopted."

Seconded by Mr. Mollison.

Question put and carried.

Mr. Gillies according to notice moved—"That in the opinion of this House, it is desirable that a decision be arrived at, with as little delay as possible, with regard to the appointment of a Home Agent; and that no debentures should be sold under par until every effort is expended to prevent that result, such necessity to be certified by both our present Home Agent and the Special Agent to be now appointed."

Seconded by Mr. Murison.

A debate ensued.

Mr. Vogel moved—"That the question be taken up in Committee of the House."

Seconded by Mr. Hepburn.

Question put and lost.

Mr. Vogel moved—"That the debate be adjourned."

Seconded *pro forma* by Mr. Hughes.

Question put on the motion for adjournment and lost.

Motion by leave of the House withdrawn.

The Provincial Secretary moved—"That the *Dunedin Water Works and Sewerage Bill* be read a second time."

Seconded by Mr. Hepburn.

A debate ensued.

The question being put the House divided, when there voted—

AYES, 7.

Mr. Paterson
Mr. Adam
Mr. J. Cargill
Mr. Hepburn
Mr. Gleeson
Mr. Brodie
Mr. Miller (Teller)

NOES, 14.

Mr. Murison
Mr. Morris
Mr. Street
Mr. Burns
Mr. Kilgour
Mr. Rennie
Mr. Mollison
Mr. Birch
Mr. Moss
Mr. Stevenson
Mr. Vogel
Mr. Steel
Mr. Gillies
Mr. Reynolds (Teller)

So it passed in the negative.

Mr. J. Cargill moved—"That the *Provincial Public Notices Bill* be read a second time."

Seconded by Mr. Adam.

A debate ensued.

The question being put, the House divided, when there voted:—

AYES,

AYES, 12.

Mr. J. Cargill
 Mr. Adam
 Mr. Street
 Mr. Moss
 Mr. Walker
 Mr. Morris
 Mr. Rennie
 Mr. Stevenson
 Mr. Blair
 Mr. Steel
 Mr. Burns
 Mr. Reynolds (Teller)

NOES, 4.

Mr. Mansford
 Mr. Gleeson
 Mr. Hughes
 Mr. Brodie (Teller)

So it passed in the affirmative.

Bill read a second time and committed.

IN COMMITTEE.

Clauses (2) were agreed to as read.

The title and preamble were agreed to as read, and ordered to stand parts of the Bill.

The House resumed, and the Chairman reported the Bill without amendment.

Bill ordered to be read a third time at next sitting.

On the motion of Mr. J. Cargill the *Bread Ordinance Amendment Bill* was read a second time and committed.

IN COMMITTEE.

Clauses (3) agreed to as read.

The title and preamble were agreed to and ordered to stand parts of the Bill.

The House resumed and the Chairman reported the Bill without amendment.

Bill ordered to be read a third time at next sitting.

On the motion of the Secretary of Public Works the *Caversham and Green Island Districts Roads Lands Bill* was read a third time, and the question being put by Mr. Speaker—"That this Bill do now pass," it was agreed to and the Bill was passed.

On the motion of the Provincial Secretary, the House adjourned till 2 o'clock on Monday next.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Monday, June 13, at 2 o'clock.

MOTIONS.

1. The Provincial Secretary to move—"That the House go into Committee of Ways and Means."
2. Mr. Brodie to move—"That, during any future Session of the Provincial Council, any

any strangers visiting the place of meeting of the Provincial Council shall be provided with orders, signed by Mr. Speaker, or the members of the Provincial Council."

3. Mr. Vogel to move—"That the Council recommends the Government to introduce an Ordinance next Session increasing the amount of guarantee in the 'Water Supply Guarantee Bill' from 6 to 8 per cent. ; and, generally, the Council expresses its willingness to give every reasonable assistance to an undertaking having for its object the supply of the town with water, the plans of which meet the approbation of the Executive."

ORDERS OF THE DAY.

1. Provincial Public Notices Bill to be read a third time.
2. Bread Ordinance Amendment Bill to be read a third time.
3. Committee of Supply.

MONDAY, JUNE 13.

Prayer.

Minutes—read and confirmed.

Notices of motions for next sitting were given by Mr. Hughes and by Mr. Gleeson.

Message, No. 24, from his Honor the Superintendent was introduced, read and ordered to be considered in Committee of Supply.

(MESSAGE No. 24.)

Superintendent's Office,
Dunedin, June 13, 1864.

The Superintendent, with the advice of his Executive Council recommends that the sum of Three Hundred Pounds be added to the Supplementary Estimates to provide (for the remainder of the current financial half-year) for the expenses connected with the establishment of an Agency in London for this Province.

J. HYDE HARRIS, Superintendent.

In the absence of Mr. Brodie, Mr. Walker, on his behalf, moved—"That during any future Session of the Provincial Council, any strangers visiting the place of meeting of the Provincial Council, shall be provided with orders, signed by Mr. Speaker, or the members of the Provincial Council."

Seconded *pro forma* by Mr. Stevenson.

Motion, by leave of the House, withdrawn.

Mr. Vogel, according to notice, moved—"That the Council recommends the Government to introduce an Ordinance next Session increasing the amount of guarantee in the 'Water Supply Guarantee Bill,' from 6 to 8 per cent. ; and, generally, the Council expresses its willingness to give every reasonable assistance to an undertaking having for its object the supply of the town with water, the plans of which meet the approbation of the Executive."

Seconded

Seconded by Mr. Blair.

On the motion of Mr. Vogel, the House went into Committee on the motion.

IN COMMITTEE.

The following words were added—" Provided that the Government shall have power and is hereby instructed not to give such guarantee unless the parties receiving the same agree to the Government exercising a power of fixing the assessment sufficient to protect itself from loss."

Question put on the motion as amended and carried.

The House resumed and the Chairman reported the resolution of Committee, which was subsequently adopted by the House.

Under suspension of Standing Orders the Provincial Secretary moved—" That in the opinion of this Council it is desirable that His Honor the Superintendent should be authorised to enter into a contract for the performance of a steam coastal service between Dunedin and Clutha for a period not exceeding 18 months, and to subsidise such service by the payment of an annual sum not exceeding £1,800."

Seconded by Mr. Adam.

Motion ordered to be taken up in Committee of Supply.

On the motion of the Provincial Secretary the *Provincial Public Notices Bill*, was read a third time, and the question being put by Mr. Speaker " That this Bill do now pass," it was agreed to and the Bill was passed.

On the motion of Mr. J. Cargill the *Bread Ordinance Amendment Bill* was read a third time, and the question being put by Mr. Speaker " That this Bill do now pass," it was agreed to and the Bill passed.

On the motion of the Provincial Treasurer the House went again into Committee of Supply.

IN COMMITTEE.

Message No. 23* considered and the recommendation contained therein agreed to by the Committee.

The Provincial Secretary according to notice moved—" That the Superintendent shall be, and is hereby authorised and empowered, in the event of any claim being made, to return to any person, who, at the time of the first sale of Debentures after the coming into operation of the ' Otago Loan Ordinance, 1862, Amendment Ordinance, 1864,' shall be the holder of any Debenture sold before the coming into operation of the said Ordinance, so much of the money paid for such Debenture as exceeds the average price realised at the sale of the first £100,000 worth of Debentures, sold after the coming into operation of the said Ordinance."

Mr. Vogel moved as an amendment—" That in the event of any claims for compensation being made in consequence of the operation of the ' Otago Loan Ordinance ' 1862, Amendment Ordinance, 1864,' the Government is hereby empowered to deal with them by arbitration or by arrangement, and the Council undertakes to indemnify it for the same."

The question being put on the amendment, the Committee divided, when there voted—

o 1

AYES

*See page 157.

AYES, 3.

Major Richardson
Mr. Mansford
Mr. Vogel (Teller)

NOES, 19.

Mr. Adam
Mr. J. Cargill
Mr. Reynolds
Mr. Burns
Mr. Rennie
Mr. Paterson
Mr. Clapcott
Mr. Lloyd
Mr. Blair
Mr. Morris
Mr. Moss
Mr. Dick
Mr. Walker
Mr. Hughes
Mr. Kilgour
Mr. Gleeson
Mr. Stevenson
Mr. Reid
Mr. Miller (Teller)

So it passed in the negative.

Mr. Vogel moved as a further amendment—"That the Superintendent is hereby authorised to leave the Home Agents to deal with any claims for compensation made in consequence of the operation of the Otago Loan Ordinance, 1862, Amendment Ordinance, 1864."

Question put on the amendment and lost.

The question being put on the original motion, the House divided, when there voted :—

AYES, 3.

Mr. Paterson
Mr. Vogel
Mr. J. Cargill (Teller).

NOES, 20.

Mr. Adam
Mr. Dick
Mr. Blair
Mr. Hughes
Mr. Kilgour
Mr. Morris
Mr. Birch
Mr. Rennie
Mr. Clapcott
Mr. Street
Mr. Gleeson
Mr. Miller
Mr. Burns
Mr. Lloyd
Mr. Reynolds
Mr. Walker
Major Richardson
Mr. Steel
Mr. Stevenson
Mr. Moss (Teller)

So it passed in the negative.

The motion of the Provincial Secretary, previously moved in the House (under suspension of Standing Orders), was considered and agreed to.

(*Message, No. 24,* Considered.*)

Mr. J. Cargill moved—"That £300 be put upon the Supplementary Estimates "in terms of his Honor's Message, No. 24."

Major

*See page 160.

Major Richardson moved, as an amendmen—"That this House is of opinion " that the offer made of the appointment of Home Agent at London during the " the time the Council was in Session, and after the expiration of the Appropriation " Ordinance, without the approval of the Council having been sought and obtained, is an " invasion of its rights in the appropriation of the public revenues, and would form " a precedent fatal to the judicious application of the public monies. That, as this " House is not in possession of the terms of the offer, it resolves that the term of " office shall not exceed two years, the salary £800 per annum, and the duties be " similar to those attached to the Home Agency in Scotland, together with the " delivery of Lectures in different parts of the United Kingdom, in which latter " case, reasonable travelling expenses shall be allowed."

Question put and lost.

Mr. Vogel moved as a further amendment—"That this Committee does not " consider the appointment of Home Agent to be under offer, judging by the " documents read by the Provincial Secretary."

Question put and lost.

Mr. Gillies moved, as a further amendment — "That an appeal to the " electors of the Province of Otago is desirable at the present juncture of affairs, " and that, therefore, it is desirable that the present members of the House in a " body, resign their seats as Members of the Provincial Council of the Province of " Otago."

Amendment, by leave of the House, withdrawn.

Question put on the original motion and carried.

On the motion of the Provincial Treasurer, the sum (£1,200) voted for " Ex- penses of County Members," was amended to £1,400, and agreed to.

The item "Printing, Advertising and Stationery, £2,147 10s." was agreed to.

(TOWN BOARD.)

Major Richardson moved—"That the Council having considered the terms " under which the Loan of £35,000, and the Grant of £10,000 to the Town Board " have been made, and the unsatisfactory nature of the existing relations between " the Government and the Board, and having considered that the Board has, in " direct opposition to the Provincial Secretary's letter of the 29th January, com- " menced and carried on certain Contracts, in seeming defiance of that instruction, " are of opinion :—

" 1. That, while repudiating the supposed obligations of the Government for " any unauthorised expenditure, this Council desire to meet all Contracts duly au- " thorised, and of no others, and that contingent on the approval of the Provincial " Road Engineer."

" 2. That any sums remaining after such payments, be applied by the Provincial " Road Engineer towards the completion of the works in the Market Place.

" 3. That the sum of £4,000 granted by this Council during the present " Session, shall be applied by the Provincial Road Engineer, in a thorough metal- " ling of the Main Road, through Dunedin, the completion of the Swamp Road, at " the South end of the Town, to be a first charge upon the same."

Question put and carried.

The House resumed, the Chairman reported the Resolutions agreed to in Com- mittee, which were subsequently adopted by the House.

On

On the motion of the Provincial Treasurer, the House went into Committee of Ways and Means.

The Chairman left the Chair, and the House resumed.

The Provincial Treasurer laid on the table the *Appropriation Bill*, 1864, which was read a first time, and under suspension of Standing Orders, was read a second time and committed.

IN COMMITTEE.

The several clauses, together with the title and preamble were agreed to as read.

The House resumed, the Chairman reported the Bill without amendment.

Under suspension of Standing Orders the Bill was read a third time, and the question being put by Mr. Speaker "That this Bill do now pass," it was agreed to and the Bill was passed.

On the motion of the Provincial Secretary the House adjourned till 12 o'clock noon, the following day.

NOTICES OF MOTION AND ORDERS OF THE DAY.

Tuesday, June 14, at twelve o'clock, noon.

MOTIONS.

1. Mr. Hughes to move—"That in the opinion of this Council it is desirable that with a view of encouraging native industry and of fostering national independence and enterprise, a Bill should be introduced into the General Assembly at its next Session, to legalise distilling in the Provinces. That a respectful address be presented to His Honor the Superintendent, praying that he will be pleased to represent to the General Government the views of the Council on this subject."
2. Mr. Gleeson to move—"That in the opinion of this Council it is undesirable the Government should undertake to complete any public works that may be commenced by a private Company, unless the plans and specifications of the said works be submitted to, and approved of by the Government previous to the Contracts being entered into."

TUESDAY, JUNE 14.

Prayer.

Minutes—read and confirmed.

Mr. Hughes and Mr. Gleeson allowed their notices of motions to lapse.

His Honor the Superintendent entered the Chambers and delivered an address proroguing the Council until the first day of October next ensuing.

(ADDRESS.)

"MR. SPEAKER AND GENTLEMEN OF THE PROVINCIAL COUNCIL—

"Having now arrived at the conclusion of a long and important Session, it becomes my duty to thank you for the earnest attention which you have bestowed
"upon

“ upon the various subjects which have been submitted for your consideration. I
 “ have also to thank you for the provision you have made for the conduct of the pub-
 “ lic service during the current financial half-year.

“ In my address to you on the opening of the present Session, I gave much pro-
 “ minence to the financial position of the Province—a position resulting solely from
 “ the non-sale of our loans; and I also alluded to the possibility of the Government
 “ finding itself thereby placed in circumstances of no ordinary difficulty.

“ These circumstances of difficulty have occurred, and have been met—the critical
 “ point of our position has been reached, and, I believe, I may say safely passed.

“ The experiences which have lately happened to the Government will, I feel
 “ assured, prove of permanent benefit to the country. We can now see clearly the
 “ dangerous position from which we have narrowly escaped, and we can also distinctly
 “ recognise the source of our difficulties.

“ With this knowledge, neither the Provincial Council nor the Government will
 “ in future be likely to fall into the error of sanctioning a large expenditure upon the
 “ basis of unnegotiated loans.

“ In addition to the various Bills to which I have already conveyed to you my
 “ assent, on behalf of the Governor, I now on his Excellency's behalf, assent to the
 “ following Bills :—

“ Kerosene and Paraffine Oils Ordinance Amendment Ordinance, 1864.

“ Police Regulations Ordinance, 1862, Amendment Ordinance, 1864.

“ Hawkesbury Roads Lands Ordinance, 1864.

“ Southern Trunk Road Lands Ordinance, 1864.

“ Kaikorai District Roads Lands Ordinance, 1864.

“ Anderson's Bay District Roads Lands Ordinance, 1864.

“ Tokomairiro District Roads Lands Ordinance, 1864.

“ Dunedin Building Ordinance, 1862, Amendment Ordinance, 1864.

“ Taieri Districts Roads Lands Ordinance, 1864.

“ Northern Trunk Road Lands Ordinance, 1864.

“ Turnpikes Ordinance, Amendment Ordinance, 1864.

“ Caversham and Green Island Districts Roads Lands Ordinance, 1864.

“ Provincial Public Notices Ordinance, 1864.

“ Bread Ordinance Amendment Ordinance, 1864.

“ Appropriation Ordinance, 1864.

“ The following Bills, which you have passed, I have reserved for the signification
 “ of the Governor's pleasure thereon :—

“ Otago Loan Ordinance, 1862, Amendment Bill, 1864.

“ Otago Harbor Loan Ordinance, 1862, Amendment Bill, 1864.

“ Otago Public Buildings Loan Ordinance, 1862, Amendment Bill, 1864.

“ Education reserves Management and Leasing Bill, 1864.

“ In now relieving you from your legislative duties, it only remains that I should
“ express my earnest hope that the Divine blessing may follow your labors, and that
“ this Province may continue to advance in all that is conducive to the welfare of its
“ people.

“ I declare the Provincial Council of Otago to stand prorogued until Saturday the
“ 1st day of October next.

“ J. HYDE HARRIS, Superintendent.

“ 14th June, 1864.”

(END OF SESSION XVIII.)

APPENDIX
TO
VOTES AND PROCEEDINGS.

SESSION XVIII.

1864.

POWERS OF SPEAKERS OF PROVINCIAL COUNCILS, &c.

(CASE SUBMITTED FOR OPINION OF COUNSEL.)

Provincial Council Chambers,
Dunedin, February 14, 1864.

SIR—Considerable doubts having arisen as to the exact powers of the Speaker of a Provincial Council under the Act of the General Assembly of New Zealand noted in the margin (Privileges Act, 1856,) I have the honor to request you will do me the favor to give your opinion of the same, explaining to what extent, if at all, it differs from those given to the Speaker of the House of Representatives, and giving such an outline of the Speaker's powers with respect to a member guilty of contempt, as may enable that Officer to uphold the dignity of the House.

I enclose a copy of the resolution of the House on the subject.

I have the honor to be,

Sir,

Your most obedient Servant,

J. RICHARDSON,

Speaker, Provincial Council.

To the Honorable H. Sewell, }
Christchurch, }
Canterbury. }

(OPINION OF COUNSEL.)

After the decisions in *Keily v. Carson*, 4th, Moores, P.C., 63, and *Fenton v. Hampton*, 11th, Moores, P.C., 368, it would be impossible to claim for any Colonial Legislative body *by inherent right*, the ordinary privileges of Parliament. Provincial Councils, like other public bodies legally constituted have *inherent right* to regulate their own proceedings and to do whatever is necessary for the orderly conduct of their business.

But their inherent authority does not, in my opinion, extend for these purposes beyond *their own members during their own sittings*, and *within the limits of their own place of Assembly*.

Granting

Granting that they may summon witnesses in any matter of inquiry before them, it does not follow that they can of *inherent right* enforce attendance compulsorily; still less, punish for non-attendance as for contempt.

Beyond the limits which I have stated, the powers of Provincial Councils depend entirely on the statutory enactments of the General Assembly.

By the Privileges Act, 1856, sec 3, it is enacted "that the Provincial Council shall have power by Warrant of the Speaker, to require all persons whatsoever within any Province, except the Governor, the Judges of the Supreme Court, the Members of the Executive Council of the Colony, the Members of the General Assembly, and the Superintendents of Provinces, to attend such Provincial Council, or any Committee of the same, for the purpose of giving evidence on any matter relating to the public service of the Province, and also 'to require all such persons within such Province, except as aforesaid, to produce any books, papers, and documents relating to the public service': provided the attendance of the witness is not to extend beyond six consecutive days.

The 4th section provides that—"Any person refusing to obey the Speaker's Warrant, or to attend or to produce such papers or to answer questions pertinent to the matter in question, shall be liable to a penalty not exceeding £20 as shall be imposed by such Legislative Body; and in default of payment thereof, may be committed to a common gaol, or other convenient place to be named by the Speaker, for a period not exceeding one month, to be fixed by such Legislative Body, or until such fine should have been paid."

The particulars of the case in which this question has been raised are not circumstantially stated. The resolution of the Council is merely—"That a legal opinion be taken regarding the powers which the Council possesses in requiring the attendance of witnesses when summoned by the Chairman of a Select Committee which has been authorized to call for persons."

This question may be simply answered by referring to the Sections of the Privileges Act just quoted. The Speaker of the Council (*not the Chairman of Committees*) may by Warrant require the attendance of any person within the Province, except the persons specially named. A Resident Magistrate, though an officer under the General Government, is not one of the excepted classes. He is bound to attend. But then the matter about which the Witness is obliged to give evidence must be matter relating to the public service of the Province. I gather from the papers* that the question arises out of an inquiry by a Committee of the Council relating to the Board of Health and the Quarantine Regulations, and the Provincial Solicitor doubts whether such a matter is one relating to the public service of the Province; but I cannot entertain a doubt myself that such a matter of enquiry is one strictly relating to the public service of the Province. The Provincial Council is not excluded by the Constitution Act from legislating on this subject, and may therefore reasonably institute an inquiry into it. Even if the subject were one of those on which the Provincial Council is prohibited from legislating, the expenditure of the department is Provincial under the Surplus Revenue Act. The service may therefore properly be described as the public service of the Province.

How then is the Council to enforce its authority? The Warrant to compel the attendance of a Witness must be issued by the Speaker. The Chairman of a Select Committee, according to usual practice, intimates to the Speaker the wish of the Committee for the attendance of particular witnesses, and the Speaker issues his Warrant accordingly. The Warrant must, I think, be served *personally*. There is no provision made for service in any other form.

If the witness, after being summoned disobeys, he is liable to a penalty of £20, but as to how or by whom the penalty is to be enforced, or who is to sue for it the Act is not clear.

By common rule all pecuniary fines belong to Her Majesty, and are recoverable either in some way provided by statute or through the ordinary Courts, in the Colony through the Supreme Court.

But

*See Appendix to Votes and Proceedings, Sess. XVII., Pages xxxiv. and xxxix.

But the Act, I think, intends that the Legislative body should itself determine such questions as ordinary questions of privilege.

No precise form of procedure is pointed out by the Act, but according to established rule the person proceeded against should be first summoned by warrant or summons of the Speaker: on his appearing, or in default of his appearance, on proof of the service of the summons, he may be committed to a common gaol or other convenient place to be named by the Speaker, for a period not exceeding one month to be fixed by the Council, or until the fine be paid. The period of imprisonment cannot exceed one month. The Speaker's warrant of commitment will be sufficient authority for the apprehension and detention of the offender and for the Gaoler or other person to receive him; but as the penalty accrues to the Crown the authority of the Speaker or the Council ends with the committal.

My opinion is farther asked as to "the powers which the Speaker of the Provincial Council possesses under the Standing Orders and Privileges Act" in reference to "such measures as will prevent in any way the dignity of the Council being "compromised."

"By the Privileges Act, sect. 1, the Speaker of the Provincial Council acting "under a Standing or Special Order of the Council, has power to direct all such "proceedings as he may consider essential to the maintenance of order within the "Council during the sittings thereof; and if any person, whether a Member of the Council "or not, being within the place of assembling of the Council, shall refuse or neglect "to obey the Order of the Speaker, or shall otherwise wilfully disturb the Council, "he may by warrant of the Speaker be forthwith committed to the custody of the "Serjeant-at-Arms, or other officer of the Council who may be appointed in that "behalf, and such person so offending shall be liable to pay such penalty not exceed- "ing Twenty Pounds, as shall be imposed by the Council, and in default of "payment thereof, shall be imprisoned in some common gaol, or other convenient "place to be named by the Speaker, for any period not exceeding One Month to be "fixed by the Council, or until such fine shall be paid."

By the Standing Orders of the Otago Provincial Council 102, 103, 104, and 105, provision is made for cases of contempt.

By these orders, taken in connection with the Privileges Act, power is given to the Speaker of the Council to commit any person guilty of the specified cases of contempt, to the custody of the Serjeant-at-Arms, or some officer appointed by the Speaker, who is to detain the person committed for the period directed by the Council, unless sooner discharged, or unless the fine imposed shall be paid.

HENRY SEWELL,

Christchurch, Canterbury, N.Z.

March 8, 1864.

RETURNS RECOMMENDED BY THE SELECT COMMITTEE ON THE AUDIT ACT.

(Laid on the Table by Mr. Speaker, May 25th.)

BALANCE SHEET OF THE ASSETS AND LIABILITIES OF THE PROVINCE OF OTAGO, FOR THE FINANCIAL YEAR ENDED 31st MARCH, 1864.

ASSETS.				LIABILITIES.			
To unauthorised expenditure for which future legal provision is required	...	...	£71,779 5 0	By amount of Out-standing Claims, viz:—			
„ Advances to Officers for the Public Service	...		2,644 7 5	Suspense Account	...	£23,777 16 7	
„ Dunedin Town Board	...		14,314 0 5	Debentures, 1856	...	20,500 0 0	
„ Port Chalmers Town Board	...		3,331 5 6	„ 1861	...	7,000 0 0	
„ J. G. Lewis (Clutha Coal Field)	...		250 0 0				£51,277 16 7
„ Harbor Endowment	...		27,373 15 5	„ Amount of unfunded debt due to Bank	...	289,754 12 1	
„ Home Agents	...		2,122 8 1	„ Deposits on Contracts, &c.	...	5,602 14 10	
„ Amount at the Debit of the Province	...		224,820 1 8				
			<u>£346,635 3 6</u>				<u>£346,635 3 6</u>

TABLE

iv

APPENDIX TO

SESS. XVIII.

TABLE SHOWING THE FUNDED DEBT OF THE PROVINCE OF OTAGO, ON THE 31st MARCH, 1864.

AUTHORITY.	Amount Authorised to be Borrowed.	Amount of Debentures in Circulation.	Rate of Interest.	Rate of Sinking Fund.	Debentures when Redeemable.	Unexpended Balance of Amount Raised.	Amount of Sinking Fund accrued.	What Amount, and in what manner Invested.	REMARKS.
Ordinance Loan of 1856 ...	£ 35,000	£ 20,500	10 p.c.	3 p.c.	31st Dec., 1869	...	...	...	£35,000 negotiated. Last Redeemable, 31st December, 1869. £7,000 negotiated.
„ „ 1861 ...	50,000	7,000	8 p.c.	3 p.c.	„ 1875	179 3 0	...	...
„ Harbor Loan, 1862	50,000	...	Not over 8 p.c.	3 p.c.	...	...	...	...	...
Provincial Buildings „ 1862	50,000	...	„ 8 p.c.	3 p.c.	...	...	...	...	...
Ordinance Loan of 1862 ...	500,000	...	6 p.c.	1 p.c.	...	...	...	...	...

PERMANENT DEBTS.

Amount of Debentures Issued :—

Debentures, 1856	...	...	£20,500	0	0
„ 1861	...	...	7,000	0	0
			————— £27,500 0 0		

A. LIVINGSTON,
Provincial Auditor.

SUPPLEMENTARY

1864.] VOTES AND PROCEEDINGS.

v

SUPPLEMENTARY GRANTS TO ROAD DISTRICTS.

RETURN showing, 1st, The number of Districts that have applied for sums of money for opening Branch Roads under the system of Supplementary Grants; 2nd, The names of such Districts; 3rd, The amount granted to each District; 4th, The Districts, if any, to which such Grants have been refused.

(See VOTES AND PROCEEDINGS, page 15.)

Number of Districts making Application.	Names of such Districts.	Amount granted.	Districts refused.
4 separate applications	Wakari, for road by Barr's Gully Caversham, for road to Upper Green Island *Caversham, for road to Ocean Beach Tokomairiro, for Main Branch Road through District	£200, 19th January, 1864. £260 10s., 1st April, 1864. £340, 1st April, 1864.	None.

REMARKS.—1st, The Grant in each case is on condition that an equal amount be raised by the District, and that the works be executed to the satisfaction of a Government Inspecting Engineer; 2nd, Subject to the Report of Engineer as to the Roads being District Roads. No payment has yet been made on account of these Grants.

* £600 is wanted for the Road to Ocean Beach, but the matter is still under consideration, the conditions of Grant not being yet complied with.

RESOLUTIONS

VI

APPENDIX TO

[SESS. XVIII.]

RESOLUTIONS ON LOANS.

(As Reported May 3.)

With reference to future loans, it is desirable--

- 1st. That such loans should be only authorised for and devoted to such works (being of a permanent nature, and of general usefulness) as are manifestly required for the advancement of the Province, and for the construction of which works the proportion of Provincial Revenues at the disposal of the Council are inadequate.
- 2nd. That all such Loans in the first place should be sanctioned by an Ordinance or Resolution of this Council, and should afterwards be sanctioned by an Act of the General Assembly.
- 3rd. That no such Loans should be sanctioned by this Council, nor shall the sanction of the General Assembly be sought for any such Loan, except on the security hereinafter specified.
 - (a) By reserving and appropriating as a security for any such Loan a number of acres of the waste lands of the Crown to be selected by the Council, situate in this Province, equal in value at the upset price per acre prevailing in the Province to the amount of the Loan, or by the appropriation of two-fifths of the annual territorial revenue of the Province, provided that when it is desired to effect a further Loan or further Loans, for the completion or extension of any such works, such further Loan or Loans should be sanctioned and authorised in the manner required in the case of the original Loan, and an additional number of acres of waste lands of the Crown, situate in the Province, in the proportion of one acre to every pound of such further Loan or Loans should be set aside and appropriated as a further and joint security for the original and subsequent Loans, and should form jointly with the lands previously appropriated accumulative security for the whole of the original and subsequent Loan or Loans; no one of such Loans whether original or subsequent, having priority over another.
 - (b) Every Ordinance and Act authorising or sanctioning any Loan should specifically define the works upon which such Loan is to be expended, and such Loans should not be expended on any other works.

That the due liquidation of such Loans and the interest thereon should be secured as follows :--

- 1st. By a first charge on the specific works executed with such Loans, when they are of a character to admit of a sufficiently distinct definition and appropriation : Provided that in the event of any additional Loans becoming from time to time necessary, being or required for the completion or extension of such works, and being authorised as aforesaid the due liquidation of such additional Loans and the interest thereon should be secured on the specific works for the completion or extension of which such Loans were raised, and should rank equally with those previously raised for the same works, and should be deemed equally with the previous Loans—a first charge upon the whole works towards the completion of extension of which they are to be expended.

That in order to give full effect to these Resolutions and to give security for such Loans, it is expedient :—

- 1st. That the lands or revenue so to be reserved and set apart as security for the repayment of the same, should be vested in His Excellency the Governor, as trustee, to be dealt with by him in Council, with power to delegate the trust.

-
- 2nd. That the terms of the trust should be defined by the particular Act or Acts of the General Assembly by which the specific loan is authorised or sanctioned.
- 3rd. That His Excellency the Governor in Council or his delegate or delegates as the case may be, should be empowered to dispose in the manner and on the terms prescribed by the Regulations for the Sale of Waste Lands within the Province in force for the time being, of any portion or portions, or of the whole of the said trust lands.
- 4th. That the proceeds of such sale should be invested, as His Excellency the Governor in Council may think fit, for the purpose of providing a sinking fund for the repayment of such loans and interest thereon as and when the same may respectively become due.
- 5th. That in case default should at any time be made in payment of either interest or capital when the same shall respectively become due, it should be made lawful for the Governor in Council to appoint a Commission or Commissioner to administrate the said trust estate, with full powers to lease or sell the same, provided that in the event of such lands failing to realise the full amount of the loan, together with the interest thereof secured upon them, all deficiencies, and also all the expenses connected with the administration of the said land should be chargeable on the Province, and power and authority should be given to the Governor in Council to direct that such deficiencies should from time to time, until made good and repaid, be deducted from the proportions of the land and ordinary revenue payable to the Province of Otago.
- And in such case of default as aforesaid, the lands comprising such trust estate should be exempted from any conditions of improvement or liability for any tax, or by reason of the non-improvement thereof, and should be absolutely at the disposal of the Governor in Council, or of any Commissioner or Commissioners appointed by him to administer the estate. That should any of the lands forming part of the said trust estate at the time of the sale thereof by the Commissioner or Commissioners appointed to administer the estate, be held by any person or persons under license from the Crown to occupy the same, or by the legal assignee of any such person or persons, the Governor in Council should have power to cancel such license, and the holder thereof or his assignees should be compensated for any loss accruing to him on account of such cancellation, and the amount to be paid should be settled by arbitration in the manner provided for in the 'Gold Fields Act, 1862,' in the case of the cancellation of a license thereunder, or in the manner provided for the settlement of such question by the arbitration clauses of the 'Lands Clauses Consolidation Act, 1863;' and such amount when settled shall be payable out of the ordinary revenue of the Province, provided that upon the cancellation of the license the rights of the licensee should at once determine, and the lands be capable of immediate sale or lease by the Governor, his delegate or delegates, or any such Commissioner or Commissioners as aforesaid.

GEO. HEPBURN,

Chairman of Committees.

EVIDENCE, &c., TAKEN BY SELECT COMMITTEE ON COAL RESERVES.

(SEE REPORTS OF SELECT COMMITTEE, No. III., Page 7.)

Mr. J. G. LEWIS, Lessee of Clutha Coal Field.

Q. 1. How long have you been lessee of the Clutha coalfield?

A. About two years; my lease being dated 10th March, 1862.

Q. 2. State the terms of your lease?

A. The lease is for twenty-one years, subject to a fixed annual rent of £200, as interest on £2,000 advanced for forming the railway to the Clutha River; also, a royalty of 4d. per ton on coals sold or used during the first two years, and 8d. per ton afterwards, the minimum amount of royalty being fixed at £30 per annum.

Q. 3. What has been the annual demand for your coal?

A. The quantity sold to March, 1863, was 201 tons, 4 cwt, and from March 1863, to March, 1864, 341 tons.

Q. 4. What is the cause of the local demand being so small?

A. It arises principally from the difficulty of getting the coals conveyed to the different points on the river, from the want of conveniences for housing them at such points at Port Molyneux and Clutha Ferry, and the want of practicable roads.

Q. 5. In what way do you account for so small a coastwise trade?

A. To the absence of steamers, which are prevented entering the river by the dangers at the mouth, and to the want of a convenient coal-shed at Dunedin.

Q. 6. Have you any evidence of the fitness of the coal for steam purposes, ocean, river and land; if so, will you produce it?

A. These coals were tried on board the Samson steam-tug, by Mr. Keith, engineer and part owner with Messrs. Kilgour and Healey, who made a favourable report to the Government; also, the steamer Tuapeka, plying upon the Molyneux river, has regularly used them, and I am informed by Capt. Murray, and the Engineer, that they answer very well, producing abundance of steam, and leaving but little refuse, and have reason to believe it would be equally serviceable for stationary and locomotive engines.

Q. 7. What is the probable amount which could be supplied from the mine, and for what period?

A. The seam of coal, owing to its great thickness and making but little slack, is, in its present state, capable of turning out forty or fifty tons per diem, and might be doubled, if required, by opening out more stalls. The extent of mining ground not having been ascertained, it cannot be calculated how long this supply could be maintained; but from the indications on the sea beach, it would, no doubt, extend over a long period.

Q. 8. Are there any other mineral substances that could be worked in the neighbourhood of the mine, or manufactories established, such as iron works, potteries, brickmaking, &c.?

A. There is a bed of very fine pure fire clay lying under the coal, well adapted for strong pottery, or stone ware; or mixed with common clay, would make building bricks of the best quality.

Q.

Q. 9. Have you any idea of the extent of the coalfield?

A. I have no means of judging of its extent, but am decidedly of opinion, from certain indications on the sea beach, that the part leased to me is the most valuable portion of it.

Q. 10. Do you anticipate an increased demand for the coal?

A. If coastal steamers were running, there would, doubtless, be a very increased demand for these coals.

Q. 11. Have you any other lease?

A. I have. It can be seen by referring to the Provincial Government Gazette.

Q. 12. Are you of opinion that the mine is worked upon the best system?

A. Yes; I believe it to be so.

Q. 13. Has it been surveyed?

A. It has; and the plans and sections are recorded with the Provincial Geologist.

Q. 14. What amount are you indebted to the Provincial Government?

A. The sum of £250, being the amount of an advance made to enable me to fulfil my first contract with the Government for opening the coalfield.

Q. 15. Will you state the terms on which this sum was advanced?

A. This should have been paid out of the last instalment of the Railway contract, but in consequence of the works being unproductive, it was allowed to remain for twelve months, upon my paying the interest in advance; subsequently I had a renewal, which was due on the 19th April last.

CAPT. MURRAY, Commander of "Tuapeka" steamer, Molyneux river.

Q. 1. Will you state to the Committee the nature and power of the Steamer under your command plying on the Molyneux River?

A. The stern wheel Steamer "Tuapeka" of 60 horse power, provided with a locomotive boiler similar to those used on the Railroads in England.

Q. 2. How long has she been engaged in this traffic?

A. Since the 8th of August last.

Q. 3. What fuel have you used and with what results?

A. Clutha Coal Point coals with satisfactory results as to power, considering the price.

Q. 4. What is your opinion of the Clutha coal as steam fuel?

A. I think it would be very suitable coal for boilers designed for the use of it, which require to be about 20 p. cent larger than those made for English coals.

Q. 5. Will it bear ordinary exposure?

A. I dont think it will.

Q. 6. Does the coal readily raise steam, does it maintain it and at what pressure?

A.

A. It does readily raise steam with our boiler, and maintains it with the pressure of 90lbs., if necessary.

Q. 7. What is the Government pressure on your safety valve ?

A. 90lbs.

Q. 8. Does the coal leave much refuse, and are there any objections to its use, as to storage, sulphur, &c. ?

A. It leaves a considerable quantity of clinkers ; it contains sulphur which is injurious to the iron, but this would in a great measure be removed, if it was stowed under cover previous to its being used.

Q. 9. What is the consumption comparatively with the Newcastle coal ?

A. About 40 per cent more.

Q. 10. Do you think the coal is applicable for coastal and harbour steamers ?

A. Yes ; if the boilers are large enough : but they take up about 20 per cent. more bulk, which is a great objection in long voyages.

Q. 11. Have you experienced any difficulty in getting your supplies of coal ?

A. I have not.

J. T. THOMPSON, Esq., Provincial Chief Surveyor.

Q. 1. What course would be recommended with reference to the common brown coal of the Province ?

A. I myself think coal so extremely abundant, that it is not worth while to reserve it, and if the reserves were sold it would be very beneficial, as in the hands of private parties they would be extensively worked. There are exceptions, such as Shag Point, Clutha Coal Point, Kawarau, Wharekuri, and Tokomairiro. I think if from ten to twenty acres were reserved at each place it would meet the present public wants, and prevent monopoly until other fields were found out, which will undoubtedly be the case.

Q. 2. Do you think there should be any conditions of sale which should preserve the coal from waste ?

A. I think it would be sufficient to legislate on the subject hereafter ; the Province being young and the working small.

W. H. CUTTEN, Esq., Chief Commissioner of the Waste Land Board.

Q. 1. Will you explain to the Committee the exact position of the Clutha coal reserve, as to proprietorship ?

A. It was purchased by the Superintendent and paid for in the ordinary way, but no crown grant has been issued, and doubts have arisen as to whether the purchase was legal.

Q. 2. What course would you recommend that the Government should adopt with reference to the brown coal deposits of the Province ?

A. I should recommend the Government to have such coal reserves as may be required, surveyed, and a crown grant applied for to the Superintendent in trust, and to sell the rest.

Q. 3. With whom rests the power of dealing with the crown lands of the Province, as to leases for working minerals?

A. The Waste Land Board, excepting within goldfields.

Q. 4. Have the Waste Land Board sanctioned any leases or permission to work any minerals in particular localities?

A. The Waste Land Board has not sanctioned the leasing of any coal reserve, except in the case of the Clutha coalfield, but that sanction was not acted upon, the Government considering it better to purchase the land, and deal with it as provincial property. The Commissioner of Crown Lands has granted permission to work the coal in many instances; and upon two occasions, when disputes arose between rival applicants, viz.—in a case at Serpentine Creek, and at Kurau Station, the cases were brought before the Board and settled by it. The case of the Kaikorai Reserve, in which several applications for leases were made, came before the Board, but no decision was arrived at.

(Notes on applications to be allowed to work Lignite Beds.)

Island Stream, Otepopo.—On the 1st of July, 1863, W. R. Speid and John Alex. Speid applied for permission to work a coal mine on the North Bank of the Island Stream, near Mr. Fenwick's Outstation, and received an answer on the 3rd July, that they might work the coal on condition that they removed on receiving one month's notice, and taking care to break as little of the surface ground as possible.

Serpentine Creek.—Messrs Teschemakey and Godfrey received permission on 4th June, 1863 to work a bed of coal at Serpentine, on condition that they removed on receiving 30 days' notice.

(Extracts from Minutes of the Waste Land Board, as to Lease of Clutha Coalfield to Mr. Lewis.)

16th July, 1859.

Read letter from James George Lewis, dated 12th July, 1859, addressed to his Honor the Superintendent, and referred by him to the Waste Land Board, along with proposals by Mr. Lewis for leasing the coal mine at the Clutha. *Resolved.*—That the Board recognise Mr. Lewis's claim to a lease, and that he be allowed the option of taking such lease on terms to be arranged with the Government, and that the matter be referred to the Provincial Solicitor and Chief Commissioner to consider the terms of a lease, and to report the same to the Board.

Q. 5. Will you hand in copies of any documents in your office bearing upon the purchase of the Clutha coalfield?

A. Mr. Cutten here handed in the leases appended to this evidence.

DR. HECTOR, Provincial Geologist.

Q. 1. Will you state to this Committee the character of the coal deposits of this Province, and the locality of each class of coal?

A. At Preservation Inlet they are *semi-bituminous*, excepting in the quantity of ash (which may be of a local character), they are similar to the Nelson coals, and not very inferior to the Newcastle coals; so far as known, there is a very small deposit, the thickest seam discovered being only eighteen inches; the formation in which they are formed extending over about five or six square miles, situated on Coal Island and a portion of the adjacent shore at Preservation Inlet.

The *brown coals* are similar to those on the Continent of Europe but superior; the formation in which they occur, forms a band from the Waitaki River, continuously to Shag River, along the eastern bank of the Kakanui Hills; seams of coal have only been discovered at a few points along this line. At Green Island there is another patch

patch of the same description of coal, extending from the head of the Kaikorai to the south of Saddle Hill. Another patch includes the Tokomairiro and Clutha.

Lastly at the Mataura which extends from the Long Ford to M'Gibbon's, and to an unknown distance east and west of the Mataura River. There are also probably deposits in the valley of the Waiau River.

The *lignite*, an inferior quality of brown coal, generally containing distinct traces of its origin from wood, is formed abundantly throughout the Province in depressions of the schists, and intimately associated with the oldest or lowest tertiary gold drift; the only district where it has not been found, so far as I am aware of, is in the neighbourhood of the Wakatip Lake.

Q. 2. Is the coal of the west coast of the Province easily accessible, and easily workable?

A. Easily accessible, but the seams hitherto found are not worth working.

Q. 3. Are there any minerals in the neighbourhood, in the working of which this coal would be useful, or which might facilitate the working of the coal?

A. There are not, so far as I am aware.

Q. 4. Is the neighbourhood of this coal adapted for the settlement of an agricultural, pastoral, or mining population?

A. There is sufficient available land for a small agricultural and fishing settlement. There are flag-stones, slates, and building-stones, to be obtained in the neighbourhood; all three could be easily worked at a small cost, on account of the facility of shipping.

Q. 5. Can you furnish the Committee with an analysis of the coal?

A. I refer to the Departmental Report of the 18th Session of the Provincial Council, pages 102, onwards, which will give the information sought for.

Q. 6. Can you furnish the Committee with an analysis of the various coal deposits of the East Coast?

A. The same as No. 5.

Q. 7. Is the coal adapted either singly, or combined, for steam purposes on ocean, river, or land?

A. On land, certainly; ocean for short voyages: its steam generating purposes is less than the Newcastle coal.

Q. 8. Are there any minerals in the neighbourhood, in the working of which the coal might be used, or which might facilitate the working of these coals?

A. Fire clays, pipe clays, lime-stone, iron-stone, and freestone adapted for building.

Q. 9. Can you give an approximate estimate of the extension of the north eastern coalfield?

A. It may possibly extend under the superior tertiary rocks to Oamaru.

Q. 10. What course would you recommend the Government to adopt with reference to the coal reserves in the province?

A. The only reason which occurs to me for reserving the lands which are known to contain coal, besides the mere object of delaying their sale until the value of the deposit has been tested and ascertained, is that Government may by conditions of lease retain a control over the mines, so as to provide against waste, or injury to adjacent parts of the seam, by injudicious methods of working. As, however, the reserves set apart include only a small portion of the area underlaid by the coals, this provision could

could not be carried out fully in the above manner, and therefore I consider that if other circumstances should render it desirable, Government need not on this latter ground hesitate to throw open the coal reserves for sale. Moreover, in Great Britain I find that although the subject of having a Government inspection and control of mines for the purpose of enforcing economical methods of working, has been much discussed, no interference is at present exercised in the management, and the inspection is limited to that necessary to secure the safety of the workman employed. In Germany and on other parts of the Continent of Europe, however, where all minerals are, I understand, considered to belong to the Crown, and the surface only to the proprietor, the minerals are always worked under lease, and a rigid system of inspection and control is enforced by the Government. Although, in my opinion, it would not be at all advisable to interfere with the management of the coal mines in this Province, it would still be very desirable that records and plans should be systematically preserved of the workings in all the mines which are opened, so that besides the benefit that would arise from the statistical information obtained, if for any period the mines were abandoned, they might be again reopened without entailing the expensive process of exploring the old workings. Any regulations to effect this, however, should apply to all the workings in the country, and not to those only that are under lease from Government, so that this consideration is an insufficient ground for retaining the Reserves; while, on the other hand, it would be evidently the interest of private proprietors to furnish the desired information. Nevertheless, if by granting leases on more favorable terms than could be obtained from private proprietors, Government could assist the development of the coal mines, so that the coal will come into more general use, this will form a cogent reason for withholding the Reserves, as I feel satisfied from the result of my examination, in the field and laboratory, that the deposits of brown coal in this Province, although they are an inferior fuel to the coals at present imported from Australia and elsewhere, have yet a sufficient value as a natural product to exert an influence on the future prosperity of the Colony.

ALEXANDER WILLIS, Esq., Under Secretary.

Q. 1. Will you inform this committee as to the exact position of the coalfields of Tokomairiro, Shag River, Wharekura, and the lignite beds in the interior, with reference to any obligations entered into by Government, for leasing or working them; supporting your abstract information by copies of such documents as are in possession of the Government?

A. Tokomairiro, North side.—On the 13th Sept., 1860, a lease for 14 years was promised to the Tokomairiro Coal Company, through John Hardy, Esq., on the condition that they paid a royalty of 4d. per ton for the first two years, and 8d. per ton for the remainder of the lease: the price at the pit's mouth not to exceed 10s. 6d. per ton.

Mr. Hardy informs me that the agreement was afterwards altered with respect to the royalty, which was to be 4d. per ton over the whole period. No record, however, of this is to be found.

Tokomairiro, South side.—On the 23d March, 1861, a lease was promised to be granted to the same Company, when the Government would be in a position to do so, and upon the same terms, with the exception that the price at which the coals were to be sold, was reduced to 7s. 6d. per ton to all comers. Authority was given for the Company to commence working immediately, and I believe it was understood that the royalty was to be paid pending the preparation of the lease.

An agreement was entered into by the Government with the Company, by which they agreed to subsidize to a similar extent the sum of £300, which it was proposed should be raised on the district, for the purpose of making a road to the mines, but it was afterwards altered, the Company undertaking to make the required roads, if the Government would erect a bridge. This has now been done, and the Government have paid the sum of £650.

Shag River.—On the 20th January, 1862, Mr. Hutchinson was promised a lease on the same terms as that to be granted to the Tokomairiro Coal Company, and he
was

was informed that the area would be afterwards fixed, and any other details adjusted, but that it would be necessary that he should commence operations forthwith, and continue to produce a reasonable quantity of coal.

Wharekuri—On the 17th Dec., 1860, Mr. Adam Geddes offered to lease the Big Gulley Creek Coal Reserve, which was accepted, subject to the adjustment of details; and pending further inquiry, he was requested, on the 24th January, 1861, not to take any further steps whatever, until he was again communicated with. On the 9th April, 1861, he was informed that the Government could not, under any circumstances, grant a lease for the reason that the land had not become Provincial property, as was the case with the Clutha Coalfield.

No further steps have been taken by the Government, with respect to the promised leases.

Should the Committee require more information respecting the lignite beds on the Goldfields than is already before them, a reference to the Secretary to the Goldfields will be necessary, that officer being in possession of all the facts and correspondence.

COPIES OF LEASES REFERRED TO ON PAGE XII.

Lease of Clutha Coalfield.

This deed made the twenty-sixth day of June, one thousand eight hundred and sixty-two between His Honor John Larkins Cheese Richardson Esquire Superintendent of the Province of Otago in the Colony of New Zealand on behalf of the Government of the said Province of the one part and James George Lewis of Waitutu in the said Province settler of the other part Witnesseth that the said John Larkins Cheese Richardson on the part and behalf of himself as Superintendent of the said Province and his successors in the office of Superintendent and the Government of the said Province for and in consideration of the yearly Rents hereby reserved and of the covenants provisoes and agreements herein contained or implied on the part and behalf of the said James George Lewis his heirs executors administrators and assigns to be performed hath demised and leased and by these presents doth demise and lease unto the said James George Lewis his executors administrators and assigns All those four Sections of Land numbered on the Government maps or plans of the said Province, 2, 3, 4, and 5 Block I. Coast District bounded and measuring as follows towards the north north-west by a road line four thousand nine hundred and fifty links towards the east north-east by section numbered 6 of the same block four thousand three hundred links towards the south south-east by a road line five thousand links and towards the west south-west by section numbered 1 of the same Block four thousand one hundred links be the said measurements more or less as the said sections of land hereby demised are with the boundaries thereof delineated on the plan in the margin hereof and therein colored red with liberty power and authority to cultivate or to build upon and use occupy and possess the surface of the whole or any part of the said sections of land and also with liberty power and authority to pursue the mines of coal clay and other produce under in and upon that half next the ocean of the aforesaid sections of land and in and upon such half of the said sections of land to use and exercise all ways and means from time to time during the continuance of this demise for discovering and working such mines of coal and clay and also to turn or divert any water or waters by making of water courses trenches or drains for the use or advantage of such works and mines with free liberty of ingress egress and regress into and from the same and also to make and use all convenient ways and passages within all and every part of the said half of the said lands to and from such mines and works and also between the said lands and the Clutha River through section numbered 1 block I. Coast District and section numbered 1 block I. North Molyneux District for men oxen horses carts carriages and all other necessary means and instruments as well for bringing all kinds of materials and necessaries to and for the use of the said land mines and works and the miners and laborers as for carrying and bringing therefrom all coal clay bricks and other produce there to be got or made and also to erect and build upon the said

lands hereby demised proper and convenient buildings houses engines and machines for working such mines manufacturing pottery-ware bricks and tiles and generally to do every lawful act and thing necessary or convenient for making or working said mines and manufacturing pottery-ware bricks and tiles as aforesaid and getting using and taking the said coal and the materials for such manufacture to be found in or upon the lands or under the lands herein demised Provided always and it is hereby provided and declared that the operations of mining searching for digging and taking coal and clay and of manufacturing bricks tiles and pottery-ware shall be confined within that half next to the ocean of the said several sections of land and that the said James George Lewis his executors administrators or assigns shall have no other right than a right-of-way through the said section numbered 1 block I. North Molyneux District and in respect that the last mentioned section of land is part of the municipal estate of the city of Dunedin and that the Town Board of Dunedin aforesaid have agreed to allow the said right-of-way upon condition that the Government will undertake to fence and ditch both sides of the proposed roadway if at any time called upon by the Board to do so and pay to the Board a yearly rental of ten shillings sterling the said James George Lewis his executors administrators and assigns shall accordingly be bound and for himself and them hereby agrees to fence and ditch both sides of the said roadway if at any time during the lease called upon to do so Also with power and liberty with consent of the Waste Land Board of the said Province to cut and use timber in or upon any reserved bush land for the purposes of the said mines and works to have and to hold the said lands mines privileges premises and the appurtenances thereto belonging demised or mentioned or intended so to be unto the said James George Lewis his executors and administrators from the tenth day of March one thousand eight hundred and sixty-two to the tenth day of March which will come and be in the year of our Lord one thousand eight hundred and eighty-three yielding and paying therefore yearly and every year during the said term of twenty-one years at the Provincial Treasury in Dunedin unto the Provincial Treasurer of the Province of Otago for the time being for behoof of the Government of the said Province upon the tenth day of September and the tenth day of March in every year during the term of the lease in equal proportions the first payment to commence upon the tenth day of September one thousand eight hundred and sixty-two the rents and royalties after mentioned videlicet firstly the yearly rent of two hundred pounds and ten shillings of lawful money of Great Britain secondly a yearly royalty of thirty pounds whether the royalties aftermentioned amount to that sum annually or not said two sums amounting together to two hundred and thirty pounds and ten shillings and thirdly after deduction of said sum of thirty pounds from the royalties hereinafter made payable such further and such yearly sum or sums as the said royalties shall amount to after the rate hereinafter mentioned that is to say on all coals taken and sold or given away or upon the premises consumed excepting always coals given or permitted to be taken by the miners workmen and labourers for domestic use and coals consumed in working any steam engine used in the works, a yearly rent or royalty of fourpence per ton during each of the first two years of the aforesaid term and eightpence per ton during each and every of the remaining nineteen years of the aforesaid term and for all pottery-ware and bricks and tiles sold the sum of eightpence per thousand and so in proportion for any greater or less quantity and number of the several respective articles aforesaid and for the intent and purpose of ascertaining proving and certifying the same unto the Superintendent of the said province for the time being or such person or persons as the said Superintendent shall from time to time appoint on his behalf the said James George Lewis doth hereby for himself his heirs executors administrators and assigns covenant promise and agree that he and they shall from time to time and at all times hereafter during the said term at his and their own expense provide proper and fit books of accounts and therein make just true legible and fair entries of the weight quantities and numbers of all and singular the several matters and things aforesaid the weight being first ascertained by weighing machines and shall at all times produce and shew forth the same unto the said Superintendent for the time being or others aforesaid and permit him and them to take and make copies and extracts therefrom as he or they shall from time to time think proper And the said James George Lewis for himself his executors administrators and assigns doth hereby covenant and agree that he and they shall at no time suffer the said yearly sum of Two hundred and thirty pounds and ten shillings and the said several other and respective royalties or any or either of them or any part thereof to be behind and unpaid for the space of thirty days next after any of the said days on which the same are hereinbefore made due and payable And also that he said James George Lewis his executors and administrators shall not at any time

or

or times hereafter let or assign the said lands mines and premises or any part thereof to any person or persons whomsoever without the special license and consent of the Superintendent of the said province for the time being in writing under his hand And also that he the said James George Lewis his executors administrators and assigns shall fairly work and carry on the same coal mines and other works from the present and all future levels to the depth thereof in a workmanlike manner according to the best and most approved methods of carrying on the said works and well and effectually secure and ventilate all and every the pit and pits shaft and shafts which he his or their workmen or servants have sunk worked or dug or shall sink work or dig so that man and beast be free from danger thereby and as all and every the said pits become useless or not worth working therein shall immediately fence or fill up the said pit or pits shaft or shafts so as to be made secure and free from danger and at all times when the said mines are at work shall convey or cause to be conveyed down into and from and out of the said mines by in or upon such engines or machines by which he or his workmen shall be usually conveyed such person or persons as the Superintendent of the Province for the time being or his agent or agents shall at any time or times and from time to time name and appoint for the purpose and permit and suffer such person or persons to survey and inspect said mines and works to see whether the same are worked managed and carried on in a fair and workmanlike manner Provided always and it is hereby declared and agreed that the said James George Lewis his executors and administrators shall be entitled to abandon the working of the coal and manufactory and surrender this lease at any time during the aforesaid term of twenty-one years should he find the undertaking to be unprofitable upon six months previous notice in writing to the Superintendent of the said Province for the time being of such intention to abandon and surrender and upon payment to the Treasurer of the said Province for the time being of all rents royalties and other sums of money due by him in virtue of this Lease. And the said James George Lewis for himself his executors administrators and assigns doth hereby further covenant that he and they at his and their own expense shall well and sufficiently keep and at the end or other sooner determination of this lease leave and yield up to the Superintendent of the said Province for the time being all such buildings and erections as are or hereafter shall or may be built or erected on said lands or any part thereof together with all useful pits shafts levels trenches and other works therein or belonging thereunto in good and substantial condition and repair and also all the engines machinery and implements and working gear made use of in the said works the property of the said James George Lewis the said Superintendent paying a reasonable value for such engines machinery or implements at the end of such term such value to be ascertained by arbitrators to be chosen in manner after-mentioned in case the said Superintendent shall be desirous of purchasing the same on such valuation and shall give to the said James George Lewis his executors administrators or assigns three months notice of such his intention previous to the end of the said term And also that the said James George Lewis his executors administrators and assigns shall during the said term provide and supply to the public good pit or large coal at a price including the cost of delivery on the bank of the Clutha river at the jetty to be erected for the use of the said coal works not exceeding the rate of twenty shillings per ton during the first two years of this lease and during the remaining years of the lease not exceeding the rate of twelve shillings per ton and shall at all times keep a supply of such coal under sheds on the bank of the river Clutha for the use of steam vessels frequenting that river and for the use also of the inhabitants of the Clutha District desiring to purchase the same And it is hereby declared that on failure of the said James George Lewis his heirs executors administrators or assigns to perform and observe any of the covenants hereinbefore contained or implied it shall be lawful for the Superintendent of the said Province for the time being into the demised premises or any part thereof in name of the whole to re-enter and the same again to have repossess and enjoy anything herein contained to the contrary notwithstanding And it is further hereby declared that in case of difference in regard to the value of the engines machinery implements and working gear made use of in the said works and in case of any other matter in difference in regard to the said lease such matters in difference shall be settled by two arbitrators one to be named by the said Superintendent for the time being and the other by the said James George Lewis his executors administrators or assigns and the said matters in difference shall be determined by the written award of the said arbitrators or if the said arbitrators fail to agree in an award within twenty-one days after their appointment then by the written award of any umpire to be appointed by them before entering upon the reference and either party who after receiving written notice from
the

the other party of an arbitrator being appointed by the party so giving notice shall fail within ten days to appoint his or their own arbitrator shall be deemed to have made default in appointing an arbitrator and the arbitrator of the party so giving notice may proceed alone and his award shall be conclusive and the costs of and attending such arbitration and umpirage shall be equally defrayed by the two parties in difference: In witness whereof the said parties hereto have hereunto subscribed their names.

J. L. C. RICHARDSON.

JAS. GEO. LEWIS.

Signed by the said John Larkins Cheese
Richardson and sealed with the
public seal of the said Province of
Otago in the presence of

A. FINDLATER,

Clerk to the Provincial Solicitor, Dunedin.

Signed by the said James George Lewis in the presence of

A. FINDLATOR,

Provincial Solicitor's Clerk.

The Section of land Number 1 Block I. North Molyneux District through which a right of way is given by the foregoing lease upon the condition therein mentioned being part of the Municipal Estate of the City of Dunedin the Town Board of Dunedin at the desire of the Provincial Government of Otago have granted for the period therein mentioned the said Right of Way subject to the condition that the Government will undertake to fence and ditch both sides of the proposed Road Way if at any time called upon by the Board to do so during the term of the said lease and pay the Board a yearly rental of ten shillings sterling during the said term In testimony whereof the said Town Board seal this Minute with their common seal on the margin hereof.

Lease to James George Lewis, of Land contiguous to the Clutha Coalfield.

This deed made the twenty-sixth day of June one thousand eight hundred and sixty-two between his Honor John Larkins Cheese Richardson Esquire Superintendent of the Province of Otago in the Colony of New Zealand of the one part and James George Lewis of Waitutu in the said Province settler of the other part: Whereas the land herein after described is vested in the Superintendent of the said Province and his successors in office for the use and behoof of the said Province And whereas the said James George Lewis has contracted with the said John Larkins Cheese Richardson for a lease of certain Lands situated in the Coast District in the said Province for working a coal mine therein and other purposes for the term of twenty-one years to be computed from the tenth day of March one thousand eight hundred and sixty-two and it is intended that such lease shall contain a clause or covenant to enable the said James George Lewis at his option in a certain event to surrender the said lease And whereas the said James George Lewis has applied to the said John Larkins Cheese Richardson Superintendent as aforesaid to grant him a lease of the lands hereinafter described and contiguous to the lands comprised in the before mentioned lease for the term of twenty-one years but determinable concurrently with the lease hereinbefore referred to in case the same should be determined by the said James George Lewis at any time before the expiration of the full term and which he the said John Larkins Cheese Richardson hath agreed to do upon the terms hereinafter expressed Now this Deed made in pursuance of the Conveyancing Ordinance passed in the fifth year of the Reign of her Majesty Queen Victoria Session 2 No. X intituled "An Ordinance to facilitate the transfer of Real Property and to simplify the law relating thereto" Witnesseth that in pursuance of the said Agreement and in consideration of the rent and covenants hereinafter contained as well expressed as implied he the said John Larkins Cheese Richardson Superintendent as aforesaid for himself and his successors in office Doth hereby demise and lease unto the said James George Lewis his executors administrators and assigns All that parcel of land in the said Province containing by admeasurement nine hundred and fifty acres more or less situate in the Coast District aforesaid being Sections numbered respectively 6, 7, and

8 Block numbered I, and 1, 2, 3, 4, 5, 6, 7 and 8 Block numbered III. and 1, 2, 3, 4, 5, 6, 7, and 8 Block numbered V. on the map of the said District bounded toward the north-west by a road line three thousand four hundred links and eight thousand one hundred and forty links and eight thousand two hundred links towards the north-east by a road line four thousand one hundred and fifty links towards the south-east by a road line eight thousand seven hundred links and eight thousand six hundred and fifty links and three thousand four hundred and sixty links and towards the south-west by Section numbered 5 Block numbered I. Coast District aforesaid four thousand three hundred links and intersected by two road lines one hundred links wide Also all that parcel of land in the said Province containing by admeasurement fifty-three acres more or less situate in the Coast District aforesaid being Section numbered 1 Block I. on the said map bounded towards the north-west by a road line one thousand three hundred and ten links towards the north-east by Section numbered 2 of the same Block four thousand one hundred links towards the south-east by a road line one thousand three hundred and twenty links and towards the south-west by Sections numbered respectively 1, 2, and 3, Block numbered I. North Molyneux District four thousand links And also all that parcel of land in the said Province containing by admeasurement two hundred and seventy-two acres more or less being part of Sections numbered respectively 6 and 7 Block numbered I. last aforesaid and unsurveyed land contiguous thereto bounded towards the west north-west by the remaining part of sections numbered 6 and 7 last aforesaid two thousand nine hundred links and by Crown lands eleven thousand links towards the north-east by a road line four thousand one hundred links and towards the south-east by a road line eleven thousand links and two thousand three hundred links and intersected by a road line one hundred links wide and which said sections or pieces or parcels of land are delineated on the plan in the margin hereof and colored red To hold the said sections or pieces or parcels of land hereby demised or expressed or intended so to be with their appurtenances unto the said George James Lewis his executors administrators and assigns for the term of twenty-one years to be computed from the tenth day of March one thousand eight hundred and sixty-two subject to the proviso for cesser hereinafter contained Yielding and paying therefore yearly and every year during the said term the clear yearly rent or sum of Thirty pounds by two equal half-yearly payments in each and every year of the said term Provided always and it is hereby declared and agreed by and between the said John Larkins Cheese Richardson and the said James George Lewis and the true intent and meaning of them and of these presents nevertheless is that if the said James George Lewis shall by notice determine the lease of the said coal mine contiguous to the land hereby demised and hereinbefore referred to at any time before the expiration of the said term of twenty-one years hereby granted then and in that case this lease and the term hereby granted shall thereupon immediately cease and determine anything herein contained to the contrary in anywise notwithstanding And the said James George Lewis for himself his heirs executors and administrators doth hereby covenant to and with the said John Larkins Cheese Richardson Superintendent as aforesaid and his successors in office that he and they shall not nor will at any time assign or underlet or part with the possession of the said sections or pieces or parcels of land and hereditaments hereby granted or any part thereof without the consent in writing of the said John Larkins Cheese Richardson Superintendent as aforesaid and his successors in office for that purpose being first had and obtained. Provided always that in the event of the rent herein before reserved or any part thereof being in arrear for one calendar month although no formal demand for payment shall have been made or upon breach non-observance or non-performance by the said James George Lewis his executors administrators or assigns of any of the covenants herein or in the said lease of the said coal mines contained or implied it shall be lawful for the said John Larkins Cheese Richardson as Superintendent aforesaid and his successors as aforesaid to re-enter upon the premises hereby demised and repossess and hold the same as if this demise had not been made In witness whereof the said parties to these presents have thereunto subscribed their names.

J. L. C. RICHARDSON,
JAS. GEO. LEWIS.

Signed by the said John Larkins Cheese Richardson and sealed with the public seal of the said Province of Otago in the presence of

A. FINDLATER,
Dunedin Provincial Solicitor's Clerk.

Signed by the said James George Lewis in the presence of

A. FINDLATER,
Dunedin, Clerk to Provincial Solicitor.

(END OF APPENDIX TO VOTES AND PROCEEDINGS, SESSION XVIII.)

8 Block numbered I, and 1, 2, 3, 4, 5, 6, 7 and 8 Block numbered III. and 1, 2, 3, 4, 5, 6, 7, and 8 Block numbered V. on the map of the said District bounded toward the north-west by a road line three thousand four hundred links and eight thousand one hundred and forty links and eight thousand two hundred links towards the north-east by a road line four thousand one hundred and fifty links towards the south-east by a road line eight thousand seven hundred links and eight thousand six hundred and fifty links and three thousand four hundred and sixty links and towards the south-west by Section numbered 5 Block numbered I. Coast District aforesaid four thousand three hundred links and intersected by two road lines one hundred links wide Also all that parcel of land in the said Province containing by admeasurement fifty-three acres more or less situated in the Coast District aforesaid being Section numbered 1 Block I. on the said map bounded towards the north-west by a road line one thousand three hundred and ten links towards the north-east by Section numbered 2 of the same Block four thousand one hundred links towards the south-east by a road line one thousand three hundred and twenty links and towards the south-west by Sections numbered respectively 1, 2, and 3, Block numbered I. North Molyneux District four thousand links And also all that parcel of land in the said Province containing by admeasurement two hundred and seventy-two acres more or less being part of Sections numbered respectively 6 and 7 Block numbered I. last aforesaid and unsurveyed land contiguous thereto bounded towards the west north-west by the remaining part of sections numbered 6 and 7 last aforesaid two thousand nine hundred links and by Crown lands eleven thousand links towards the north-east by a road line four thousand one hundred links and towards the south-east by a road line eleven thousand links and two thousand three hundred links and intersected by a road line one hundred links wide and which said sections or pieces or parcels of land are delineated on the plan in the margin hereof and colored red To hold the said sections or pieces or parcels of land hereby demised or expressed or intended so to be with their appurtenances unto the said George James Lewis his executors administrators and assigns for the term of twenty-one years to be computed from the tenth day of March one thousand eight hundred and sixty-two subject to the proviso for cessor hereinafter contained Yielding and paying therefore yearly and every year during the said term the clear yearly rent or sum of Thirty pounds by two equal half-yearly payments in each and every year of the said term Provided always and it is hereby declared and agreed by and between the said John Larkins Cheese Richardson and the said James George Lewis and the true intent and meaning of them and of these presents nevertheless is that if the said James George Lewis shall by notice determine the lease of the said coal mine contiguous to the land hereby demised and hereinbefore referred to at any time before the expiration of the said term of twenty-one years hereby granted then and in that case this lease and the term hereby granted shall thereupon immediately cease and determine anything herein contained to the contrary in anywise notwithstanding And the said James George Lewis for himself his heirs executors and administrators doth hereby covenant to and with the said John Larkins Cheese Richardson Superintendent as aforesaid and his successors in office that he and they shall not nor will at any time assign or underlet or part with the possession of the said sections or pieces or parcels of land and hereditaments hereby granted or any part thereof without the consent in writing of the said John Larkins Cheese Richardson Superintendent as aforesaid and his successors in office for that purpose being first had and obtained. Provided always that in the event of the rent herein before reserved or any part thereof being in arrear for one calendar month although no formal demand for payment shall have been made or upon breach non-observance or non-performance by the said James George Lewis his executors administrators or assigns of any of the covenants herein or in the said lease of the said coal mines contained or implied it shall be lawful for the said John Larkins Cheese Richardson as Superintendent aforesaid and his successors as aforesaid to re-enter upon the premises hereby demised and repossess and hold the same as if this demise had not been made In witness whereof the said parties to these presents have thereunto subscribed their names.

J. L. C. RICHARDSON.
JAS. GEO. LEWIS.

Signed by the said John Larkins Cheese Richardson and sealed with the public seal of the said Province of Otago in the presence of

A. FINDLATER,
Dunedin Provincial Solicitor's Clerk.

Signed by the said James George Lewis in the presence of

A. FINDLATER,
Dunedin, Clerk to Provincial Solicitor.

(END OF APPENDIX TO VOTES AND PROCEEDINGS, SESSION XVIII.)

P E T I T I O N S .

No. 1.—FROM LAND OWNERS AND SETTLERS IN THE CLUTHA DISTRICT.

(Presented by Mr. Steel, April 20.)

TO THE PROVINCIAL COUNCIL OF OTAGO.

THE humble Petition of the undersigned, being Landowners and Settlers in the Clutha District, Humbly Showeth :—

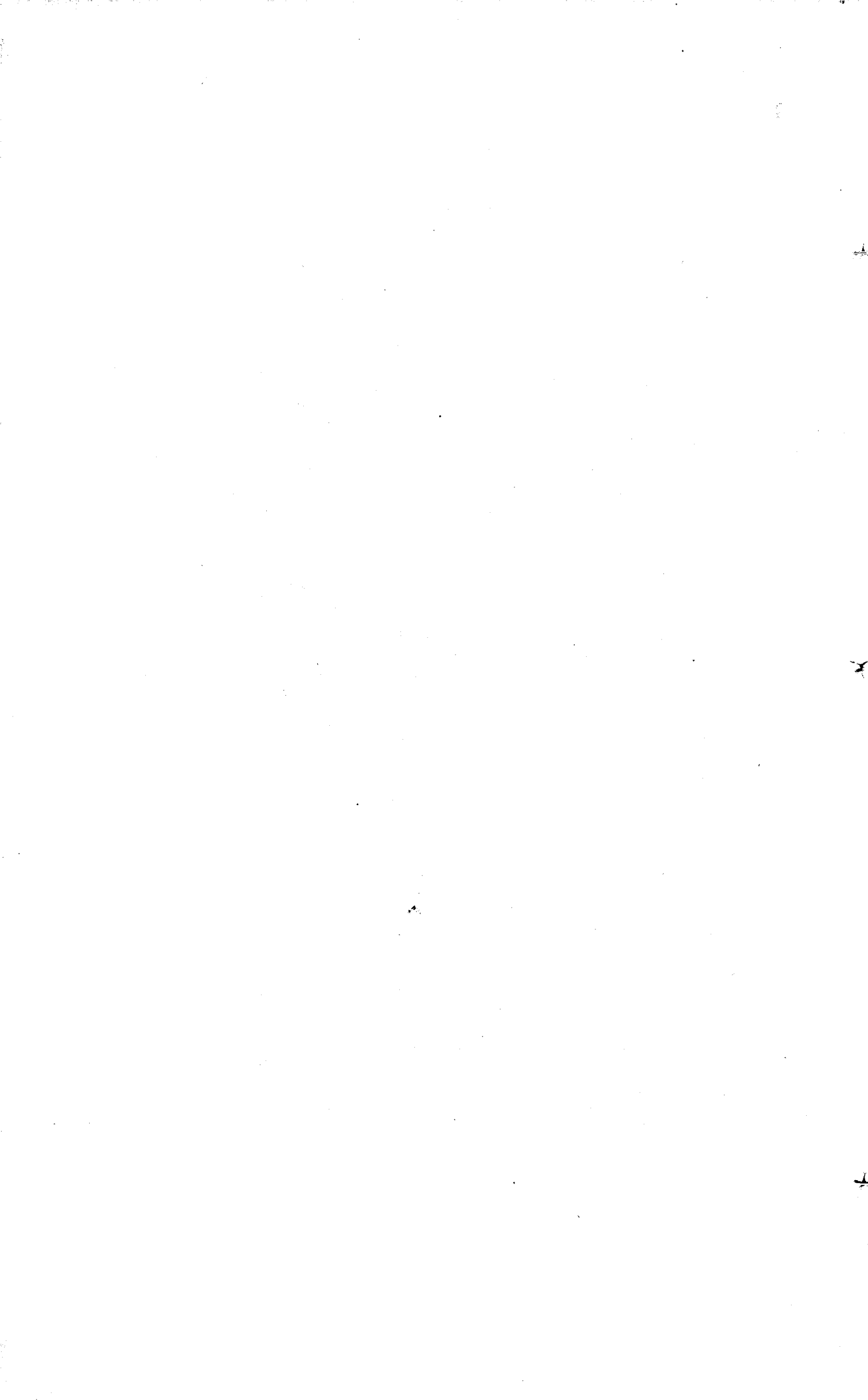
- “1st. That your memorialists feel deeply grieved that the district has not hitherto received that proportion of the general revenue which the large amount of land disposed of in the neighbourhood justified it in expecting should be expended for its benefit.
- “2nd. That the River Clutha which, if certain impediments at the mouth were removed, and others higher up, would afford an invaluable communication to the interior, has been greatly neglected ; and thus, a natural highway to the Agricultural, Pastoral, and Mining Districts, benefiting thousands, rendered of little use.
- “3rd. That while very large sums have been expended throughout the country in forming and metalling roads, and future revenues have been anticipated to the amount of about £300,000, there is not above two or three miles of metalled road from a distance of about fifteen miles north of the Clutha Ferry on the main south line to the Mataura, the southern boundary of the Province, a distance of sixty miles.
- “4th. That it is reported to be in contemplation to raise large sums of money on the security of the public lands, and thus farther to burden posterity for the formation of a railroad through districts already enjoying a formed and metalled road, while the remainder of the country is unprovided with even ordinary metalled roads.
- “5th. That such a course, especially if the money be raised from lands not in immediate contiguity to the Railway, would be inflicting a grievous injury upon the northern and southern extremities of the Province.
- “6th. Your Memorialists looking solely to your House for relief, humbly pray that their case may receive your earnest consideration, and that it may be investigated by a Select Committee of your House.
- “And your Petitioners as in duty bound, will ever pray.

“JOHN M'NEIL.”

James

James Nicol, settler	James Kirkland
David Dickie, do	John Shepherd
George Johnston, do	William Alfred Mosley
A. D. Johnston, do	John Petchell
John Johnston, do	Alexander Grigor
Alexander Peat, do	John Dutton
Andrew Melrose, do	Robert Renton
John Anderson, land owner	Alex. Sinclair
John Watt, settler	William Green
William Moffat, do	George Townsend
F. M. Bayly, do	William Reid
James J. Hay, do	Peter Smith
James Brownlie, do	William Smith
T. H. Meeking, do	G. E. Richardson
John Dalziel	Wm. Bannerman, Clutha Manse
Alexander M'Neil	Robert Christie, Springbank
Alexander Armstrong	James H. Christie, South Clutha
Robert Robson	Robert Wilson, do
Peter Bell	John Johnston, do
Ibotsen Smail	Peter Hutton, do
John Lindsay	James Dunn, South Molyneux
W. MacKenzie	Robt. Meikle
Arthur Roscoe	Robert M'Kinlay, South Molyneux
D. Maitland	John M'Kay, do
Peter Ayson, junior	G. Spooner, Popotunoa
W. H. Mansford	John Tolmie, Warepa
Robert Stuart	Thomes Chalmers, South Clutha
Paley Ashmore	Henry Lewis, Warepa
J. L. C. Richardson	Joseph Smith, do
D. P. Steel	W. A. Bews, do
F. B. Clapcott, Popotunoa	William France
James Scott, Waipahe	James Johnston, South Clutha
G. Alex. Chalmers, Moe Flat	Thomas Johnston, do
Jas. B. Schlotel, Pomahaka	Peter Dunn, do
James Urie, Pomahaka	George Dunn, do
A. Oliver, Cairn Station, Popotunoa	Alexander Mutch, do
George Steel, Kuriwao	Abr. Mutch, do
Jas. S. Maitland	James Mutch, do
Robert Galloway	John Shiels, South Cluth
Ja. Rolland	Robert Shiels, do
John F. M'Gregor	James Murdoch, do
Donald M'Aulay	William Jones, do
Albert Pillans	Robert Chalmers, do
G. H. Maitland	Thomas Kerr, do
P. B. Williams	William Kerr, do
John Darling	Thomas G. Compton, do
Alexander Mutch	Robert Banks, do
Andw. Smaill	Sheddian Brugh
Thomas Marsh	Edwin T. Rich
William Mitchell	Percy Leveson
William Paterson	C. V. Brewer
William T. Smith	James Ancell
John Welsh	James Brugh
Robert Franklin	Robert McLay
Archibald Anderson	Allan Galt
James Mailer	J. Wilson Mathews
Andrew Kerr	Norton Jowitt
Charles Finlayson	A. N. Jowitt
John Colvin	Duncan Ferguson
William Logan	Matthew Marshall
Neil Malloy	Alexander Cormack, Clutha Ferry
James Tait	John Cormack
Magnus Tait	John Anderson, farmer, Kaihiku
Thomas Tait	Robert Couperthwaite, Bal-Clutha
A. S. Begg	James Wilson

J. H. Inglis	W. Telford
W. C. Miller	James Sim
Archibald Hodge	Adam Borthwick
Edmund Taperell	John Dallis
Donald Gow	Robert Barr
James Dunlop	Henry Robson, Whitelee
E. George C. Begg	Duncan M'Neil
Marcus Begg	James M'Neil, senr.
Frederick Jackman	John Petchell, senr., Inch Clutha
George Hay, sen.	Thos J Ord, South Clutha
William Hay	Henry Manning, Warepa
George Hay, jun.	J. M'Ewen, Clutha Ferry
Thomas Russell	W. Hope, Clutha Ferry
Alex. Smith	William Battrick, Clutha Ferry
Robert Anderson	Charles Battrick, Clutha Ferry
R. L. Begg	Andw. M'Neil
E. Sorkley	Martin Fahey
A. Grant	John Christie
James W. Thomson	James Hadden
Thomas McCall	Thomas Sandilands
John Hoggart	John Sandilands
Thomas Williamson	Edmund Couston
John Willis	Isaac Sarginson
John W. Waters	John Sinclair
T. H. Randell	George Polson
R. McKinlay	John Strachan
R. Johnstone	James M'Neil, Junr
James Scott	James Gilfillan
Murdoch D. M'Lean	Alex Gordon
John C. Fraser	John Ross
Colin Fraser	Job Dabinett
Robert Lees	James Dabinett
Edward K. Duncan	George Dabinett
John Lees	Peter Ayson, junior
Francis Lees	Alex. Ayson
Robert Carrick	John Ayson
Robert Livingston	William Ayson
Samuel Begg	James Ayson
James Shiels	James Somerville
James Brown	Thomas Somerville
Alex. Fraser	David Monfries
Alex. Low	John Crawford
Henry Tilson	William Young
Thomas Lewis	Robert Sutherland
Alex. Anderson	Adam Sutherland
Robert Cramond, South Clutha	William Sutherland
William M'Lay, South Clutha	John Pagan
Moses M'Lay, South Clutha	William Dalgliesh
Donald Stewart, Warepa	Thomas Tolmie
John Barr, Clutha Ferry	William Robertson
Marcus Brown Power, Waiwera	James Robertson, senior
James Melrose, Clutha	James Robertson, junior
Donald Mackay, Warepa	Peter Robertson
Alexander Peat	John Geggie
Andrew Peat	George Taylor
David Peat	William Morton
George Brown	William M'Kenzie
Archibald Rutherford	James Dawson
Thomas Bishop	George Munro
John Somerville	John Lamond, senior
G. H. S. Lawson	Charles Lamond
John Stoddart	John Lamond, junior
John Hogg	George M'Neil



No. II.—FROM CERTAIN INHABITANTS OF THE TOWN OF OAMARU
AND THE DISTRICT OF WAITAKI (No. 1).

(Presented by *Mr. Miller*, April 27.)

TO THE SPEAKER AND MEMBERS OF THE PROVINCIAL COUNCIL OF THE PROVINCE
OF OTAGO, NEW ZEALAND.

THE humble Petition of the undersigned, Inhabitants of the Town of Oamaru and the Waitaki District, Sheweth :—

- “1st. That whereas the Port of Oamaru needs, and is supposed to be capable of improvement, so as to render it a safe and convenient Harbor ;
- “2nd. And whereas the District, of which the said Port is the outlet and inlet, has very great natural advantages for agricultural and pastoral purposes—probably greater than any other District in the Province ;
- “3rd. And whereas the difficulties and expenses attendant upon the shipment of produce have become a very serious drawback to agricultural pursuits and proportionately affect the value of the finest land in the Province ;
- “4th. And whereas the trade of the Port has already reached a point of considerable importance—the export of wool amounting to five thousand bales, and the imports to probably not less than seven thousand tons of merchandise per annum, and both imports and exports are rapidly increasing ;
- “5th. And whereas, if proper facilities were given for shipping wool and landing goods, a large proportion of the trade of the southern portion of the Province of Canterbury would pass through the Port of Oamaru ;
- “6th. And whereas the large sums of money already contributed to the revenue of the Province, and yet to be contributed by the large sales of land at high prices in the Oamaru and Otepopo Districts, as well as from the large consumption of dutiable articles, render the claims of these Districts worthy of the careful consideration of your honorable Council.
- “Your Petitioners do humbly pray that a Commission be forthwith appointed to consider and decide upon the proper means to be used for the improvement of the Harbor at Oamaru, and to report thereon to your Honorable Council.
- “And your Petitioners will ever pray-- &c., &c.

Dated at Oamaru, in the Province of Otago, New Zealand, this 27th day of April, one thousand eight hundred and sixty-four.

(Signed by WILLIAM SEWELL, Beach-master, and by 134 others.)

No. III.—FROM CERTAIN INHABITANTS OF THE TOWN OF OAMARU,
AND THE DISTRICT OF WAITAKI.—(No. 2.)

(Presented by Mr. Miller, April 27.)

TO THE SPEAKER AND MEMBERS OF THE PROVINCIAL COUNCIL OF THE PROVINCE
OF OTAGO, NEW ZEALAND.

THE humble Petition of the Undersigned, Inhabitants of the Town of Oamaru,
and of the Waitaki District, Sheweth :—

“ 1st. That whereas sundry improvements are needed in the Town and District
for which the aid of the Government is required ;

“ 2nd. And whereas the large revenue derived from the sales of land in the said
Town and District, entitle the Inhabitants to expect a larger share of such
aid than has hitherto been accorded ;

“ 3rd. And whereas large sums of money have been expended to the detriment
of the northern part of the Province, by opening a direct land communica-
tion between the Capital and the Dunstan and adjacent Goldfields, thus
threatening to draw off not only the whole trade with the Goldfields, but
also a portion of the exports of wool from the said port ;

“ Your Petitioners do humbly request the attention of your honourable Council
to the following more immediate requirements of the said Town and
District.

“ 1st. Main line of road along the Waitaki :—

That this important line of communication with the various sheep
stations, and with the Upper Goldfields, be at once completed, by bridging
the Whare Kuri, which will do away at a small cost, with the only difficult
point on the road.

“ 2nd. Road between Otepopo and Oamaru :—

That this line of road being an important means of communication with
the Bush and with the new township of Herbert, be completed, by reducing
the gradient in several steep places, and metalling where required, to render
it passable for heavy traffic during the winter months.

“ 3rd. Formation of Severn-street :—

“ That the position of the main line of road to the North, which passes
through the Township, be completed by the formation of Severn-street, as
laid down in the plan of the Township. The gradient being every way
suitable for the purpose, and many parties having long since purchased
sections adjacent to the proposed line of road, at high prices, on the faith of
Severn-street being formed, are now much inconvenienced by the want of
proper communication with their properties, and, from the levels not being
taken, are prevented from building.

“ 4th. Means of communication with the Beach :—

That Arun-street be formed from the Beach to Tyne street, and that Tyne-
street be continued to its junction with Arun-street, in order to complete the
line of communication with the Beach, as originally laid down in the plans of
the Township, the present line being made across the Esplanade Reserve,
preventing the completion of the fencing round said Reserve.

“ 5th. Completion of sewer, and fencing of Esplanade :—

“ That

“That the main sewer be completed from its present line of junction with Tyne-street, along the whole length of that street, and also the fencing round the Esplanade.

“6th. Cemetery Reserve :—

“That the Cemetery Reserve be fenced, and trustees appointed as required by law.

“7th. Crown Grants :—

“That an address be presented to his Honor the Superintendent, respectfully requesting him to obtain and place in possession of the Town Board as early as possible the Crown Grants for the municipal properties, together with the requisite powers of leasing said properties for periods of seven years ; and also to place in possession of the Educational Committee the like grants and powers with respect to the Educational Reserves.

“And your Petitioners will ever pray—&c., &c.

Dated at Oamaru in the Province of Otago, New Zealand, this 27th day of April, one thousand eight hundred and sixty-four.

(Signed by WILLIAM SEWELL, Beach-Master, and by 137 others.)

No. IV.—FROM CERTAIN OFFICERS IN THE PROVINCIAL ENGINEER'S DEPARTMENT.

(Presented by Mr. Dick, June 6.)

TO THE SPEAKER AND MEMBERS OF THE PROVINCIAL COUNCIL OF OTAGO.

THE humble Petition of the undersigned officers of the Provincial Engineer's Department, who have been dismissed from the service of Government, Sheweth :—

“That your Petitioners have been engaged in the Public Service for various periods, in some instances for nearly three years.

“That in making appointments the Government have drawn a distinction between those which are only temporary and those which are permanent ; that temporary officers have been sometimes appointed on probation, and afterwards promoted to the staff ; that this course has been adopted by his Honor the Superintendent, his predecessor in office, and their Executive Councils for the time being, and that your petitioners are prepared to substantiate their statements by reference to documents.

“That it has been customary for temporary assistants to receive one month's notice on dismissal from the service, and that if no longer notice be given to permanent officers, when their services are dispensed with, the promotion above referred to is altogether delusive.

“That your petitioners had all been engaged on the staff, and have been dismissed from the Government service, on only one month's notice, in the same manner as temporary assistants.

“That your petitioners are informed and believe that their engagements are annual,

annual, and that they are entitled to receive compensation for loss of office in accordance therewith.

“That many of your Petitioners are professional men, who have sacrificed all opportunities of private practice on the faith of receiving permanent employment in the public service, and are therefore injured to a considerable extent by summary dismissal, inasmuch as it would be impossible for them to establish themselves in practice in Dunedin, at a season of unusual depression, without considerable loss of time and money; and that most of them would not have accepted employment at the moderate salaries given by Government unless they had understood that their engagements were annual.

“That your Petitioners are aware that it is customary in all parts of the British possessions, on a reduction taking place in the Government service, to award compensation for the loss of office, and they would respectfully submit that there are no circumstances of the present case which can justify a deviation from the usual course.

“That your Petitioners, while recognising the necessity of retrenchment in the public expenditure, and disclaiming any desire to hold their offices longer than the Government may deem it necessary to retain their services, would simply ask to be treated with the consideration to which, they conceive, they are fairly entitled, in accordance with ordinary usage; being convinced that it cannot be the desire of the Government to inflict a serious injury upon its officers, many of whom regarding their appointments as annual, have been induced to send to other colonies for their families to join them in Dunedin, and will now be compelled to take them elsewhere, at considerable expense, in consequence of their summary dismissal from the service.

“Your Petitioners therefore pray that your Honorable House will be pleased to afford them compensation for the loss of their appointments, in proportion to the damage they have sustained

“And your Petitioners will ever pray, &c., &c.

W. B. Armson, Architect.

Edward Rumsey, Architectural Draughtsman

A. A. Jackson, Assistant Engineer

S. H. Mirams, Assistant Engineer

John M'Gregor, Architectural Draughtsman

H. W. M'Caull, Architectural Draughtsman

Thos. H. Lush, Clerk

John O'Halloran, Clerk

John Somerville, Clerk of Works

George J. Forrow, Inspector of P. Buildings

C. H. Lush, Messenger

REPORTS OF SELECT COMMITTEES.

I.—REPORT OF THE SELECT COMMITTEE ON THE CLUTHA PETITION.

(Brought up by Capt. Mackenzie, May 5.)

1. Your Committee in bringing up their report have attached the valuable evidence of the Marine Engineer on the Clutha River, to which they direct attention ; and they consider that his recommendations are well worthy of adoption by this House, especially considering his opinion as to the injury to the river likely to arise from the debris of the goldfield operations in the upper parts.

2. Your Committee are of opinion that a very large revenue, viz., between £60,000 and £70,000, within the last three years, has been received from the sale of land adjacent to the Clutha river, while much remains to be sold ; and they conceive that a judicious expenditure in this neighbourhood would materially increase the value of the unsold lands, and thus aid the public revenues in future.

3. The attention of your Committee has been drawn to the want of a bridge across the river on the Main South line, and they are of opinion that passengers and traffic to this important district should have the means, which a bridge affords, of passing to and fro unimpeded at all times, and that the present punt might in that case be removed higher up the stream when the bridge is completed.

4. With respect to the roads in this district, your Committee would remark that Mr. Thomson, the chief surveyor, in his Departmental Report, of the 11th August 1863, says :—“ At present, the whole Clutha, containing 1215 Sections, has scarcely a single available legal path of communication from one part to another.”

The Select Committee on Roads and their construction remarked in their report of last session, with reference to this district, that the “ roads in some places ascend precipitous cliffs, and in others traverse the course of rivers ” ; and the Commissioner on roads and their deviations, observes in his report, laid on the table of your House this session, that the settlers “ know not where to place their fences or buildings, or to lay out their farms to advantage, and some of them threaten to fence their land as they bought it, and so close the road altogether, unless early action be taken.”

These obstacles have materially affected the improvement of a large tract of country in the occupation of settlers who could not fence or convey their produce to market without the roads being defined and made passable.

5. Your Committee would observe that the Government have entered into contracts for the extension of the Molyneux wharf ; they have engaged surveyors to lay out the roads in the district, and have had an officer of the Marine Engineer's department examining the mouth of the river. They also find the Government have endeavored, though without success, to complete the postal steam communication, which is an important link between Dunedin and the country about the Upper Gold-fields ; they also find that extensive contracts have been entered into for the formation of eight or nine miles of the main south line from Tokomairiro to Lovell's Creek, a distance of nine miles from the Clutha River.

F. W. MACKENZIE,

Chairman.

Dunedin, 5th May, 1864.

APPENDIX.

MAJOR RICHARDSON.

Will you express to this Committee what are, in your opinion, the objects of the Petition presented by the inhabitants of the Clutha district?

The feeling is very general in that portion of the country bordering on the Clutha, within the proclaimed Hundreds, that while large sums have been drawn from the district by the sales of land, amounting to about £70,000 within the last three years, the purchasers have derived very little, proportionately, from the public expenditure.

Of the total expenditure on Roads up to the 30th March of £418,399 12s. 4d., only £30,520 (vide Government returns), have been expended from the south branch of the Tokomairiro River to the Mataura, a distance of about 70 miles; and there are not above three miles of metalled roads throughout this distance.

The settlers very naturally fear that if another system of road making is commenced, running alongside the present metalled main line it may interfere, by absorbing the present revenues, with the continuation of the present line, and thus they will be put in a position inferior to the other settled districts in the south.

The settlers hoped from the appropriations of last session of £3,000 for the removal of rocks at the mouth of the river, of £10,000 for the erection of a bridge over the Clutha, on the main south line; of a portion of £1783 for a coastal steamer to complete the chain of communication; of about £600 for the extension of a wharf at the township of Molyneux, that at length their wants would be attended to; but unfortunately the appropriations expired without any of these sums being expended; and of the sum of £20,000 voted for the road from the south branch of the Tokomairiro River to the Clutha, scarcely £8,000 have been expended, and that about fifteen miles from the Clutha. They are aware that the two latter works are now being proceeded with, and that more comprehensive measures are designed by the Government, which will do much to open up one of the main arteries of the Province, the River Molyneux; and they believe if the necessary sums are voted and expended, a great benefit will result to the district and the Province; by developing the resources of the district, which are now choked from want of power of expansion, and by adding materially to the value of the crown lands adjacent.

The inhabitants of the large tract of country lying south of the Molyneux, are shut out from the ferry by the want of an authorized road. This is being surveyed by the order of the Government, and if a sum of money were expended in removing the most serious of the obstacles, a sufficiently good main branch road would be established from the lower Molyneux township to the ferry over the Clutha.

MR. BALFOUR.

Q.—1. What is your opinion of the Molyneux River as a means of internal communication?

2. What would be its influence on the mining population above that point?
3. What is your opinion of the river comparatively with rivers in Great Britain?
4. What are the impediments to the navigation of the river.
5. Would these impediments in each of the localities mentioned be expensive to remove?

A.—1. It affords the cheapest and most suitable means of communication for at least nine miles above the Tuapeka.

2. As far as the Beaumont the influence of such extended communication would be most beneficial, provided a packing track were made; above that point it would not be of so much use.
3. I consider the Molyneux resembles a continental river on a small scale more than any of the rivers in Great Britain. I believe it discharges more water than any river in Great Britain, but I shall be possessed of more definite information shortly.

4. Above Tuapeka the impediments are principally rocks ; below that point, with one exception, the only obstructions consist of snags and sandbanks, but at the mouth there is a patch of rock forming an inner bar.
5. There are four or five miles above the point to which it is at present practicable to take steamers where it might cost £5000 to £10,000, or even more, per mile to remove the obstructions ; below that point the obstructions would be most economically removed by the steam snag and dredge boat recommended in my report. (*See report appended.*)

Marine Engineer's Office,
Dunedin, 4th May, 1864.

SIR,—I have the honor to hand you, for the information of the Committee of which you are Chairman, the following replies to the queries contained in your note of yesterday's date.

I may mention, however, that paragraph No. 7 of the Report of the Marine Department, now in the hands of the Council, contains nearly as much information on the subject as I am able at present to give you. My assistant sent down some time ago to make a detailed survey of the inner bar of the Molyneux, reports his work done, but his return to Dunedin has been delayed by instructions to procure the requisite information to enable an estimate to be framed of the probable cost of establishing a ferry between Clutha Island and the main land. On his return I shall be able to give more definite information on several points. 1st. The Clutha is a rapid running stream, partaking more of the character of a great continental river than might naturally be expected in a comparatively small island. This appears to be to a great extent accounted for by the physical characteristics of the country through which it flows, and by the fact that being the outlet of three large lakes it is from the very first a *river*, and has not to pass through the intermediate stages common to most streams.

From the velocity of the current the Clutha can only be navigated by powerful steamers of the American river type, of which the "Tuapeka," now plying on it, is an excellent specimen on a small scale. The Clutha is at present perfectly navigable for about 59 miles, or to a point about 9 miles above the confluence of the Tuapeka. Above this point I am not prepared to say that it would be possible economically to open up the navigation, especially when the river is at its lowest. At the same time, it is certainly only a question of time and money, and were the steam snag boat I have asked for once at work it might turn out more practicable than, from the cursory view of the upper portions of the river I have had, it seemed to be.

Below the Tuapeka there is one rocky barrier (a little above the confluence of the Pomahaka) which forms a dangerous obstruction to navigation ; but, though it would be impossible to speak with certainty without a more accurate survey and soundings, which the want of proper appliances, and the rapidity of the current prevented my procuring, it seemed probable that a comparatively small expenditure would suffice to clear a channel which would be at all times safe. Below this point the character of the river changes, and the river winds about in a comparatively level country, in places eroding the banks deeply, thus continually, though slowly, changing its course. The only obstructions in this lower part of the river consist of snags and shoals. The snags are capable of removal ; the shoals may be partly deepened by dredging ; but the best and the only truly scientific course would be to confine the flow of the stream where it is too wide, and to erect substantial works for the protection of the banks of the river. This course would, however, entail a very great outlay, which I would hesitate in the meantime to recommend, though the worst parts might be gradually undertaken. Fortunately there are very few places where there is not at all times sufficient water for the steamer.

Below the Clutha Ferry the river divides, forming Clutha Island, and the force of the stream being thus diminished, it is rendered less capable of keeping its channel open,—hence that portion of the navigation is the worst of all. The best course here would be entirely, or at least partially, to close the upper end of the Matau branch of the stream ; as the additional water thus thrown into the Kauo would be sure to maintain a good channel. The vested interests of the proprietors on the Matau, however, would render this course difficult ; and there are works short of this which would probably suffice for the present. I should recommend that the stream should

be guided into the proper channel, at one or two points, by piling, and that the upper end of the small subsidiary channel, opposite Mr. Bowler's farm, should be entirely closed. Were these works undertaken, and the snags removed, I should expect that a good channel could easily be kept open. Below this point there are no difficulties to contend with.

2nd. The Bar.—There are two bars. The outer one, being always exposed to the action of the surf, is very difficult to survey, and I understand that my assistant has never had an opportunity of inspecting it. For the same reasons, it would probably be almost impossible to do anything to improve it; but there is, fortunately, a sufficient depth of water on it to suit the trade of the river, at least for years to come.

The *inner bar* consists of a patch of rock lying off the end of the sand spit, which very much narrows the channel and forms a dangerous obstruction to the navigation of the entrance of the river. With regard to this rock my assistant writes:—"The rock is of much greater extent than I at first imagined, running up and down the river for a length of about 200 feet. I have tried it with an iron bar and it appears to be a sort of conglomerate, rather hard, and similar in nature to the Maori rock, of which I will bring a sample." This is not very encouraging. At the same time, I have no doubt of the possibility, and less of the propriety of the removal of the rock, though the "*modus operandi*" cannot be definitely decided on till Mr Beaufort's return and the completion of his plans.

3rd. The Clarendon is the only means which the Harbor Master could have employed, with the funds at his command for the removal of snags. She has certainly done a great deal of work, and the energy and skill of her Captain and crew are highly to be commended. At the same time, she can scarcely be termed efficient, as I believe it would practically be an endless undertaking to remove all the snags in the river without some further appliances; and I have in consequence applied for a vote to enable a proper steam snag boat and dredger to be built. My report before referred to explains fully the nature of the boat I would propose to design, and also touches on the claims the Clutha seems to have for such an appropriation.

Lastly, I consider it most important that an officer should be appointed as Harbor Master of the river and conservator of the navigation. His main duties would be to examine the river from time to time and report any alterations in the depth of the channel; the appearance of new snags, banks, &c.; and generally to keep the navigation in a good state. A very important part of his work would also consist in seeing all trees cut down and removed which, from their position, were liable to be undermined and carried away by floods to form new snags; and to insist on settlers and woodcutters removing all felled trees to a distance from the banks, instead of leaving them as they at present too often do in such positions that the first flood is almost certain to carry them away.

I have already recommended the appointment of such an officer in a report to the Secretary of public works.

Should it be in my power to afford the committee any farther information, it will give me great pleasure to do so.

I have the honor to be,

Sir,

Your obedient Servant,

JAMES M. BALFOUR,

Marine Engineer.

Captain Mackenzie, M.P.C.,
Chairman of Committee.

Mr. THOMSON.

Q.—1. When you were in charge of the Road Department did you examine the Clutha River for the purpose of throwing a bridge across it on the main south line?

2. If so, what did you contemplate as the expense of a bridge?

A.—1. I made a reconnaissance of the river from the present ferry up as far as the Tuapeka junction, and I consider about the Houk as the best site.

2. The cost of a bridge somewhat similar to that of the Taieri will be about £10,000.

Mr. DICK.

Q.—1. Will you state to this Committee whether the Government have entered into any arrangements for constant communication between Dunedin and the Port of Molyneux?

2. Will you state whether any, and if so, what contracts have been made by Government in the Clutha district and are under construction; and on the main south trunk line from Tokomairiro towards the Clutha River?

A.—1. They have not. They called for tenders and got a vessel called the Ruby, which was not suitable. The Government offered £1000 per year, but have heard nothing since. The Government consider now that they have no tenders.

2. The Molyneux wharf, Pomahaka Junction jetty and crane. There is some day labor work going on between Tokomairiro and Lovell's Creek. There is a marine surveyor making a survey for the removal of rocks at the mouth of the river, and a district surveyor surveying district roads for the District Board, under the superintendence of the District Board.

TABLE shewing the Discharge of Water in the Molyneux River, at Clutha Ferry, as taken 5th May, 1864, contrasted with the discharges of other Rivers in different parts of the World.

Name of River.	Discharge in Cubic Feet, per Minute.
MOLYNEUX RIVER	1,690,401
Tay	274,000
Boyne	180,000
Thames	102,000
Clyde	48,000
Forth	29,385
Rhine	3,960,000
Rhone	649,000
Tiber	618,234
Saone	400,000
Arve	266,800
Nile	1,386,000
Irrawaddy	4,500,000

From this it would appear that the Molyneux when nearly at its lowest, discharges rather more fresh water than the Nile, six times as much as the Tay, (which has the largest known discharge in Great Britain), about nine times as much as the Boyne, and sixteen times as much as the Thames.

JAMES M. BALFOUR,
Marine Engineer,
May 9th, 1864.

II.—REPORT OF SELECT COMMITTEE ON THE OAMARU PETITIONS.

(Brought up by Mr. Miller, May 5.)

Your Committee in bringing up their Report, are of opinion that the town and district of Oamaru have strong claims on the Provincial Revenues on account of the large sums which have been received from the lands within the town of Oamaru and the adjacent country; and also on account of the valuable lands still remaining available for sale, from which a large profit will accrue to the state. There are 13 Blocks of Land surveyed within the survey district of Oamaru, containing 52,691 acres, of which 30,117 acres have been sold, realising the sum of £56,461 10s. 6d. A portion of these lands containing about 11,000 acres are, strictly speaking, within the Otepopo district.

The Survey District of Papakaio, within the Oamaru Hundred, contains about 40,000 acres, of which 25,391 acres have been surveyed. The first sale of these lands will commence in a few days.

Of the town of Oamaru, about one third is sold, for which £16,752 have been received. The gross sum of rural and town lands which has been received up to the present date, amounts to £73,213 10s. 6d.

The settlers in the Oamaru and Papakaio districts, entirely depend on the Oamaru Port for the shipment of produce, and the importation of goods. Independently of this there is a very large tract of country, including the whole of the northern part of the Province and that part of Canterbury lying adjacent to the River Waitaki, which also depends upon the Port of Oamaru for the export of wool, now amounting to 5000 bales, and the import of goods.

Your Committee are of opinion, from the evidence before them, that the erection of a bridge over the Whare Kuri, on the northern interior line, is a very necessary and desirable undertaking. With regard to clause No. 2; that is the completion of the road between Otepopo and Oamaru, a favorable recommendation has been made by the Chief Engineer of Roads with due regard to the claims of the Province generally.

The formation of Severn-street through the town of Oamaru is an essential part of the Main Northern Road, and your Committee are of opinion, with the officer above referred to, that it should be proceeded with as early as possible. The proposed improvement of Arun-street your Committee regard as properly coming under the authority of the Town Board.

With reference to the sewer in the town of Oamaru your committee are of opinion that such works should be undertaken on a general principle applicable to all localities; the same rule should apply to Cemeteries.

Your Committee conceive that the question respecting Educational Reserves has been disposed of by general resolution of the House; but think that grants for the Municipal Reserves should be obtained as early as possible, and the Municipality established.

With regard to the improvement of the Port of Oamaru, your Committee are unable to offer any opinion, as the Marine Surveyor has not yet been able to make a survey of it; but they understand that a survey will shortly be undertaken, which they consider a most necessary work.

H. J. MILLER,
Chairman.

III.—REPORT OF SELECT COMMITTEE ON COAL RESERVES.

(Brought up by Mr. Mansford, May 11.)

Your Committee having maturely considered the very important subject remitted for examination and report, desire in laying the evidence which they have taken, on the table of your House, to offer a few suggestions and observations as to the character of our coal measures and the method of their disposal.

There appear to be three classes of coal. The *West Coast Coal* which is semi-bituminous and which is similar in its character and properties to the Nelson coal:—(which approximates to the Coal of Newcastle) its locality is in Preservation Harbour, on the West Coast of the Province and is easily accessible by sea; it has not been discovered in very large quantities at present, the examination having been only of a cursory character.

The *Brown Coal* is similar to the brown coal of the Continent, but superior, and is well adapted for locomotive power along the Coast, on the Rivers and Railroads. It appears as an extensive and valuable deposit. This coal has principally been discovered at various points along the East Coast, cropping out also a few miles in the interior, and probably underlying much of the intervening country.

The *Lignite* is found very extensively throughout the interior, and will be found extremely useful for ordinary domestic consumption.

Your Committee find that the coal measures of the Province with reference to which the Government have hitherto entered into engagements are as follows:—

The *Clutha Coal Field*, to the extent of 100 acres, leased to Mr. J. G. Lewis for twenty-one years at a fixed annual rental of £200, as interest on £2,000 advanced by the Government for the construction of a Railway to the Clutha River: also a Royalty of fourpence for the first two years and eightpence per ton afterwards, the minimum being fixed at £30 per annum. This coal field is a portion of the Clutha Coal Reserve which consists of 6747 acres, of which 1275 acres are leased to Mr. Lewis for twenty-one years at a fixed annual rent of £30. The leases are appended. The land in question appears to have become a Provincial Estate by purchase, it is not covered by a Crown Grant, neither have the conditions of improvement been fulfilled to entitle the Government to obtain such a grant.

Tokomairiro, North side.—This Coal Field contains 215 acres, and is worked by the Tokomairiro Coal Company to whom a Lease for fourteen years was promised on the 13th September, 1860, on condition that they paid a Royalty the same as that paid by the Lessee of the Clutha Coal Field, and stipulating that the price of the Coal should not exceed 10s. 6d. per ton at the pit's mouth.

Tokomairiro, South side.—This Field contains 742 acres, and is at present not worked, but on the 23rd March, 1861, a Lease was promised by the Government to the same Company, when they were in a position to do so, upon the same conditions as the other, with the exception that the price at which the Coals were to be sold was reduced to 7s. 6d. per ton.

Shag River.—This Field contains 284 acres. On the 20th January, 1862, a lease of a portion of this Field was promised to Mr. Hutchinson on the same terms as that to be granted to the Tokomairiro Company.

Wharekuri.—On the 17th December, 1860, Mr. Adam Geddes offered to lease this Field, which was accepted by the Government, subject to details. He was subsequently informed the lease could not be granted as the land had not become Provincial property

Your Committee observe that the Royalties have not been received from the respective parties working the Coal, except from Mr. Lewis—these should be punctually paid in future. They recommend that the engagements entered into by Government should be fulfilled, and Leases executed where the occupants have fairly entered into the working of the Coal seams.

It appears to be highly desirable that in every Lease granted by the Government, a power should be reserved for effectual supervision, that plans should be furnished periodically of all workings open and closed, and that powers of resumption should be included so that a check may be held against the wasteful expenditure of the coal.

Your Committee consider it would be inexpedient to retain more than about ten to fifty acres of the various coal measures, and these should be situated in such localities in the vicinity of population—or where the coal is of a superior class and easy of transmission—as would prevent monopoly. The remainder might be sold, and would doubtless be worked more profitably by the proprietors than by the Government. Your Committee would, however, recommend a more careful examination by competent persons of these Coal measures before the selection is made, as the formation is not uniform.

It is a source of great congratulation to find that the coal measures of the East Coast of the Province are not as some have hitherto represented them, for which we have the high authority of Dr. Hector, the Provincial Geologist, who says, "I feel satisfied from the result of my examination in the field and laboratory, that the deposits of Brown Coal in this Province, although they are an inferior fuel to the coals at present imported from Australia and elsewhere, have yet a sufficient value as a natural product to exert an influence on the future prosperity of the Colony."

W. H. MANSFORD,

Chairman.

IV.—REPORT OF THE SELECT COMMITTEE ON THE CATTLE BILL.

(*Brought up by Mr. Miller, May 30.*)

In the consideration of the Cattle Bill, your Committee have devoted their attention to—

- 1st,—Registration of Brands, Inspection of Slaughter Houses and Slaughtered Meat, and driving of Stock.
- 2nd,—To the Clauses affecting the question of the disease known as Pleuro-Pneumonia amongst cattle.

With regard to the first part of the matter under their consideration, your Committee are of opinion that with a few slight alterations in some of the Clauses of the Bill, the provisions therein made are calculated to meet the requirements of the Province.

The principle upon which this portion of the Bill is framed is that of securing the registration of the brands of all cattle in the Province, and also the registration of the brands of all cattle slaughtered.

As regards the second subject of consideration, that of the disease known as pleuro-pneumonia, your Committee are divided in their opinion—not as to the nature of the disease—but as to the best course to be adopted to meet the various difficulties attending legislation on this subject.

Your Committee have been occupied in collecting all the evidence possible in connection with this subject, and would recommend that the evidence which they have taken be at once printed. By such a course the House will be in a position to form an opinion on this portion of the Bill, and to decide upon what measures it is advisable to take.

H. J. MILLER,
Chairman.

Dunedin 28th May, 1864.

EVIDENCE TAKEN BY THE SELECT COMMITTEE OF THE PROVINCIAL COUNCIL UPON THE CATTLE BILL, 1864.

MR. W. LOGIE, Chief Inspector of Sheep, examined :—

What do you consider the best method for the registration of brands ?

I recommended, some time ago, to appoint Deputy-Registrars through the country, who should furnish to a Registrar, in Dunedin, monthly returns of the brands in each of their respective districts.

Do you consider there should be more than one district ?

I think there should be three districts—namely, 1. Between the Clutha and the Matuara ; 2. From the Clutha to the Horse Ranges up Kakanui Range and the Mount Ida Ranges to the Dunstan ; 3. From the Horse Ranges to the Waitaki.

Do you think the Sub-Inspectors of Sheep could be appointed Sub-Inspectors under the Cattle Ordinance ?

I do not think they could afford any assistance.

Do you consider the rate mentioned in the Bill should be local or universal ?

Universal.

Do you think a penalty is necessary under the 18th Section of the Ordinance?

I do.

Do you consider inoculation efficacious?

I do.

From the experience you have had in the disease, do you consider inoculation a preventative or a cure?

More as a preventative than a cure.

What experience have you had in the disease called pleuro-pneumonia?

I never saw it till I came to this Province, but I have lately taken every means in my power to make myself as thoroughly acquainted with the disease as possible, and I am now able to detect the disease among cattle as certainly as scab among sheep.

Do you consider that great loss to proprietors of stock would result from inoculation?

My experience shows that the loss after inoculation, if properly performed, is not more than one or two per cent.

What is the worst infected herd you have seen?

The herd belonging to Mr. J. Jones of Waikouaiti. Out of 200 head he had scarcely a sound beast. The next worst was Mr Shand's, of the Taieri, who lost 28 out of 44.

How long do you suppose, after the cattle became infected, did Mr. Shand inoculate.

At least two months.

Do you think the virulence of the disease had expended itself before the expiration of the two months, and how many had died during that time?

It was at its very height at the time of the inoculation, up to which period about 28 head had died.

Did any of Mr. Shand's cattle recover after having been inoculated?

Several must have recovered.

What condition were the cattle in under the disease?

Many of the cattle were in very good condition.

Did any of the cattle that were sick, and were not inoculated, recover?

Yes: some one or two.

Have you, since pleuro-pneumonia appeared in the Province, had many opportunities of ascertaining the effect of inoculation as practised in Victoria?

Yes; many, and from reliable sources.

What is the character of the information on this point?

It is favorable in all cases when taken in time.

Did you obtain your information from importers of cattle or their agents?

I got it from a pleuro-pneumonia Commissioner in Victoria, Mr. Moonie.

Out of the 232 head belonging to Mr. Jones, how many were shot and how many died under the disease ?

18 died, and 214 were shot.

Were these all shipped cattle ?

All shipped cattle, about six weeks landed.

In the Taieri District inoculation has been adopted as a rule, and the Inspector reports the district free from disease ; in the case of Waikouaiti district have they as promptly adopted the same means ?

No ; not as promptly as in the Taieri.

What is the character of the Inspector's reports as to the spread of the disease, or otherwise ?

They report that the disease is spreading rapidly.

Are those infected in the Taieri being properly operated upon ?

Yes, I think they are being properly treated.

Are those in the North being properly operated upon ?

The evidence from the North tends to show that they have not been properly treated in some cases.

MR. JOHN JONES, Waikouaiti, Examined :—

How many head of cattle have you had diseased ?

We could see the disease on about 300 head.

How many were destroyed, and how many died of the disease ?

Out of the first lot of 232, 214 were shot, and 18 died of the disease ; we have since shot some 20 or 30, and a few have been shot by Mr. Bust, the Cattle Inspector.

Where these all shipped cattle ?

All these were shipped cattle, newly landed.

Have you had any of your cattle inoculated, and if so, how many ?

We have had some 240 head inoculated, of which very few have since died, and they all seem to be doing well.

Were the last all shipped cattle ?

About eighty of them were shipped cattle, newly landed ; the rest were Provincial.

How long after the disease appeared did you inoculate them ?

About a month.

How many of them died before inoculation ?

We knew of several that died before inoculation.

Were many of them bad at the time of inoculation ?

Some few appeared to be badly diseased.

How many have died since inoculation ?

Not more than four or five, so far as I know ; but we have shot about six, which seemed to be past recovery.

Do you consider the inoculation stopped the disease ?

Yes ; I think so.

Do you consider the disease is on the increase, or otherwise, in your neighborhood

I think the disease is on the decrease in the neighborhood.

Are you of opinion that the cattle which you had inoculated were previously infected with the disease ?

I had reason to believe they were infected.

Do you consider inoculation to be more of a preventative or a cure ?

I believe it is a preventative, but not a cure.

Do you think that the assessment passed for the purpose of supplying inspectors, &c., should be levied in districts or over the whole province ?

I think that the assessment should be universal.

Do you approve of clause 18 of the Cattle Bill ?

Yes.

Do you approve of clauses 20, 21, and 23 ?

No. I do not approve of them.

Do you think that others than the Inspector should have power to prosecute under the Ordinance ?

No. I think that the Inspector should have sole power to prosecute, and the Wardens and others should have no power to prosecute.

Have you ever seen pleuro-pneumonia before it broke out among your own cattle ?

No.

MR. JAMES KENNEDY, Inspector of Cattle and Sheep at Port Chalmers,
examined :—

What experience have you had among cattle affected with pleuro-pneumonia ?

I have seen a great deal of it at home and out here, and I consider the disease is the same in both countries.

Have you seen many cattle inoculated ?

Yes. I inoculated 64 of my own about six weeks ago, in consequence of discovering one diseased cow amongst the lot which I killed. None of the others were sick, and are all still well.

What are the symptoms of pleuro-pneumonia ?

The symptoms are staring coat, dead-glazed eye, heaving at the flank, not much running at the nose, short dry cough.

Do you know of any other disease which has symptoms resembling those of pleuro-pneumonia ?

No ; none that I have ever seen.

What would be about the percentage of loss at home amongst cattle running out ?

The loss at home is not above 1 or 2 per cent. amongst running cattle. I have lost three or four head out of four or five hundred head amongst which there was pleuro-pneumonia. We never considered pleuro of much consequence amongst cattle running out.

Have you ever seen inoculation tried among cattle at home ?

I have seen inoculation at home.

Do you consider inoculation to be a preventative or a cure ?

I think it a preventative, but not a cure.

What was the nature of the locality of the dairy at Port Dundas referred to in your report ?

It was in the neighborhood of the canal, and the animals were fed upon refuse of distillery, which is very injurious to the constitution of animals.

Are you of opinion that the disease is on the increase or otherwise in the Province ?

I am satisfied it is on the decrease in the Taieri and at Port Chalmers.

Do you approve of clauses 20, 21, and 23 ?

I consider they should be modified.

MR. LOGIE re-examined :—

With reference to your views as to the division of the Province into branding districts, would not the following plan be preferable—namely, that there should be one Registrar of Brands in the whole Province. That the Province should be subdivided into districts, with Deputy-Registrars appointed to each district, and that a fortnight's notice should be given to the Deputy-Registrar, by the person wishing to register his brand, so that the Registrar should be communicated with, and thus prevent the registering of the same or similar brands in any part of the Province ?

I see no objection to such a plan.

GEORGE SHAND examined :—

How many cattle have you had diseased, and how many of them have died ?

About 38 head, out of which 28 have died and been killed.

How many of them had died when you commenced to inoculate ?

When I began to inoculate there were about 12 dead and killed ; 10 died of the disease.

How many cattle did you inoculate ?

Altogether we inoculated 74. We only inoculated one out of the twenty-six which remained out of the mob of 34.

How many out of the twenty-six head died ?

Sixteen out of the twenty-six died. We had to kill the one which we inoculated.

Did the four head which joined the diseased cattle, and which had been inoculated, present symptoms of pleuro-pneumonia before they were killed ?

Yes.

Do you think that any of the 70 head would have died had they not been inoculated?

I think that some would have died, because I believe that inoculation stopped the progress of the disease.

Do you know any other instances where the same effect was produced?

Yes; my neighbor, Mr. Alexander Todd, lost three or four head out of fifty, but after he inoculated the disease disappeared. Another neighbor, Mr. James Todd, had three or four out of thirty diseased, and after inoculation the disease disappeared.

What induced you to inoculate?

The desire to try some remedy to save my cattle.

Did you ever see pleuro-pneumonia before it broke out in your herd?

I never saw it before.

Were the cattle which showed the disease shipped or provincial cattle?

The first lot which died were shipped cattle, and I lost two or three provincial bred milch cows besides.

How long after inoculation did the four head which you joined to the diseased mob exhibit symptoms of disease?

More than fourteen days after inoculation.

From your knowledge of pleuro-pneumonia, can you say that you can recognise the disease by any distinctive symptoms peculiar to it?

I could not recognise it by any distinctive and peculiar symptoms?

JAMES SMITH, Cattle Inspector for West Taieri District, examined;—

Have there been many cattle within your district affected by pleuro-pneumonia?

Yes; a great many.

How many have died of the disease up to this date?

Ninety-two, out of several thousand head, have been killed and died in the district, most of these died before inoculation, the greater proportion of which were shipped cattle.

What has been your experience of inoculation?

Previous to my leaving England in 1858, inoculation was not practised. I saw about twelve hundred of Messrs Driver M'Lean and Co's cattle inoculated. The disease had appeared amongst these, and I had killed twenty-six of them which were diseased.

How many of the "John Temperley's" lot have died since inoculation?

About twenty; the lot having consisted of 265 head.

What appearance did that mob present at your last inspection?

There was no improvement in them; but I partially attribute that to want of feed.

How long is it since this mob was inoculated ?

They were inoculated on the 4th of March last.

Is the disease among the cattle here the same as pleuro-pneumonia at home ?

The disease here is not of so violent a nature.

What is the most distinctive symptom of pleuro-pneumonia ?

The short husky cough.

Do you consider that the disease is on the increase or otherwise, in your district ?

The disease is on the decrease in my district.

What effect does inoculation have upon healthy fat cattle ?

They do not appear to lose condition.

Do you think certain localities favor the disease more than others ?

I believe the disease is more prevalent in low-lying, swampy country.

What probable percentage of loss would there be in inoculating a mob of healthy cattle ?

Not much, probably not above one or two per cent.

How many cattle have been inoculated in your district ?

As far as I can judge, about 3000 head.

Have you seen any evil result from inoculation ?

None.

MR. G. A. CHALMERS, examined:—

Have you had pleuro-pneumonia on your station ?

Some few cattle have died, but I do not think pleuro has been the cause of their death.

Have you inoculated all your cattle ?

They were all inoculated. Three Provincial bred cattle died from the effects of the inoculation.

Are your cattle liable to mix with the cattle on Spylaw station ?

They are across every day. At the head of the stream, which is only a foot wide, it is very difficult to keep them from mixing. Sometimes some of the Spylaw cattle come across to my run. I saw three myself the other day ; and the boundary towards the Clutha, for a distance of four miles, is an imaginary line.

What inconvenience do you suffer from your district being declared an infected one ?

I cannot get to the bush with my working bullocks, and in consequence the sawn timber, for the use of diggers and others, is unavailable. Some cattle which were left on my run last winter, and which I have reason to believe were diseased, are occupying a portion of my country, and rendering it useless to me.

What proof have you that Mr. Smith's bullocks are suffering from pleuro pneumonia.

The Inspector of the District pronounced one of them to be in the last stage of disease, and the owner, Mr. Smith of Tokomairiro, acknowledged that they were diseased. I believe a portion of the same lot of bullocks are now on Mr. Pinkerton's run, and the Inspector reports that they are also infected.

Who inoculated your cattle?

I and another man named Cullen. It was done with Mitchell's vaccine lymph.

Can you state any further objections to the proclamation of infected districts?

It enables unscrupulous persons to drive cattle into the district, and keep them there without the permission or consent of the occupier of the land, as also stray cattle, or rather infected cattle, which may render the precautions already taken of no avail, as it is then of course impossible to secure newly born cattle from infection.

How would you be affected in the event of Spylaw run being declared clean?

It would affect us very considerably—because we should be liable to a penalty every time our cattle crossed on to the Spylaw Run. At present we can get firewood from the Spylaw run, but if that were declared clean, I should not be able to cross out of my own run.

DR. CHALMERS examined:—

Have you had opportunities of observing the effects of pleuro-pneumonia in cattle, as well as the result of vaccination or inoculation upon them?

I have studied vaccination in cattle, seen it practised, watched the result, made inquiries of those who have practised it in their own herds, and formed my conclusions of its efficacy and value.

Do you consider vaccination to be a preventative or a cure?

Strictly speaking it is not a preventative, because the disease is conveyed to the beast by the process of inoculation, but in such a mild form as to render it probable that the animal will be able to throw it off, without receiving the injurious effects which the disease acquired in a natural way would have caused. We vaccinated 300 head with lymph procured from Melbourne, about the tenth day the disease seemed to be developed, and three of the animals (Provincial cattle) died. Since then, during an interval of six weeks, none have died. As far as I can see, the vaccination seems to have fattened them.

Would there be harm in using lymph from the lung of a beast which had been infected with the disease in a natural way?

Not if the virus were taken at a proper stage of the disease—that is, before the lymph becomes purulent.

Do you consider vaccination or inoculation in cattle for pleuro-pneumonia to have resulted analogous to vaccination in the human subject for small-pox?

Yes.

Would you consider it advisable to enforce the vaccination or inoculation of cattle in districts where the herds are supposed to be free from disease, and where the disease has not prevailed within a distance of say twenty or thirty miles?

I should consider it unnecessary to inoculate in such a case.

Whether would you consider it advisable to proclaim herds or districts infected?

I consider it more advisable to proclaim a herd than a district infected, because it is impossible to confine the infection to a district; whereas an infected mob may be confined to a locality, and, when restored to health, it does not follow that the infection remains any longer in that locality. When cattle are inoculated then the disease is introduced.

V.—REPORT OF THE SELECT COMMITTEE

Appointed by the Provincial Council upon the Application of the Loan of £35,000 to the Town Board of Dunedin, and of the Vote of £10,000 of Last Session of Council for the Formation of the Market Reserve and Princes Street South. Dunedin,—said Committee consisting of Messrs. Paterson, Birch, Reynolds, Gillies, Burns, Murison, and E. B. Cargill (Mover).

Your Committee find that, of the Loan of £35,000 to the Town Board, the sum of £14,932 15s. 5d. has already been paid by the Government to the Board; that contracts have, in all, been made by the Town Board to the amount of £30,022 10s. 11d., although only £21,495 16s. 11d. has been authorised by the Government, — leaving the sum of £4,977 9s. 1d. still available for city improvements. It appears that the loan has been appropriated by the Town Board to the several wards of the city, in proportions deduced from their superficial extent, but without reference to the assessed valuations, upon which the provision for repayment of the loan and interest must rest; and thus, while the annual tax upon assessments of South Ward and Leith Ward amount respectively to £3,172 11s. 1d. and £1,698 9s. 9d., the proportion of loan appropriated to those wards amount respectively to £4,000 and £8,000, the apportionment of the expenditure being thus in the inverse ratio of the means to be derived from assessment for its repayment. Your Committee consider, therefore, that the apportionment of the loan among the several wards, in the proportion of their superficial extent, rather than their rateable value, must involve injustice to the rate-payers, so long as one general assessment is levied from the city from which the interest of the loan will be paid.

Your Committee find that on the 25th Nov., 1863, the Provincial Secretary forwarded to the Town Board the resolution of the Provincial Council anent the expenditure of the sum of £10,000, voted for Main Road through Dunedin and filling up of the Market Reserve, receipt of which was acknowledged on the 3rd December, intimating that instructions were given to the City Engineer to prepare plans in accordance with the said resolution.

On the 21st December the Town Board appears to have submitted to the Government plans and specifications as in conformity with the Provincial Council's resolution, which the Government approved of, on the 23rd of same month. Here your Committee would observe that the Government did not take notice of that part of the resolution as to the widening of Princes Street South, to the Town Belt, inasmuch as, that while the plans provided for the reclamation, &c., they did not provide for the widening of Princes Street South, from the reclamation to the Town Belt. In other respects the plans and specifications seem to have been in good faith with the resolution.

The Town Board, thereafter, on their own authority, reduced the level of the reclamation, &c., so as to bring the amount of the contract within a certain sum, which they appear, notwithstanding the resolution of the Council, to have fixed as the sum to be spent on that work, namely £6000.

The sum tendered for the carrying out of the plans and specifications appears to have been £7237, 17s. 4d., at the same time, it does not appear that the tender was ever submitted to the Government. The amount stated by letter was £6000. The reduction of the level of the reclamation does not appear to have been submitted to, or sanctioned by the Government, and from the evidence it will be seen that Pearce and Peckham's contract was never submitted to the Government for their approval, but only

incidentally mentioned as being a contract for L6000, in a letter applying for the approval of the Government to the balance of the L10,000 vote, being applied to Great King Street, and it will be observed that in a letter to the late Provincial Treasurer, the City Engineer puts it as if this sum of L6000 was the whole balance of the L10,000, in the face of the most conclusive evidence, that the work sanctioned in the first instance, was the filling up of the Market Reserve to the level of 52.50, the same level as that subsequently agreed to in the contract for the reclamation of the harbor. With regard to the contract for the work, your Committee find that the late Government had, previous to the Committee's taking the matter up, directed Mr. Paterson, the Chief Road Engineer, to examine and report on the work done. The result of that report, after careful comparison of the plain statements of the Clerk to the Town Board, and the rather unintelligible and elaborate statements which the Committee received from the City Engineer, and which your Committee consulting the dignity of the Provincial Council, deem it proper, after careful examination, to recommend should not be attached to the Appendix to this report, amounts to this, namely, an unaccounted for expenditure of over L2000. Your Committee, in various instances, cannot reconcile statements of the City Engineer with facts as brought before them, as, for instance, Pearce & Packham's tender was for so many thousand yards at 2s. 4d. per yard for filling, including subsidence, according to the original plans, yet the City Engineer not only attempts to make out that the effect of lowering the level as a lessening of the cost, actually produced an increase in the amount filled in, but states also that the work performed was not a price per yard.

Your Committee find that contracts have been entered into by the Town Board, without the sanction of the Government, and at present the amount of contracts entered upon are in excess of those authorised.

It is apparent that the Board were fully cognisant of the resolution of the Provincial Council, and that they made a show of carrying out said resolution, at the same time, it is evident they did not carry out the resolution in the execution of this work, but, without intimation, departed from the plans submitted to, and approved by, the Government.

Your Committee, however, cannot altogether exonerate the Government, but consider that they should not have trusted to the Board so much as they appear to have done. It appears to your Committee that the evidence before them more than sufficiently justifies them in recommending that the Government should refuse their sanction to any further contracts under the Town Board until work to the value of the money already paid be expended on the filling up of the Market Reserve and Princes Street South, and the contract be performed in accordance with the plans and specifications as approved by the Government.

Your Committee are grieved to find that in the works carried out throughout the city, so little attention has been paid to what common sense, independent of any scientific attainments, would have dictated as being the first thing to be attended to, namely, the thorough drainage of the formation to receive the metal, and provision for carrying off the surface water from the roadways, instead of which it appears the practice is to dig out a trench for the metal, without side drains to it, thus forming a basin for the water and softening the metal bed, so that when traffic passes over the road, the metal disappears in the puddle beneath.

Your Committee would strongly recommend to the attention of the Government the evidence of Mr. William Gowans on this subject, as being of a most valuable character; the Chief Engineer of Roads, Mr. Paterson, agreeing generally with his remarks—fully so as regards drainage, although not to the same extent as regards pitching.

Your Committee, after a full consideration of the subject entrusted to them, have arrived at the following conclusions:—

1. That the expenditure of the L35,000 loan is distributed among the wards of the city, upon a principle which involves present injustice to the ratepayers.

2. That the Government has not exercised so careful a supervision, as they might have done, over the expenditure of the grant of L10,000, and that the Town Board have, to a great extent, ignored the direction given for the expenditure of that grant by the resolution of the Provincial Council.

3. That there appears to be an unsatisfactory discrepancy between the statement of the City Engineer of work executed on the Market Reserve, under Messrs. Pearce and Packham's contract, and the quantity and the value of the work as estimated. It stands thus :—

City Engineer, 46,746 at 2s. 4d.	L5,453 14s. 0d.
Chief Road do., 26,500 at 2s. 4d.	L3,091 13s. 4d.

Difference ... 20,246 at 2s. 4d.	L2,362 0s. 8d.
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Since Mr. Paterson furnished his report to the Government, he reports to the Committee that a small portion of work has since been done, but nothing approaching to the deficiency to be accounted for. The estimated quantity for the original level, as approved by the Government, was (as appears in Messrs. Pearce and Packham's contract) 42,226 yards, at 2s. 4d. per yard ; how the reduction of the level has increased the number of yards to be filled in, your Committee are at a loss to understand.

4. That a great deal of public money has been, and is now, in course of being expended in the city in a wasteful, and altogether unprofitable manner, in consequence of the utter neglect of the most ordinary and self-evident principles of road making, more especially on the all-important point of drainage.

5. Your Committee recommend that the maintenance of the main road through the city should, in future, be placed directly under the charge of the Provincial Road Department.

6. And your Committee are of opinion that the liability for payment of interest, and repayment of principal of money lent for the formation of streets within the city, should be so localized that the several wards or districts of the city should be liable for the amounts actually expended within the same.

Signed, in the absence of E. B. Cargill, Chairman,

JOHN L. GILLIES,

Chairman *pro tem.*

8th June, 1864.

(M I N U T E S .)

Committee met at the office of Messrs. Cargill and Co., May 2nd, 1864. Present—Messrs. Birch, Murison, Reynolds, and E. B. Cargill.

Mr. Cargill took the chair.

Resolved—That the Government be requested to furnish the Committee with copies of correspondence with the Town Board, in reference to the appropriation of the Loan of L35,000 and the Grant of L10,000.

Resolved—That the Town Board be requested to furnish a detailed account of expenditure (under the above heads) which has already been made, and of the proposed further appropriations, and that the Town Clerk and the City Engineer be summoned to give evidence before the Committee, on a day to be fixed by the Chairman.

Resolved—That the Government be requested to provide a Clerk for the Committee.

Resolved—That the meeting do now adjourn to a future day.

(Signed,)

E. B. CARGILL,
Chairman.

MAY 5th, 1864.

Committee met.—Present—Messrs. Gillies, Reynolds, Birch, and Burns.

Mr. Burns, being voted to the chair, read a letter from the Secretary of Public Works, forwarding report of the Chief Road Engineer on the Main Road through Dunedin.

The Committee having had laid before them copies of correspondence between the Government and the Town Board relative to the Loan of L35,000 and the vote of L10,000, and it appearing, from a letter written by the Provincial Secretary, dated 25th November, 1863, receipt for which was acknowledged by the Clerk to the Town Board in a letter, dated 3rd December, 1863, that the Town Board were put in possession of the Resolution of the Council relative to the disbursement of the L10,000, and that in a letter, dated 21st December, plans of the works which were to be a first charge on the vote of L10,000 were forwarded to the Government by the Town Board, it was resolved, upon a motion by Mr. Reynolds,—“That the Select Committee suggest to the Government that no further payments be made to the Town Board on account of the vote of L10,000 and loan of L35,000 until the Committee have had an opportunity of investigating the matter.”

The meeting then adjourned till a future day.

(Signed,)

A. J. BURNS,
Interim Chairman.

MAY 9th, 1864.

Committee met.—Present—Messrs. Burns, Gillies, Reynolds, and Birch.

Mr. Burns in the chair.

The minutes of the last meeting were read and confirmed.

Mr. Lazar, Clerk to the Town Board, was examined; the following questions being put to him:—

How long have you been Clerk to the Town Board?

I have been Clerk to the Board since 16th November, 1863.

Upon what terms and conditions did the Town Board receive the sum of £10,000 from the Government?

Under the terms and conditions of a resolution, passed in the seventeenth Session of the Provincial Council, and forwarded by the Government to the Board.

What was the nature of the instructions of the Town Board to the City Engineer relative to the above.

I produce a copy of the resolutions of the Board:—

“December 1st, 1863.—That the Engineer be instructed to prepare specifications for reclamation of the Market, and of that part of Princes Street which lies between the foot of Hope Street and the Anderson's Bay Road; that the width of this portion of Princes Street be one-and-a-half chains, with 25 feet of metal; that the specifications shall direct the removal of such earth from Melville Street, Manor Place, and Lees Street, as can be spared for this reclamation; that a partial formation of Lees Street, from Manor Place to Jones Street, and of Jones Street from Lees Street to Princes Street; and the formation of Manor Place throughout, to half its width, be included in the said specifications in such a manner that, while the works may be carried on as one undertaking, the charges for the same be made distinct, so that the account may be divided between the grant for the Market and main line, and the £35,000 loan of 1863.”

“December 15th, 1863.—Resolved to invite tenders for Princes Street South, according to the Engineer's plans and specifications, so soon as said plans have been approved by Government.”

Subsequently Messrs. Pearce and Packham's tender was accepted, subject to the work being reduced to £6,000.

On submitting the plans of improvements, did the Town Board again acknowledge the obligation of the Provincial Council?

Yes; as will be seen by letter from the Board, of 21st December, 1863.

On submitting the plans of improvements in Great King Street, from Frederick Street to Water of Leith, what was the nature of the statement as regards the contract?

That it would come under the vote of £10,000.

Was the contract for works in Great King Street North accepted before that for the works on the Market Reserve South?

The Market Reserve South was accepted on December 29th, 1863, and Great King Street North in February, 1864.

Was there any contract taken for widening Princes Street South, from the Market Reserve to the Turnpike?

I think no contract was ever entered into by the Town Board for that purpose.

Was Pearce and Packham's contract and schedule submitted to the Government and approved by them?

They were approved of by Government, by letter dated December 23rd, 1863.

Did the Government give any approval to the reduction from L,7237 17s. 4d. to L6000?

The contract gives power to the City Engineer to make such reduction as he might think proper. No intimation was given to the Government as far as I am aware.*

What were the particulars of the reduction?

Mr. Lazar refers the Committee to the City Engineer for an answer to this question.

Mr. Lazar was then examined with regard to the L35,000 loan, as follows:—

How many wards are there in the City?

Four wards.

Name them?

South, Bell, High, and Leith Wards.

Is it intended that the interest on the L35,000 should be charged on the town as a whole, or against each ward on the amount advanced?

It is intended to be charged against the town as a whole.

To the three following questions the witness furnished written replies, as under stated:—

1. What sums have been paid by the Board against works contemplated under the L35,000 loan?
2. Are there any contracts existing in connection with the loan? If so, name them, and what liabilities the Board is under in connection with the same.
3. Can you inform the Committee what are the amounts of rates leviable for the last year in each ward, and what portion of the L35,000 loan it was contemplated to expend in each ward?

Reply to question No. 1.

Sums paid by the Town Board against the L35,000 loan account,
May 9th, 1864.

	£	s.	d.
Crawshaw and Mitchell, High Street East ..	198	6	0
Anthony and Finlay, High Street West ...	650	0	0
Pearce and Packham, Rattray Street ...	2250	0	0
Lonnie and Co., Great King Street South ...	3000	0	0
Anthony and Finlay, South Ward ...	2000	0	0
Pearce and Packham, Brown Street ...	200	0	0
Lonnie and Co., Walker Street ...	314	10	5
M. Walkem, High Ward ...	2000	0	0
J. Pitsford, Moray Place Steps ...	49	10	0
Anthony and Finlay, in Bell Ward ...	1500	0	0
Crawshaw and Mitchell, in Leith Ward ...	1750	0	0
Total	£13,912	6	5

* A letter has since been received from Mr. Lazar, in which he states he was in error in thinking that the Government were unaware of this alteration.

Reply to question No. 2.

Contracts now existing in connection with the loan and Town Board's present liabilities thereon, May 9th, 1864.

	£	s.	d.
Anthony and Finlay, South Ward, balance ...	1100	0	0
Pearce and Packham, Rattray street ..	187	12	0
Do., Brown street ...	111	0	0
M. Walkem, High Ward ...	1004	0	0
Anthony and Finlay, High street west ...	16	13	6
J. Pitsford, Steps, Rattray street ...	176	0	0
M. Walkem, in High and Bell Wards, say ...	3375	0	0
Anthony and Finlay, in Bell Ward ...	808	0	0
Crawshaw and Mitchell, in Bell and Leith Wards, say ...	3600	0	0
W. Palmer, in Bell Ward, say ...	1800	0	0
Crawshaw and Mitchell, metal for Bell and Leith Wards ...	2041	17	0
Do., Leith Ward ...	1132	0	0
Do., Park street ...	350	0	0
J. Pitsford, Dundas and Clyde streets bridges ...	408	2	0
Total ...	£16110	4	6

Reply to question No. 3.

Summary of £35,000 Loan Account.

	£	s.	d.
Sums already paid by Town Board ..	13912	6	5
Town Board's liabilities on Contracts under this loan ...	16110	4	6
Balance not contracted for ...	4977	9	1
Total ...	£35000	0	0

Appropriation of £35,000 Loan.

	£	s.	d.
South Ward ...	4000	0	0
High Ward ...	11500	0	0
Bell Ward ...	11500	0	0
Leith Ward ...	8000	0	0
Total ...	£35,000	0	0

Assessments for year 1863.

	£	s.	d.
South Ward ...	3172	11	1
High Ward ...	6407	8	8
Bell Ward ...	4158	1	11
Leith Ward ...	1698	9	9
Total ...	£15,436	11	5

Copy of Letter referred to in Note.

Town Board Office,

Dunedin, May 9th, 1864.

SIR,—

With reference to your question as to the Government having been informed that Messrs. Pearce and Packham's contract had been fixed at £6000, I have the honor to refer you to a letter from the Provincial Secretary, of date January 29th, 1864, asking for particulars of expenditure under the vote of £10,000, and my reply thereto, under date January 30th, as follows:—

	£	s.	d.
Messrs. Pearce and Packham's contract, Princes street south	6000	0	0
Received and paid for maintenance of do. ...	700	0	0
Sigley and Bell's contract, Main road north ...	3287	15	0
Balance still unappropriated	12	5	0
Total	£10,000	0	0

I have, &c., &c.,

(Signed,)

JOHN LAZAR.

Clerk to Town Board.

The Chairman of the Select Committee of
Provincial Council upon the Town Board Loan and Grant.

Copy of Pearce and Packham's Contract.

42,226 cubic yards of filling, including allowance for subsidence.
cubic yards for filling Market Ground, including allowance for subsidence.
10,000 yards filling South fifteen chains.
2,258 cubic yards of filling, where streets abut on Princes Street.

	£.	s.	d.
45484 cubic yards in all, at 2s 4d.	5306	9	4
482 cubic yards of footpath gravel, at 5s. ...	120	10	0
300 cubic yards of loaming, under metal, at 4s.	60	0	0
1600 cubic yards of mixed metal, 2½ and 2 inch guage, at 10s	500	0	0
720 superficial yards of wave wash rubble, on harbor embankment, at 7s. ...	252	0	0
110 lineal yards of fourth-class sewer, at 90s.	495	0	0
264 „ of tubular pipe drain labor, at 2s.	26	8	0
Contingencies 10 per cent.	658	0	0
Total	£7,418	7	1

N.B.—This contract was reduced to £6000.

Memo.—The above total was incorrectly stated in Messrs Pearce and Packham's original contract as £7237, 17s. 4d.

MAY 19TH, 1864.

Committee met.—Present—Messrs. Burns, Birch and Gillies.

Mr. Burns in the chair.

Mr J. L. Gillies, examined—

Have you received any communication from the City Engineer on the subject of the reclamation of the Market Reserve and Princes Street South?

I have.

Will you furnish the Committee with any information on the subject you may possess?

In a letter I received from him he states as follows:—

City Engineer's Department,
Dunedin, 25th April, 1864.

The Honorable. John Gillies,

SIR,—

I HAVE the honor to enclose a paragraph, cut from the *Daily Times*, purporting to be a report of your speech in the Provincial Council upon the evening of Thursday the 21st instant.

As City Engineer, I am desirous of ascertaining if this be a *verbatim* report, seeing that there is a manifest misunderstanding somewhere, as to what the Town Board represented to the Government when submitting my plans for the formation of Princes Street South, and the Southern Market.

I am quite satisfied that the Town Board could not have submitted plans and estimates with any intention of completing the whole work as supposed; as they had, previous to accepting and submitting the tenders to the Government, given me special directions to have the contemplated works reduced to a maximum cost of £6000, the balance of the £10,000 subsidy, then at their disposal.

I have, &c.,

(Signed)

JOHN MILLAR, F.S.A.,
City Engineer.

It was thereupon resolved—

To write to the City Engineer enclosing a second series of questions relative to the subject, and desiring his replies thereto as early as convenient.

The Committee then adjourned.

(Signed)

A. J. BURNS,
Chairman.

MAY 26TH, 1864.

Committee met.—Present—Messrs. E. B. Cargill, W. H. Reynolds, T. Birch, A. Burns, and J. L. Gillies.

Mr. E. B. Cargill in the chair.

Resolved—That the City Engineer be desired to attend the Committee on the following day, and to bring with him his replies, in writing, to the questions previously submitted to him by the Committee.

MAY 27TH, 1864.

Committee met.—Present—Messrs. Reynolds, Burns, Gillies, Murison, and Birch.

Mr. J. L. Gillies in the chair.

The City Engineer having attended and brought with him written replies, was further examined as follows :—

What is the exact value of the work done by Messrs Pearce & Packham, under their contract for the reclamation of the Market Reserve, Princes Street South, stating the number of cubic yards, and the price per yard ?

The quantity of work performed by Messrs Pearce & Packham, 44,000 cubic yards, any addition or reduction to be at the rate of 2s. 4d per yard.

Is there any portion of their original contract for work, estimated at £6000, unfinished ?

There is work about the value of £700, unfinished. It is for the items of drainage and gravel footpaths.

What amount has been paid to Messrs. Pearce and Packham under this contract ?

I have granted certificates for L5000.

Do you consider that the resolution of the Provincial Council forwarded to the Town Board has been carried out in its integrity ?

I believe that it has.

On what date did the Government sanction the reduction of the level of the reclamation of the Market Reserve and Princes street south ?

In a letter from the Government, dated 12th February, in reply to one from the Town Board of 30th January.

Will you furnish a copy of the authority, if any has been given ?

Personally, I never received any authority from the Government ; my authority was from the Town Board.

Question by Mr. Burns.

How did the Town Board value the work to find the correctness of the estimate of Messrs. Pearce and Packham's contract ?

The payments to Messrs. Pearce and Packham were made on approximate measurements. Messrs. Pearce and Packham's contract was for a lump sum, and not at a rate per yard.

Resolved—To call the Clerk to the Town Board to give evidence upon the subject.

JUNE 3RD, 1864.

Committee met.—Present—Messrs. Birch, Burns, Reynolds, E. B. Cargill, and J. L. Gillies.

Mr. J. L. Gillies in the chair.

Mr. Lazar, Clerk to the Town Board, appeared and answered questions as follows :—

On what date did the Government sanction the plans and specifications for the reclamation of the Market Reserve, Princes street south ?

On the 23rd December ; see Provincial Secretary's letter.

Has the Town Board any authority for having altered the levels shown in the plans referred to, or have any other plans than those referred to, been sanctioned by the Government ?

I know of no other.

What was the date of the acceptance of Messrs. Pearce and Packham's contract ?

The 29th December, 1863.

Were the actual contracts, or merely the total amounts, submitted to the Government ?

Merely the totals.

The Committee thereafter took into consideration the evidence as obtained from various sources. The Clerk having submitted the written replies received from the City Engineer, it was resolved—

That the replies of the City Engineer are couched in language that should not appear in the records of the House, and the Committee, while giving full attention to said replies consider them eminently unsatisfactory.

The Committee then adjourned till the following day.

JUNE 4TH, 1864.

Committee met.—Present—Messrs Cargill, Burns, and Gillies.

Mr. E. B. Cargill in the chair.

Mr. William Gowans examined, stated in answer to enquiries by the chairman :—

I have had considerable experience in road making. I superintended road-making in England, at Portsmouth and Southampton, on the system of M'Adam. I was directly employed by Sir Wm. Knighton. These roads were being constructed under the direction of Mr M'Adam. Subsequently, for about sixteen years, I had the superintendence of roads in the employment of Lord Willoughby de Brook. I may say that I thoroughly understand M'Adam's system. I was also employed in Wales on the same system of road-making. Altogether, I was engaged about thirty-five years in that kind of work, up to the time of my leaving for this country, about five years ago. I have seen the manner in which roads are made in this town. I am sorry to see it. I consider it as a waste of money. There is much labor put upon them, which has only the effect of destroying the road-way permanently. The principal defect, I take it, is the formation of the road in the first instance, by an excavation in which to put the metal, this has the effect of making a trench to hold the surface water, so that it cannot get away. On one occasion, I saw some men in King Street taking out a depth of solid clay the breadth of the road, so as to form a sort of trench, and replacing it with fine black mould, I enquired the reason, and was told that stones would not bind in clay. I was told this by one of the men working on the road. Some weeks after, I passed this place when the road had been metalled and rolled, and I saw the water standing in pools, amongst the stones. There are two small pieces of road near the Jail that have been made, I should say, by accident, very nearly on M'Adam's system. these have had to bear a very heavy traffic, from the Stuart Street Jetty, of timber and other heavy materials. They have worn well, and are yet in good order, and will bear favourable comparison with the other portions of the city, and particularly with the piece of model road so called, in Manse Street, which has been pitched under the metal, at a great expense. My opinion of the pitching of roads here, is, that it is only

spoiling them. If it is done with rotten rock, it is not so objectionable, as that will grind away under the harder metal above, but with hard stones, or round boulders it will have the worst possible effect as they are sure to break through the surface. I consider the main points of good road making are :—

1st. The thorough drainage of the bed of the road by good side drains at a lower level than the bed of the road.

2nd. The proper formation of the road, so that the surface water will pass freely to the sides, the centre being sufficiently raised for that purpose ; the surface of the road being kept smooth and unbroken so that water cannot permeate it, the even spreading of thoroughly broken metal of nearly uniform size, which should not be thrown down in cartloads but distributed from the cart, as when thrown down the small stuff all lies in a heap, and cannot be properly distributed so as to bind the road.

The bed of the road is better to be elastic and yielding, and any large stones should be carefully removed from it. I would recommend reference to the evidence taken before the House of Commons some years ago when these principles were thoroughly sustained. It is in my experience that these principles introduced by Mr. M'Adam have only come slowly into recognition in England, in the face of a deep-rooted prejudice and the strongest opposition on the part of the engineers. I have looked at the piece of road across the reclamation at the south end of the town. I see no side drains to that road, and I think the surface is very nearly a level. It has not the appearance of a properly made road. It is not drained at all, and the centre of the road has sunk below the sides—if it ever was raised above them. I should say that was in consequence of the want of drainage.

JUNE 8TH, 1864.

Present all the members of the Committee.—Report read and approved.

(Signed)

J. L. GILLIES,

Chairman, *pro tem.*

VI.—REPORT OF THE SELECT COMMITTEE ON THE VOLUNTEER FORCE.

COMMITTEE.—Mr. Speaker, Messrs. Moss, Blair, Gleeson, Hardy, and J. Cargill (mover).

(Appointed May 10th, Report brought up June 6th.)

Your Committee, in pursuance of the duty entrusted to them, proceeded to the examination of several gentlemen connected with the Volunteer Force, and of Officers of the Government, and the evidence thus obtained accompanies this Report.

Your Committee find that there are now enrolled two Companies of Rifles, one Artillery Company, and one Company of a Naval Brigade, numbering collectively 201 effectives. These have found their own uniforms at the following cost:— No. 1 Company (Rifle), 68s. to 85s. per man; No. 2 (Rifle), 27s. 6d.; Artillery Company, £8; and Naval Brigade, £4 2s. 6d. The Rifle Company have further contributed for entrance fees 2s. 6d. per man, for No. 1 Company, and 10s. 6d. in No. 2 Company; and further contributed a monthly rate of 1s. per month towards Company expenses.

Your Committee find that the companies are composed chiefly of artizans, labourers, and agriculturists, with a sprinkling of tradesmen, clerks, and professional men; that the drill is performed in the evenings, in Dunedin, in a building which, from being unfloored and limited in space, is unsuitable for the purpose; and at Green Island, in the school-room, which, from its arrangement, does not afford suitable space.

They further find that there are 125 long Enfield rifles belonging to the Provincial Government, 150 medium Enfields (General Hay's pattern) belonging to the General Government; and that there are in the custody of the police force employed by the Provincial Government the following arms, &c. (see return of arms, &c., Otago Constabulary, in evidence).* There are also 200 Lancaster rifles shortly to arrive from England to the order of the Provincial Government. There are no guns or howitzers, the Artillery performing their drill with a model gun, of wood; neither are there any breech-loading carbines, nor cutlasses to complete the equipments of the Naval Brigade and Artillery.

Your Committee find that there is no armoury for the safe custody of arms, for want of which the rifles are getting gradually injured and inefficient; that a Rifle Range and Targets have been supplied by the Provincial Government, at a cost of L100, with L30 per annum rental.

They further find that the staff of the Militia consists of one Captain (and Adjutant) and three Sergeants, whose pay is inadequate; that ammunition for practice is found by the General Government, who also contribute twenty-five shillings per annum for each effective (or a suit of uniform to last two years in lieu thereof); that the General Government have allowed a sum of L133 for past services, which sum it is proposed to expend on a band and alteration of uniforms; that out of the vote of last year by the Provincial Council there appears to have been expended the following sums, viz:—

	£	s.	d.
Drill Shed	268	16	2
Enfield Rifles	438	17	1
Drill Instructors	50	0	0
Advertising	6	7	6
Rent	11	5	0
Targets and Range	100	0	0
Lancaster Rifles	1000	0	0
Total	£1875	5	9

* See page 3.

Your Committee having maturely weighed the evidence before them, have arrived at the following conclusions :—

1st. That the resolutions passed by the General Assembly at its last Session, which provide for the training of all adults between the ages of 16 and 55, and the armament of the chief Ports, are based upon the soundest dictates of national prudence, and should be acted upon without delay.

2nd. That the selection of defensive posts, and fortifying and arming the same, should be undertaken only under the direction of an officer of the Royal Engineers or Artillery Corps.

3rd. That the selection of field artillery, suitable to the peculiar requirements and configuration of the Province, and of small arms and accoutrements for the arming of Rifle and Militia Corps, should rest with the authorities who have charge of the defence of the Colony.

4th. Your Committee learn that on the strength of the appropriation of last year, about 200 Lancaster Rifles have been purchased at the cost of about £1000. They are of opinion that the introduction of small arms constructed on different principles is a source of great inconvenience, and should in future be avoided.

5th. Your Committee believe that the most effectual way of organising an efficient Volunteer Force would be—

1. By enforcing the Militia Act.
2. By educating the youth of the Province in military movements, and the use of the rifle, through the instrumentality of the public schools.
3. By supplementing the pay allowed by the General Government for the Staff, so as to have at command a sufficient number of drill instructors to meet the wants of an increasing force of Volunteers.
4. Your Committee would also suggest that an allowance of twenty shillings per head be paid for each effective member, to be applied to Company's expenses, such as alteration of uniforms, extra drill instruction, advertising, bands, &c., &c. Such allowance to be based on number of parades attended by each member and having completed a course of musketry instruction and target practice in each year.
5. That the Drill shed in Dunedin be enlarged and floored, and a suitable armoury attached, and that in the country districts a suitable shed be erected where twenty members at least are enrolled, except in cases where the schoolhouse is suitable for the purpose; and your Committee would strongly recommend that schoolrooms be so arranged that they might be available not only for the drill of Volunteers but for that of the children.
6. That rifle ranges be secured in the country districts where Volunteer Companies may be formed, and targets and ammunition room provided.
7. That annual prizes be given to encourage shooting, the competition to be in presence of the Adjutant, or an officer duly authorised by him.
8. That in order to encourage the Volunteer movement, and to enable the requisite proficiency in drill to be attained, it is essential that the public should give it due sympathy and support, by joining the force, or by giving every facility to those who do to attend day drill and target practice.

Your Committee consider that if encouragement were given to the formation of Bands it would be a great aid to the movement, and would besides offer a source of healthy amusement and instruction to the inhabitants generally, and the rising generation particularly.

Your Committee are of opinion that by the adoption of the above suggestions it is possible a sufficient force of trained men would be obtained to secure the Province (in event of war) from being pillaged and insulted by any small force that might be attracted to our shores by our wealth and present improvident helplessness.

J. CARGILL,
Chairman.

OTAGO CONSTABULARY.—RETURN OF ARMS AND ACCOUTREMENTS.

(Referred to on page 29).

Received per Silesia in May, 1864.—90 Enfield rifles, 37 Colt's Navy revolvers, 6 Sharp's do., 12 officers' swords, 25 privates' do., 150 gun slings, waistbelts, cap pouches, muzzle stoppers, frogs, pouch belts, ball bags, cartouche boxes, and bayonets, with scabbards, 32 revolving carbines.

In Store 6th June, 1864.—2 Enfield and 2 breech-loading rifles, 2 carbines, 4 Colt's and 1 Sharp's revolver, 13,128 Colt's ammunition, 800 Dean and Adams', 6,678 rifle do., 7 swords and sheaths, 5 bayonets and scabbards, 8 pouch belts, 25 waist and 25 sword do.



VII.—REPORT OF SELECT COMMITTEE ON
GOVERNMENT PRINTING, &c.

COMMITTEE.—Mr. Speaker, Messrs. Reynolds, Gillies, Morris, Blair, Rennie, & Walker.

(Appointed April 20th, Report brought up May 25th.)

Your Committee have to report, that having met to consider the subjects upon which they were appointed, they obtained official returns* from the Sub-Treasurers of the General and Provincial Governments respectively, from which it appeared that the following sums had been expended for the items of Printing, Advertising, and Stationery, for the year ending 31st March, 1864 :—

FOR THE GENERAL GOVERNMENT.				PROVINCIAL GOVERNMENT.			
Printing,	-	-	£754 2 3	Printing,	-	-	£2,965 3 3
Advertising,	-	-	1997 3 3	Advertising,	-	-	2,026 7 11
Stationery,	-	-	776 11 1	Stationery,	-	-	3,157 4 4
Total,	-	-	£3,527 16 7	Total,	-	-	£8,148 15 6

or a grand total of £11,676 12s 1d. for the whole expense of the Government of the Province for these items during the financial year, 1863-4.

* In prosecution of their enquiry, by evidence taken from the Government Store-keeper and other heads of departments, your Committee found that it is the custom

* For returns referred to see page 33.

to use various qualities of writing-paper in the Government offices, with printed headings, and variously printed and embossed envelopes ; some of them of a very expensive character.

Your Committee consider that a great saving might be effected on all these items, and for that purpose would recommend :—

1. That all Government advertising in newspapers be discontinued.
2. That a Government advertising sheet be issued weekly, as a supplement to the Gazette, and circulated gratuitously or at a nominal price, at the discretion of the Government.
3. That in addition to the advertising sheet, the Government Gazette be printed weekly, containing only such notices as may be required to be preserved permanently for future reference.
4. That the Government be requested to contract for the printing of these issues at per page, and also for the publishing of the same.
5. That his Honor the Superintendent be respectfully requested to make arrangements with the General Government that the same method may be adopted with its advertisements for this Province as early as possible, so that they may appear in the same sheet with the Provincial notices.
6. That the present *Police Gazette* of Otago be discontinued, and that all police advertisements be transferred to the Government Advertising Sheet or Gazette.
7. That a bill be introduced without delay legalising the above-mentioned mode of Government advertising.
8. That all Government printing be of one kind of type uniform with the printed Votes and Proceedings of this Council.
9. That but one quality of writing paper and envelopes be used throughout the Government offices, whether the same be note letter or foolscap size.
10. That it is undesirable to have either the writing paper or envelopes used in the Government service printed or embossed.
11. That, instead of the above-mentioned printing or embossing, die stamps be used in all the Government offices for marking the letters and envelopes.
12. That the whole of the paper and envelopes for the Government service be ordered, when practicable, wholesale, from Great Britain.*
13. That the system of providing the different departments of the service with the various newspapers be discontinued, with the exception of the Superintendent's and Provincial Council offices.
14. That the proposed arrangement with respect to the Government Advertising Sheet be immediately carried out, if the present contracts can be put an end to.

The minutes of proceedings and evidence referred to are annexed to this report.†

WILLIAM H. REYNOLDS,

Chairman of Committee.

* Amended in Committee of the House. See Votes and Proceedings, page 109.

† In Manuscript.

RETURN of expenditure for Stationery for the Province of Otago, from the 1st of April, 1863, to the 31st March, 1864.

Provincial Government—

Provincial Council Department	£62 17 0
Provincial Secretary's Department	69 9 6
Secretary of Public Works	239 7 9
Provincial Treasurer	41 0 4
Survey	128 8 6
Provincial Engineer's	256 15 10
Provincial Storekeeper	25 17 3
Police	768 13 2
Harbor	40 6 6
Marine Engineer's	101 6 6
Goldfields	420 15 6
Gaol	62 16 11
Hospital	9 9 4
Asylum	28 1 7
Immigration	29 6 0
Road Engineer's	336 16 10
Education	9 9 10
Miscellaneous	443 4 6
Sundries	83 1 10
	3157 4 8

General Government—

Electoral	£4 16 0
Supreme Court	89 12 10
Sheriff's	15 3 0
Resident Magistrate's	48 2 7
Registrar of Deeds	144 13 6
Joint Stock Companies	8 12 6
Post Office	315 10 1
Coroner's	5 5 4
Registrar of Births, &c.	0 3 6
Militia	1 12 0
Colonial Sub-Treasurer's	27 12 9
General Customs	115 7 0
	776 11 1

£3,933 15 9

RETURN showing the Amounts paid for Printing, Advertising and Stationery for the Province of Otago, N. Z., from the 1st April, 1863, to the 31st March, 1864.

NAME OF ACCOUNT.	PROVINCIAL GOVERNMENT.			GENERAL GOVERNMENT.			TOTALS.
	Printing.	Advertising.	Stationery.	Printing.	Advertising.	Stationery.	
"Daily Times," and "Witness"	£959 17 6	£996 9 9	...	...	£1136 10 0	...	£3,092 17 3
"Daily Telegraph"	86 1 6	627 1 6	...	...	744 0 6	...	1,457 3 6
"Daily News" ... ..	...	69 1 6	...	...	...	...	69 1 6
"Evening Star" ... ..	...	172 18 6	...	...	17 12 6	...	190 11 0
Mills, Dick and Co.	180 14 6	...	...	...	...	...	180 14 6
Harnett and Co.	1448 6 5	73 1 8	...	...	...	...	1,521 8 1
Ham and Co,	47 2 0	...	...	...	...	...	47 2 0
Henry Wise	67 17 1	...	...	...	...	...	67 17 1
Home Agents	175 4 3	...	...	...	...	...	175 4 3
Sundries... ..	...	87 15 0	...	...	...	...	87 15 0
Sundry Accounts ... ..	...	...	£3,157 4 4	754 2 3	18 2 6	776 11 1	4,706 0 2
"Wakatip Mail" ... ..	...	...	...	...	36 7 9	...	36 7 9
"Dunstan News" ... ..	...	...	...	...	40 12 0	...	40 12 0
"Leader" ... ..	...	...	...	...	3 18 0	...	3 18 0
Totals	£2965 3 3	£2026 7 11	£3,157 4 4	£754 2 3	£1997 3 3	£776 11 1	£11,676 12 1

SUMMARY OF RETURNS.

	Provincial.			General.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.
Printing	2,965	3	3	754	2	3	3,719	5	6
Advertising.....	2,026	7	11	1,997	3	3	4,023	11	2
Stationery	3,157	4	4	776	11	1	3,933	15	5
Totals.....	8,148	15	6	3,527	16	7	11,676	12	1

VIII.—REPORT OF SELECT COMMITTEE ON SUPPLY.

COMMITTEE.—Mr. Speaker, Messrs. Gillies, E. B. Cargill, Morris, Reynolds, Steel, and Burns (mover).

(Appointed May 2nd, Report brought up May 3rd.)

Your Committee, having given the subject their careful consideration, have arrived at the following conclusions, viz.:—

That it is desirable as soon as possible after the session has been opened that the House should go into Committee of Supply, in which the Government should make a Financial Statement, and should lay on the table of the House the Estimates for the current year, divided thus:—

- 1st. Fixed Appropriations,
- 2nd. Departmental Expenditure,
- 3rd. General Votes for Public Works, &c. ;

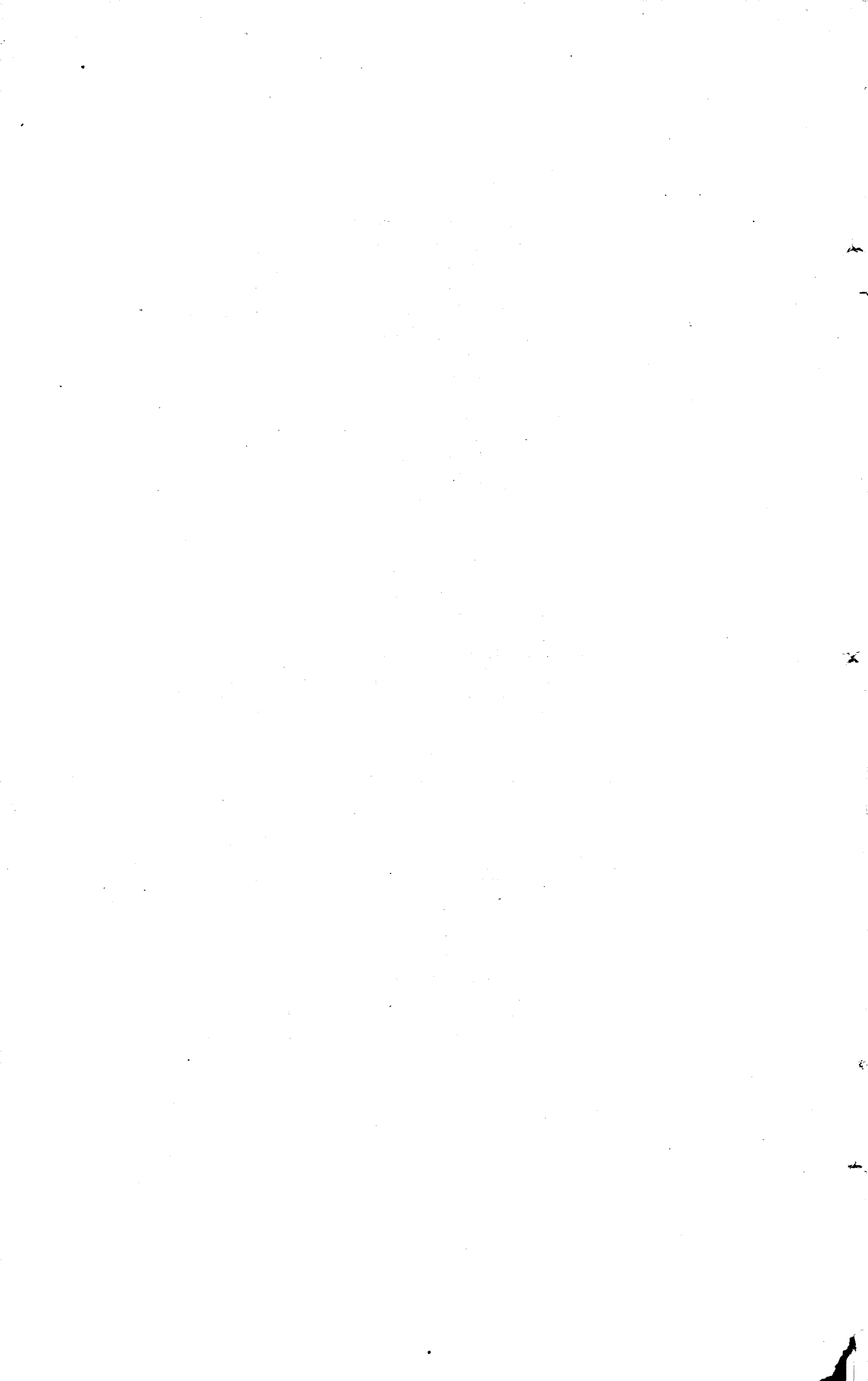
and then proceed to pass certain items of expenditure, such as interest on Loans, Banking Account, Debentures, &c., &c., included in the first division, viz —fixed appropriations.

The Provincial Treasurer should then state that it is the opinion of Government that the Ordinary Revenue should be supplemented by Loans to the amount of £———; a resolution to this effect should be proposed to the Committee, and, if carried, reported to the House.

The House will then go into Committee of Ways and Means in order to ascertain and decide as to the method of meeting the resolution.

The House, on this Resolution being affirmed, will on any future day proceed to vote the Supplies; and the Committee of Ways and Means will specifically appropriate the sums granted to the Revenue or Loans as the case may be.

A. J. BURNS,
Chairman.





DEPARTMENTAL REPORTS.

SESSION XVIII.

1864.

I.—THE ANNUAL REPORT OF THE SECRETARY OF THE EDUCATION BOARD, 1862-63.

Extract from the Minutes of the Meeting of the Education Board, held upon February 25th, 1864
—The Board resumed consideration of the Secretary's Report for the year ended September 30th, 1863. It was resolved: That the Secretary's Annual Report be forwarded to His Honor the Superintendent, for presentation to the Provincial Council, as required by the Education Ordinance.

Education Board Office,
Dunedin, October 30th, 1863.

His Honor John Hyde Harris, Esq., Superintendent.

SIR—

IN compliance with the provisions of the Education Ordinance, I do myself the honor to submit my Report for the year ended September 30th, 1863.

Educational Districts.

At the close of last year there were nineteen Educational Districts established throughout the Province. Since that time the new districts of Blueskin, Lower Waipori, Portobello, and Hampden have been formed, while the two separate districts into which the City of Dunedin had been divided have been united. There are, consequently, twenty-two Educational Districts at present in connection with the Board. Applications have also been received by the Board from settlers at Kaihiku, Waihola Gorge, Lawrence, and Glenore respectively, requesting the formation of those localities into separate Educational Districts under the Ordinance. The applications from Kaihiku and Waihola Gorge have not yet been definitively disposed of; but the Board did not consider it expedient, under the circumstances, to authorise the formation of the localities of Lawrence and Glenore into separate districts.

Number

Number of Schools.

At the date of my last Annual Report, there were sixteen *Main District Schools* and four *Side Schools* in operation within the several Educational Districts. Since that time, the new Main Schools of North Dunedin, Cavendish, Oamaru, and Saddlehill have been opened, while Side Schools have been established at Taieri Beach, Glenore, Waitahuna, and Dunstan. Owing to the greatly diminished attendance of pupils at the Goodwood District School, the Committee, on the resignation of the late Teacher in May last, did not feel warranted in appointing another in his place, and the school is consequently in abeyance at present. A sum of money was at one time voted for school buildings at Goodwood, and tenders for their erection were called for by the former Education Board, but, fortunately, these were never built, and the School was conducted in a cottage rented for the purpose. When the number of educable children in that locality shall again warrant the re-establishment therein of a Main District School, the site will probably be at some distance from the place originally selected for that purpose. This case is one of several which shews the great amount of caution requiring to be exercised by the Board in disposing of applications for the erection of new school buildings in thinly and partially settled localities, where it is as yet uncertain where the major portion of the population will be permanently established. The wisest course in such cases would be to encourage the establishment of *Side Schools*, to be conducted in buildings rented temporarily for the purpose.

There are at present twenty-one *Main Schools* and five *Side Schools* in operation; but as the *Side Schools* at Glenore, Waitahuna, and Dunstan have been very recently opened, no returns have yet been obtained from them. As soon as the School Buildings are erected, for which provision has been made by the Provincial Council, the new Main Schools of South Dunedin, Blueskin, Lower Waipori, and Hampden will be opened. The Board have also sanctioned the establishment of *Side Schools* at Brockville, Kuri Bush, Broad Bay, and Lawrence; and, in all probability, the whole of those Schools will be in operation in the course of a few months. A Main or a *Side School* will probably be established at Waihola Gorge, and also at Kaihiku. As far, therefore, as appearances indicate, there will thus be in operation, before the expiry of the current year, about *thirty-six* public schools in connection with the Board.

With a view to encourage the establishment of public schools in Gold-Field Districts where there is a sufficient number of educable children, the Government have resolved to authorise a payment in aid, to each of such schools, to the extent of £100 per annum, on condition that at least an equal amount is contributed towards the same object by the inhabitants of the locality. The inhabitants of Dunstan, Waitahuna, and Glenore respectively have already established schools in conformity with this arrangement.

School Attendance.

A tabular statement of the different schools, the attendance of pupils, and the names and annual official incomes of the teachers for the past year is hereto appended. (See Appendix B.) A comparison of the present returns of attendance with those of the previous year, shews a very considerable increase. By far the larger proportion of the increased attendance is due to the Dunedin Schools, but a glance at the following table will shew that there has been a very general increase of attendance throughout the other districts:—

Years.	Number of Pupils who attended at all in the course of the year.			Average attendance for the year.			Attendance at the close of the year.		
	Dunedin.	All other Districts.	Total.	Dunedin.	All other Districts.	Total.	Dunedin.	All other Districts.	Total.
1861-62	228	1021	1249	169	632	801	205	705	910
1862-63	1024	1366	2390	653	758	1411	734	907	1641
Increase...	796	345	1141	484	126	610	529	202	731

Large

Large as has been the increase of school attendance in Dunedin during the past year, there is no doubt that a very considerable increase will also take place during the current year, when the new School-houses for the Middle and Southern parts of the City are completed.

The Census of New Zealand is taken triennially, and the period for doing so will not recur till December, 1864. As it is impossible, in present circumstances, to form anything like even an approximatively correct estimate of the population of the different districts, I have not ventured this year to give any estimate of the proportion which the school attendance bears to the entire population.

A very complete set of Register Books is now in use in all the schools, and the statistics of attendance and other information relating to school matters will in future be more complete and reliable than heretofore.

State of the Schools.

A tabular view of the branches of education taught in the different schools, and the number of children learning the same during the past year is hereto appended. (See Appendix C.) In consequence of my being unable to leave town during the recent sitting of the Provincial Council, I was prevented from visiting the different school districts during August and September, the same as in former years, and as it is now about nine months since I had an opportunity of inspecting the schools in the rural districts, I think it advisable to refrain at present from offering any observations respecting the state of the different schools, or the manner in which the new Education Ordinance has operated during the past year. I intend to visit the different districts during the months of November, December, January, and February next, and I hope to be able immediately thereafter to prepare, from personal enquiry, and from the reports of the School Committees already forwarded to this office, a very complete supplementary report on the efficiency of the different schools, the operation of the Ordinance during the past year, and the state of educational affairs generally throughout the Province.

School Buildings.

Since the date of last year's report the following named school buildings have been completed, viz. :—School-houses at North Dunedin, Oamaru, Green Island, East Taieri, West Taieri, and Tokomairiro, and masters' residences and school-houses at Caversham and Saddlehill. Sums have been appropriated by your Honor and the Provincial Council for the erection, during the current year, of school-houses and masters' residences at Dunedin Middle District, Dunedin Southern District, North Taieri, Blueskin, Lower Waipori, Hampden, and Waiholo Gorge; for school-houses at Wakari, and South Clutha; for an additional class-room at Port Chalmers, and for a master's residence at North Dunedin. Considerable delay has occurred in the erection of several of the above-mentioned buildings, for which provision had been made by the Provincial Council ten months ago, but it is earnestly hoped that all the buildings for which money has been provided will be completed during the present summer.

High School.

The report for last year contained a full account of the arrangements which had been made by the Board for the institution of a High School in Dunedin commensurate with the requirements of the Province. In pursuance of the instructions forwarded by your Honor to the Home Agents, the following named gentlemen were appointed masters of the High School, viz. :—

Principal and Classical Master.—The Reverend Thomas H. Campbell, M.A., late Head Master of the Wolverhampton Grammar School; Fellow of St. John's College, Oxford; and Assistant Master at the Charter House School.

English Master.—George P. Abram, Esq., late Senior Scholar and Prizeman of Clare College, Cambridge; and Second Master of the Wolverhampton Grammar School.

Mathematical Master.—Daniel Brent, Esq., M.A., late Senior Scholar and Prizeman of Queen's College, Cambridge; and one of the Mathematical Masters of Tonbridge School.

Those

Those gentlemen arrived in Dunedin by the ship "Matoaka," on the 14th of July last, after a very speedy and prosperous voyage. It is almost unnecessary for me to advert to that most calamitous and appalling occurrence in the Harbor, on the evening of the same day, which resulted in the death of the Rev. Mr. Campbell, his wife and family, as well as of several others, and thus deprived the Province of the services of a gentleman, who appeared in many respects to be so eminently qualified for the very important and responsible position to which he had been appointed.

After very careful and anxious consideration of the duty devolved upon them by the death of Mr. Campbell, the Board resolved to instruct the Home Agents to request the three gentlemen formerly nominated, again to select a Principal for the High School, in the room of the late Mr. Campbell. It was also arranged that Mr. Abram, the English Master, who had been Mr. Campbell's colleague for some time in the Wolverhampton Grammar School, should act as Principal of the school until the arrival of the new Head Master.

The High School was opened on the 3rd of August, and the number of pupils in attendance is very satisfactory. The report of the Acting Principal respecting the progress of the school up to the present time is hereto appended. (See Appendix A.)

The finished portion of the High School Building has been temporarily divided into three separate class-rooms; but the two wings, which are now in the course of erection, will be completed in a few months, and will contain a residence for one of the masters, and a number of boarders, as well as an ample amount of class-room accommodation for present requirements.

The following regulations in connection with the attendance of pupils at the High School, have been adopted by the Board, viz. :—

"1st. Every boy before being admitted a pupil of the school must be upwards of nine years of age, and must be able to read with ease a simple prose narrative, to write from dictation with tolerable correctness, and to work sums in the first four simple rules of arithmetic."

"2. It shall be a condition of attendance that every pupil shall learn at least one foreign language, either ancient or modern."

"3. The fee for each pupil shall be ten pounds per annum, payable quarterly in advance. When three boys of the same family attend the school at one time, half of the fee of the third boy shall be remitted, and when more than three of the same family attend at one time, the fee for three only shall be charged.

The Richardson Scholarship.

Major Richardson some time ago placed at the disposal of the Board the sum of £250, for the purpose of instituting and endowing a Scholarship, in connection with the High School. That gentleman wished to leave the arrangements for the disposal of the endowment entirely to the discretion of the Board, but at their request he was pleased to offer the following mentioned recommendations, which were cordially adopted by the Board, viz. :—

"That the proposed scholarship be established for the benefit of distinguished pupils, who are desirous of prosecuting their studies at some university."

"That for a period of five years at least, the money be lent on the mortgage of freehold property; and that the interest as received be re-invested and added to the principal."

"That at the expiration of that time the interest of the accumulated sum be appropriated for the purpose above mentioned, to be held by the pupil during the time he may be passing through the university."

It has been resolved by the Board that the proposed scholarship shall be named after its founder,—*"The Richardson Scholarship."*

It is to be hoped that others will be induced to follow the example set by Major Richardson, and that other scholarships will be founded, both by private persons and by associations for the benefit of distinguished pupils of the public schools of Otago. Much good may be reasonably expected to result from the carrying out of the provisions of the Education Ordinance for the institution of Scholarships in connection with the District Schools and the High School. It will be noticed that two kinds of exhibitions or scholarships were contemplated by the framers of the Ordinance. 1st. Scholarships to enable talented youths from the District Schools to attend the High School curriculum; and 2nd—Scholarships to aid and encourage distinguished pupils of the High School to prosecute their studies still further at a university. There is reason to believe that periodical competitive examinations for scholarships among the
most

most promising and advanced pupils in the district schools would have a very beneficial effect upon those seminaries, and upon the cause of education generally throughout the province. They would tend to lengthen the period of attendance, and to raise the standard of education at the district schools, as well as to popularize the High School, and they would probably be the means of bringing forward and cultivating for the advantage of the commonwealth, superior native talent, that otherwise might be left in obscurity. Perhaps, in due time, the Provincial Government may resolve to confer annually civil service appointments upon some of the more meritorious and distinguished pupils of the High School on their completing the full curriculum of study.

Educational Income and Expenditure.

The past year was the first during which the provisions of the new Education Ordinance, authorising the imposition of a local school rate, was in full force, and it is of importance to note the manner in which the new system has operated. In thirteen out of the nineteen districts in which school funds were required, advantage was taken by the Committees of the provisions of the Ordinance for supplementing the proceeds of the school fees by means of a rate on property. A full statement of the value of the property so rated in each of the districts, and other information respecting the rates levied is hereto appended. (See Appendix D.) The main schools of Port Chalmers, Waikouaiti, and North-east Harbor, and the side schools of Moeraki Bush, Portobello, and Taieri Bush, were maintained from the school-fees supplemented by voluntary subscriptions. In Goodwood district, where the number of educable children is very small, the obligation to defray at least one half of the teacher's salary from local sources, caused a break down of the school machinery; and, as I have already stated, the committee took advantage of the teacher's resignation to close the school. In North East Valley, from causes which it is here unnecessary to enter upon, the administration of educational affairs during the past year has been unsatisfactory, and the returns from that district are so incomplete that I have not included them with the others. In North East Harbor District it was at first contemplated to impose a local rate on property, but the committee and settlers became so alarmed at the very high amount of rate that would have been required (two shillings and sixpence in the pound), that they eventually agreed to raise the necessary amount by means of voluntary subscription, and in this they have entirely succeeded. A tabular view of the income and expenditure on account of education in the different school districts for the past year is hereto appended. (See Appendix F.)

With the exception of Oamaru, where the expenses have been somewhat high, the charges for levying and collecting the school rates bear a smaller proportion to the whole amount raised than seems to have been generally anticipated, and I have no hesitation in expressing my opinion that great credit is due to the School Committees generally for the efficient, prudent, and economical manner in which they have performed what must have been, in the very nature of the case, a somewhat unpleasant and invidious duty. The work of assessing and collecting was in a few cases performed gratuitously by the members of the school committees, aided by the teacher, and in several instances the duties were discharged at rates of remuneration much below the amounts usually paid for services of this nature.

As already stated I shall defer offering any opinion of my own respecting the operation of the new Educational Rate until after my return from visiting the different school districts.

I have the honor to be,

Sir,

Your very obedient servant,

JOHN HISLOP,

Secretary.

APPENDIX

APPENDIX A.

REPORT OF THE ACTING PRINCIPAL OF THE HIGH SCHOOL.

To His Honor John Hyde Harris, Esq.,
Superintendent of the Province of Otago.

SIR—

I HAVE the honor to submit to you the following Report of the progress of the High School of Otago, from its opening to the present date, October 28, 1863.

The High School was opened on the 3rd of August last, under melancholy and disadvantageous circumstances, owing to the irreparable loss which the institution sustained by the death of its first Principal, the Rev. T. H. Campbell.

The number of Pupils admitted into the school, up to this date, is eighty; the number of those at present in attendance is seventy-six. Of these, ten come from various parts of Otago and the neighbouring Provinces, and board in Dunedin in order to attend the High School.

Five candidates for admission were unable to pass the preliminary examination. This examination is of the simplest character, being confined to the first four rules of Arithmetic, and English reading and writing from dictation.

I found the Pupils well advanced, on the whole, in general English subjects and Arithmetic, but, with only one or two exceptions, utterly ignorant of the Latin language. To such an extent was this the case, that I was forced—even in the highest class—to commence the study of Latin from the first rudiments.

The school is divided into six classes, arranged according to an English and Classical standard; and again divided into six classes, according to a Mathematical standard. The great advantage of this double classification, which has been pursued with marked success in Merchant Taylors' School, London, is that it gives the same weight to Mathematics as to Classics, instead of making the former altogether subordinate to the latter, as is the case in the majority of the Grammar Schools of England. Latin is taught in all classes of the school. Of the importance of this study it is scarcely necessary to speak. Besides the immediate value which it possesses, from the fact that nearly one-third of the words in the English language are derived, either directly or indirectly, from the Latin, the study of the Latin Grammar is undoubtedly one of the most useful instruments of mental training, and furnishes, moreover, a key to the Grammar of all other languages.

With regard to Greek, I did not think it judicious to begin the study of it, even with the senior boys, until they should have made further progress in Latin. After another quarter, the first class (which is the highest in the school), will probably be sufficiently advanced to warrant their beginning Greek.

The first four classes learn French, a French Master attending the school two afternoons in each week.

Arrangements have also been made to have instruction in Drilling, given to the whole school, twice in each week, for one hour on each occasion.

I subjoin a list of the books and work of the several classes, as giving the clearest idea of the course of study followed in the school:—

ENGLISH AND CLASSICAL ARRANGEMENT.

1ST CLASS.

The Holy Bible.
Whately's Evidences of Christianity.
Geography of Palestine.
Ince and Gilbert's Outlines of English History.
Cornwell's Geography.
VI. English Reading Book.
Morell's English Grammar.
Kennedy's Latin Grammar and Tirocinium.
Bradley's Latin Exercises.
Contanseau's 1st Step in French.
DeFivas' Grammaire des Grammaires.
English Composition and Dictation, Map-Drawing.
Writing, English Poetry by heart.

II. CLASS.

As in 1st Class, omitting Whately's Evidences, Morell's English Grammar, and Bradley's Latin Exercises, and substituting Hughes for Cornwell's Geography, and V. for VI. English Reading Book.

III. CLASS

III. CLASS.

As in Class II., substituting Kennedy's Latin Primer for the Latin Grammar, and adding Mason's English Grammar.

IV. CLASS.

As in Class III., omitting Kennedy's Tirocinium, and substituting 4th for 5th English Reading Book.

V. AND VI. CLASSES.

As in Class IV., omitting French.

MATHEMATICAL ARRANGEMENT.

I. AND II. CLASSES.

Colenso's Larger Arithmetic and Algebra, Todhunter's Euclid.

III., IV., V., AND VI. CLASSES.

Colenso's Elementary Arithmetic.

In order to combine a thorough English with a high classical education, some modification of the present system will shortly become necessary, especially if the number of pupils at the High School increases as rapidly as there is every reason to expect. The plan which I should propose, and which is somewhat similar to that followed in King Edward VI. School, Birmingham, is this:— That in addition to the classes as at present constituted, two new classes, a 1st and 2nd English class be formed parallel with the 1st and 2nd Classical classes. A pupil then, who is intended for commercial pursuits, or whose parents may object to his learning Greek and the higher Latin authors, will on leaving the 3rd class be promoted into the 2nd English class, in which he will continue to learn Latin as far as Cæsar, but pay more particular attention to general English studies. This arrangement would, it appears to me, meet the requirements of the different ranks of society in the colony, and at the same time preserve, what is indispensable, an uniformity of work throughout the school. Beyond this, I am convinced that it would be unwise to attempt to introduce special subjects of study into the general routine of school work. The signal failure of the so-called commercial schools in England, has again recently proved the folly of trying to accommodate education to the probable future profession of the scholar. In these schools it has been found that, while Latin and other universally important subjects have been neglected, the pupils have, in place of them, learnt merely cumbrous systems of book-keeping, and methods of arithmetic quite unknown to any man of business.

It will be seen also that among the subjects taught I have made no mention of Chemistry, Geology, Botany, &c. A knowledge of the natural and experimental sciences is best imparted to boys by means of occasional lectures of a popular character, and illustrated as far as possible by experiments; as soon as the extensions of the school buildings are completed, and the principal hall can be used for the purpose, I hope to see this plan successfully carried out.

I have the honor to be,

Sir,

Your obedient servant,

G. P. ABRAM,

Acting Principal of the High School of Otago.

Dunedin, October 28, 1863.

APPENDIX B.

List of the Public Schools in the Province of Otago, with a Statement of the Attendance of Pupils, the Names and Official Incomes of the Teachers, &c., for the Year ended September 30, 1863.

SCHOOLS.	TEACHERS.	School Established.	Teacher Appointed.	No. of Pupils who Attended School for Longer or Shorter periods in the course of the Year.			Average Attendance for the Year.	In Attendance at the Close of the Year.	ANNUAL OFFICIAL INCOMES OF TEACHERS.											
				Boys.	Girls.	Total.			Salary from Government for Year.	From Rates, Subscriptions, &c., for Year.	From School Fees for Year.	Total Official Income from School for Year.	Estimated Annual Value of Residence & Glebe.							
				Boys.	Girls.	Total.			£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
North Dunedin	A. Stewart	1862	1862	225	277	502	272	232	50	0	0	50	0	0	250	0	0	50	0	0
"	*M. Stott	"	"	"	"	"	"	"	50	0	0	"	"	"	150	0	0	"	"	"
"	+J. Robertson	"	1863	"	"	"	"	"	50	0	0	"	"	"	200	0	0	"	"	"
Middle Dunedin	T. Halliwell	1856	1862	342	180	522	381	442	50	0	0	645	6	7	150	0	0	100	0	0
"	+T. Tily	"	1863	"	"	"	"	"	50	0	0	"	"	"	250	0	0	"	"	"
"	+J. Craig	"	"	"	"	"	"	"	50	0	0	"	"	"	200	0	0	"	"	"
"	*M. Jerrat	"	"	"	"	"	"	"	50	0	0	"	"	"	150	0	0	"	"	"
Wakari	A. D. Johnston	1858	"	46	37	83	56	48	50	0	0	67	9	6	180	0	0	35	0	0
Anderson's Bay	J. P. Baker	"	"	35	33	68	28	28	50	0	0	61	18	6	150	0	0	35	0	0
Caversham	R. Mitchell	1861	1863	57	45	102	48	70	50	0	0	80	15	0	189	16	0	50	0	0
Green Island	A. G. Allan	1866	1859	43	34	77	53	57	50	0	0	53	0	0	170	0	0	50	0	0
Saddlehill	A. Dickison	1863	1863	11	9	20	18	20	50	0	0	70	0	0	141	6	0	35	0	0
East Taieri	J. Waddell	1856	1861	71	57	128	78	90	50	0	0	50	17	9	150	0	0	60	0	0
"	*I. Graham	"	1862	"	"	"	"	"	50	0	0	"	"	"	100	0	0	"	"	"
North Taieri	G. B. Anderson	1860	"	24	8	32	34	42	50	0	0	50	0	0	133	18	0	35	0	0
West Taieri	R. S. Gardner	1858	1858	49	31	80	45	48	50	0	0	50	0	0	167	0	0	50	0	0

Waiholo

LIST OF PUBLIC SCHOOLS IN THE PROVINCE OF OTAGO, &c.—(Continued).

SCHOOLS.	TEACHERS.	School Established.	Teacher Appointed.	No. of Pupils who Attended School for Longer or Shorter Periods in the course of the Year.			Average Attendance for the Year.	In Attendance at the Close of the Year.	ANNUAL OFFICIAL INCOMES OF TEACHERS.																	
				Boys.	Girls.	Total.			Salary from Government for Year.			From Rates, &c., Subscriptions, &c., for Year.			From School Fees for Year.			Total Official Income from School for Year.			Estimated Annual Value of Residence & Glebe.					
									£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.			
Waihola ...	T. Douglas ...	1859	1862	26	23	49	22	28	50	0	0	100	0	0	26	2	8	176	2	8	35	0	0			
Tokomairiro ...	A. Ayson...	1856	1856	67	44	111	48	84	50	0	0	}	}	}	}	}	}	}	}	}	}	}	}			
"	* E. Browne ...		1863						50	0	0													120	0	0
Inch Clutha ...	A. Grigor ...	1858	1858	19	13	32	13	19	50	0	0	75	0	0	24	3	0	149	3	0	45	0	0			
South Clutha ...	J. McEwan ...	"	1861	26	20	46	30	39	50	0	0	75	0	0	52	1	0	177	1	0	45	0	0			
Warepa ...	H. McLeod ...	"	1862	15	13	28	17	13	50	0	0	75	0	0	26	8	0	151	8	0	45	0	0			
Oamaru ...	J. Paradise ...	1862	1862	42	27	69	45	59	50	0	0	77	13	0	72	7	0	200	0	0	50	0	0			
Port Chalmers ...	W. Reid ...	1856	1861	108	58	166	75	105	50	0	0	50	0	0	70	0	0	170	0	0	40	0	0			
N.E. Harbor ...	J. A. Lewis ...	1860	1862	17	5	22	16	6	50	0	0	50	0	0	27	10	0	127	10	0	50	0	0			
Portobello (side)...	C. Greenwood ...	1858	1862	10	3	13	7	9	50	0	0	28	6	0	21	4	0	100	0	0	25	0	0			
Wakouaiti ...	F. Franks ...	1860	1860	41	32	73	30	31	50	0	0	50	0	0	44	18	0	144	18	0	50	0	0			
N.E. Valley ...	W. McClure ...	1858	1863	66	39	105	61	75	50	0	0	50	0	0	51	6	9	101	6	9	50	0	0			
Moeraki Bush ...	J. Sutherland ...	1859	1862	24	10	34	19	23	50	0	0	28	0	0	22	0	0	100	0	0	20	0	0			
Taieri Beach ...	A. J. Davies ...	1862	1862	5	13	18	11	13	50	0	0	35	0	0	15	0	0	100	0	0	10	0	0			
Goodwood ...	Vacant ...	1860																								
Totals ...				1369	1021	2390	1411	1641	1350	0	0							4649	9	5						

* Female Teacher. † Male Assistant.

1864.] REPORTS

APPENDIX C.

Total view of the Branches of Education taught in the Public Schools of the Province of Otago, and the number of children learning the same for the year ended September 30th, 1863.

Schools.	To Read.		To Write.			Arithmetic.							Geography.	Grammar.	History.	Music from Notes.	Drawing.	Euclid or Algebra.	Book-keeping.	French.	Latin.	Sewing (Girls.)					
	The Holy Scriptures.	Letters and Monosyllables.	Easy Narratives.	Books of General Information.	From Copy on Slates.	From Copy on Paper.	From Dictation on Slates.	From Dictation on Paper.	Simple Rules.	Compound Rules.	Proportion.	Practice.	Fractions.	Decimals.	Higher Rules.												
North Dunedin ...	210	76	163	211		207	147	48	103	47	13	20	14	13	8	91	136	52	89								70
Middle Dunedin...	149	72	153	227	107	242	45	48	198	81	21	18	11	6	7	310	103	47	47	5	2	4				35	
Wakari ...	62	21	14	48		57	21		36	15	3	3			29	18	18	18		24		22					
Anderson's Bay ...	57	7	20	15	10	32	12	2	31	14	2	2	1	4	9	40	10	9			1						
Caversham ...	48	38	16	48	46	55	45		35	14	1		2	4	18	18	18	6	20								
Green Island ...	35	8	23	18		37	14		11	7	7		7	2	4	4	4			1							
Saddle-hill ...	13	2	4	14		12	4		17	5	1		4	3	4	13	4										
East Taieri ...	61	8	26	56	40	50	34	8	15	8	6	4	9	3	8	8	8										
North Taieri ...	31	3	19	20		28	12	8	17	5	1	8	1	4	8	55	8				3						
West Taieri ...	69	4	7	69		69	35		23	19		17	3	4	18	12	12										
Waikola ...	31	4	9	31		40	17		12	7	5	3	4	2	46	46	44										
Tokomairiro ...	62	43	31	37		79	25	3	43	14	2	3	3	2	15	16	16										
Inch Clutha ...	24	3	8	21		27	8		9	2	3		1	2													

TABULAR

TABLEAU VIEW OF THE BRANCHES OF EDUCATION TAUGHT, &c.—(Continued.)

Schools.	To Read.		To Write.				Arithmetic.								Geography.	Grammar.	History.	Music from Notes.	Drawing.	Euclid or Algebra.	Book-keeping.	French.	Latin.	Sewing (Girls.)							
	The Holy Scriptures.	Letters and Monosyllables.	Easy Narratives.	Books of General Information.	From Copy on Slates.	From Copy on Paper.	From Dictation on Slates.	From Dictation on Paper.	Simple Rules.	Compound Rules.	Proportion.	Practice.	Fractions.	Decimals.	Higher Rules.																
South Clutha ...	36	3	7	36	7	36	10	15	16	3	4	2	3	1	6	29	29														
Warepa ...	15	1	8	15		16	9		13	2	2				7	7	7														
Oamaru ...	32	27	18	14	26	33	8	14	20	1	1	2	7	17	17	14															
Port Chalmers ...	68	47	59	66		91	58	10	69	44	7	6	7	39	39	36															
N. E. Harbor ...	14	2	10	7		17	7		14	2	3	2		7	7	6															
Portobello ...	12	0	7	6	3	10	2	26	7	2	7	2		2	2																
Waikouaiti ...	42	25	22	26		48	22		16	26	3	7		31	31	31															
N. E. Valley ...	77	33	35	37		71	40		54	35	4	3		40	40	40															
Moeraki Bush ...	11	5	7	11		23	7		4	6				10	10	5															
Tairi Bush ...	8		3	5		10			8																						
Goodwood ...																															
Totals...	1167	440	669	1038	264	1290	582	126	771	369	81	98	62	45	33	84	3	676	213	396	31	10	36	8	24				202		

APPENDIX

APPENDIX D.
*Information Respecting the School Rates Levied in Thirteen Educational Districts, in the Province of Otago, for the Year ended
 30th September, 1863.*

Districts.	Rateable Value of Property.			Rate in the pound.			Amount of Rate.			Amount of Rate Paid.			Amount of Rate Not Paid.			Amount Considered Recoverable.			Highest Rate Levied from one Person.			Lowest Rate Levied from One Person.			Average Amount of Rate.			No. of Persons who		Expense of Assessing the Property.			Expense of Collecting the Rate.			Total Cost of Rate.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.					
Wakari ...	5071	4	6	0	6	6	123	6	3	110	5	3	13	1	6	9	0	0	10	0	0	0	0	0	0	0	17	4	112	30	12	0	3	4	0	15	4	0
Anderson's Bay ...	3239	14	10	0	9	9	120	9	11	117	10	10	21	19	1	2	19	1	15	10	0	0	0	0	0	0	11	6	57	7	10	0	10	0	20	0	0	
Caversham ...	6694	15	0	0	6	6	167	7	0	152	13	6	14	13	6	7	18	0	7	15	0	0	0	0	0	0	11	5	88	6	10	0	13	1	0	23	1	0
Green Island ...	3878	10	0	0	6	6	92	7	8	88	12	2	3	15	6	6	0	0	10	0	3	0	0	0	0	0	11	0	23	3	10	0	5	0	0	15	0	0
Saddlehill ...	1660	11	0	1	3	3	103	0	0	75	0	0	28	0	0	25	0	0	12	5	0	0	5	0	0	0	2	13	13	3	3	0	0	0	6	0	0	
East Taieri ...	7243	14	0	0	4	4	120	14	4	120	0	5	0	13	11	0	0	0	7	13	4	0	1	0	0	0	5	4	90	4	3	0	8	1	0	11	1	0
North Taieri ...	5390	1	0	0	4	4	123	6	4	116	19	10	6	16	10	0	0	0	9	9	11	0	0	11	0	1	8	18	64	18	5	0	5	7	9	5	7	9
West Taieri ...	6509	0	0	0	4	4	108	9	8	76	10	8	3	1	9	0	3	1	8	2	0	0	0	8	1	8	2	63	14	5	0	0	0	10	0	10	0	0
Waihola ...	3056	8	6	1	3	3	190	5	2	135	19	1	54	6	1	?	0	0	25	0	0	0	1	9	1	4	9	67	9	12	2	6	5	0	0	17	2	6
Tokomairiro ...	11559	13	4	0	3	3	144	9	11	134	13	2	9	16	9	9	16	9	10	13	9	0	3	0	5	1	142	0	10	0	0	10	0	0	20	0	0	
Chutha ...	9522	9	6	0	10	10	416	12	2	369	16	8	46	15	6	12	4	5	50	8	0	0	0	0	5	1	184	88	17	15	9	17	15	9	35	11	6	
Totals of Rural Districts ...	638226	11	8				1700	8	11	1498	1	7	202	7	4	96	11	3	50	8	0	0	3	1	13	8	805	192	92	18	3	85	9	6	178	7	9	
Dunedin ...	168530	0	0	0	2	2	1404	8	4	1214	11	6	189	17	10	130	0	0	25	3	4	0	0	6	0	12	103	1653	525	206	6	0	206	6	0	6	0	
Oamaru ...	13322	0	0	0	6	6	333	1	0	304	8	4	28	12	8	0	0	0	16	7	6	0	1	10	1	9	04	169	57	50	0	0	30	4	0	80	4	0
Totals ...	245688	11	8				3437	18	3	3017	10	5	419	17	10	226	11	3	50	8	0	0	3	1	5	21	2827	774	142	18	3	321	19	6	464	17	9	

APPENDIX

APPENDIX E.

Number of Pupils who attended the Public Schools of the Province of Otago in the course of the year ended 30th September, 1862, and who at the close of the year, or when they left school, were aged—	Boys.	Girls.	TOTAL.
Under Four Years	13	4	17
Between Four and Five Years ...	57	47	104
" Five " Six " ...	117	98	215
" Six " Seven " ...	126	95	221
" Seven " Eight " ...	139	105	244
" Eight " Nine " ...	138	119	257
" Nine " Ten " ...	130	99	229
" Ten " Eleven " ...	137	107	244
" Eleven " Twelve " ...	121	86	207
" Twelve " Thirteen " ...	110	84	194
" Thirteen " Fourteen " ...	70	54	124
Over Fourteen	62	35	97
Not Specified	151	89	240
	1371	1019	2390

Dunedin

APPENDIX F.

Tabular View of the Income and Expenditure on Account of the Public District Schools, in the different Educational Districts in the Province of Otago, for the Year ended September 30th, 1863.

DISTRICT.	No. of Pupils who have attended School—1862-3.	COST PER PUPIL.						INCOME.						EXPENDITURE.						Balance.																	
		To the Government.		To the District, Including Pupils Fees.		Total.	From Government for Teachers' Salaries.		From the District.		Total Income.	Teachers' Salaries.	Expense of Rate.		Other Expenses, including Clerk's Salary, if any.		Total Expenditure.																				
		£	s.	d.	£		s.	d.	£	s.			d.	£	s.	d.		£	s.				d.	£	s.	d.											
Dunedin ...	1024	0	3	10	1	9	11	1	13	10	200	0	0	1219	19	7	504	13	5	1924	13	0	1214	9	8	206	6	0	313	13	2	1734	8	10	190	4	2
Wakari ...	83	0	12	0	1	16	3	2	8	3	50	0	0	110	5	3	62	10	6	222	15	9	180	0	0	15	4	0	5	5	0	200	9	0	22	6	9
Anderson's Bay ...	68	0	14	8	1	18	3	2	12	11	50	0	0	117	10	11	38	1	6	205	12	5	150	0	0	20	0	0	10	0	0	180	0	0	25	12	5
Caversham ...	102	0	9	9	2	1	1	2	10	11	50	0	0	152	13	6	59	1	0	261	14	6	186	3	0	23	1	0	50	11	6	259	15	6	1	19	0
Green Island ...	77	0	13	0	2	1	4	2	14	4	50	0	0	92	7	8	67	0	4	209	8	0	170	0	0	15	0	0	24	8	0	209	8	0			
Saddlehill ...	20	1	3	2	2	11	1	3	14	3	23	3	10	75	0	0	10	13	0	108	16	10	58	3	10	6	10	0	9	12	0	74	5	10	34	11	0
East Taieri ...	128	0	13	8	1	6	4	2	0	0	87	10	0	120	0	5	99	2	3	306	12	8	225	0	0	11	1	0	20	4	9	256	5	9	50	6	11
North Taieri ...	42	1	3	9	2	15	0	2	18	10	50	0	0	116	13	10	33	18	0	200	17	10	133	18	0	15	7	9	16	6	0	165	11	9	35	6	1
West Taieri ...	80	0	12	6	1	14	1	2	6	7	50	0	0	76	10	8	67	0	0	193	10	8	167	0	0	10	0	0	9	9	0	186	9	0	7	1	8
Waihola ...	49	1	0	4	3	6	1	4	6	6	50	0	0	135	19	1	26	2	8	212	1	9	176	2	8	17	2	6	20	0	0	213	5	2	1	3	5
Tokomairiro ...	111	0	9	11	1	14	2	2	4	2	55	4	10	134	13	2	55	3	2	245	1	2	205	4	10	20	0	0	14	0	0	239	4	10	5	16	4
Clutha ...	106	1	8	3	3	16	2	5	4	5	150	0	0	369	16	8	102	12	0	622	8	8	477	12	0	32	11	6	40	9	10	553	13	4	68	15	4
*Oamaru...	69	0	14	6	3	17	1	4	11	7	37	10	0	304	8	4	54	5	0	396	3	4	150	0	0	80	4	0	85	17	6	316	1	6	80	11	0
Port Chalmers ...	166	0	6	0	0	14	5	1	0	6	50	0	0	50	0	0	70	0	0	170	0	0	170	0	0												
N.E. Harbor ...	22	2	5	5	3	10	5	5	15	11	50	0	0	50	0	0	27	10	0	127	10	0	127	10	0												

TABULAR

TABULAR VIEW OF THE INCOME AND EXPENDITURE ON ACCOUNT OF THE PUBLIC DISTRICT SCHOOLS, &c.

DISTRICT.	No. of Pupils who have attended School—1862-3.	COST PER PUPIL.						INCOME.									EXPENDITURE.																				
		To the Government.			To the District, Including Pupils' Fees.			From Government for Teachers' Salaries.	From the District.						Teachers' Salaries.	Expense of Rate.		Other Expenses, including Clerk's Salary, if any.		Total Expenditure.																	
		£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.									£	s.	d.	£	s.	d.									
Portobello ...	13	3	16	11	3	1	6	6	18	5	50	0	0	23	6	0	16	4	0	90	0	0	90	0	0				90	0	0						
Wakouaiti ...	73	0	13	8 ⁴ / ₄	1	6	0	1	19	8 ⁴ / ₄	50	0	0	50	0	0	44	18	0	144	18	0	144	18	0				144	18	0						
N.E. Valley ...	105	0	9	6 ¹ / ₄	0	9	9 ¹ / ₄	0	19	3 ³ / ₄	50	0	0				51	6	9	101	6	9	101	6	9				101	6	9						
Moeraki Bush ...	34	1	9	5 ⁵ / ₄	1	9	5 ⁵ / ₄	2	18	10 ⁵ / ₄	50	0	0	28	0	0	22	0	0	100	0	0	100	0	0				100	0	0						
*Taieri Beach ...	18	2	1	8	2	1	8	4	3	4	37	10	0	31	1	0	5	19	0	75	0	0	75	0	0				75	0	0						
Goodwood ...																																					
	2390	0	10	4 ¹ / ₄	1	19	1 ³ / ₄	2	9	6 ¹ / ₄	1240	18	8	3258	12	11	1419	0	7	5918	11	4	4302	8	9	475	7	9	619	16	9	5397	13	3	520	18	1

Note.—Oamaru and the preceding Districts are those in which the Local Rates were imposed.

* For nine months.

SUPPLEMENTARY

SUPPLEMENTARY REPORT ON EDUCATION.

John L. Gillies, Esq.,
Provincial Treasurer of Otago.

Education Board Office,
Dunedin, 11th March, 1864.

SIR,—

IN compliance with the instructions contained in your letter of the 5th instant I do myself the honor to submit my report on the Education Department up to the present date.

I have already submitted to his Honor the Superintendent, as required by the Education Ordinance, a full report on the state of public school education within the Province for the year ended 30th September, 1863, and this may be regarded as an interim or supplementary report, having reference mainly to the period which has elapsed since the date of my ordinary annual report.

Educational Districts.

At the date of my last annual report applications from the inhabitants of Kaihiku and Waihola Gorge respectively for the formation of those localities into separate educational districts were still under the consideration of the Education Board. In the course of my recent tour I made careful enquiries respecting the population, educational wants, and circumstances generally, of the different localities comprised within the existing educational district of Clutha, in which Kaihiku is at present included; and in consideration of the very large extent of the district, and the great increase of the population in several localities within its limits, I am prepared to recommend its division into four separate districts, viz.,—Inch Clutha, South Clutha, Warepa, and Kaihiku or Waiwera. It is not desirable, however, that the proposed division should take effect until the close of the current financial year on the 30th of September next, as it is necessary to avoid any interference with the arrangements entered into by the existing School Committee for the current year. As there are already three main schools established in the Clutha district the proposed division would involve the erection of new school buildings only at Kaihiku, where there is now a large number of families engaged in agricultural and pastoral pursuits.

The application from the inhabitants of Waihola Gorge and vicinity has been disposed of for the present by the establishment of a side school, in a suitable locality, by the Tokomairiro School Committee.

The Board, in compliance with the prayer of a very numerous signed memorial from the inhabitants of Lawrence (Tuapeka) and vicinity, have agreed to the formation of that locality into an ordinary educational district. No other new district has been sanctioned since the date of my last report; but as several of the new townships and rural districts are fast increasing in population, a number of new applications for the establishment of educational districts and schools may be expected in the course of the next twelve months.

Further experience has more fully confirmed the opinion I formerly expressed—that very great caution should be exercised by the Board in the formation of new districts, and especially in the erection of new school buildings in partially settled localities where it is difficult to fix upon a school site which may ultimately be found most convenient for the families of the whole district. This difficulty is increased in consequence of the entire cost of the school buildings falling upon the Government; for, if the settlers in any locality were under obligation to defray from their own resources the whole or a portion of the cost of the buildings, they would probably in many instances be less urgent in their demands for the immediate erection of permanent and costly school buildings. The wisest course appears to be to encourage the establishment of side schools in partially settled localities, and the renting of buildings suitable for school purposes.

Number

Number of Schools and Teachers.

Since the last meeting of the Provincial Council, six months ago, schools have been established at the following mentioned places within the goldfield districts, viz.,—Clyde (Dunstan), Glenore (Tokomairiro), Waitahuna, Lawrence (Tuapeka), Alexandra (Manuherikia), and Queenstown (Lake Wakatip); while negotiations are at present in progress for the establishment of schools at Cromwell (Kawarau Junction) and Arrowtown.

The following-mentioned schools have also recently been formed, viz.,—South Dunedin Main District School, Kuri Bush Side School, North Tokomairiro Side School, and Brockville (Wakari) Side School; while the main district schools of Hampden, Blueskin, and Lake Waipori, for which buildings are in the course of erection, will be opened in a few weeks. So far, therefore, as present circumstances indicate, there will soon be in full operation within the Province

A High School, employing	...	...	5 teachers
25 Main District Schools, employing	...	...	34 teachers
5 Side Schools, employing	...	...	5 teachers; and
8 Goldfield Schools, employing	...	...	8 teachers

Making altogether 1 High School, employing 5 teachers; and 38 elementary schools, engaging the services of 47 teachers, of whom 7 are females. There are also 5 female pupil teachers at present employed under the regulations recently adopted by the Board, and the number of apprentice teachers will probably soon be increased.

As far as I am able to judge schools will be required ere long at the following-mentioned places, viz.,—Herbert (Otepopo), Port Molyneux, Kaitangata, Clutha Ferry, the southern part of Tokomairiro adjoining Tuakitoto district, Maungatua (West Taieri), and Greytown (Scrogg's Creek). It is not improbable that schools will also be wanted soon in other goldfield localities, of whose circumstances I am at present ignorant.

The following-mentioned appointments to schools have been made during the past six months, viz.,—

DATE.	SCHOOL TEACHERS.	SCHOOLS.
September 21, 1863...	Mrs J. F. Smith	Clyde
October 1, " ...	P. M'Intyre	Glenore
November 1, " ...	John Steven	Waitahuna
Do. Do. ...	W. B. Mackay	Anderson's Bay
December 1, " ...	George Crockett	Dunedin
January 1, 1864...	Thomas Tily	Portobello
Do. Do. ...	John B. Park	Dunedin
Do. Do. ...	A. M'Intosh	Lawrence
Do. 4, " ...	P. Leitch	Kuri Bush
Do. 19, " ...	Elisabeth Hamilton	Alexandra
February 14, " ...	J. H. Pope	High School
Do. 15, " ...	Alex. Anderson	Brockville
March 14, " ...	Mrs J. B. Park	Dunedin
Do. 16, " ...	Joseph Clegg	N. Tokomairiro
Do. 21, " ...	D. M'Lauchlan	Blueskin

Free Schools for Poor or Neglected Children.

Although scholars are admitted to the district schools of Dunedin at an extremely low rate of fee, and the children of poor parents are educated entirely gratuitously, it has become quite apparent to careful observers that there is now a class of parents in humble circumstances, resident in this city, who do not send their children to these or any other schools. I believe it was under the conviction that means were necessary to be adopted to procure, if possible, the right education and training of all those children who, on account of the poverty, depravity, or neglect of their parents, failed to attend the ordinary district schools, or any other seminary, that the Government were induced to procure a vote of money, at the last session of the Provincial Council, to aid in the establishment and maintenance of Free Schools in Dunedin for such children. It was expected, I believe, that the Government would receive the aid and co-operation of benevolent persons resident in Dunedin in the prosecution of this good work.

About

About four months ago, Mrs. O'Rafferty, a lady resident in this city, pitying the sad case of those children whom she noticed running idle in the streets altogether uneducated, untrained, and uncared for, rented a small apartment in St. Andrew Street, secured the services of a very competent female teacher, and on her own responsibility, and at her own charge, opened a Free School for those children. She visited the parents at their own houses, and succeeded in inducing many of them to send their children to her school, so that in a short time the class-room became quite crowded, and a number had to be refused admission for want of accommodation. Mrs. O'Rafferty, finding that a larger class-room was needed, and that the demands upon her resources were becoming somewhat heavy, brought her scheme under the notice of the Government sometime ago, whereupon I was instructed to visit the school and report upon the subject. In consequence of the favorable report submitted by me, the Government have been pleased to grant an allowance in aid of the school from the vote above referred to. A number of gentlemen, who have become interested in this matter, have recently formed themselves into a committee for the purpose of co-operating with the Government and with Mrs. O'Rafferty, and any other ladies who may be disposed to lend their aid in carrying on the good work so successfully initiated by that lady; and I understand they are about to submit to the Government a proposal whereby more commodious premises may be provided for the existing Free School, and the work of reclaiming, educating, and training our neglected youth all over the city more fully accomplished.

I have occasionally visited Mrs. O'Rafferty's school in St. Andrew Street, and I have been much pleased with the manner in which it has been conducted by the teacher, Miss Connely, who appears to be very thoroughly qualified for her present duties. She was trained at a Model or Normal School in Dublin, and is in possession of satisfactory testimonials from the officers of the institution as to her character and qualifications. She appears, by her manner, education, and natural aptitude, to be well fitted for the work of school-teaching, and she has certainly been very successful in her present sphere of labor. The small apartment used as a class-room is usually quite filled—the number present being generally between 50 and 60. Not only have many to be refused admission, but occasionally several of those who have been attending the school are sent away in order to make room for others whose cases are more pressing. Last week about 16 were so dismissed, and Miss Connely informed me it was quite pitiful to listen to the urgent appeals made by some of them for permission to remain.

I understand that a considerable proportion of the scholars belong to families whose fathers are absent from town,—some being employed on country roads, some at the "diggings," and others in search of employment. Others again are the children of careless or worthless parents, who are either indisposed or unable to pay any school fee however small, and who will not of themselves make any efforts for the school education of their little ones. There are to be seen in the school young children of not more than three years of age; but, in almost every case, these are the younger brothers and sisters of older pupils who would certainly be kept at home to watch over the younger ones if they were not allowed to take them along with themselves to school. It is a rule of the school that "no children are received who have been taken direct from any other school in the neighborhood, and whose parents have been paying, or can afford to pay, school fees; and no children of advanced years are admitted except under peculiar circumstances—such as neglect, or being required to take care of the little ones."

Altogether, this school comes very much under the description of those for which money was voted by the Provincial Council, and I beg respectfully to recommend it to the favorable consideration of the Government.

School Buildings.

The addition to the High School building is now approaching completion, by which a commodious residence for one master and a considerable number of boarders, as well as sufficient class-room accommodation for present requirements will be provided; and I beg respectfully to request the Government to take into consideration whether they will provide residences for the other two masters by completing at present the entire High School building, or by the erection of detached houses on the adjoining reserve.

Commodious and substantial school-houses for the Middle and the Southern parts of Dunedin are now in the course of erection. In consequence of the insufficiency of the original foundations, &c. of the masonry, it has been found necessary to rebuild a large portion of North Dunedin School, and the work is now in progress. Advantage has been taken of this to add another class-room to the building at a comparatively small additional

additional outlay. As soon as the three district school houses in Dunedin are completed, accommodation will be provided by them for about 900 scholars. The South Dunedin School has been opened in St. Andrew's Church, Walker street, the use of which has been kindly and liberally granted, free of charge, by the Deacons' Court of that church, and the attendance is already very considerable. It is due to the Deacons' Court of the First Church to acknowledge their kindness and forbearance in continuing to grant the use of their church for the Middle District School much longer than was anticipated, notwithstanding the inconveniences and drawbacks attending this arrangement.

All the other school buildings, for which provision was made by the Provincial Council at its last session, are now completed or in course of erection, with the exception of the teacher's residence at Oamaru and the additional class-room at Port Chalmers, for the erection of both of which tenders have lately been invited. As already explained, school buildings are not at present required for Waiholo Gorge district. The buildings referred to as finished, or in progress, are:—School houses and teachers' residences for Dunedin Middle District, Dunedin Southern District, Caversham, Saddlehill, North Taieri, Blueskin, and Lake Waipori; school houses for East Taieri, Wakari, West Taieri, and South Clutha, and a master's residence for North Dunedin.

The Education Board have recommended that provision be made for the erection of new school buildings at Lawrence and Kaihiku. The School Committee of Anderson's Bay have applied for the erection of a new school house there, in consequence of the inadequacy of the present class-room, which is under the same roof with the teacher's residence, and has already been enlarged. A similar application has been made by the Clutha School Committee in reference to Inch Clutha School. The attendance at this school for several years was comparatively small, and the pupils are accommodated in one of the apartments of the teacher's residence; but, as the number of scholars is now very much increased, a separate school house has become indispensably necessary. I may mention that the accommodation afforded by the present residences of the Anderson's Bay and Inch Clutha teachers, respectively is extremely limited, and that the addition of the present class-room in each case would only render the house accommodation of average amount.

In consequence of the permanent road lines in Warepa district being still undefined when I visited that locality, I was unable to fix upon any spot as a site for the new school-house, and I beg to recommend that the use of the church be secured for another year.

So far as I am at present aware the two residences for the masters of the High School, the school buildings for Lawrence and Kaihiku, and the new school houses for Anderson's Bay and Inch Clutha, if such are sanctioned by the Board, are the only new buildings for which provision has to be made this year; but, as several of the buildings for which money has already been voted by the Provincial Council will not be entirely completed within the current financial year, it will be necessary to procure a re-vote of the amounts required to fulfil current contracts. It will also be necessary to provide a sum to defray the Board's proportion of the cost of the repairs that may be required on some of the old buildings.

High School.

The Home Agent has reported the appointment of the Rev. Frank C. Simmons, B.A., late of Lincoln College, Oxford, and Head Master of Dundee Proprietary School, as Principal of the High School of Otago. Mr Simmons will probably arrive in Dunedin about the end of next month (April). The present attendance at the High School is 81, and I have no doubt there will be a considerable increase when the additional class-room accommodation has been provided, and when the Principal has entered on his duties.

Educational Reserves.

During the last session of the Provincial Council the whole subject of the Educational Reserves was considered by a Select Committee of the House, under the presidency of W. H. Reynolds, Esq., whose report thereon was unanimously adopted by the Council. From this report it appears that *one-thirtieth*, or thereabout, of all lands surveyed within the Province are reserved for the purpose of forming an Educational Endowment; that in townships and suburban districts every thirtieth section is reserved for this purpose; that in rural districts sections comprising 40 acres each, or thereabout,

thereabout, are set apart in the proportion specified, on the completion of every new survey, at somewhat equal intervals throughout the block : and that, up to September last year, 274 township sections, comprising 69 acres, and 173 rural properties containing 6705 acres had been so reserved.

The following are the recommendations of the Select Committee in reference to the administration of the Educational Reserves, viz. :—

“(1.) That the whole of the properties comprising the Educational Estate should be forthwith vested in the Superintendent and his successors in office in trust for the support of a University and Public Schools within the Province ; that Crown Grants for the same should be procured with the least possible delay ; and that the Crown Grants for the additional Educational Reserves to be made from time to time should be obtained within twelve months after they have been marked off upon the Government Office Maps.”

“(2.) That the whole available proceeds of the Reserves should form for the present one common fund to be disposed of as hereinafter recommended ; and that any special permanent apportionment of the revenue among the three classes of Educational Institutions already referred to should be left to future legislation.”

“(3.) That the administration of the Educational Estate should be entrusted to the Education Board, with full power to appropriate suitable portions of the same as sites for school purposes, in accordance with the provisions of the Education Ordinance, and to lease or let the several properties in such manner as they may consider most conducive to the Educational interests of the Province ; that the accounts and intrusions of the Board in connection with the Trust should be examined by the Provincial Auditor the same as the other accounts ; and that the whole of the available revenue should be paid into the Provincial Treasury, with a view to the same being appropriated by the Provincial Council to the maintenance of a University and Public Schools in the same manner as if such monies had formed part of the ordinary revenue of the Province. Your Committee are of opinion that this arrangement would tend to relieve the management of the Estate from some of those disadvantages and evils which have in numerous instances been attributed to the Educational and other endowments when placed under the control of Boards or Corporations.”

The three classes of “Educational Institutions” above referred to are—a University in Dunedin, High Schools in the larger centres of population, and Common Elementary District Schools all over the Province.

I understand that a Bill for the Administration of the Educational Reserves, in accordance with the foregoing recommendations, is in course of preparation by the Government for the consideration of the Provincial Council at its next meeting. Frequent enquiries are now made at this office by parties willing to lease some of the Educational Reserves, and there is reason to believe that a number of them will be let as soon as the Education Board are placed in a position so to dispose of them.

School Inspection.

During the past summer I have visited and examined all the Elementary Schools which were then in operation, with the exception of those at Clyde and Alexandra. I found the attendance at the different schools in almost every instance steadily on the increase, and I have cause to be satisfied with the efficiency generally of nearly all the schools, and the fidelity with which the different teachers appear to have performed their duties. An increased interest appears to be manifested by the School Committees and the parents in the examination of the schools, and a greater number of them was generally present at the different examinations this season than in any former year.

Female Education.

School mistresses, in addition to the ordinary masters, are now employed in the North, Middle, and South Schools of Dunedin, and in the schools of East Taieri and Tokomairiro. The School Committees of Port Chalmers, and several other districts, contemplate the appointment of school mistresses in their respective schools as soon as the necessary class-room accommodation is provided, or when the attendance of pupils is such as to warrant the employment of two teachers in connection with one school. The limited attendance at most of our rural schools, consequent upon a sparse population, necessitates in most cases the employment of one teacher only ; and such being the case, it is decidedly preferable, as a general rule, that there should be a male teacher. But in all cases where the attendance warrants the employment of two teachers,

teachers, then most undoubtedly one of them should be a female; and every encouragement should be held out to School Committees to adopt this arrangement wherever practicable. The system now most approved of in the Home Country for mixed elementary schools appears to be somewhat as follows:—The oversight of the literary department is entrusted to the master, while the mistress, under his superintendence, renders such assistance in the junior divisions as may be agreed upon. The female industrial department is placed under the control of the school-mistress, who gives instruction in sewing, knitting, dress-making, and other useful branches of female education. While I am very decidedly of opinion that the elder girls, as a general rule, will make much more satisfactory progress in their literary education and mental training under a male than a female teacher, yet I would strongly recommend that the more advanced girls should spend a portion of their school hours with the school-mistress in the perusal and study of such class-books as Mrs. Gordon's "Household Economy"* or the Irish "Female Reading Book," whereby much useful knowledge may be acquired, and many correct ideas formed, on subjects relating to domestic economy. The right training and education of the future wives and mothers of our country for the duties that may one day devolve upon them, is a subject deserving of most careful consideration; and much more of our future welfare and happiness as a community may depend upon the manner in which this duty is performed than is generally supposed. A moral and literary education, however desirable and valuable in itself, is not alone sufficient; and it is much to be desired that all our girls had an opportunity, before leaving school, of undergoing, under competent school-mistresses, a course of instruction and training in the true principles and practice of domestic economy, which has been aptly styled the "salt which would preserve the nation from much festering and loathsome corruption." "A nation is made powerful and to be honored in the world, not so much by the number of its people, as by the ability and character of that people; and the ability and character of a people depend in a great measure upon the *economy* of the several families which make up that nation. There never yet was, and never will be, a nation permanently great consisting for the greater part of wretched and miserable families."

Religious Instruction.

I am still able to report, as on former occasions, that the Bible is regularly read and religious instruction given in all the schools. The advanced scholars generally have a knowledge of many of the leading events of Old Testament history; while nearly all beyond the elementary classes are well acquainted with the life of the Saviour, and appear generally to have been instructed with more or less success in the duties they owe to God and man. So far as I have been able to learn, no difficulty has ever occurred in any of the schools with regard to the imparting of religious instruction by the teachers, who appear to have performed this important part of their duty with prudence and fidelity.

School Singing.

I have been much gratified to find that singing is now practised in nearly all the schools, and I have taken every opportunity to impress upon the School Committees and teachers the advantages that may be expected to result from the general and systematic instruction of the young in this important and useful branch of education.

Public Libraries.

The Education Board have framed rules for the carrying out of the provisions of the Ordinance respecting Libraries. The inhabitants of Tokomairiro, Waikouaiti, North Taieri, Saddle Hill, and other districts, are taking steps for the formation of Public or School Libraries in their respective localities. I expect to be able to give fuller information on this subject in my next annual report.

* The following is a list of the titles of the different chapters in Mrs. Gordon's "Household Economy," viz.:—Introductory Remarks to Teachers—How to keep well—What do we eat?—What do we drink?—How are we clothed?—What shall we do in the household?—What shall we do with the fowls, the pigs, the cows, and the bees?—What shall we do with the purse?—What shall we do in the sick-room?—Useful household recipes for the curing and cooking of meat for soups, puddings, &c.—A few hints upon cookery where there is not much money to spend upon meat—Cookery for the sick room—On the more simple disorders and injuries to which children are liable.

Pupil Teachers.

The Education Board have recently issued regulations for the examination and employment of pupil teachers in the more numerous attended and most efficiently conducted schools. The Dunedin School Committee have already appointed five pupil teachers in connection with their schools, and there is reason to believe that other appointments will soon be made throughout the country.

The New Education Ordinance.

The Education Ordinance of 1862 has been in operation for only one complete year, and it may reasonably be questioned if sufficient time has elapsed fully to test its merits, or to afford the means of judging what alterations in it are necessary in order to meet more fully the present requirements and circumstances of the Province. From the very circumstance that the support of the District Schools has been the first object for which a *compulsory legal rate* on property has been levied to any extent throughout the Province, it was only to be expected that the imposition and collection of such a rate would give rise to no small amount of opposition, dissatisfaction, and ill-feeling on the part of many, who very probably would urge equally grave objections to any other public rate they might be called on to pay, altogether irrespective of the particular purposes for which it might be levied. I believe, however, that this class forms only a small minority of the holders of property in our community, and I feel called upon to state, that, all things being considered, the Ordinance has been more successful in its operation during the past year than I was prepared to expect, and that the greater or less success attending its operations has generally been in proportion to the ability and prudence with which the different School Committees have fulfilled the duties devolved upon them. I have already, in my last annual report, borne testimony to the satisfactory and efficient manner in which the School Committees generally have performed the new and somewhat difficult and invidious duties imposed upon them by them by the present Ordinance. In a few districts, more especially in the North-East Valley and Waikouaiti, strong remonstrances have been made as to the alleged inaccuracy or unfairness with which some properties had been assessed by the Committees, or the assessor appointed by them. It was to be expected that complaints of this nature would be freely made; but in all probability, as the different School Committees gain experience and become better acquainted with the nature of their duties, all reasonable ground of complaint on this point will almost or altogether disappear.

Although, as a general rule, the inhabitants of the different districts formerly attended tolerably well at the annual meetings for the election of the School Committees, yet in some districts the attendance at those meetings was extremely small, and occasionally it was difficult to secure a sufficient number from which to form a Committee. Among other advantages likely to result from the present system, is the tendency which it has to beget and maintain a livelier interest on the part of the wealthier landowners and others in the general and local administration of educational affairs, and in the improvement and efficiency of the Public Schools. The meetings for the election of School Committees will probably be now much better attended than heretofore, and persons possessing the confidence of the inhabitants generally will accordingly be elected, while many who formerly held themselves aloof may now be induced to render to the cause of Education, within their several localities, those services which their position and qualifications so well enable them to bestow.

As far as I am able to judge, there is reason to believe that a large majority of the settlers of this Province approve generally of the principles upon which the existing Ordinance has been based, and are quite prepared to contribute in aid of the Public Schools within their respective localities. Many of them, however, object to some of the details of the Ordinance, more especially to the mode provided for the assessing of the property in rural districts; and I apprehend that the Government in preparing a new Education Bill for the consideration of the Provincial Council, have done so with a view to effect such modifications and improvements in details as shall ensure a more satisfactory and equitable arrangement for the local maintenance of the District Schools, and not for the purpose of bringing about any alteration of the fundamental principles of the existing Ordinance.

The public sentiment of the country appears to be so thoroughly sound on this matter that I consider it altogether unnecessary for me to offer a single argument in support of the principles upon which the Otago Education Ordinance has been framed. Taking for granted, therefore, that no effect can be given to the views of those who object *in toto* to the levying of a legal rate upon property in aid of the maintenance of
the

the public schools, I will briefly advert to the objections which have been most commonly urged against the practical details of the Ordinance, with a view to ascertain what modifications therein are desirable and practicable.

It has been urged by many that it is altogether arbitrary and unfair to fix the annual assessable value of all fenced and cultivated rural lands at the uniform rate of 20s. per acre, and of all unfenced and unimproved lands at the rate of 2s. per acre, or at any other uniform rate, without regard to their absolute or relative value. I consider this objection to be well founded, and that no other plea than that of absolute necessity could warrant the affixing of a uniform arbitrary assessable value upon property irrespective of its real annual worth. I was disposed for some time to believe that it would be difficult, if not impossible, in the present state of matters, to procure assessors who could affix to the different properties in the rural districts a sufficiently correct estimate of their absolute and relative annual value, and that it would be indispensably necessary to continue for some time longer, with certain modifications, the present system of assuming a certain uniform amount per acre as the annual assessable value of different classes of rural lands. After careful consideration of this subject, and after having ascertained the views of intelligent gentlemen who have had considerable experience in the carrying out of the provisions of the Ordinance during the past year, I have arrived at the conclusion that the several properties should be assessed at such amounts respectively as they might reasonably be expected to yield to their owners as rental one year with another if let to tenants, and that it would be quite possible for the different school committees to make up, on this principle, assessment rolls for their respective districts more easily, and much more equitably than by continuing the present system of a uniform acreage rate.

Some persons, on the other hand, insist that there should be only one uniform acreage rate upon lands of every description whether unimproved or cultivated, and they affirm that the assessing of cultivated land at a higher rate is simply "taxing industry, and that those settlers who have expended money and labor on the improvement of their land should not be assessed at a higher rate than those persons who hold generally a large extent of land and have expended little or nothing on its improvement." It would be easy to shew, however, that such a view of the case is altogether fallacious. The principle of the Education Ordinance, as I understand it, is that the owners of property within the Province are to be called upon to contribute towards a rate in aid of the public schools in proportion to the real annual value of such property as nearly as can be ascertained, and not according to its extent merely. The strongest argument in favour of an acreage rate is its extreme simplicity, but I apprehend an arrangement of this kind would not be in accordance with the principle upon which a rate upon property for any national or public object is usually levied.

Several persons, whose opinions generally are deserving of consideration, advocate the levying of one uniform school rate all over the Province, and the collection of this rate by the Government rather than by the different school committees. It is to be remembered, however, that the Province as a whole already contributes a considerable sum from the ordinary public revenue in aid of public school education. With regard to the local maintenance of the district schools, it is to be borne in mind that while the levying of a district school rate may be compulsory in so far as any single rate-payer within a district may be concerned, yet as regards the inhabitants of any district as a whole, the imposition of a rate is purely and simply voluntary. Schools are not forced upon any district by the Government or the Education Board; and when these have been established by the will of the people, it is left to themselves, through committees of their own choosing, to decide as to the particular method by which these schools are to be supported. They are not compelled to impose a rate, if by any other means they can arrange to defray the proportion of the school expenses which falls upon them. The Ordinance provides that such expenditure shall be defrayed "by and out of School Fees, subscriptions, and donations; and, *if necessary*, by and out of a district school rate." Besides, if the duty of levying a rate for the support of the district schools were to be devolved upon the Government, it would follow simply as a matter of right, and even of necessity, that the entire control and management of the schools should be conferred upon the Government. Such a despotic arrangement as this would be in entire opposition to the genius of a free people, and would not be tolerated by them. It would not only be an infringement of rights as sacred to each locality or district, as the rights of self-government are to the British people as a whole, but it would strike at the root of the entire educational and social progress of the country. The power of local and combined efforts for local objects and improvements forms the very essence of the parochial and municipal institutions of the mother country, and it is one of the most powerful instruments for a country's material advancement

vancement and progress that have ever been devised. This same power of local self-government, voluntary and unrestricted, is the very mainspring of our present educational system, in virtue of which, if efficiently and judiciously directed, it will continue to expand and keep pace with the increasing population and advancement of the country. The Education Ordinance is based on the principle that it is the right and office of the people in their several localities to educate themselves; that the Education Department with all it provides is only a help to, and must not take the place of, local effort; that the inhabitants of each school district are invested with power to educate their children, and to provide the means of doing so very much in their own way; and that they are deserving of praise or blame, and are benefactors or enemies of their country and posterity, as they rightly exercise, or neglect to employ, the powers which the Education Ordinance places in their hands.

With regard to the agency to be employed in assessing or valuing the different properties apart from the collection of the rates, it is very much a question of expediency whether the duty of assessing its own district should be devolved upon each school committee, or whether any arrangement should be made whereby this part of the work could be otherwise performed. In the Home Country the cost of maintaining the poor, the constabulary force, prisons, roads, &c. (and in Scotland the parish schools) is mainly defrayed from rates imposed upon houses, lands, &c., by the local boards, trustees, or committees appointed to manage those several matters in their respective counties, districts, or parishes. Until about ten years ago each of these different boards, &c., was under the necessity of valuing or assessing the property to be rated as well as of collecting the rates, and very often considerable discrepancy appeared between the different values affixed to the same property by the assessors employed by the several boards. To put an end to this state of matters, and to ensure uniformity as well as greater economy, an Act of Parliament was passed in 1854 or thereabouts, empowering the local authorities to appoint competent persons to act as assessors of the property in the different cities, towns, and counties. Each assessor is charged with the duty of annually assessing all the rateable property within his district, and thereafter of furnishing to each corporation, board, trust, or committee within his bounds, whose duty it may be to levy a public rate, a copy of so much of the assessment roll as relates to the particular district or division over which the rate extends. The expense of the assessment is apportioned among the different boards, &c., who receive copies of the assessment roll or a portion of it, according to the aggregate value of the property upon which each respectively is by law authorised to impose a rate. Each board, &c., having thus received, without any trouble, an authorised assessment roll, has simply to calculate the rate in the pound necessary to make up the amount or money required by them, and thereafter to collect the rate accordingly. In the course of time, when the holders of property in this country shall be required to contribute by means of legal rates, not merely in aid of the public schools, but also to the maintenance of roads, police, the poor, and other necessary public burdens, an arrangement similar to what I have described will probably be carried out, by which the school committees would be relieved of a somewhat difficult and invidious portion of their present duties. For the present, however, it will probably be considered preferable to leave the duty of assessing in the hands of the different school committees, and if any provision should be made by the Provincial Council for the levying of district road rates upon the same principle as that proposed for the school rate, of which you have informed me there is some possibility, it is not unlikely that in most cases, an arrangement would be made by the several school committees and the road trustees for the assessment of the property and the collection of the rate being performed by the same person. I may mention that the Dunedin School Committee are granted the use of the assessment roll of the city, prepared by the Town Board, and are thereby saved a very considerable amount of outlay.

While I would recommend the continuance of the present arrangement for objections to the rate being heard and disposed of by the School Committee on a stated day, yet I beg to suggest the propriety of providing the means of appeal from the Committee's decision to the Justices of the Peace for the district.

I very much fear that the present arrangement whereby the cost of maintaining the school premises in repair falls equally upon the Education Board and the School Committees will eventually lead to considerable inconvenience and much complication. The schools are now becoming numerous; many of them are situated far apart, and at considerable distances from Dunedin, and it will soon become extremely difficult for any Government officer satisfactorily to take cognizance of the state of the different buildings, and to attend to every petty matter of repair that may be wanted. Besides, when

when two different parties are charged jointly with the duty of upholding the buildings, the chances are that the duty will in a great measure be overlooked by both ; whereas if the school committees were aware that the entire responsibility of keeping the buildings in repair was devolved upon them, the duty would more likely be duly attended to. I beg, therefore, to recommend that the entire cost of repairing or renewing the buildings, fencing, &c., should fall upon the school committees ; and that when additional accommodation is required in connection with any school already erected, or that may be erected by the Government, one-third of the cost thereof should be defrayed by the district from a special rate extending, if thought necessary, over one or more years.

I have already, in a former report, given expression to the opinion that a portion of the original cost of the school buildings should have fallen upon the different districts ; but, as so many localities have already been supplied with buildings entirely at the cost of the Government, I am quite unable to suggest any arrangement whereby any change in the present system could be satisfactorily and equitably effected.

The other alterations in the Ordinance which I have already suggested to the Government do not require any special notice in this report. It would be a hopeless task to frame an Education Ordinance that would give universal satisfaction. As the Province advances, and as the system becomes more and more developed, improvements may be made to meet the changing circumstances, and the new wants and institutions of the country ; but whatever may be the provisions made for the maintenance of the public schools, they would undoubtedly meet with opposition from one quarter or another. " If the law [relating to Public School Education] were as perfect as the Bible itself, there would not be wanting those who would wish its overthrow, or who would think they could greatly improve it."

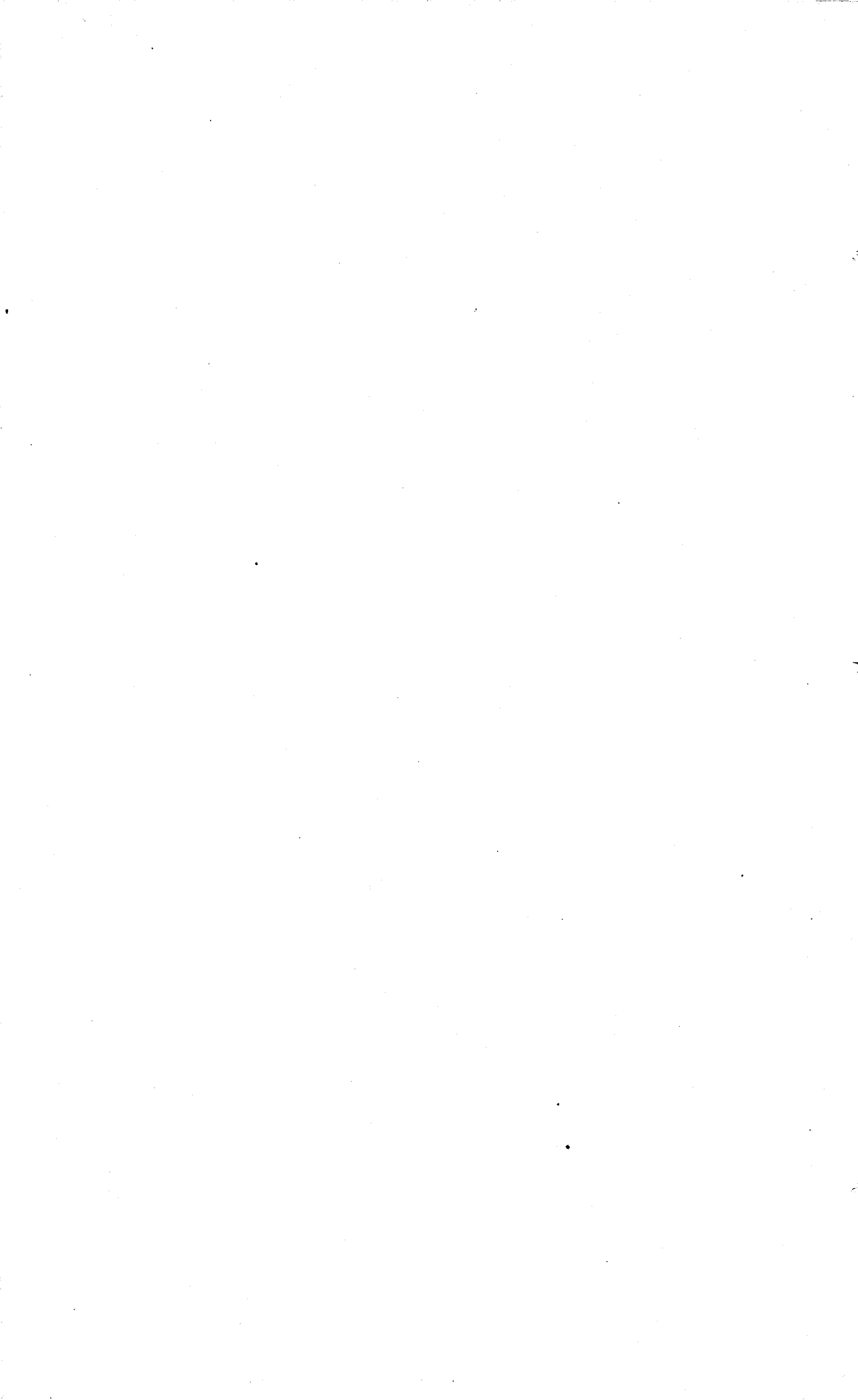
I have the honor to be,

Sir,

Your very obedient servant,

JOHN HISLOP,

Secretary of the Education Board and Inspector of Schools.



II.—SURVEY DEPARTMENT.

Survey Office,
Dunedin, 1st March, 1864.

To Thomas Dick, Esq., Provincial Secretary.

SIR—

I HAVE the honor to acknowledge the receipt of your letter, dated 27th ult., and in reply thereto, beg to state that the Survey Annual Reports have hitherto been furnished at the end of the working season, viz., the 30th of June. This period has been found to be the most convenient, as, the operations for the season being closed, the returns can be fully made up; whereas, on the 31st December, all the Surveyors are in the midst of their operations, which, being only partially executed, no fair estimate can be arrived at.

Presuming that no alteration to the above arrangement would be made by Government, I have called for no returns from Surveyors up to the 31st December, further than reports of their monthly work. From these, it will appear that Mr. McKerrow has carried standard bearings over a large portion of the South-East District, with the 10-inch altitude and Azimuth instrument. He has further accurately measured and laid down standard chain lengths at the various central points. The object of these operations is to afford standards of reference for the various surveyors now employed in the various branches of surveying.

Mr. W. P. Smith having completed the minor triangulation of Glenkenich District, is now engaged in triangulating the districts on the borders of the Matuara.

Mr. C. B. Shanks having completed the minor triangulation of the Waipori and Sutton Districts, is now engaged in triangulating the Hyde District.

Mr. F. Howden was engaged in surveying the agricultural lands of the Dunstan Gold-Field, and, having been removed to Mount Ida, completed the survey of the township there, and is now engaged in laying off another at Hamilton's.

Mr. James Mitchell having completed the minor triangulation of Oamaru District, is now engaged with the triangulation of the Awamoko and Kauroo Districts.

Mr. William Arthur having completed the Section surveys of the Blocks 2 and part of 3 Kaitangata District, was removed to the surveys on the West Coast, where he is now engaged.

Mr. G. M. Barr having completed the Section surveys of Blocks 2 and 4 Otepopo Districts, was removed to the agricultural lands of the Wakatip Gold-Field, where he is now engaged.

Mr. Robert Grigor has completed the Section surveys of Blocks 1, 4, and 7 Kaitangata District, and is now engaged with Block 3.

Mr. C. W. Adams having completed the Section surveys of Blocks 1 and 2 Kuriwao District, was removed to Waikawa, to lay off the new settlement there.

Mr. T. McFarlane has completed the Section surveys of Blocks 12, 13, 14, and 15 Pomahaka District, and is now engaged with Block 1 Waipahee.

Mr. Norman Prentice has completed the Section surveys of Blocks 8, 9, and 10 Oamaru District, Block 8 Otepopo District, and is now engaged with Block 9 of that district.

Mr. Nathan Thornley has completed the Section surveys of Blocks 11, 12, and 13 Oamaru District, 1 and 2 Papakaio, and is now engaged with Block 3 of that district.

Mr. John Hurst having completed the Section surveys of 4 and 7 Akatore District, was removed to the agricultural survey of Tuapeka Gold-Field, where he is now engaged.

Mr. G. McKenzie having succeeded Mr. Rutherford, has completed the revival of the Section survey of Block 6 Moeraki, is now engaged with Block 7 of that district.

I have the honor to be,

Sir,

Your obedient Servant,

J. T. THOMSON,

Chief Surveyor.

III. HARBOR



III.—HARBOR DEPARTMENT.

Harbour Office,
Port Chalmers, 14th March, 1864.

SIR,—

I HAVE the honor to forward, for the information of the Government, a report of the present state of the Harbours and Roadsteads under my charge, with suggestions as to any improvements which appear to me to be necessary.

1. *Oamaru*.—The outer moorings have now been laid down in five (5) fathoms of water, one mile off the landing place. The shipping to this port continues to increase, and is now of such importance as to demand a harbour light for the safe guidance of steamers to the anchorage at night.

2. *Moeraki*.—The jetty at this port has been completed, and the moorings, suitable for vessels of from 600 to 700 tons, laid down in seven (7) fathoms of water. The barque *St. Dunstan*, of 441 tons, loaded a cargo of wool at this port this season, and rode out with safety one of the heaviest south-east gales to which this coast is exposed. I would recommend the erection of a flagstaff to afford means of communication with vessels in the bay when this is not practicable by a boat, and also the appointment of a beach master, who would also act as pilot and signal master.

3. *Waikouaiti*.—This port is growing in importance, and much requires inner moorings for the safety of the small vessels visiting the roadstead. I would also recommend that a harbour-light be erected, it being a blind place to steer for at night, and the steamboat traffic considerable. It not unfrequently happens that the steamers have to approach the anchorage after dark, and the danger to which they are thus exposed would be avoided by the erection of a light. I would further recommend the erection of a flagstaff, and the appointment of a beach master, who would also act as pilot and signal master. Repeated complaints have been made to me by masters and owners of small craft visiting the port of the want of an officer to enforce the Harbour Regulations.

4. *Otago Harbour*.—In my report of August last, I indicated that jetty accommodation at Dunedin was much wanted. In my opinion the time has now arrived when wharf accommodation should be provided for all vessels that can go up to Dunedin, and thus avoid the additional tax on the community for lighterage. To accomplish this, the jetty would require to be extended to say twelve (12) feet at high water. This would also save the delays at present occasioned to coasting steamers by their being obliged to wait for high water before being able to get away.

I have hitherto hesitated in giving an opinion as to the effect of a reclamation of a part of the harbour, but as the Marine Engineer agrees with me upon the subject, I have now to point out that any reclamation must affect the strength of tide in the lower harbour, and cause a corresponding silting up.

The wharf accommodation at Port Chalmers is also quite inadequate to the traffic carried on, and should be extended. I would recommend that jetty dues be now levied at this jetty.

The want of a patent slip becomes more apparent every day, and serious loss and inconvenience are occasioned in consequence. I might mention many cases; the ship *Indiana*, having sprung a leak at sea, returned to port, and there being no appliances for effecting the necessary repairs, the vessel was obliged to be condemned. The same fate, I fear, awaits the ship *Saldanha*. In both of these cases, although the vessels were damaged to such an extent as to prevent them being taken to another port, a very small outlay with a slip or dock accommodation would have rendered them good vessels for some time to come.

A flagstaff has been erected at Port Chalmers, and a signal master appointed, who will enter upon the duties of his office immediately. Communication will thus be kept up between this station and the Heads, and the delay hitherto occasioned by sending a boat will be obviated. The depth of water in the upper harbour will also be shewn from the flagstaff, for the guidance of masters of vessels bound for Dunedin. I shall furnish a table of signals to be used for this purpose for the approval of the Government. I would now recommend that an astronomical clock be procured for this station, to assist in keeping accurate time, which will also be computed every clear day by observation; and that a small signal gun be got to be fired at eight p.m., to enable
ship

ship masters to correct their chronometers—an accommodation much prized by them. A gun would be much preferable to a time ball, as in the case of the latter the time would necessarily have to be signalled at noon, an hour when ship masters are frequently on shore, and when the duties of the day would much prevent their giving attention to it. The gun would also indicate the time to the inhabitants of the town, many of whom are not within sight of the signal station, and to the river steamboat masters, who are desirous of keeping correct time with a view to secure punctuality in arriving and departing.

A large fair-way buoy is now completed, and will shortly be moored at the entrance to the inner bar. The channels will all be then well buoyed and beacons.

I would also point out that the leading lights are very much wanted for the guidance of steamers and coasters across the bar, and into safe anchorage during night. At present there is nothing to enable a ship master to ascertain his exact position in crossing the bar after dark. Every facility should be given to enable them to do so, as the channel is very narrow, and a little deviation to either side would prove disastrous.

It will also be necessary to procure a new pilot vessel. The present schooner, although the best that could be got at the time of her purchase, is not so fast as is required. She will also require extensive repairs, if kept in every day service, as at present, and must be relieved for this purpose. Superior vessels, suited for the pilot service are now in the market, and, if one were purchased, the pilot service would be much more efficiently carried on. I propose to retain the present schooner also, as she would be required to visit the various roadsteads, to examine moorings, &c., and to relieve the other one at the signal station, as occasion might require.

The new life-boat is now at the Heads, and the crews of the Heads boats are as frequently as opportunity occurs, exercised in its use by the pilot in charge of the station. The boat is a very superior one—was built according to Peak's plan, so much used on the coast of England, and is admirably adapted to the purpose for which such a boat is required.

Only two casualties have occurred at the entrance to the harbour since my last report in August last, viz., the grounding of the ship *Saldanha* on the inner bar, and the barque *Oregon* on the Spit. In the case of the former, she was being towed to sea by the steam-tugs *Samson* and *Favorite*, and these not being equal to the work, during a sudden heavy squall from the north-west, the vessel went aground, but was got off with very little damage. The *Oregon* grounded through the master standing too close in shore during a foggy night, but was got off the following day without sustaining any damage.

I regret that the Marine Board Act, passed at the last meeting of the Assembly, renders it not compulsory for any ship master to take the services of a pilot; thus the revenue derivable for pilotage may suffer a very considerable reduction, while a corresponding reduction of the staff cannot be made. The establishment is necessarily an expensive one, but the number of pilots must be kept up in order to afford service to any vessel when called upon. I would recommend that the Provincial Government bring the matter under the notice of His Excellency's advisers, with a view to the Act referred to being amended at next meeting of the Assembly, and also to make provision for anchorage dues being charged, these also being disallowed by the Marine Board Act above referred to.

5. *Taiari River*.—The trade to this port having fallen off, the Signal Station has been advertised to be abandoned on 31st March, instant.

6. *Molyneux*.—The moorings have been laid down in the roadstead off Wiltshire Bay in seven (7) fathoms of water, and suitable for vessels of from 600 to 700 tons.

The work of removing the snags has been very successfully carried on, and a channel has been kept clear for the steamer *Tuapeka*, plying daily on the river. The fact of no accident having ever occurred to this steamer testifies to the care which has been taken in the removal of the many hidden obstructions to the navigation of the river. In consequence of the high state of the river, operations have been suspended for three months past, but it having again gone down these have now been resumed.

I consider this port is one of such importance as to demand the services of an assistant harbour master, to take supervision of the signal station, and all matters connected with the navigation of the river; and I trust the Government will sanction the appointment being made as soon as possible.

A small life boat has been provided, and is kept at the mouth of the river, but it is not manned, and therefore depends upon a volunteer crew for any emergency.

I would recommend that a buoy be placed in the fairway, with a warp attached, and run out to vessels when becalmed on the bar. When coming in with a fresh breeze

breeze, it frequently occurs that they get becalmed upon reaching the bar. The accommodation proposed would tend much to the safety of the vessels visiting the port, and, pilotage being charged for the service, it would in a great measure be self-supporting.

7. *Catlan's River*.—There are saw-mills at this port, and it is visited by the same class of vessels as frequent the Clutha, but I do not consider the port of such importance as to recommend any expenditure to be made upon it in the meantime.

8. *Wakawa*.—This port is growing in importance, and will shortly require a responsible officer to have supervision over the navigation, but, in the meantime, I cannot recommend any expenditure further than a subsidy to a steamboat owner who will ply a suitable steamer weekly from Dunedin to the Molyneux, and make a monthly trip to this port.

I have the honor to be,

Sir,

Your most obedient servant,

WM. THOMSON,

Harbour Master.



IV.—GAOL DEPARTMENT.

Her Majesty's Gaol,
Dunedin, 15th March, 1864.

The Provincial Secretary, &c., &c.

SIR—

I HAVE the honor to forward herewith Returns, shewing the state of the Gaol during the past year, and beg leave to draw the attention of the Government to its insecurity and insufficient accommodation, together with the necessity for providing a building where the convicts could be safely secured, and subjected to proper classification and discipline.

There are now over 150 prisoners confined, and every likelihood of a considerable increase, from the great number of known offenders at large in Dunedin and on the Gold Fields.

There are more than 50 of the very worst class of offenders in Gaol at present without any means of keeping them separate from those confined for first offences; the result is, that many of the latter class leave the Gaol much worse than when they entered it. I have not a cell where I can put a prisoner so as to prevent him communicating with others; and the general arrangement of the cells is so peculiarly bad and defective as not only to prevent the necessary supervision at night, but also affords the inmates of one cell the opportunity of opening the adjoining cells, and thereby having access to their fellow-prisoners.

In the female division, no classification whatever can be carried out, the convicts and those awaiting trial have to be placed together; and, very recently, a female imprisoned for debt had to be put with the most abandoned characters.

There is no Hospital, and the stores, kitchen and officers' quarters are altogether insufficient for the present requirements; it is therefore with considerable difficulty that the work of the Department is carried on.

The cost of making the requisite additions and alterations to the Gaol would nearly provide a new building. The present site is decidedly objectionable since the erection of the Jetty and the number of public-houses that have latterly sprung up in the immediate neighborhood.

I am glad to be able to state that, notwithstanding the limited room, want of means for maintaining discipline and other obstructions, the conduct of the prisoners has been generally orderly, with one exception, in July last, when they all refused to work, but the prompt and determined steps taken by the Visiting Justices in the making examples of the ringleaders by ordering the infliction of corporal punishment, had a most desirable effect on the remainder, who immediately consented to resume their labor.

The recent arrangement for the weekly attendance of the Visiting Justice has been both convenient and productive of the best results; the numerous frivolous complaints formerly indulged in by the prisoners being now altogether abandoned, and all complaints requiring Magisterial inquiry are promptly attended to.

The prisoners have been profitably employed in road making, stone breaking, and removing "Bell hill." It is much to be regretted that a number of prisoners, who are mechanics, cannot be employed at their respective trades for want of workshops, nor is there room for erecting any on the premises. If this and other necessary accommodation for the profitable employment of prisoners could be provided, I have no doubt that the value of their labor would not only pay for their support but would materially assist in defraying the cost of their supervision.

The employment of prison labor in quarrying and blasting on Bell Hill necessitates the increase of two additional Wardens. This work was formerly done by free labor. A saving of twenty-nine pounds weekly is effected by the present system, after deducting the salaries of the Wardens. The present staff of Wardens is much larger than is usually employed in other Gaols, in which there are more than double the number of prisoners. This is owing entirely to the defective construction of the building, and consequently no reduction can be made.

The salaries are the same as those on the last estimates, with the exception of the overseer of labor, whose present salary I don't consider equivalent to his duties—which are

are of an important and responsible character. He is a most efficient and experienced officer. I therefore trust that the small increase will be granted him.

It often occurs that prisoners on discharge have no money nor means of subsistence whilst seeking employment ; the result is that many resort again to the commission of crime. As a means of preventing this I have placed on the Estimates a small sum which I propose should be given to those prisoners who, at the expiration of their sentence, are willing to work for five or six days in the Gaol at the rate of 5s. per day. I have no doubt many, particularly the well-disposed, would be glad to avail themselves of this opportunity of providing themselves with the means of support until they obtain employment.

The sum placed on the last Estimates for Arms and Ammunition, viz., L400, not having been expended in consequence of their non-arrival from England, the same amount is again placed on the present Estimates.

Owing to the increase of prisoners during the last year, I have made provision for further increase by enlarging the amount for rations, medicine, and medical comforts. I have also increased the amount for fuel and light to meet the requirements of the Debtors' and Warders' quarters erected last year.

I have the honor to be,

Sir,

Your most obedient servant,

JOHN STODDART.

Gaoler.

DUNEDIN GAOL.

Annual State of Her Majesty's Gaol, from 1st January, 1863, to 31st December, 1863.

Total Number of Prisoners.		Number of Debtors.		Number of Lunatics.		Number of Prisoners Discharged.		Number of Debtors Discharged.		Number of Lunatics Discharged.		Number of Prisoners above sixteen years of age.		Number of Prisoners under sixteen years of age.		Greatest number of Prisoners at one time in Gaol.		No. of Prisoners who have been Convicted before.		Number of Prisoners who have been convicted in other Colonies.		Punishment for Offences committed within the Gaol.		REMARKS.								
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Once.	Twice.	Thrice and oftener.	M.	F.	Irons.		Flog.	Whip.	Solitary.	Other Punishments.				
1060		125	1	31	4	872	92	116	129	4	1112	98	11	...	170	8	42	7	25	4	10	4	44	5	1	3	2	246	4	36	...	

J. STODDART, GAOLER.

DUNEDIN

DUNEDIN GAOL.

Return of the number of Prisoners received into her Majesty's Gaol during the year 1863, with the offences for which they were charged.

	Total.		Remarks.
	M.	F.	
High-way Robbery.	M.		
Assault with intent to rob.	M.		
Assault with intent to commit Rape.	M.		
Burglary.	M.		
Horse Stealing.	M.		
Cattle Stealing.	M.		
Forgery and Uttering.	M.		
Embezzlement.	M.		
Larceny.	M.	F.	
	78	5	
Stealing from the person.	M.	F.	
	7	2	
Obtaining money and goods by false pretences.	M.		
Manslaughter.	M.		
Murder.	M.		
Rape.	M.		
Beastiality.	M.		
Unnatural offence.	M.		
Arson.	M.		
Perjury.	M.		
Assault with intent to do grievous bodily harm.	M.	F.	
	5	1	
Common assault.	M.	F.	
	32	3	
Drunkenness.	M.	F.	
	335	36	
Vagrancy.	M.	F.	
	32	3	
Other offences.	M.	F.	
	229	11	
Total.	M.	F.	
	153	8	
Sentenced from Magistrate's Court...	M.	F.	
	728	81	
Remanded ...	M.	F.	
	90	"	
Sentenced Supreme Court ...	M.	F.	
	3	"	
For trial Supreme Court	M.	F.	
	2	"	
Sentenced from Magistrate's Court...	M.	F.	
	100	7	

J. STODDART, Gaoler.

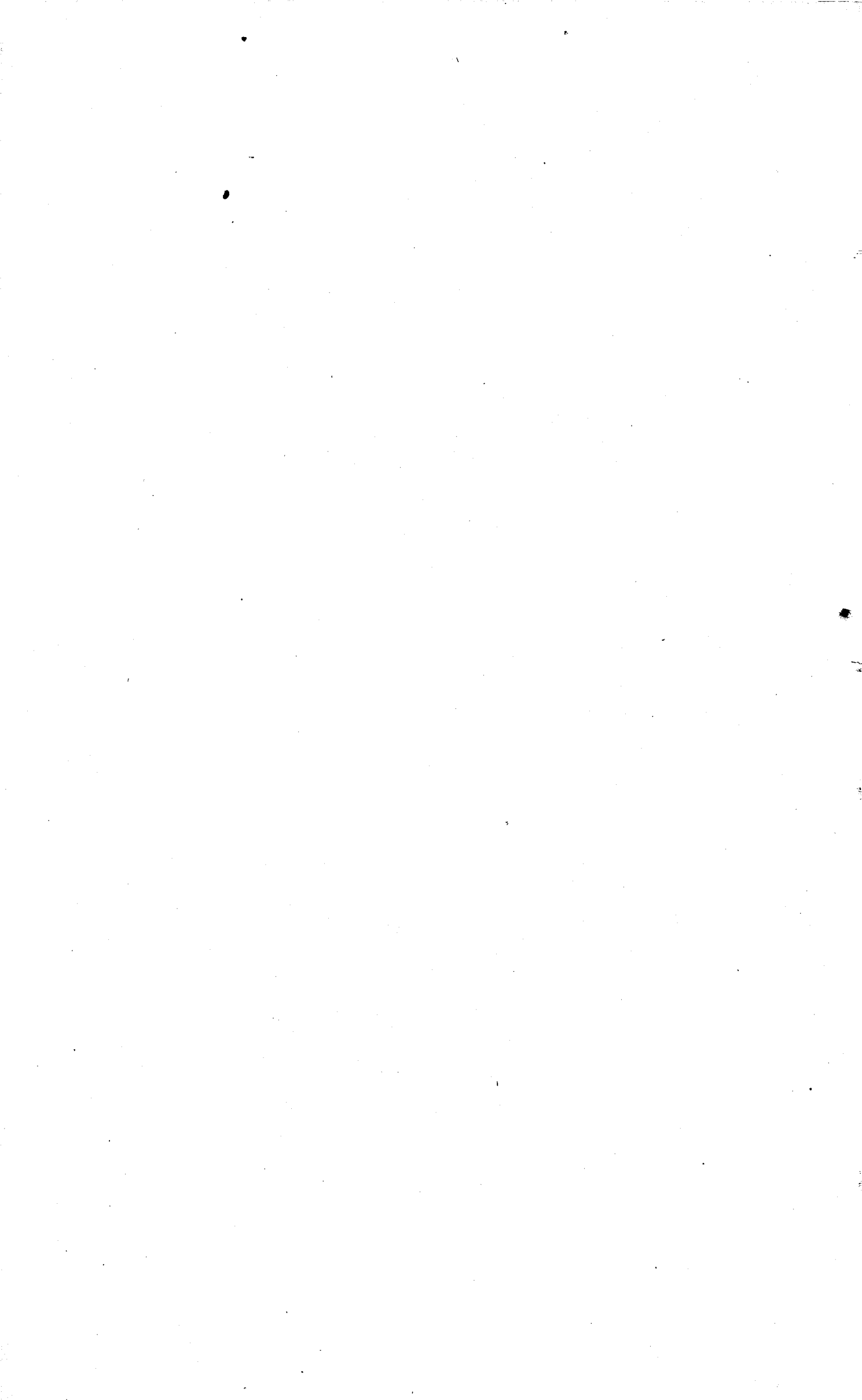
DUNEDIN

DUNEDIN GAOL.

Return showing the Value of Labor performed by Prisoners in Her Majesty's Gaol, Dunedin, from 1st January, 1863, to 1st January, 1864.

DESCRIPTION OF LABOR.	AMOUNT.			REMARKS.
	£	s.	d.	
Roadmaking	191	15	0	
Excavating Bell Hill	2995	16	3	
Metal supplied to Town Board	845	7	8	
Do. to Provincial Engineer's Department	102	10	0	
Shoemakers and Tailors	201	12	0	
Carpenters and Painters	225	9	0	
Cooks and Wardsmen	440	0	0	
Washing and Needlework	86	13	0	
Wardswomen	35	3	0	
	£5,124	5	11	

J. STODDART,
Gaoler.



V.—MARINE ENGINEERS' DEPARTMENT.

REPORT FOR SIX MONTHS ENDING MARCH 31st, 1864.

Marine Engineers' Office, Dunedin.

SIR,—

I HAVE the honor to submit a report shewing the general progress of the works put under the control of this department, for the financial year just closed.

Having only arrived from England about the middle of September last, a very great portion of my time has been hitherto occupied in paying flying visits to the different localities which more particularly called for attention, in order to get a general knowledge of the requirements of the Province, and the nature of its resources, so as to be able to make preliminary reports on the desirability of various works which had been suggested.

These preliminary reports of necessity recommended more detailed surveys in almost every case, and owing to the great amount of out of door work thus required, and the difficulty of getting a proper staff organized, considerable delay has arisen, and a number of works for which sums of money were appropriated last session of Council, have not yet been overtaken. While regretting the delay I feel convinced that it was more advisable to allow the appropriations to lapse and trust to the Council renewing them, than to hurry on works designed on insufficient information which perhaps, when completed, might have turned out more injurious than beneficial.

From the causes detailed above, this report must be as much prospective as retrospective, and the following remarks on the different localities in detail are, to a great extent explanatory of the Estimates for the financial year 1864—5, which I have had the honor to submit to you.

1ST.—LIGHTHOUSES.

Although these works are now put under the control of the General Government, I have, acting on instructions received from the Provincial Government, prepared working plans for the Lighthouse Buildings on Dog Island and Tairoa's Head, and am happy to be able to report that these works have been let to competent contractors; Dog Island for £5,573, and Tairoas Head for £3,150. I have got drawings nearly completed for Cape Saunders Lighthouse, and hope shortly to be able to call for tenders for it also. From my knowledge of the quality of the light-room apparatus, a great portion of which has already arrived from Scotland, and from the fact that some of the optical arrangements are entirely new, having been made from the designs of Mr. Thomas Stevenson, C.E., of Edinburgh, with the view of economising light to the utmost, I have no hesitation in expressing my opinion that the Coasts of Otago will soon have all the benefits to be derived from the regular exhibiting of three of the finest lights, not in the Southern Hemisphere merely, but in the world.

2ND.—OTAGO HARBOUR.

Leading Lights.—The apparatus and lanterns having now arrived from Scotland for these lights, I hope shortly to be in a position to call for tenders for their erection. This would have been done sooner were it not desirable to get some information as to the practicability of so arranging the buildings as to make it possible to use one of the lights in conjunction with a third light to be exhibited from a window in the light-keeper's house, as a guide for a considerable portion of the channel upwards towards Port Chalmers.

Port Chalmers Jetty.—A sum of £2,000 was appropriated last session for the extension of the existing Jetty. This sum I believe to be perfectly inadequate for the requirements of this thriving Port, and there is, in consequence a sum of £20,000 in the Departmental Estimates for Deep Water Wharfage there. This sum might be reduced a little if necessary, but I should strongly recommend its being passed intact.

Graving

Graving Dock.—In the Departmental Estimates there is a sum of £50,000 for a Graving Dock, or other apparatus for cleaning and repairing vessels. This I believe to be of vital importance to the welfare, not of the Port only, but of the Province at large, and any delay in its construction might be productive of such serious consequences, that I beg most strongly to urge on Government the propriety of proceeding with the work at once, and trusting to its being remunerative, rather than waiting for the tardy assistance of a Joint Stock Company, which the guarantee of six per cent. on the outlay voted last session does not as yet appear to have called into being.

Dredger, &c.—The machinery for the dredger will shortly arrive, and the sum on Estimates for the hull, punts, &c., is necessary to render money already spent reproductive. If the dredger be properly worked a very short time will suffice to give Dunedin the benefits of deep water wharfage.

Deep Water Wharfage at Dunedin.—A contract has been entered into with Alex. Cairns and Co. to construct upwards of 500 feet of wharfage on the east side of Rattray Street Jetty for the sum of £5333 16s. 4d. This work has been considerably delayed owing to a difficulty in obtaining piles of the specified quality and size. A commencement has, however, been made, and it is to be hoped that the contractor will now push forward the work with energy.

The wharf is so designed as to allow of a channel 12 feet deep at low water being dredged along its front, so that shortly Dunedin will have a wharf alongside of which vessels of very considerable tonnage will be able to lie afloat at all times of tide.

In addition to this there is a sum of £10,000 on the Estimates for further deep water accommodation. The present Jetties being constructed on piles driven only to a moderate depth, cannot be made available for large craft by dredging without some extension and improvement. It is for this, or for the construction of new wharfage, as may be found best, that the above-mentioned sum is required.

3D.—WAIKOUAITI.

A survey of portions of Waikouaiti Bay has been recently made with a view to designing some form of a Jetty. The bay is very much exposed, and it is probably impossible to make any Jetty which would be available at all times without going to the very great additional expense of a covering breakwater. The sum of £5000 on the Estimates will, it is hoped, be sufficient to construct a Jetty available in moderate weather.

4TH.—MOERAKI

This is the best natural harbour I have seen in the Province with the sole exception of Otago harbor. The Jetty already constructed, from designs by the Provincial Engineer, will probably answer all the requirements of the locality for some time to come, and in consequence I have not placed any sum on the Estimates for an extension. £2000 would probably be sufficient for a Jetty available for steamers, at all times of tide in moderate weather.

5TH.—OAMARU.

Accompanied by the Harbor Master, I visited this place some months ago. It is extremely exposed, and there can be no doubt that increased facilities for landing are much called for. Without a more detailed survey, however, which has been already recommended, it is impossible to hazard an estimate of the cost of works at this place.

6TH.—TAIERI RIVER.

I visited the mouth of the Taieri River in October last, to ascertain the practicability of closing one of the entrances, so as to ensure greater permanence to the Navigable Channel. I have no doubt that it could be done at a not very large outlay, but could not make an estimate of the cost without a farther survey.

The trade to this river is so small however that I do not think Government would be justified in spending money on it at present.

In

In February, a survey was made for a Jetty, &c., near the entrance of the river, and plans prepared, and the work has since been let to Mr. Sutherland Sinclair, for the sum of £367 18s. 7d.

This Jetty, though very small, will be a great convenience to Settlers in the neighbourhood, and will, I believe for the present, answer all the requirements of the locality.

7TH.—MOLYNEUX OR CLUTHA RIVER.

This noble River has occupied a great deal of my attention from the conviction that water communication, where practicable, is the cheapest and best adapted to the requirements of a new country.

Pomahaka Wharf and Crane.—A small Jetty with a 3 ton Crane on it has been constructed at the confluence of the Pomahaka, at a cost of £470 17s. for the Jetty, (James Gore, Contractor), and £145 for the Crane. (Alexander Cairns, Contractor), and will, it is hoped, be found of much benefit to the neighbouring Settlers.

Molyneux Township Wharf.—A length of 40 feet 6 inches of wharfage has been already constructed from designs by the Provincial Engineer, and Messrs. Galt and Begg are under contract to extend the wharf other 56 feet, and furnish it with Paddle Guards, Pauls, &c., for the sum of £590.

Removal of Rock at Entrance.—The appropriation of £3,000 for the removal of the rocks in the Channel at the mouth of the River has been allowed to lapse, owing to the impossibility of overtaking the survey in time. That survey is now nearly completed, and I shall very shortly be in a position to estimate more closely the probable cost of the work.

Improvement of the Navigation.—The navigation of the River is impeded by banks and shoals, by shifting channels and by rocks and snags. The present system of removing snags costs about £1,200 to £1,500 per annum, and is practically endless. I have in consequence put a sum on the Estimates for the construction of a Steam Snag Boat and Dredge, and the cost of working it for the current year. This sum would include the cost of removing the rock at the entrance—which could be done much more economically by this boat than by any other means—also the removal of snags and any other dangerous rocks, the cost of procuring and driving a number of piles at several points where the river requires guiding &c., &c. The boat is intended to be built of very light draft and great power, so as to be able to ascend the river with ease, and it is proposed that she should be fitted so as to be able to lift snags or stones—to dredge to a depth not exceeding 10 feet, to bore holes in submerged rocks for subaqueous blasting, and to drive piles—all by steam power.

The immense quantities of silt sent down the Molyneux annually, and likely to be sent down for years to come by the miners on the upper reaches of the river, naturally tends to injure the navigation; and this would seem to give to the proprietors on the lower waters a just claim to some efficient means of keeping the channel open.

This boat, however, would not be useful only for the Molyneux, but wherever harbour works were being prosecuted, or dredging in shallow water was required, she would be available; and her use would tend greatly to cheapen and facilitate any works required under water, such, for instance, as the foundations of the Graving Dock proposed for Port Chalmers.

Once procured, the expense of working the boat would but little exceed the cost of the present snag boat, while her efficiency would be immeasurably greater. Should this sum not be passed the vote of £3,000 for the removal of the rock at the entrance would require to be renewed.

A few days ago I succeeded in pushing up the river in a whaleboat nearly as far as Beaumont Burn. For about nine miles above the Tuapeka, or about 59 miles from the mouth, the river is perfectly navigable; and the banks above the Tuapeka are covered with dense bush, some of the timber being large and fine. Above this point there are numerous rapids and obstructions, which I am not prepared to say could ever be economically removed, so as to form a safe channel for navigation. If this could be done at all, however, the steam snag boat is the proper instrument to employ, and I would propose to let her work her way gradually up stream when not required elsewhere.

A packing

A packing track could be easily cut along the right bank of the river from the present head of the navigation, and would doubtless prove a great boon to the numerous miners likely to be at work on the banks, should the river fall as low as expected.

Ferries.—There is a sum of £100 on the Estimates for the extension of the slips, &c., at Clutha Ferry. This is only carrying out the original design of the Provincial Engineer to its full extent, the state of the river last year having prevented the slips being run out so far as intended. This extension is absolutely necessary for the safe working of the Ferry.

In the month of January I visited the sites for proposed Ferries over the Molyneux in the vicinity of the Teviot and Beaumont Burns, and having obtained the necessary information, have since prepared working Drawings, and called for Tenders for the work.

The natural features of the river at the proposed sites have necessitated designs to a considerable extent peculiar and novel, and considerable delay in calling for tenders has, much to my regret, been the necessary result.

The sum of £7000 for Teviot Ferry will be considered very large, but is only the probable cost of completing the work. From the narrowness of the river at the site of the proposed ferry the velocity of the current is very great, and the vertical rise of the stream during floods is also excessive. Hence the great cost of the work, which I do not recommend, being of opinion that a bridge, though costing probably not less than three times as much as a ferry, would be much better suited for the locality.

The Beaumont Ferry may also be considered expensive, but this arises from the great depth of water in which the landing slip has to be constructed on one side of the river—necessitating greater strength in the slip and extra precautions to ensure its stability. This, I believe, would be a good and efficient ferry, and therefore beg to recommend its authorisation.

If either or both of these ferries are to be constructed, it would be a matter of great consequence that the necessary authority be given at once, in order that contractors may take advantage of the present excellent condition of the roads for the carriage of the materials, and may have an opportunity of constructing the approaches or landing slips when the river is at its lowest. Should there be any delay in authorising the work it is highly probable that the cost of carriage may in the interim be increased, and in consequence the sums on the estimates may be found too small.

In addition to the above works, my attention has been directed to a number of other important questions which have required a large amount of study, but to which it would be premature at present to allude farther, my opinions not having been yet sufficiently matured.

The foregoing Report refers, however, to all the works which I proposed to be initiated during the present year; and I have no hesitation in expressing the opinion that the proposed works, if carried out, would in every case prove more or less directly remunerative.

Some are less essential than others; but some, on the other hand, must be proceeded with unless money already spent by the Province is to be practically lost.

It is to be regretted that this Report—owing to the short time I have been in the Province, and the want at first of a proper staff—can point to but little work actually accomplished. A good beginning has, however, been made; and it is to be hoped that a future Report will prove that the establishment of the Marine Department has resulted in that true economy which an efficient staff devoted to special pursuits is best calculated to attain, and which alone can justify the necessary outlay.

I have the honor to be,

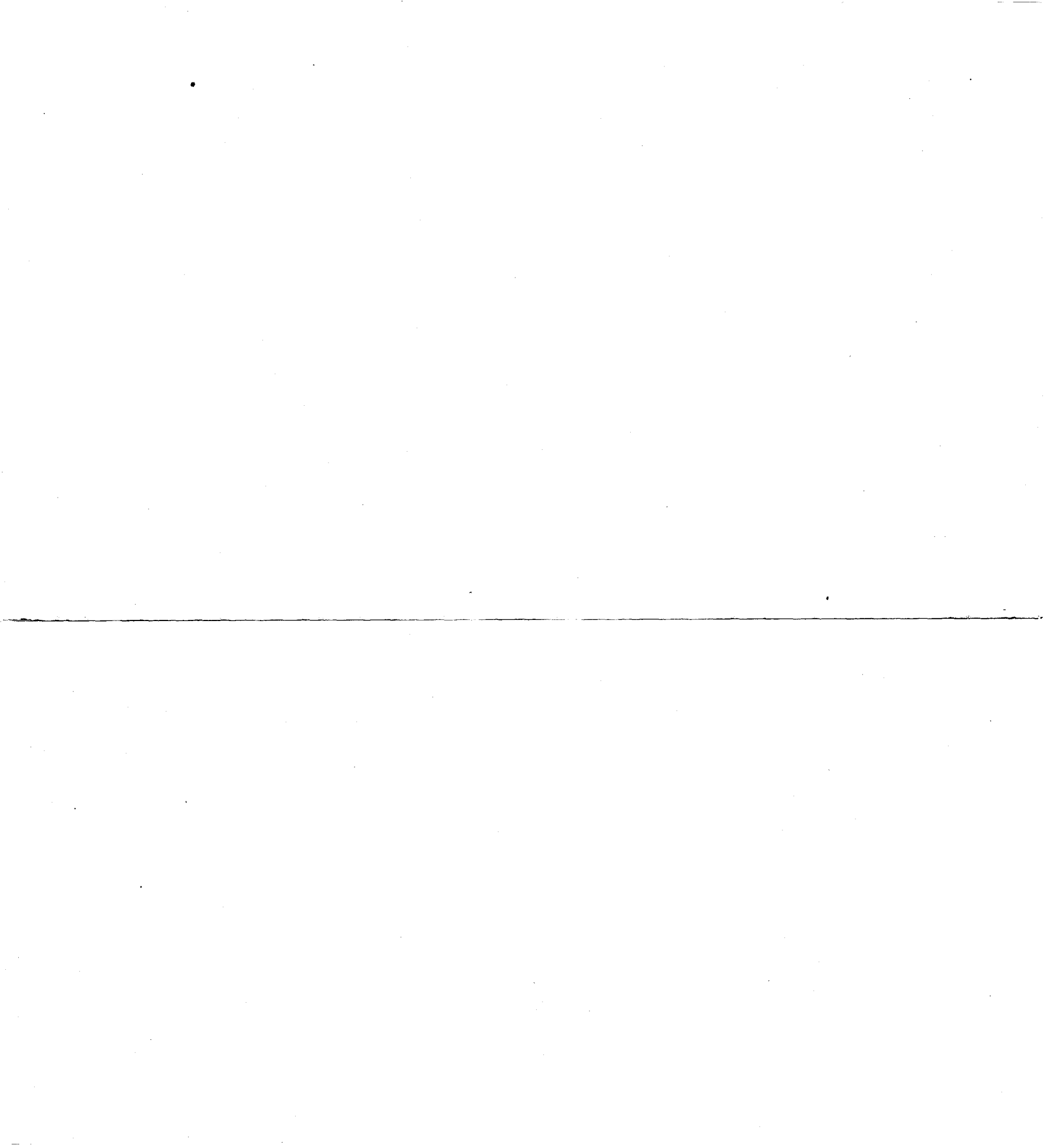
Sir,

Your obedient servant,

JAMES M. BALFOUR,

Marine Engineer.

March 11th, 1864.



No. VI.—IMMIGRATION DEPARTMENT.

Immigration Department,
25th March, 1864.

SIR—

I HAVE the honor to furnish the following report on the Immigration Scheme from the 1st April, 1863, to the present date, embracing a period of nearly twelve months.

IMMIGRATION BILLS.

The following sums have been collected from 1st April, 1863, to 25th March, 1864.

April, 1863	...	...	...	£421	14	0
May	...	...	...	536	8	0
June	...	...	...	544	1	8
July	...	...	...	574	3	6
August	...	...	...	308	9	0
September	...	...	...	354	0	0
October	...	...	...	409	0	0
November	...	...	...	529	9	6
December	...	...	...	697	15	0
January, 1864	...	...	...	668	16	0
February	..	..	..	608	2	6
March, to 25th	...	..	..	492	6	0
				£6144	5	2

The return for March is not complete, being only up to the 25th ult. ; the report being required before the end of the month.

The above result is slightly in excess of the previous twelve months. Most of the Immigrants by early ships owing balances of passage-money whose places of abode could be discovered, have been either personally visited or communicated with, and fresh arrangements have been made with them for the payment of the debt, in regular instalments, as their circumstances demanded. In the case of several having large and weak families, I renewed the bills, and allowed a longer time for payment. The renewed acceptances now in my possession amount to the sum of £2598 7s. 2d. Legal proceedings were taken against twenty individuals during the last six months, and in every case either judgment was pronounced against them, with costs, or payment made out of Court.

There were seven individuals sued in Invercargill, before the Supreme Court, four of whom remitted the full amount, and paid expenses. As I find it a very slow process, and not satisfactory to sue parties in Invercargill through a legal agent here, I would respectfully recommend that a law agent be appointed there to collect the passage monies due by Immigrants in Southland, giving him a per centage on the amount collected. Should the Government agree to this suggestion, it will be necessary that I visit Invercargill to learn the exact localities of the defaulters, and give the necessary instructions to the agent appointed. This matter is urgent, as the debt, in the case of some, is of long standing. It is well-known that a great disinclination very generally prevails among those assisted by the Government to re-pay the loans advanced to them on account of their passage; from what cause it is difficult to imagine.

Their moral sense of honor and rectitude in discharging a debt for which they voluntarily granted Bills seems to be blunted. No argument will convince them that their

their first duty is to pay their passage-money ; instead of which, they buy land and cattle, and add section to section, forgetful altogether of their obligations to the Government by whose assistance their circumstances and position have been so much improved. I cannot account for this state of matters in any other way than that they have been too leniently dealt with from the beginning of the scheme.

I have the authority of the Government to take steps against defaulters of long standing ; and, though the duty be no less disagreeable to me than it will be expensive to them, I will not be slow to act on such authority. I have given notice by advertisement that assisted Immigrants by the ships that arrived in 1859 and 1860 will be sued without any further delay, unless the balances due by them for their passages be paid on or before the 31st instant.

IMMIGRATION DEBT.

The total amount of the Immigration Debt, at this date, is £48,842 16s. 10d. This amount includes the sum of £2228, on account of Immigrants per the ships Crimea, Matura, Nelson, Chili, and Daniel Rankin, whose bills are not yet due. This leaves the sum of £46,614 16s. 10d. as now actually due.

GUARANTEED PASSAGES.

Since last year's Report, one hundred and seven applications from *bona fide* settlers in the Province for passages for their friends from Britain have been received at this office, and lists transmitted every month to the British agents. The number of souls indicated by these one hundred and seven applications amounts to three hundred and fourteen. In every such case I have required sufficient security for the re-payment of the loan on the bills becoming due. I have much faith in this scheme, as being a safe one, and, as many families suitable for the Colony have been introduced by this method, I would respectfully recommend that it be continued.

It may probably be necessary to offer facilities for a limited number of Shepherd^s and Farm Servants to emigrate to this Province, in order to meet the urgent demands of settlers for the services of these classes.

The Charge for a passage from Britain for each adult has been reduced by the Government from £16 to £14. This change has given general satisfaction, and will prove a boon to parties emigrating with large families.

SHIPS

Since my last Report the following ships arrived with Immigrants, viz. ;—

Ship.	Port.	Date of Sailing.	Date of Arrival.	No. of Adults Shipped.	No. who Arrived.
Matura ...	Glasgow	5th June, 1863	14th Sept., 1863	125	124½
Nelson ...	Do.	15th July, 1863	10th Nov., 1863	66	64
Chili ...	London	30th July, 1863	23rd Nov., 1863	9½	9½
Daniel Rankin ...	Glasgow	4th Sept., 1863	5th Dec., 1863	18	18
Aboukir ..	Do.	17th Oct., 1863	19th Jan., 1864	29½	29½
				248	245½

FEMALE IMMIGRATION.

This scheme has been suspended for upward of six months, by order of the Government. Soon after the meeting of the last Council, the agents received authority to resume it, but not on so extensive a scale as formerly. The instructions sent home were

were that fifty suitable domestic servants should be despatched monthly for the Province—this number being thought sufficient to meet the demand. I have reason to think now that this calculation is rather too low, and that a larger number would be readily absorbed. The arrival of female servants is eagerly looked for, but, from late advices from home, I do not expect any before the beginning of June, as there seems to be a difficulty in procuring them.

In consequence of the scarcity of female servants in the Province at present, the wages have advanced from £30 to £35 per annum. The Moari war has had a marked effect in Britain on emigration to New Zealand. The geography of the Island, comprehending it is so imperfectly known by a great majority of country people at home, that they labor under the impression that this Province, if not involved in the struggle, is in imminent danger of being overrun by the savages. It would be well to convince them through the Press that Otago is as secure from the present Moari war, raging in the Northern Island, as the people of Britain themselves.

IMMIGRATION DEPOT.

The Immigration Depot in Princes street, has lately undergone such repairs and improvements as will render it both comfortable and healthy as a temporary abode for all future immigrants. The lower flat contains rooms for the matron and a large dining hall and sitting room for the immigrants. Four large iron tanks have been placed in connection with the building for the reception of water—a sufficient supply of which can be had on the premises without having to go to the street for it as formerly.

I feel confident that the changes made in the premises will prove beneficial,—that the Regulations made for proper order and discipline can be more efficiently carried out, and the comforts of the inmates materially improved.

I cannot close this Report without referring to an event which occurred lately, closely connected with the scheme I have the honor to represent. I allude to the death of James Crawford, Junr., Esq., of Edinburgh, one of the agents of the Provincial Government of Otago, who, with his colleague, John Auld, Esq., so ably and efficiently represented this Province in Britain. In my capacity of Immigration Agent, I have had regular and frequent intercourse with the late Mr. Crawford, and can bear my humble testimony to his worth. He took the most lively, and I may say a personal, interest in everything likely to promote the well being of this Province; he identified himself with her prosperity, and was indefatigable in promoting her various schemes, with what success many of his friends in Otago have had ample proof. She has indeed lost a father and a friend, and Mr. Auld an able coadjutor and a wise councillor.

I have the honor to be,

Sir,

Your obedient servant,

COLIN ALLAN,

Immigration Agent

The Provincial Treasurer.



VII.—SHEEP AND CATTLE INSPECTOR'S REPORT.

Dunedin, April 4, 1864.

SIR,—

I have the honor to forward for the information of the Government a report shewing the condition of the sheep and cattle in the Province of Otago; also the number imported during the six months ending 31st March, 1864.

The returns of last September showed sixty thousand three hundred and fifty (60,350) scabby sheep, thirty thousand of which were in a very bad state; but I am happy to say since shearing the settlers have been making every effort to get them lean.

The Sub-Inspectors' quarterly return of diseased sheep in their respective districts, to 31st March, 1864, have not all come to hand; I can, however, give a very close approximation to the number, which I believe to be about forty thousand (40,000). With the exception of two or three flocks, the others are nearly clean if not quite.

As soon as I am in possession of the return I will forward you the exact numbers. There will be little chance of keeping the Province clear of scab while such large numbers are being shipped from Australia, and the utmost vigilance will be necessary to keep it even to the number I have above quoted.

I cannot too strongly urge upon all parties purchasing imported sheep to have them dipped as soon as they come into their possession, as the neglect of this simple precaution may lead them into enormous expenses, as well as the serious loss resulting from their communicating the disease to clean flocks.

For the last six months the importation of sheep has been very extensive—sixty eight thousand two hundred and thirty one (68,231) have been landed at Port Chalmers, besides some 20,000 at Waikouaiti and Oamaru, total—eighty eight thousand two hundred and thirty (88,230) equivalent to one-hundredth of the whole number depastured in the Province. With the exception of six thousand four hundred (6400) diseased, which have been sent to Blueskin, the remainder, as far as I am aware at present, are free from disease, but the positive result as to their condition will not be known for a few months—the disease, scab, requiring some considerable time to develop itself. The number of cattle imported has been also very heavy—seven thousand two hundred and seventy-nine (7279) store, three thousand five hundred and forty-nine (3549) fat; making a total of ten thousand eight hundred and nineteen (10819) head, landed at Port Chalmers during the same period. Should the population in the country continue as at present, I am afraid we will feel the effects of the stoppage of such a large supply of fat stock from our market before the end of winter, and that ultimately we will be compelled to re-open some of the Ports at least. Having this conviction forced upon me by my observations, that there is not sufficient stock in the Province to meet the consumption for any great length of time, and that dire necessity will again force upon us the importation of stock. I have deemed it my duty to make the most careful investigation into the features of the disease, the appearance of which amongst the imported cattle has caused our Ports to be closed. I am sorry to say that Pleuro-pneumonia is gradually extending through the country; evidence of its existence has been discovered more or less from the Mataura to Moeraki.

The disease does not seem to be so deadly or spread so fast in this, as it has done in the neighboring colonies. It must, however, be borne in mind that we have only had the infection amongst our cattle lately, so that I don't think it possible to tell yet to what extent we may suffer from the scourge until the cold wet weather has set in, and the disease more deeply rooted amongst our stock. Instead therefore of attempting to quiet our fears by merely hoping for the best, it behoves us to endeavour to stay its progress by adopting those remedial measures which have been found so successful in practice not only in other countries but also in this Province. We must

face the fact that, notwithstanding the most rigorous and prompt measures having been adopted in destroying the cattle in which it first appeared, it is gradually spreading and working its way, slowly yet surely, among our herds. I have no hesitation in recommending that the compensation for destruction of diseased cattle should be at once stopped.

For some time back I have been trying to get reliable information as to inoculation being a preventative to the spread of Pleuro-pneumonia, and feel bound to acknowledge, from the evidence I have been able to gather, that I am strongly of opinion that the operation will stop the disease in its early stage, and that it also prevents healthy animals from becoming infected; and that time and further scientific investigation is all that is required to force upon the public at large the conviction of this being truly an invaluable remedial measure, calculated to secure our herds from the ravages of that dire disease, and render what will shortly become a necessity—the introduction of stock—a perfectly easy and safe matter. A great many of the settlers are getting their cattle inoculated, especially in the districts where the disease has shewn itself; others wavering in opinion as to its efficacy; some waiting to get a person to perform the operation; and others content with the slender chance of their stock escaping, as sometimes individual herds have escaped, even where the disease has been raging for a length of time. The cost and trouble is so little, and the chance of benefit so great, I would strongly urge every holder of cattle in the country to get their stock done at once. My reason for doing so is not merely from the numerous reports, both verbal and written, which I have received on the subject, but also (and more particularly) from personal observation of the great benefit and improvement in the cattle (after inoculation) of Mr. George Shand, East Taieri. About three months ago I examined his cattle (some thirty head), in company with Mr. Moorhouse, Veterinary Surgeon. We had one killed, and found it a very decided case of Pleuro-pneumonia, while a number of the others showed unequivocal symptoms of suffering from the same disease. I believe he was losing them at the rate of three head a week. I advised him to try inoculation, which he did, Mr. Douglas, V.S., being the operator; and, with the exception of some few head that were too far gone to expect improvement, the rest in two or three weeks began to show a change for the better, all symptoms of the disease gradually leaving them.

On the 31st of last month I again examined Mr. Shand's cattle. Found them quite recovered, and not the slightest appearance of any disease among them. On the occasion of this visit I was fortunate in seeing killed on that day one of the cows which had had the disease slightly on my first examination. This cow had been inoculated and fattened since my former inspection. On opening and examining to see what appearance the lungs presented after the disease had subsided, I found the lungs presented a general healthy-looking appearance. There was a good deal of adhesion of the left lung to the ribs; and, on carefully examining that portion of the lungs which had been diseased, I found patches of very thick matter varying from the size of a pea to an egg, separated by a transparent skin from the healthy parts of the lungs.

Had the animal been allowed to live some time longer, probably the matter would have been very much more absorbed. From the short time that inoculation has been practised here, it is very difficult to give a more decided opinion as to its cure. I do not attempt to argue the matter on scientific grounds, but simply record facts, leaving it to those whose profession no doubt will lead them to trace out the reason of the cure; since it is fairly established in practice, the jealousy of "the profession" will break down, and the science of the disease no doubt discovered. All that has as yet transpired I can only say has been entirely in its favor. I beg to enclose an extract of a letter, (the original I have seen) from the Messrs. King, Gipps Land, who mention the benefit of inoculation in various places, where sufficient time has elapsed to be able to know the full value of it. They say:—

"We hope Mr. Plant will be as successful in restoring confidence to the Otago Squatters as he has been to the Gipps Landers, who all thought they were ruined until he went amongst their herds; now they are sending in splendid fat cattle, and freely buying store cattle at top prices.

"(Signed),

W. E. & A. S. KING."

I have the honor to be,

Sir,

Your obedient Servant,

WM. LOGIE.

Chief Inspector of Sheep and Cattle.

The following also from Mr. Kennedy, a man whose practical knowledge amongst cattle renders his opinion worthy of considerable weight. I also append extracts from reports on the same subject by Inspectors Bust and Smith, and also a statement contained in a letter from Mr. Plant.

Port Chalmers,
March 29th, 1864.

SIR,—

I HAVE the honor to send you, as requested, a report of my experience of the Pleuro-pneumonia disease, and my opinion of the means that should be used to prevent its spread among the Cattle of the Province.

In this District the disease has only appeared among old working bullocks, in very bad condition, and knocked up with hard work, and also among weak dairy cows. The cattle in the bush here are generally very poor and weak, hence they are more subject to infection. It is well-known that Pleuro-pneumonia has been much more fatal in hot climates than in cold. At the Cape of Good Hope, Victoria, and New South Wales it has been much more fatal than in Great Britain—this I attribute entirely to the difference of climate. In Britain, nine-tenths of the losses sustained were in stall-fed cattle and dairy cows confined in the house. As we have no stall-feeding and few dairies where the cows are always confined in the house, we have less to fear, and as our climate is much alike to that of Britain I do not think we need have much fear of the disease being at all so fatal in this Province.

In reference to the means of prevention that should be adopted, I think the Government should pass a compulsory Vaccination Act, as I have no doubt in its efficiency. In Victoria and New South Wales, Squatters will not now purchase store cattle unless they have a perfect knowledge that they have been vaccinated; and the same means is now adopted in the large dairy at Port Dundas, in Glasgow, belonging to the Port Dundas Distillery Company, where there is a dairy of fourteen hundred cows, kept for supplying the large city of Glasgow with milk. When the disease broke out in Scotland, their loss in cows was fearful; for nine years they have had no loss, entirely attributable to the means of Prevention which they adopted, viz:—Vaccination. Instead of purchasing their cows down calving in the Glasgow markets, they purchase four or five hundred two-year old heifers in the spring of each year, put them on a grazing farm, and have them all vaccinated—put the bull to them during the summer, and bring them in to supplement their dairy before calving, and since they have adopted this method they have not lost a cow.

I am satisfied that vaccination is the only means that ought to be enforced to stop the spread of disease, and I would respectfully recommend it to your consideration.

I have the honor to remain,

Sir,

Your obedient servant,

JAS. KENNEDY.

To William Logie, Esq.

Waikouaiti, March 19th 1864.

To the Honourable the Treasurer
for the Province of Otago.

SIR,—

IN accordance with your request that I should furnish you with a special report on the subject of pleuro-pneumonia, and my opinion of inoculation and vaccination &c., I have now the honor to comply therewith.

In the first place permit me to premise my few observations by remarking that the disease having already spread through most parts of the British settlements in the southern hemisphere as well as the entire of Great Britain and a large portion of the Continent of Europe, &c., committing such ravages as to call forth the combined

study and attention of large bodies, as well as leading individual members of the most scientific of the medical and veterinarian profession; and that so much has been published on the subject as to render it unnecessary for me to attempt any particular description of the symptoms thereof.

The first appearance of the disease in this district was unfortunately marked with considerable virulence; circumstances, such as unfavourable weather and peculiarly unsuitable pasturage for animals in the weakened state of Mr. Jones' cattle, tending to a far more rapid development of the scourge than would otherwise have taken place, which has been proved by the slow march of the disease in other herds which were affected about the same time but have not even yet arrived at anything like so bad a state as the herd alluded to; the dryness of air, diet, and purity of atmosphere having each done their quota towards such result. But unfortunately there has been a considerable number of diseased cattle in various parts of the district shortly prior to the proclamation being issued, as well as some subsequently, which is now proving fatal in its results, and I regret to say the disease is shewing in various places and has established itself more or less in each quarter of my circuit in such a manner, that I feel certain of the whole district being ere long contaminated.

I conceive there can be no doubt of the highly contagious nature of the disease; and to any person accustomed to witness the lymph-like saliva, &c., issuing from the mouths of infected animals, which often blows for yards away across the pastures, enclosures, or roads in their vicinity; and this added to the secretions dropped about, and frequent interchange of breath, &c., it must be evident that escape from evil influence to cattle in the neighbourhood of diseased animals can only be a matter of chance, or of being constitutionally impervious. And as the opportunity of maintaining separation in new and open countries, but especially in one like New Zealand, where the peculiar nature of the bush, the ravines, and gullies afford such shelter that cattle often cannot be found for days together; whilst the nature of the sickness induces resort to such places. And even if some of the various modes of treatment recommended by British and Continental farmers and veterinarians were of any good, the more undomesticated state of the cattle in new and open countries would preclude the adoption of any such means, to any valuable extent; hence it becomes necessary, as proved in Victoria, to adopt preventive, or rather (as I term it) "mitigating" measures, of which inoculation and vaccination seem the only available ones. But it is quite clear to me, that from the conflicting interests at work with many, and the lethargy of others, the general adoption of such mitigatory measures will not become uniform without stringent measures to compel them.

That inoculation is serviceable is generally admitted by those experienced in it, my own observations having tended to convince me thereof; and if I can only secure that co-operation of owners of stock now in this district which I desire in order to make observations, I trust ere long to give you some tangible evidence as to the effect produced by the operation both on cattle inoculated prior to importation and subsequently, as also upon Provincial bred animals. I conceive however the former case to be of rather peculiar interest as affecting importation at some future day, and that such cattle as are now in this Colony, which had been inoculated before have had to undergo acclimatisation after the hardships, heating and fever of the sea voyage. But after all, inoculation is certainly to some extent, planting the seeds of the disease, and if the virus or absorbent is fresh, will produce the more serious stages of the malady in animals constitutionally predisposed; hence I consider the operation would be attended with danger in a country or district previously clean. Of vaccination I confess my inexperience, but I have long entertained opinions favorable to its adoption, and the views propounded by Mr. Graham Mitchell have strengthened my convictions therein. The contagious nature of the disease is undoubted, and of its strictly feverish character I feel equally certain. In one of Mr. Miscamble's circulars (when alluding to a report of a congress of professional men on the subject of inoculation) he says:—"No mention is made of vaccination, which is an operation resorted to as a preventive of certain 'skin,' and not a 'lung disease.'" However contrary to such reasoning and if no mention was made of vaccination, it would only prove that it had been overlooked and cannot tell against it.) I believe that small-pox in the human being is more than a skin disease, that it is in fact a virulent fever, attacking the more vital parts as well as the skin—highly contagious—a scourge for which inoculation was at one time practised, but which produced such fatal results as to induce the British Government to forbid it, under a penalty of one hundred pounds; and on the other hand, vaccination as a preventive, or mitigatory measure has been rendered

imperative, and if such are the relative actions of the two operations on the higher animal—I presume the comparison will apply to the lower species; (vaccination with cow-pox will prevent distemper in dogs,) and entertaining such views, I would recommend that vaccination should be enforced in clean districts, whilst I would render inoculation or vaccination imperative in infected districts, destroying all cattle arriving at a state deemed unlikely to recover, whether taking the disease naturally, or from inoculation, and whether the Crown grants compensation or not, inasmuch as dangerous cases of that sort may create a second attack in animals prone thereto. The time the disease takes to destroy its victims varies much from about a week—in some instances less, to several months, the highest conditioned frequently succumbing the quickest. I think also that registration of inoculation or vaccination should be enforced, thereby enabling Inspectors to keep an eye on the cattle, whilst under the influence of the operation, and giving intending purchasers an opportunity of ascertaining that such mitigatory measures have been taken.

Having, in my general Reports, given my views of the effect of general moisture, succulent herbage, bad weather, &c., in comparison with high altitudes, dry land and feed, pure atmosphere, and other features by which the greater or less intensity of the disease will be manifested (and which my experience here is fully confirming), I presume it is unnecessary to revert to such matters on this occasion.

With reference to the working of the Act, I find that many owners have great objection to the disease being detected in their herds, even when they cannot but know of its existence, indeed so strong has this feeling been shown in this district that some have almost forgotten their high position, and have acted contrary to their own interests. No doubt some portion of this arises from fear of deterioration in value of the remainder, often rendering them unsaleable; but it is obviously necessary for the general good, that the destruction of bad cases should be effected, and the public saved from being cheated by purchasing unclean stock, whilst expecting them to be healthy, and risk taking them amongst previously clean herds. To effect suitable protection in these respects, it would seem necessary to impose a penalty upon persons who neglect or fail to give notice to the proper officer of the existence of the disease in their herds as now done in Auckland. Another difficulty experienced in working a district, is the want of fair opportunities for examining cattle which ought to be mustered by the owner when wanted for inspection; for it is obvious that no one person could do the stockriding of a district, even if his time was not much occupied in examinations, notices, and various other matters.

The difficulty and danger attending the destruction of diseased cattle in the vicinity of towns is such as to render it very desirable to have one or more small yards in suitable places in each district for such purpose, with a small red danger flag, to hoist when cattle are about to be killed.

The existing regulations provide for the driving of stock and keeping the same according to the instructions of the Inspectors; but it would be well to make a careful herding of them also imperative, as many persons turn out their stock and let them take their chance; some of those having infected cattle evincing but little care about their neighbours' welfare; and although an Inspector can order as above mentioned, he has no means of keeping suspected animals in any particular part of the district. On this head, however, it seems the newly-elected Wardens contemplate taking an active part, and although it may not be in my province to dilate on matters pertaining to their office, yet, as there might be some prospect of their actions and my duty clashing occasionally, I may, perhaps, be excused for venturing slightly to touch thereon. In the first place the Wardens (at least one has told me so), intend to order the removal of some large herds, and if they commence a raid amongst the cattle at present in the district, it cannot but have an injurious tendency on the health of the cattle, to say nothing of the clashing of interests amongst stockowners; and as I have, during the past few weeks, had a good opportunity of noticing the Hundreds, I am enabled to state that (with the exception of the immediate locality of the Township of Hawkesbury and along a portion of the main road where contractors, cattle and horses have been grazing), the Hundreds have not nearly half the stock upon them which they are capable of carrying, and I cannot but think that until there are sufficient *bona fide* settlers in the district capable of sufficiently stocking the land, to turn away a portion of the capital now invested in consuming the grass, is to impose a loss on the whole Province, and I make bold to suggest that gentle advice from the Honorable the Government to the

Wardens might probably be useful at this time in preventing a clashing of interests, and might save some feuds. I believe that competent Rangers, to keep the Hundreds equally stocked, as far as is compatible with the working of the Diseased Cattle Act, is all the action now needed by the Wardens.

It is needless for me to trespass on your time by more details about the working of the regulations, which can be altered or amended by the Government as found necessary, without interference with the Act. I therefore conclude, apologising for the meagreness of my report.

I have the honor to be,

Sir,

Your most obedient servant,

ROBERT D. BUST,

Cattle Inspector.

West Taieri, March 26, 1864.

SIR,

IN reply to yours requesting me to furnish you with my opinion on the effects of inoculation as a preventative or cure of Pleuro-pneumonia in cattle, I have to remark that being quite a stranger to the effect of the same (as when I left England in 1859 it was not in operation, or at least only experimentally), I had not the opportunity of seeing it,—but feel quite satisfied, from information I have received from persons who have seen the effect on cattle in Victoria, and also from my own observations since I have had an opportunity of witnessing the results, that it is the only means of putting a stop to the awful scourge among cattle, and that I consider it my duty to endeavour to prevail on all owners to do so without delay.

I have examined very carefully Mr. Shand's cattle, and have to report that I consider them perfectly sound at present, and from the state in which I had previously seen them till now, fully justifies me in making such a report.

I also this last week very carefully examined the cattle on the Exhibition Run, belonging to Messrs. Driver and Co., which were inoculated by Mr. Plant in my presence about three weeks since, and find them to be very much improved, though there has not been sufficient time to decide thereon effectually, but have no doubt myself as to the result. Among the shipments per Marion and Juno and Lady Young, there have been no deaths, and the cattle have become so fresh in condition and appearance that I had much difficulty in getting near them.

The shipments per Temperley, Bengal, Ashburton, and Hydra are much improved in appearance, and I find from the persons in charge that five deaths have occurred among the Temperley lot, and that I perceive a number of the same shipment are very weak. I think it most probable that some more deaths may occur; but from the state in which I last saw them, I am not surprised at that, and again consider the lot as a whole much improved.

Another mob per Oregon were inoculated on Saturday last, and are in a very weak state. Most probably more deaths will occur.

Mr Charles Todd, (Taieri East,) inoculated thirty-eight head, by Mr. Douglas in my presence, and I now find them to be very strong and sound.

Mr. James Todd also has had his cattle, twenty-two in number, inoculated by a Mr. Dickie, V.S., but have to remark that his cows I do not consider to be sound—the young stock are so.

Mr. Aitkin also inoculated his stock by Mr. Dickie, and also Mr. Shand. The above matter used by Mr. Dickie was Mr. Plant's, absorbent.

I have also endeavored to prevail on Messrs. Heenan to inoculate, but could not succeed with them at present, but have no doubt I shall be able to induce many to do so eventually, considering it to be the only means of staying the disease.

I have the honor to be

Sir,

Your obedient servant,

JAMES SMITH,

Sub-Inspector of Cattle, West Taieri District.

To J. L. Gillies, Esq.

Provincial Hotel.

SIR,

WITH reference to the request made to me by Mr. Inspector Smith, for me to furnish you with my opinion as to inoculation being a preventative to the spread of the disease Pleuro-pneumonia, I am happy to state that my opinion of it is, that to a certainty it is; and my reasons for coming to that conclusion are, that I have practised it so frequently and have never found it to fail in one single instance.

But I will state one of the many experiments I have tried amongst my own stock. I purchased twenty-two head of cattle at an average of 35s. per head, perfectly aware that for a certainty two were diseased. I sent them out to my own place and after reaching there, for 48 hours placed them in the stockyard with two of my own previously inoculated. After that time had elapsed I inoculated eighteen out of the twenty-two, and two I left undone, of the two diseased ones one died the other I destroyed.

I then turned the remainder into the paddock amongst my own stock, all previously operated upon. The result of the experiment was, that the two of my own previously inoculated never showed the least signs of the disease, nor likewise any of the eighteen, and of the two left undone one died with pleuro-pneumonia, and the other up to the time I left home had not evidenced the disease. I may also state from what I have observed that it is my opinion the disease does not become apparent for five and even in some cases ten weeks have expired, and even then six, seven, or even more, often expire before the animal dies; but that in a great measure depends upon the constitution of the beast. It is also my opinion that if an animal has had the disease three or four weeks previous to being operated upon that the chance of his recovery is very doubtful, for the reason that the benefit of the inoculation is not felt thoroughly until six or seven weeks have expired, but for a preventative, or if an animal has not been diseased above two or three weeks, I am confident that it can be successfully applied.

But in the course of two or three weeks it can be known if inoculation is of any benefit, for I have inoculated 1,000 head since my arrival. I also think that some cattle are more subject to the disease than others, for in my own stock seventeen head I had of one strain never had the disease, and again in another several cases, and in others almost all had it.

With regard to vaccination. I have never practised it for a length of time, for I found the percentage lost from failure in the operation taking effect so far exceeded that of inoculation that I discontinued it altogether. I shall be most happy at any time to give you any information I have gained by my experience, amongst so many cases I have had to deal with.

I beg to remain,

Sir,

Your most obedient servant,

RICHARD PLANT.

To J. L. Gillies, Esq., Provincial Treasurer.

East Taieri, April 11th, 1864.

SIR,

AT YOUR request, I send you the following report of the Cattle that died, and were killed belonging to me, infected with Pleuro-pneumonia :—

From about the 10th December, to the 14th January (died)	10	head.
From the 15th to the 22nd January (killed)	9	„
From the 24th to the 30th January	4	„
From the 3rd to the 17th February	5	„

four of which were inoculated ; also, one bullock, killed by Mr. Smith's order on the 23rd February, which, according to my opinion and others who saw him, ought not, to have been killed. I may state that Mr. Douglas inoculated 44 on the 22nd and 34 on the 29th January. On the 10th January, the infected Cattle were put in a paddock by themselves—eight head of cattle infected with Pleuro-pneumonia got better, and since the 17th February to the present date, we have seen no symptoms of disease amongst them.

I have the honor to be

Sir,

Your obedient servant,

GEORGE SHAND.

To John L. Gillies, Esq.,
Provincial Treasurer.

VIII.—HOSPITAL DEPARTMENT.

Dunedin Hospital,
30th September, 1863.

SIR,—

I HAVE the honor to lay before you a statement of the number of patients admitted and discharged at this Hospital in the twelve months computed from 1st of October 1862, to 30th September 1863, in which period we treated one thousand one hundred and thirty-one in-patients, of whom seven hundred and forty-one were discharged cured, one hundred and thirty-nine benefited, and seventy-three died. In the preceding twelve months five hundred and eighty-one in-patients were admitted, of whom three hundred and ninety-four were discharged cured, thirty-nine benefited, and forty-four died. The result is satisfactory inasmuch as it shows the proportion of deaths to the number treated is less than in the previous year. In the year ending 30th September 1862, one hundred and twenty-two cases of continued fever of typhoid type were admitted, of which one hundred and one were cured, and sixteen were fatal. In the twelve months ending 30th of September 1863, ninety cases of fever were admitted, of which seventy were cured and eleven died. The number of fever cases admitted in the months of May and July being slightly in excess of those in the other months, as is shown by the following table:—

	1862.			1863.								
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	July	Aug.	Sept.
Admitted.....	7	4	3	10	6	11	3	14	6	12	5	9
Cured.....	7	2	3	5	7	5	3	8	5	9	5	11
Died.....	1	1	1	1	1	2	2	1	1	0	0	0

Admitted in the Spring Quarter, 21. Summer, 17. Autumn, 20. Winter, 32.
Cured " " Do. 22. Do. 10. Do. 15. Do. 22.
Died " " Do. 1. Do. 3. Do. 5. Do. 2.

The total Number of Deaths from Typhoid and Gastric Fevers, registered at the Registrar's Office, for the Dunedin district, exclusive of Hospital patients, in the Twelve months ending 30th September, 1863 was 19.

1862.			1863.									Total.
Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sep.	
2	1	1	1	4	4	2	3	1	—	—	—	19

Typhoid and Typhus Fever.
The Deaths registered in the Dunedin district, exclusive of Hospital, were :

In Spring	...	2
„ Summer	...	3
„ Autumn	...	10
„ Winter	...	4
		19

Typhoid and Typhus Fever.
The Deaths which occurred in the Hospital.

In Spring	...	1
„ Summer	...	3
„ Autumn	...	5
„ Winter	..	2
		11

These tables show that no death from Typhus or Typhoid Fever occurred in the months of July, August, and September, either in the district or in the Hospital. It also appears that the greatest mortality from fever was in the Autumn, in the proportion of ten deaths out of nineteen registered in the district, and five out of eleven occurring in the Hospital.

In alluding to the number of inflammatory diseases, I would observe that in all temperate climates the inhabitants are subject to inflammatory diseases. A moderate degree of cold alternating with a temperate summer, characteristic of the climate of this portion of New Zealand, conduces to muscular frames and plethoric habits of body; and as the Otagan inhabitants also suffer from sudden variations of temperature, they are subject to inflammatory, hæmorrhagic, and spasmodic diseases. Thus, of five hundred and fifty seven admissions in the year 1862, one hundred and forty one were for inflammatory diseases. Of one thousand and thirty three this year, three hundred and three were for inflammation, principally of the organs of the chest, viz., bronchitis, inflammation of the lungs, the pleura, heart, and rheumatism.

The number admitted in the different months is as follows :—

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sep.
Admitted ...	38	31	16	14	35	21	25	27	26	32	20	18
Cured ...	19	25	21	13	9	26	22	26	15	20	21	12
Deaths ...	1	1	2	3	1	4	3	1	1	—	3	—

Inflammatory Diseases.

Deaths registered in District of Dunedin.			
Spring	...	...	11
Summer	...	...	5
Autumn	...	...	8
Winter	..	...	15
			39

Inflammatory Diseases.

Deaths in Hospital.			
Spring	...	...	4
Summer	...	...	6
Autumn	..	...	8
Winter	...	...	2
			20

A high range of temperature, with moist air, produces a diminution of the changes on the blood in the lungs with an increased activity of the functions of the liver. A European migrating to an inter-tropical country is liable to disease of the liver: On the contrary natives of inter-tropical countries migrating to a cold climate, suffer from a diminution of the functions of the liver and skin, and an increase of the functions of the lungs, and pulmonary exhalations. Africans arriving in this part of the Colony in winter or spring, are generally attacked with inflammation of the lungs, and Australians are very liable to attacks of bronchitis on arrival. Consumptive patients are benefited by a change from this climate to that of Australia. Of 1033 patients admitted in the twelve months, 45 were affected with consumption, or nearly 1 in 23; of these 14 died and 26 were discharged benefited, or sent to a warmer climate.

Consumptive patients were admitted into the Hospital in the twelve months as follows :

	1862.			1863.								
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sep.
Admitted	1	5	4	2	3	2	2	4	3	7	7	5
Died	0	1	1	1	1	2	0	0	0	1	4	3

Deaths from Consumption Registered in Dunedin District in the year ending 30th September, 1863.—23				Deaths from Consumption in Hospital :—			
Males, 11 Females	...	...	34	Spring	...	...	7
Spring	...	...	13	Summer	...	...	3
Summer	...	...	6	Autumn	...	...	3
Autumn	...	...	9	Winter	...	...	1
Winter	...	...	6				
			34				14

Of Ten cases of disorder of the bowels in Hospital 1st October 1862, and Fifty-eight subsequently admitted in the Hospital during the Twelve months ending the 30th September 1863; Fifty-eight were discharged of this number Forty-nine were cured, Five benefited, One for misconduct, Three died—Fifty eight.

	1862.				1863.							
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept
Admitted	5	5	1	3	8	8	8	2	6	4	3	5
Cured	6	4	2	1	4	6	5	4	1	6	3	7
Died	0	0	0	0	1	0	1	0	1	0	0	0

Admitted in the Spring, 13. Summer, 9. Autumn, 24. Winter, 12.
Cured „ „ Do. 16. Do. 7. Do. 15. Do. 11.

Deaths from Diarrhoea and Dysentery, Registered in Dunedin District :—				Deaths from Diarrhoea and Dysentery in the Dunedin Hospital :—			
Spring	...	...	1	Spring	...	...	0
Summer	...	...	2	Summer	...	...	0
Autum	...	...	23	Autum	...	...	2
Winter	...	...	1	Winter	...	...	1
			27				3

According to these tables Diarrhoea is most prevalent, and the mortality greatest in Autumn.

In the twelve months ending 30th September 1863—all the Gold Fields furnished cases of scurvy, of which 36 cases were admitted into this Hospital. The cause of disease being clearly produced by the absence of vegetable food, as all these patients had a sufficient quantity of good fresh meat and bread daily. In proportion to the population, more cases came for relief to the Hospital from the Blueskin road than elsewhere, where there was not only an absence of vegetable food but also of fresh meat. Where there is an impossibility of obtaining vegetable food, persons affected with scurvy will find not only a preventative but an efficient remedy for its cure in an infusion of pine tops.

Total of deaths from all causes (exclusive of Hospital) registered in the District from 1st October 1862 to 30th September 1863—355				Total of deaths from all causes from 1st October 1862 to September 30, 1863, in the Hospital—73.			
Spring Quarter,	...	...	81	Spring Quarter,	...	...	21
Summer do.	...	...	68	Summer do.	...	...	18
Autumn do.	...	...	129	Autumn do.	...	...	24
Winter do.	...	...	77	Winter do.	...	...	10
			355				73

DUNEDIN HOSPITAL.

*REPORT by the Provincial Surgeon to His Honor the Superintendent from
October 1, 1862, to September 30, 1863.*

Diseases.	Total in Hospital on Sep. 30, 1863.	Admitted since.	Total.	DISCHARGED.					Total.	Total remaining in the book.
				Cured.	Received benefit.	Not benefitted	For mis- conduct.	Died		
Fevers, typhoid	6	90	96	70	—	—	—	11	81	15
Inflammatory diseases.....	25	303	328	228	35	4	1	20	288	40
Affections of the head.....	—	11	11	1	3	—	—	2	6	5
Disorders of the nerves	5	42	47	36	4	2	2	3	47	—
Disorders incidental to females	—	4	4	1	1	—	—	1	3	1
Dropsy	—	2	2	1	—	—	—	—	1	1
Disorder of the bowels.....	10	58	68	49	5	—	1	3	58	10
Diseases of children.....	—	—	—	—	—	—	—	—	—	—
Diseases of the heart	—	38	38	2	14	—	—	13	29	9
Consumption	2	45	47	—	26	1	—	14	41	6
Scrofula	1	2	3	1	—	—	—	—	1	2
Diseases of the skin.....	1	67	68	54	—	—	1	—	55	13
Surgical cases	24	195	219	149	33	4	4	1	191	28
Accidents	12	140	152	126	5	1	—	3	135	17
Lying in Hospital	—	11	11	8	—	—	—	—	8	3
Lunacy.....	12	25	37	15	13	3	—	3	34	3
Grand total.....	98	1033	1131	741	139	15	10	73	978	153

EDWARD HULME, M.D.
Provincial Surgeon.

Dunedin Hospital, April 7, 1864.

SIR,—

In addition to the annual report which I have transmitted to you, I have the honor to append a report of the number of cases admitted in this institution during the year 1863, with a tabular form showing the numbers discharged cured, benefited, and the deaths, in the several months. For the information of the Provincial Council I furnish you with a report of the number of patients in this Hospital from Jan. 1st to March 31st, 1864.

I have the honor to be,

Sir,

Your obedient servant,

EDWARD HULME, M.D.,

Prov. Surgeon.

The Provincial Treasurer.

DUNEDIN HOSPITAL.

REPORT by the Provincial Surgeon to His Honor the Superintendent, from
January 1 to December 31, 1863.

DISEASES.	Total in Hospital on Dec. 31, 1863.	Admitted since.	Totl.	DISCHARGED.					Totl.	Total remaining in the book.
				Cured.	Received benefit.	Not benefited	For mis-conduct.	Died		
Fevers, typhoid	5	105	110	85	—	—	—	11	96	14
Inflammatory diseases	33	273	306	212	40	3	—	22	277	29
Affections of the head	—	16	16	2	4	—	—	4	10	6
Disorders of the nerves	4	40	44	35	2	2	1	3	43	1
Disorders incidental to females	—	3	3	1	1	—	—	—	2	1
Dropsy.....	—	4	4	1	1	—	—	—	2	2
Disorders of the bowels	7	58	65	44	3	1	1	4	53	12
Diseases of children	—	—	—	—	—	—	—	—	—	—
Diseases of the heart	4	49	53	7	20	—	—	15	42	11
Consumption	4	47	51	—	29	2	—	16	47	4
Scrofula	5	—	5	4	—	—	—	—	4	1
Diseases of the skin	2	73	75	62	—	—	—	—	62	13
Surgical cases	23	192	215	147	24	7	5	—	183	32
Accidents.....	12	140	152	139	4	—	—	4	147	5
Lying-in Wards	—	14	14	12	—	—	—	—	12	2
Lunacy	18	15	33	11	13	3	—	3	30	3
Grand total.....	117	1029	1146	762	141	18	7	82	1010	136

DUNEDIN HOSPITAL.

REPORT by the Provincial Surgeon to His Honor the Superintendent, from
January 1 to March 31, 1864.

Diseases.	Total in Hospital on Dec. 31, 1863.	Admitted since.	Totl.	DISCHARGED.					Totl.	Total remaining in the book.
				Cured.	Received benefit.	Not benefited	For mis-conduct.	Died		
Fevers, typhoid	14	56	70	30	—	—	—	5	35	35
Inflammatory diseases ...	29	36	65	34	7	—	1	3	45	20
Affections of the head. ...	6	4	10	1	—	1	—	1	3	7
Disorders of the nerves ...	1	13	14	5	1	1	—	1	8	6
Disorders incidental to females	1	3	4	3	—	1	—	—	4	—
Dropsy	2	1	3	1	—	—	—	—	1	2
Disorders of the bowels	12	17	29	7	—	—	—	6	13	16
Diseases of children... ..	—	—	—	—	—	—	—	—	—	—
Diseases of the heart... ..	11	13	24	1	9	—	—	3	13	11
Consumption.. ..	4	17	21	—	13	1	—	5	19	2
Scrofula	1	—	1	—	—	—	—	—	—	1
Diseases of the skin... ..	13	8	21	15	—	—	—	—	15	6
Surgical cases.	32	43	75	31	9	—	—	—	40	35
Accidents	5	42	47	35	1	—	—	1	37	10
Lying in wards	2	5	7	2	—	—	—	—	2	5
Lunacy	3	1	4	—	—	1	—	—	1	3
Grand total	136	259	395	165	40	5	1	25	236	159

TOTAL DISCHARGED.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Fever ...	6	8	7	5	9	6	9	5	11	17	6	7	96
Inflammations ...	19	15	31	32	30	22	21	26	15	26	22	18	277
Head ...				1	1	1		3		1	1	2	10
Nerves ...	5	4	5	4	3	6	2	2	2		5	5	43
Female Disorder ...								1		1			2
Dropsy ...									1				2
Bowel Complaint ...	1	6	7	8	4	2	6	3	7	2	4	3	53
Heart ...		3	1	1	5	2	3	2	6	7	7	5	42
Consumption ...	5	2	4	1	2	4	2	6	7	6	4	4	47
Scrofula ...	4	4	2		1							1	12
Skin Diseases ...	1		6	1	6	1	5	5	10	7	4	8	54
Surgical Cases ...	14	13	16	17	18	11	22	13	12	18	12	17	183
Accidents ...	12	5	15	11	15	12	13	13	15	14	13	9	147
Lunacy ...	3	1	3	4	3	2	2	4	8				30
Lying-in Wards ...						1	4	2		1	1	2	12
	70	61	97	85	98	70	89	85	94	100	79	82	1010

DISCHARGED CURED.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Fevers ...	5	7	5	3	8	5	9	5	11	16	6	5	85
Inflammations ...	13	9	26	22	26	15	20	21	12	21	15	12	212
Head ...					1							1	2
Nerves ...	3	3	4	4	3	5	2	2	1		3	5	35
Female Disorder ...										1			1
Dropsy ...									1				1
Bowel Complaint ...	1	4	6	5	4	1	6	3	7	1	3	3	44
Heart ...		1			1					2	3		7
Consumption ...													
Scrofula ...	4	4	2										10
Disease of Skin ...	1		6	1	6	1	5	5	10	7	4	8	54
Surgical Cases ...	11	9	16	14	12	8	20	11	7	14	11	14	147
Accidents ...	12	5	15	9	14	12	13	12	14	12	12	9	139
Lunatics ...	2		1	1	2	1	2	2					11
Lying-in Wards ...					1	1	4	2		1		2	11
	52	42	81	59	78	49	81	63	63	75	57	59	759

DISCHARGED BENEFITTED.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
Fevers	3	5	1	5	3	5	1	2	3	2	5	5	40
Inflammation	4
Head	2
Nerves	1	...	...	...	...	...	...	1	...	...	...	...	1
Female Disease	1	...	...	...	...	...	1
Dropsy	1	...	1
Bowel Complaint	1	1	1	...	...	...	...	...	...	...	...	3
Heart	1	1	1	3	1	1	4	4	2	3	...	20
Consumption	...	4	1	2	1	2	4	2	4	3	4	2	...	29
Scrofula	1	...	...	...	...	...	...	1	...	2
Skin Diseases
Surgical Cases	...	1	4	2	5	2	1	1	4	3	...	1	...	24
Accidents	1	1	1	...	...	1	1	...	...	...	4
Lunacy	1	1	1	1	...	...	8	...	...	...	...	12
Lying-in Ward	1	...	...	...	...	...	...	...	1
	9	13	5	12	16	14	3	8	25	14	11	13	143	

DIED.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Fevers ...	1	1	2	2	1	1	...	...	...	1	2	...	11
Inflammations	3	1	4	3	1	1	...	3	...	3	2	1	22
Head ...	...	...	...	1	...	...	...	1	...	...	1	1	4
Nerves ...	...	1	...	...	...	...	...	...	...	...	2	...	3
Female Disorder	...	...	...	...	...	...	...	...	...	...	...	...	...
Dropsy ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bowel Complaint	...	1	...	1	...	1	...	...	...	1	...	...	4
Heart ...	...	1	1	...	1	1	2	2	2	1	2	2	15
Consumption	1	1	2	...	...	...	1	4	3	3	...	1	16
Scrofula ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Skin Disease	...	...	...	...	...	...	...	...	...	...	...	...	...
Surgical Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
Accidents ...	...	...	...	1	...	...	...	1	...	1	...	...	4
Lunacy ...	...	...	...	1	...	...	...	2	...	...	...	...	3
Lying-in Ward	...	...	...	...	...	...	...	...	...	...	...	...	...
	5	6	9	9	3	4	3	13	5	10	8	7	82

Dunedin Lunatic Asylum,

March 31st, 1864.

SIR,

I Have the honor to forward a return of the number of Lunatics admitted and discharged at the "Temporary Lunatic Asylum," from the opening of the Institution for the reception of patients, on the the 5th of September, 1863, to the 31st of March, 1864.

I have also appended a return of the number of Lunatics received into and discharged at Her Majesty's Gaol, from 1st of October, 1862, to 30th September, 1863, and from the latter date to the present time.

I would observe that several of our patients in the Asylum are sufficiently recovered to be discharged, but as the exciting cause of their insanity was excess in the use of ardent spirits, it is certain they would revert to their former habit of intemperance if set at liberty. It has been considered advisable to retain them until they can be delivered in charge of their relatives.

In the Annual Report of the Patients in the General Hospital, for the twelve months ending 20th September, 1863, you will observe that thirty-seven Lunatic patients were treated in that Institution; of this number, fifteen were discharged cured; thirteen removed benefited; three not benefited, and three died—34. The three remaining in the Hospital are incurable. I regret to state that some of our convalescents at the Asylum have relapsed in consequence of there being only one available yard, and no airing grounds to admit of classification.

I have the honor to be,

Sir,

Your obedient servant,

EDWARD HULME, M.D.

Provincial Surgeon.

To the Provincial Treasurer.

DUNEDIN LUNATIC ASYLUM.

Return of Patients, Admitted and Discharged, from the opening, 5th September, 1863, to 31st March, 1864.

	Male.	Female.	Total.
Number admitted from Gaol	15	1	16
Do. do. Hospital	4	6	10
Do. do. Dunedin and Districts	21	11	32
	40	18	58
Number of Patients discharged Cured ...	10	7	17
Do. Dead	2	0	2
Do. Remaining	28	11	39
	40	18	58

Daily average number of Patients ... 30

Number of Lunatics in her Majesty's Gaol 2

IX.—ROAD ENGINEERS' DEPARTMENT.

Dunedin, 11th April, 1864.

SIR,—

I HAVE the honor to submit the following Report upon the progress of the Road works, from the time of my appointment in September 1863, up till 31st March 1864.

Owing to the want of a sufficient number of competent assistants, many important works which are much required have not yet been commenced, and others have from the same cause been so long delayed as to render their completion before the winter a matter of uncertainty.

There are at the present time several vacancies in the Engineering staff of the Department, which have not been filled, as no suitable candidates have applied for the appointments, and it will be necessary to obtain properly qualified Assistant Engineers from abroad, if the work of the Department is to be conducted in such a manner as it ought to be.

The work of the staff of the Department has from various causes been much increased since September last. The preparation of the necessary drawings and specifications for the numerous Contracts entered into, has been one cause of increase; and the charge of all the bridges having been transferred to the Road Department, has also entailed considerable additional work, as no augmentation has yet been made on the Engineering Staff, to meet the additional duties thus imposed upon them.

During the last six months extensive works have been carried out on the roads in almost every district of the Province, and within the last few weeks numerous contracts for important works have been entered into.

The main north road from Dunedin to the Waitaki is now open for general traffic throughout its entire length, and a daily line of coaches has been for some time established between Dunedin and Oamaru.

The main south road has also been considerably improved, and is now metalled throughout from Dunedin to the South Tokomairiro River, and a contract for the construction of a further section about $5\frac{1}{4}$ miles in length has been let, and is now in course of being carried out.

A through line of coaches has been recently established, performing the journey from Dunedin to Invercargill in two days.

The roads to the interior of the country are, I regret to state, still in a very incomplete and unfinished condition; the works carried out on the other roads have so occupied the time of myself and the Assistant Engineers, that no progress has yet been made in determining the line of the main roads between Dunedin and the interior.

The road from Tokomairiro by Tuapeka, Beaumont, and Teviot to the Dunstan District, is now so far formed as to be fit for traffic, but ferries are required across the Clutha River, near the Beaumont and Teviot waters, before the line of communication can be made available, or any advantage derived from the large sums expended on this road. Under the impression that these ferries would be completed before the winter season, operations on the Shag River route to the interior were suspended until an Engineering examination of that district had been made, and a permanent road line marked off, so that any further expenditure should be judiciously applied; but, as the Tuapeka route will not likely be completed in time for the winter traffic, immediate steps must be taken, to keep the Shag River route passable during winter.

The road along East side of the Clutha River, from Clyde township to Kawarau junction, is now open for dray traffic; and the works for a bridge across the River Clutha, at the latter place have been commenced.

The road from Dunstan to the Lake Wakatipu District, passing along the Kawarau Gorge, and traversing the district between the Arrow, Arthur's Point, and Queenstown, has been laid out for the greater part of its length, and during the last two months, large parties of labourers have been employed in constructing the portion

between Kawarau junction and the Arrow flat ;— 10 miles of the road are already passable for drays, and by the end of this month, about 14 miles of the road is expected to be completed. From the rugged and irregular nature of this district, the formation of the road involves many important Engineering works, such as a bridge across the river Clutha, with a central span of 135 feet, an additional span of 60 feet, and two small spans of about 30 feet each ; a bridge across the Roaring Meg, with a span of about 40 feet ; a bridge across the Gentle Annie, with a span of about 80 feet, and a height from the bed of the stream of 50 feet ; two ferries across the Kawarau River ; a bridge across the Shotover, and a large extent of retaining walls and heavy rock cuttings ; but the necessity for this road is so apparent, and the general advantages to the Province which may reasonably be anticipated from improved means of communication with the Wakatipu district, fully justify the large expenditure which must be incurred.

NORTHERN TRUNK ROAD.

DUNEDIN TO WAIKOUAITI.

The works on this road are now far advanced towards completion, and the road has been open for dray traffic since the beginning of the present year.

It is now metalled throughout, with the exception of about $3\frac{1}{4}$ miles, at the Kiri Kiri Swamp. This portion has been let by contract to Mr. James M'Kenzie, and is being rapidly advanced.

A large culvert over creek, about 24 miles from Dunedin, is the only other work of importance which is not completed. This culvert has been let by contract to Messrs. Kirkland and Lyall, who have not proceeded with the work so favorably as they should, and the general completion of the road will probably be retarded by this work.

The general condition of the road is good, but the metal provided is in some places very rough, which will cause inconvenience until the surface becomes consolidated. The works executed during the last six (6) months have been constructed in a substantial manner.

That portion of the road from Dunedin to Junction of Port Chalmers Road requires to be widened and fenced in many places, and a considerable sum will be required for renewal of bridge and alterations of approaches at Mr. Green's property, about four (4) miles from Dunedin. From the junction to bridge at 24 miles the road works are almost complete. Several of the embankments and softest portion of the cutting have been pitched with sound stone below the metalling; this entailed considerable additional outlay, but those portions of the road will, I firmly believe, be found the most economical in the long run, as they will stand any amount of traffic which may be brought upon them without giving way.

The culvert at 24 mile is now being built, and should be completed in about a month. The completion of road across swamp has been retarded from several wooden culverts being required to replace stone ones, which gave way in the morass, but from the manner in which the works there are now being advanced they will probably be completed in a couple of months. The unusual amount of rain which fell during the winter and spring months interfered materially with the progress of all out-door works ; and had the season been favourable, instead of unusually unfavourable, I may safely state that the road would by this time have been entirely completed.

WAIKOUAITI TO SHAG RIVER.

The works of permanent road in this section are far advanced.

A new road has been formed from the Waikouaiti River to the Main North Road. Mr. Halpin's contract for the formation of road between Hawkesbury and the Green Swamp is now nearly completed.

A contract for construction of road across the Green Swamp has been let to Mr. David Kirby, and when completed will overcome a great natural impediment on this portion of the road.

Eight thousand cubic yards of metal for this road have recently been contracted for.

From the Green Swamp to Shag River no operations have been undertaken, but this is the next portion of road which is proposed to be completed.

SHAG RIVER TO OAMARU.

A large amount of work has been performed on this section.

The road across the Horse Range has been generally widened and much improved.

A bridge over Trotter's Creek has been contracted for by Messrs. Barnes and Sigley, and is now nearly completed.

SOUTHERN TRUNK ROAD.

DUNEDIN TO TAIERI FERRY.

This road, from the manner of its construction is not adapted for heavy traffic, it is in many places very narrow, the metal is nowhere more than fifteen feet broad, and generally only a few inches in depth.

During the Spring, at the time of the rush to the West Taieri Goldfield, the great amount of heavy traffic between Dunedin and Saddle Hill, completely spoiled the road, and large quantities of metal and stone were required in order to keep it passable. As the road was very soft and much cut up at the time this metal was placed upon it, very little advantage was derived from the operation, the stone gradually disappearing and being swallowed up by the mud; still, it was absolutely necessary, as if this had not been done, the traffic would have been completely stopped.

The surface of this portion has again been brought into fair order, but the original construction of the road has not been in any way altered, and should a similar circumstance occur, a similar effect must be expected.

I would strongly recommend that the portion of this road from Dunedin to Saddle Hill, along which nearly all the traffic from Dunedin to the interior at present passes, should be widened and receive an additional coat of metal. A sum has been placed on the Estimates for this purpose.

From Saddle Hill to near Taieri Ferry, the road not being subjected to any unusual amount of traffic, remained in good order.

The approach to the bridge at the East Taieri has been formed across the Maori Reserve. This portion of the road has been pitched and metalled under contract by Mr. Anthony, and has been completed in a very satisfactory manner.

Several contracts for maintenance metal have been completed or are in course of execution.

The whole of this road is at present in very good order.

TAIERI FERRY TO TOKOMAIRO.

This section of road has now been entirely metalled with the exception of about three-quarters of a mile near Waiholo, the sum for metalling which part was inadvertently omitted from last year's Estimates.

The contracts for road works entered into with Mr. McKenzie, Messrs. Lawlor and Co., and Mr. Ross, have all been completed. Contracts for maintenance metal are at present being carried out.

Nearly all the culverts in this section require lengthening, and a few require to be entirely renewed.

The road generally is in fair order.

TOKOMAIRO TO CLUTHA.

The construction of road from South Branch of Tokomairiro River to Lovell's Creek has been let by contract to Mr. Lawlor, who is bound to complete the work by the 30th of June.

As an extensive deviation from the present road line between Lovell's Creek and Clutha Ferry is at present under consideration, no permanent works have been undertaken on this portion except pitching and metalling across flat close to Lovell's Creek, which will not be affected by the proposed deviation.

Arrangements have been made for keeping this road open for winter traffic.

CLUTHA FERRY TO MATAURA.

The works on this road are for the most part of a temporary nature; the principal expenditure being for maintenance, and forming crossings at creeks. Some portions of the road have been gravelled and metalled. Instructions have been issued to complete the formation and gravelling of a new approach to Clutha Ferry.

NORTHERN INTERIOR TRUNK.

ŌAMARU TO WANAKA LAKE.

A very fair road has been opened up on this route. Some works of considerable extent were required in forming road along the gorge and pass of the Lindis, and at some other parts of the road. The work, so far as it goes is of a satisfactory character, but a great deal remains to be done before the road is completely formed. The Lindis Water is crossed by fords about a dozen times; some of these crossings might be avoided, but the expense would be very considerable, and would scarcely be justified by the small amount of traffic at present on the road.

PALMERSTON TO MANUHERIKIA.

This is a very important road, and will eventually become one of the leading roads in the Province. The money already expended has generally been judiciously applied, but a competent Engineer must be appointed to lay out a permanent road through this district before any further expenditure is incurred in forming other parts of the road. Arrangements are now in progress for repairing this road, so as to keep it open during winter.

CENTRAL INTERIOR TRUNK.

SADDLE HILL TO WEST TAIERI.

The road from Saddle Hill, across by Taieri Plain, up to Turnbull's property, has been metalled; but from heavy traffic, working on a new and soft formation, the road was very much destroyed.

It is now in better order, but requires a large quantity of metal, which was contracted for with Hugh Scott, but has not as yet been provided by him, although the time for completion of contract is now passed.

The construction of a road between Mr. Turnbull's property and the approach to Suspension Bridge, has been delayed until arrangements for a deviation through Mr. Turnbull's property have been arranged, and a sufficient sum voted to complete the road.

The approach on the East side of Suspension Bridge is now being formed, and will be completed in a few weeks; some flood arching required, has been let by contract to Messrs. Boyle and Co., and is being rapidly carried on.

WEST TAIERI TO DUNSTAN.

A contract has been entered into with Mr. Alexander M'Kenzie, for forming approach on west side of Taieri River, from Suspension Bridge to Mac's Hotel; the work is being rapidly advanced.

The principal expenditure on this road is for wages of road parties, making sidings, and culverts, and keeping the surface of the road in repair.

From the hilly nature of the country traversed by this road and from the entire absence of any materials suitable for metalling, this road must, unless an enormous expense be incurred, always remain a mere dray track, suitable only for summer traffic, but, until a permanent road to the interior is constructed it is necessary to incur considerable expense for repairing this track.

TOKOMAIRIRO TO TUAPEKA.

This road is gravelled from Tokomairiro bridge up to the Woolshed, where a bridge across the Tokomairiro River is to be immediately constructed.

A permanent line of road is now being marked out between the Woolshed and Tuapeka, which will be a great improvement on the present track.

Parties of men are at present employed in pitching and gravelling the road beyond the Woolshed, and in improving the gradients and widening the cuttings in the vicinity.

TUAPEKA TO DUNSTAN.

During the last six months extensive works have been executed on this section.

Operations have been for the most part confined to the division of road between Beaumont and Miller's Flat, a distance of about 16 miles, $4\frac{3}{4}$ miles of which were executed under contract by Messrs. Newton and Co., the remaining portion by day labour.

The work executed was principally the formation of sidings over sloping ground, ditching, and the embanking of portions of flat lying contiguous to River Clutha, and extending towards Moa Flat. This division has now been for the last two months open, admitting of a free communication between the extremes of the line of road.

The road is now in very good working condition; attention having been given to the gravelling of the low lying and softer parts in the vicinity of Tuapeka, which from the overflow from numerous water races intersecting the flats, were liable to be made impassable.

Between Beaumont and Miller's Flat, the road for a length of about a mile is barely the regular width, several hard schist reefs having been met with, but it is quite answerable for the traffic in the meantime. To resist the action of heavy traffic several portions would require metalling, although from the general nature of the subsoil, the surface is less liable to be cut up than in down country roads.

Eight men are at present employed keeping the road in proper repair and making improvements where necessary. The traffic between Tuapeka and Beaumont is increasing, and should the contemplated ferries at Beaumont and Teviot be completed in time, this road will be suitable for winter traffic, and probably be at once used for through traffic between Dunedin and Dunstan.

LAWRENCE TO GABRIEL'S GULLY, &c.

The road, extending for a distance of nearly two (2) miles was constructed by contract, and, being metalled, exhibits a substantial and useful road, connecting Monroe's and Gabriel's Gully with Lawrence, and forming an approach to the township from down country. The road is now in excellent condition.

TUAPEKA MOUTH TO TUAPEKA AND DUNSTAN ROAD.

To open up a communication between the above two districts in order to facilitate the transmission of merchandise from the landing point of steamer to the Tuapeka district, the construction of this road was proceeded with. Little work was expended upon it as the leading range running between the two districts is remarkably flat, and exhibits almost a natural roadway. The route is rather circuitous, the distance about sixteen miles, the cost of construction being not more than £60 per mile.

DUNSTAN TO KAWARAU JUNCTION, WEST BANK OF CLUTHA.

This road has been open for nearly the last nine months, and forms a good, although in several parts a contracted roadway for traffic. It forms the medium by which goods are conveyed to the Bannockburn and Nevis diggings, and from the composition of the surface it answers the purpose of a hard and available road in all weathers. This road was made as a continuation of the contemplated through line to run on the West side of the river from Teviot, but the precipitous banks and difficulties in many places to be encountered render its adoption as a permanent way almost impossible and consequently it can only class as a subsidiary road.

DUNSTAN TO KAWARAU JUNCTION.

EAST BANK OF CLUTHA.

The construction of this road commenced about 4 months ago and is now about completed. The difficulties met with in forming this road are not so great as the other side on account of the regularity of the terrace banks. In the upper portion the

excavations are almost entirely through sand, which causes the road surface to be soft and offers much impediment to drays even when ordinarily laden. Material for metalling is however abundant and comparatively good in the locality. The contract will be entirely finished during the month. Distance 13 miles.

KAWARAU JUNCTION TO WANAKA.

This road, forming a continuation of the road along the river Clutha, was completed in December last, except for a length of about ten miles at the northern end. The works were then stopped, as the money appropriated had been expended, and there did not appear to be any special urgency for completing the works, the traffic being very small. The work performed consisted principally of embankments, sidings, culverts and clearing road. The district which this road traverses generally consists of hard and unyielding materials on the surface, and the line being comparatively level a good road is easily formed. The general line of the road is along the terrace ground on the west side of the Clutha River. The present necessity for this road is not very great, but as it will eventually form a portion of the main line of communication between the Northern and Southern divisions of the Province, and as the sum requisite to complete this portion is comparatively small, the resumption of operations is recommended.

KAWARAU JUNCTION TO WAKATIP.

This line of road was commenced in December last, and considerable progress has since that time been made on it. The road is now open for dray traffic from Kawarau Junction to the Roaring Meg, a distance of between 9 and 10 miles, and a further section of about 2 miles is expected to be opened up before the end of the present month.

From Kawarau Junction the first four miles passes over a plain to the entrance of the Kawarau Gorge; the road then traverses the north bank of the Kawarau River up to near the junction of the Nevis Water, where a ferry across the Kawarau is contemplated. The further course of the road as laid out, passes along the southern bank of the Kawarau up to beyond the junction of the Arrow River, where another ferry or a bridge across the Kawarau River will be necessary; but the exact point of crossing has not yet been determined. After the second crossing of the Kawarau the road is proposed to be taken along the Arrow flat, between Hayes' Lake and the Arrow River, to the vicinity of the Arrow township; and from thence by a naturally defined route to Arthur's Point, where a bridge over the Shotover will be required. The route from this place to Queenstown will probably follow the general course of the Horn Creek.

From Kawarau Junction the first four miles of the road across the plain required almost no formation, the natural surface being level and dry; but from this point up to the crossing of the Kawarau River near the Nevis Water the works necessary for a road are very heavy, as the gorge through which the Kawarau flows is in most places very contracted, the river flowing in a deep cut rocky bed, with banks nearly perpendicular, and the sides of the hills rising steeply and abruptly from the edge of the banks. The work already executed between Kawarau Junction and the junction of the Arrow River consists of the removal of large masses of rock strewn over the surface of the ground, the formation of sidings, block cuttings, culverts and retaining walls.

Considerable difficulty and expense has been incurred in providing means for the protection of the works from the effects of the numerous springs which have been met with.

At the Roaring Meg a foot bridge has been constructed, to supersede the dangerous ford formerly in use there.

Between the Roaring Meg and the Nevis Junction, a length of about 5 miles, the earthworks are not so heavy as on the division lying to the eastward of the Roaring Meg, but bridges of large dimensions are required at the Roaring Meg and Gentle Annie Burn, and the ferry near the Nevis will be a very expensive work.

On the south side of the Kawarau River, between the Nevis and the Arrow waters, very little has yet been done; but as the ground adjoining the river banks is generally flat, this portion of the road can be quickly and cheaply constructed, the only works of any importance being the removal of rocks by blasting at two rocky bluffs which rise very steeply from the water's edge. The exact site for the second ferry near the junction of the Arrow has not yet been finally determined, and nothing has been done beyond this, further than marking out the line of road proposed.

At present, operations are being carried on principally between the Roaring Me and the Arrow Junction, one road party being at work near Gentle Annie, and another about two miles above the Nevis Junction. Several portions of this road have been formed under small contracts entered into with the workmen, and this is a system which has been found to answer very well, as the works have been in every case satisfactorily executed at a moderate cost. From the progress which has already been made on this road, it is hoped that a communication may be opened up to the Arrow District in the course of three or four months, the only formidable obstacles to prevent this being the completion of the bridges and ferries, with none of which has any progress yet been made.

SOUTHERN INTERIOR TRUNK.

POPOTUNOA TO MATAURA.

The works executed, chiefly consist of culverts, pitching fords, and several sidings cut on steep ground; some portions of the road have also received a coating of metal.

The approaches to the bridge across the Waipahi are now nearly completed, and those for the bridge across the Waikoikoi are already finished. The track has been opened throughout its entire length, and is at present in tolerable repair.

MAIN BRANCH ROAD (NORTHERN).

DUNEDIN TO PORTOBELLO.

This road has been formed and metalled from Dunedin through the Anderson's Bay District, and is at present in fair order; beyond this a track has been cut through the bush under contract, let to Mr. Robert Lyon, for a distance of 103 chains. Another contract has recently been let to Mr. Alexander McKenzie, for clearing the bush and forming a road along surveyed line of road to Portobello Bay, for a length of about four miles, and also for cutting track to enable road line to be marked off for the remainder of the distance. Operations under this contract have already commenced.

DUNEDIN TO WEST TAIERI.

This road has recently been considerably widened and improved in gradients, at the Kaikorai Valley, and a supply of metal contracted for to complete the road up to the School-house, a distance of about five miles. Between this point and Silver Stream a deviation from the present road line is contemplated, and has been surveyed, but the result not proving so satisfactory as was anticipated, further investigations are proposed to be made before the permanent line is definitely determined upon.

From Silver Stream to the Junction with the road from Saddle Hill to West Taieri nothing has been done except keeping the surface in fair order.

NORTH-EAST VALLEY TO TIMBER DISTRICT.

A small contract for repairs and maintenance metal has been completed. This road is now metalled throughout, and is in very good order. The expenditure is principally for wages of surfacemen on this road, the timber traffic on which is very considerable.

NORTHERN TRUNK TO WAIKOUAITI BAY.

A considerable outlay has been incurred on this road in completing earthwork and building culverts; and a supply of metal has been provided, and will be spread on those parts of the road most requiring it before the winter sets in.

MAIN STREET THROUGH HAWKESBURY.

A small amount has been expended in completing earthwork, forming side ditches, and building culverts, but no metal has been provided.

Further operations have been suspended until the site of proposed jetty at Waikouaiti Bay has been determined upon.

NORTHERN TRUNK TO MOERAKI BAY.

This road has now been formed throughout; a considerable quantity of metal has been provided for it, and will be spread at suitable times.

NORTHERN TRUNK TO PORT CHALMERS.

A contract for maintenance metal has been completed, and a party of men are now engaged in widening the sidings at the worst places. The surface is now in fair order, but several places on the road should be widened and fenced without delay.

MAIN BRANCH ROADS (SOUTHERN).

SOUTHERN TRUNK TO CLARENDON.

A small expenditure has been incurred in order to keep that portion of the road already constructed in good repair. The construction of the remainder of the road has been retarded from want of assistants to prepare the necessary plans for contract.

SOUTHERN TRUNK TO KAITANGATA.

The original track has in some parts been widened, and portions of the road have been formed and drained; instructions have been issued for a supply of metal to be provided for those portions of the road most requiring it.

SOUTHERN TRUNK TO CLUTHA MOUTH.

This road has been widened and sidings formed at several places.

Some portions have been gravelled, and a quantity of metal provided and partially spread.

The road has been maintained in fair order.

WEST TAIERI TO WAIHOLA.

The expenditure on this road has been incurred on the works necessary to open up a road, and a considerable number of men are still employed in forming embankments across swamps, and constructing bridges and culverts over creeks. The works are expected to be shortly completed.

MAIN BRANCH ROADS (INTERIOR).

LEES STREAM TO TUAPEKA.

No outlay has been incurred on this track.

LANDSLIP HILL TO BENDER BURN.

Several sidings have been formed and culverts constructed where necessary, chiefly in the vicinity of Landslip Hill. The dray track has also been kept in good repair.

HAVELOCK TO WAITAHUNA.

This road has been formed and gravelled under contract by James Mackenzie, and is at present in capital order. There is, however, very little traffic on the road.

BRANCH ROAD AT KAIKORAI VALLEY.

The contract for construction of this road has been satisfactorily completed, and a bridge has been erected over the Kaikorai stream, in place of a ford, as originally intended.

The road, so far as constructed, is at present in good order. The traffic is purely of a local nature, and no provision has been made in the Estimates for maintaining or extending this road.

STREETS IN PORT CHALMERS.

A few temporary works were performed some time ago. The streets are now under charge of the Port Chalmers Town Board.

BRIDGES.

The charge of the bridges has been so very recently transferred to this department that no detailed reports have been received regarding them.

The only works of this description hitherto executed under charge of the Road Department consist of a bridge over Kilmog Creek, and several small timber culverts on the road from Dunedin to Waikouaiti, and repairing and strengthening Waitahuna bridge.

A contract for bridge over Trotter's Creek, on road from Shag River to Oamaru, has been let to Messrs. Barnes and Sigley, and will be shortly completed.

Contract for flood arching for road near Suspension Bridge at West Taieri, let to Messrs. Boyle and Co., is being rapidly advanced.

Contract for bridge over the Tokomairiro River at Woolshed, let to Messrs. Boyle and Co., not yet commenced.

Contract for bridge over the Waikouaiti River, let to Mr. James Bruce, not yet commenced.

Contract for timber and ironwork of bridge over the river Clutha, at Kawarau Junction, let to Messrs. Proudfoot and Armitage, not yet commenced.

Contract for timber and ironwork of bridge over the Gentle Annie Stream, let to Messrs. Proudfoot and Co., not yet commenced.

Contracts for a line of telegraph posts between the Clutha Ferry and the Waitaki River, have been entered into with Mr. James M'Kenzie, and are in course of being carried out.

A contract has also been entered into with Mr. Henry Hill for line of telegraph posts between Tokomairiro and Queenstown, and considerable progress has already been made with it.

The following detailed statements are appended to this report, viz. :—

A P P E N D I X.

TABLE 1.

Approximate return of works performed and expenditure incurred on roads, from 31st July, 1863, to 31st March, 1864.

TABLE 2.

Abstract of votes in respect of roads, bridges and telegraphs, shewing the outstanding liabilities as at 31st March, 1864.

TABLE 3.

Statement shewing amount of contracts now in operation, amount expended, and contingent liabilities in respect thereof, as at 31st March, 1864.

I have the honor to be,

Sir,

Your obedient servant,

J. PATERSON,
Chief Engineer of Roads.

The first section of the act provides that the State shall have the right to purchase any and all lands owned by any person who has been convicted of a crime involving moral turpitude, and who has been sentenced to a term of imprisonment of not less than one year and not more than five years, and who has not been pardoned or his name removed from the list of convicted criminals.

The second section provides that the purchase of such lands shall be made by the State, and the purchase price shall be determined by the State. The purchase price shall be the fair market value of the land at the time of purchase, and shall be paid in cash or in installments, as determined by the State.

The third section provides that the purchase of such lands shall be made by the State, and the purchase price shall be determined by the State. The purchase price shall be the fair market value of the land at the time of purchase, and shall be paid in cash or in installments, as determined by the State.

The fourth section provides that the purchase of such lands shall be made by the State, and the purchase price shall be determined by the State. The purchase price shall be the fair market value of the land at the time of purchase, and shall be paid in cash or in installments, as determined by the State.

The fifth section provides that the purchase of such lands shall be made by the State, and the purchase price shall be determined by the State. The purchase price shall be the fair market value of the land at the time of purchase, and shall be paid in cash or in installments, as determined by the State.

The sixth section provides that the purchase of such lands shall be made by the State, and the purchase price shall be determined by the State. The purchase price shall be the fair market value of the land at the time of purchase, and shall be paid in cash or in installments, as determined by the State.

The seventh section provides that the purchase of such lands shall be made by the State, and the purchase price shall be determined by the State. The purchase price shall be the fair market value of the land at the time of purchase, and shall be paid in cash or in installments, as determined by the State.

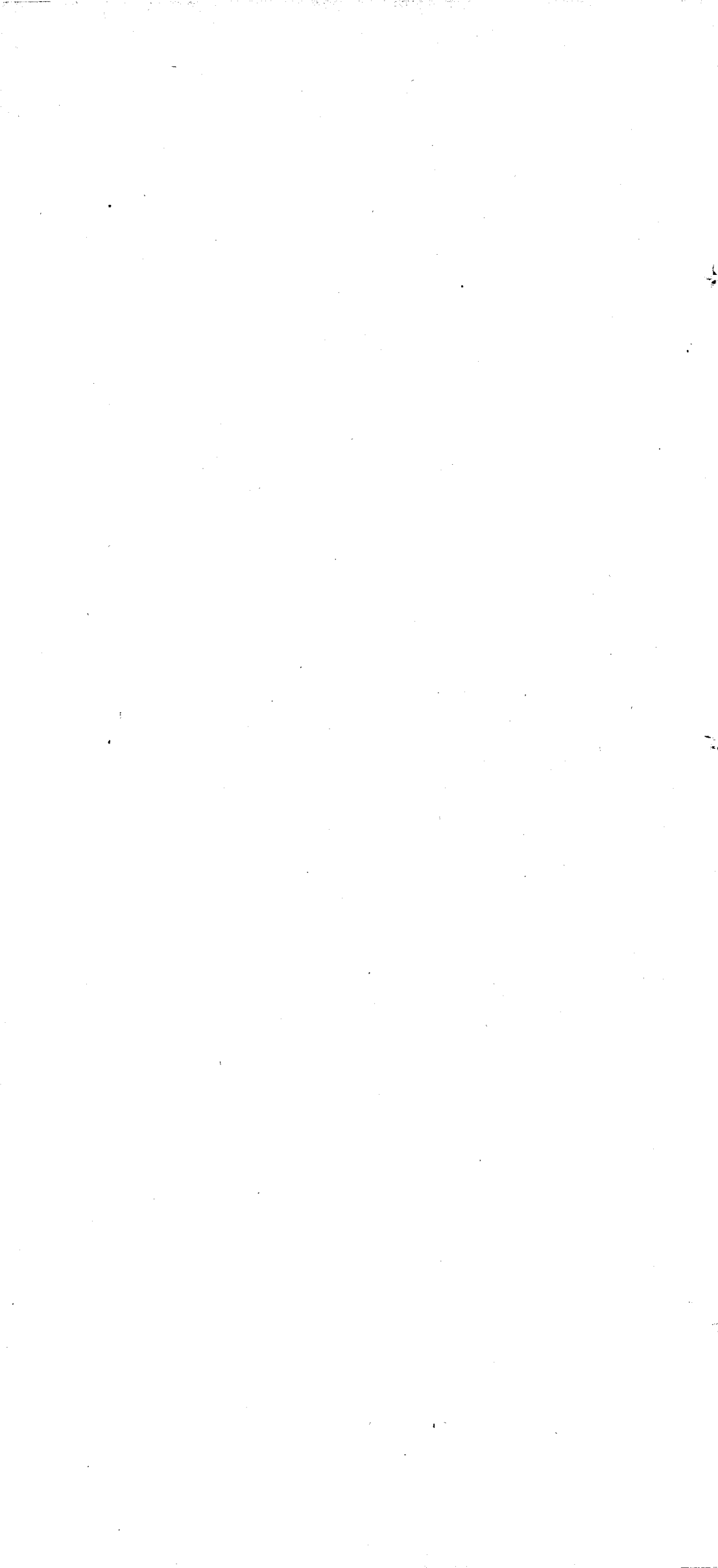
The eighth section provides that the purchase of such lands shall be made by the State, and the purchase price shall be determined by the State. The purchase price shall be the fair market value of the land at the time of purchase, and shall be paid in cash or in installments, as determined by the State.

The ninth section provides that the purchase of such lands shall be made by the State, and the purchase price shall be determined by the State. The purchase price shall be the fair market value of the land at the time of purchase, and shall be paid in cash or in installments, as determined by the State.

The tenth section provides that the purchase of such lands shall be made by the State, and the purchase price shall be determined by the State. The purchase price shall be the fair market value of the land at the time of purchase, and shall be paid in cash or in installments, as determined by the State.

Approximate Return of W

Line of Roads.	Day Labor and Piece Work.			Contract Work.			Total Amount.		
	L	s.	d.	L	s.	d.	L	s.	d.
NORTH TRUNK.									
Dunedin to Waikouati ...	28097	10	10 ¹ / ₂	3559	5	8	31656	16	8
Waikouaiti to Shag River ...	2133	16	6	1791	4	7	3925	1	1
Shag River to Oamaru ...	8030	3	3	422	4	10	8452	8	1
Through Dunedin ..	...	...	...	...	...	...	...	...	...
Dunedin to Taieri Ferry ...	2585	19	0	3937	6	0	6523	5	0
Taieri to Tokomairiro River ...	4286	1	6	8879	16	6	13165	18	0
Tokomairiro River to Clutha ...	1544	8	3	3280	5	11	4824	14	2
Clutha Ferry to Mataura ...	1095	5	5				1095	5	5
Oamaru to Wanaka Lake ...	3030	11	9				3030	11	9
Palmerston to Manuherikia ...	1798	7	8				1798	7	8
Saddle Hill to West Taieri ...	1922	11	10	625	15	6	2575	7	4
West Taieri to Dunstan ...	3057	14	9	110	0	0	3167	14	9
Tokomairiro to Tuapeka ...	2191	4	4				2191	4	4
Tuapeka to Dunstan ...	7042	4	0	4924	8	5	11966	12	5
Dunstan to Wanaka ...	4295	6	9				4295	6	9
Popotunoa to Pyramid ...	698	4	6				698	4	6
Dunedin to Portobello ...				259	4	8			
Dunedin to West Taieri ..	589	10	10	244	16	0	834	6	10
N.E. Valley to timber district ...	114	17	0	108	16	0	223	13	0
North Trunk to Waikouaiti Bay	1139	2	6				1139	2	6
" Moeraki ...	1529	9	3				1529	9	3
" Port Chalmers ...	158	18	6	162	10	0	321	8	6
South Trunk to Clarendon ...				371	9	2	371	9	2
" Kaitangata ...	233	15	0				233	15	0
" Clutha Mouth ...	1254	2	1				1254	2	1
West Taieri to Waiholā ...	841	15	7				841	15	7
Lee's Stream to Tuapeka ...									
Landslip Hill to Benger Burn ...	871	0	4				871	0	4
Kawarau Junction to Franktown	6180	15	8				6180	15	8
Lawrence to Gabriel's Gully ...	193	3	0	1552	6	9	1800	9	9
Havelock to Waitahuna ...				2661	4	1	2661	4	1
Branch to Kaikorai Quarry ...	23	0	0	1739	17	9	1762	17	9
Streets in Port Chalmers ...									
Main street through Hawksbury	21	12	0				21	12	0
Dunstan to Kawarau ...	70	0	0	1295	0	0	1365	0	0
Tuapeka Mouth to Tuapeka ...	971	4	6				971	4	6
Taieri to Hogburn ...	243	8	0				243	8	0



ROAD ENGINEER'S REPORT.

APPENDIX.—TABLE I.

Works Performed and Expenditure Incurred on Roads from the 31st July, 1

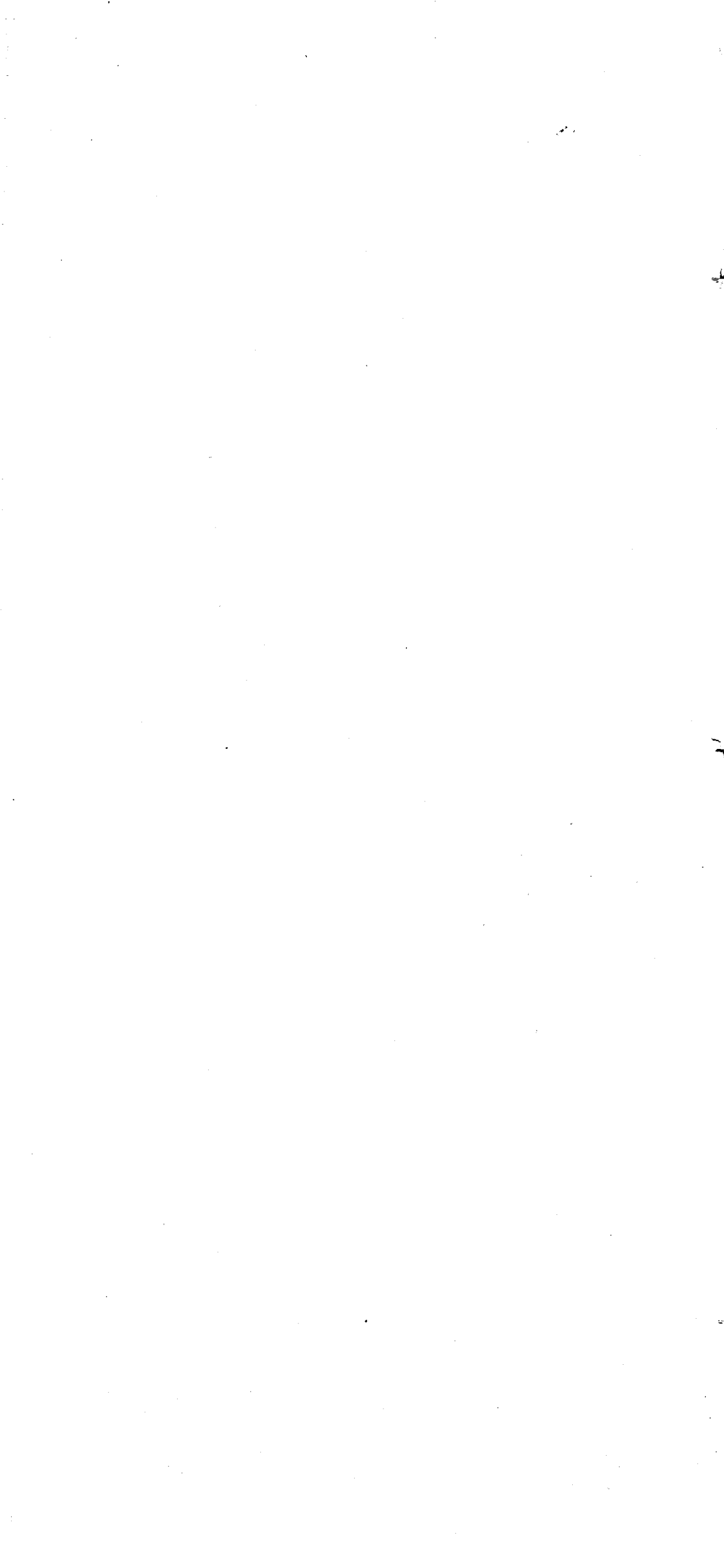
Excavation in Yards.		Road Metal.	Lineal yards of Culvert.	Lineal Chains of Drains.	Miles of Surfacing and Repairs.	Miles of Formation.	Miscellaneous.
Earth.	Rock.						
		16475	193	27 $\frac{3}{4}$	25	18	Removal of landslips, etc. (Not measured.)
25156	71		264	344	10	1.73 $\frac{1}{2}$	
68620	1830		632	328		5.32	Many heavy landslips removed in Horse Ranges.
...	1000	6050 9500	...	...	22	40	...
13500		3200	366	231		3.27	50 chains pitching.
2138			75			0.65	
17050			260	75	42 $\frac{1}{2}$	6.46	A great quantity of retaining walls has been built.
5100		7333	32	25	100.0	4.20	102 cube yards masonry.
			50		8.0	2.0	A great portion of the two also gravelled.
81436	704	One mile and a quarter	1200	230	Entire lgh. of road.	19.20	Pitching in fords, 1100 superficial yards.
10975		1	34			1.45	Pitching 708 superficial yards.
6000		1 mile	5 in No.	6		1.23	
		65 chns				15.0	
		600				3.0	
200	52	500	47			36 chns	
270						1.60	
		350				5.0	
874			20	6 $\frac{1}{2}$			
18717		5 chns	27 $\frac{1}{2}$			0.76	Embankments have been thrown up on swampy ground and a drain has been cut.
2920		3 $\frac{1}{2}$ chns	11				Bridge, 20 feet span.
3740		14					Retaining walls, 130 square yards. general maintenance.
5565		101 chs		93		1.24	
6060		162 chs	130	108		2.2	
		1404 Yards cube.	124			60	Pitching 56 cube yds.; timber
					1.40		
3599					16.0	14.0	Clearing bush and grass 15 m. Pitching swampy ground and singings of streams.



863, to 31st March, 1864.

	Remarks.
sing in- dings.— ved on	<p><i>The quantity of Excavation on this road cannot be ascertained. The work was left in a very rough state when the Inspector was changed, and numerous landslips of large extent, which occurred during the progress of the works, cannot be measured. (Contracts are Muir's, for formation near Cherry Farm; and Barnes and Sigley, for bridge at Kilmog Creek, both completed.)</i></p> <p>Halpin's contract is 1 mile 60 chains, formation; Dillon's contract is for metal at Hawksburys.</p> <p>Barnes and Sigley—Contract for bridge over Trotter's Creek.</p>
...	<p>Works executed under charge of the Dunedin Town Board.</p> <p>Contracts.—A. M'Kenzie and A. Anthony.</p> <p>Contracts.—Ross, J. M'Kenzie, Lawlor and Co., Alex, M'Kenzie, A. Wilson, and Anthony.</p>
g walls niles is	
ialyds.	<p>Contracts.—Two of Proudfoot's; one Newton and Co., at the Beaumont</p> <p>Contracts.—H. Wilson, metalling; and Lyon, cutting track.</p> <p>Contracts.—Reynolds, M'Donald, and Kirkwood, for metal.</p> <p>Contract.—H. M'Fayden, for metal.</p> <p>Contract.—J. Styles and Co., for metal.</p> <p>Balance of Ross' contract.</p>
across k cut. s, and	<p>No work has been performed on this line of road until the last few weeks</p> <p>No work has been done.</p>
lvert.	<p>Contract.—G. H. Buchan.</p> <p>Contract.—J. M'Kenzie.</p> <p>Contract.—Barnes and Sigley.</p> <p>Works executed under charge of the Port Chalmers Town Board.</p>
s. cros-	<p>Contract.—Sharples and Co.</p>

ROADS.	Amount Voted.		
	£	s.	d.
NORTHERN TRUNK.			
Dunedin to Waikouati ...	45000		
Waikouaiti to Shag River ...	16000		
Shag River to Oamaru... ..	15000		
SOUTHERN TRUNK.			
Dunedin to Taieri Ferry ...	10000		
Taieri Ferry to Tokomairiro ...	18000		
Tokomairiro to Clutha ...	20000		
Clutha to Mataura	4000		
Outstanding cheques, not distinguished...			
NORTHERN INTERIOR.			
Oamaru to Wanaka Lake	7000		
Palmerston to Manuherikia ...	4000		
CENTRAL INTERIOR.			
Saddle Hill to West Taieri ...	10000		
West Taieri to Dunstan	5000		
Tokomairiro to Tuapeka	7500		
Tuapeka to Dunstan	14000		
Dunstan to Wanaka	9000		
SOUTHERN INTERIOR TRUNK.			
Popotuna to Mataura... ..	3000		
MAIN BRANCH ROAD. (Northern.)			
Dunedin to Portobello	4000		
Dunedin to West Taieri	3000		
North East Valley to Timber District ...	500		
Northern Trunk to Waikouaiti Bay ..	4000		
„ Moeraki Bay	2000		
„ Port Chalmers	3000		
MAIN BRANCH ROADS.—(Southern.)			
South Trunk to Clarendon	1500		
„ Kaitangati	4500		
„ Clutha Mouth	4000		
West Taieri to Waihola	1500		
MAIN BRANCH ROADS.—(Interior.)			
Lee's Stream to Tuapeka	200		
Landslip Hill to Bengier Burn	1000		
Kawarau to Frankton	1300		
Lawrence up to Gabriel's Gully	3500		
Havelock to Waitahuna	3000		
MISCELLANEOUS.			
Dunstan to Kawarau	20000		
Dunedin to Wakatip	20000		
Roads unprovided for... ..	5000		
Roads and Bridges on Gold Fields ...	3500		
BRIDGES.			
Over the Clutha River	10000		
„ Waikouaiti River	3000		
Silver Stream Bridges	300		
Lang's Creek Bridge	12	1	8
Kilmog Creek Bridge... ..	500		
Cherry Farm	45		
TELEGRAPHS.			
Clutha to Waitaki	18000		
Tokomairiro to Wakatip			
Totals	304857	1	8



APPENDIX.—TABLE II.

penditure in respect of Roads, Bridges, and Telegraphs, showing the outstanding lia

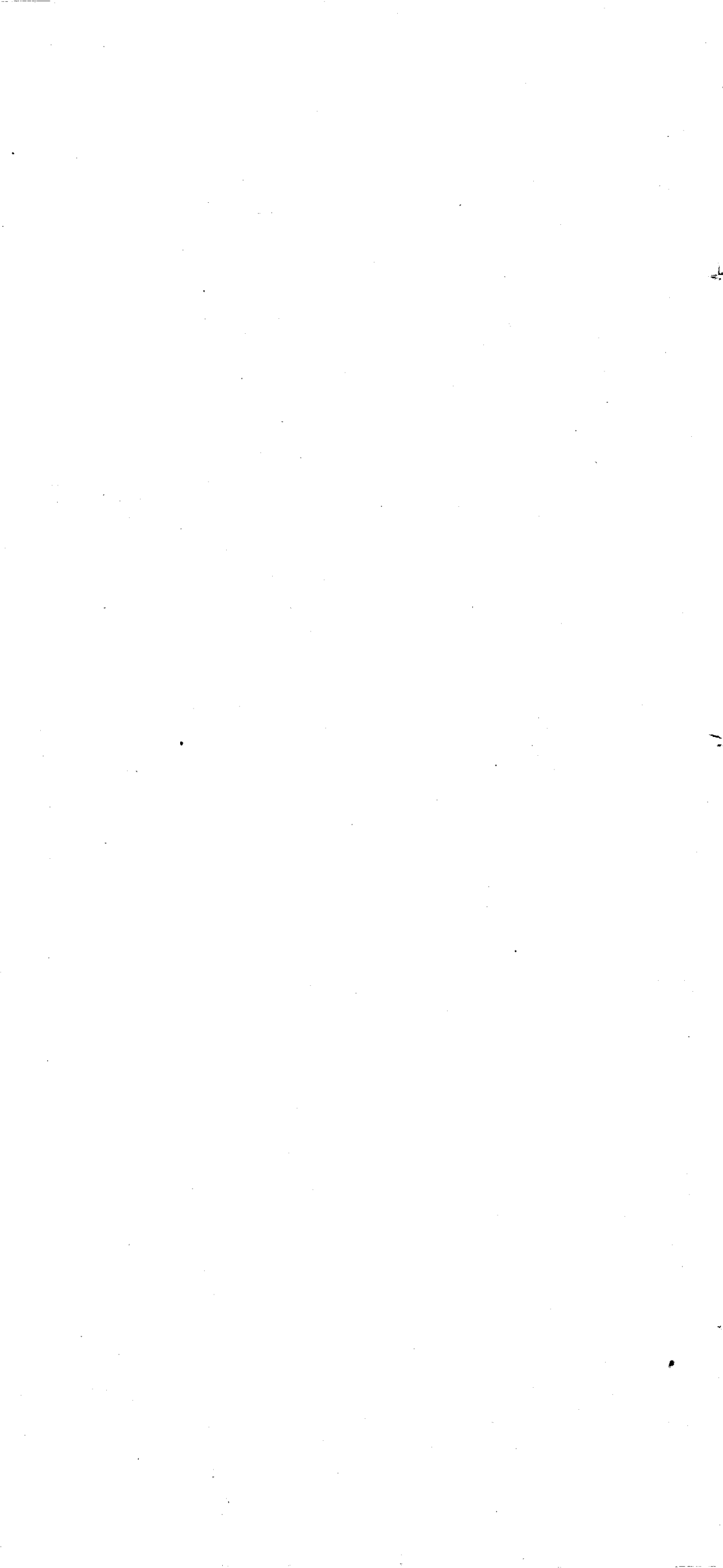
Total Expenditure.			Liabilities in Respect of											
			Balance of Existing Contracts			Retention Money.			Absentee Labourers.			Outstanding Road Or		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	
50556	13	7	5241	14	11				91	3	10	713	9	
4667	19	8	9053	16	2	420	1			6		75	3	
16996	2	1	259	4		105	11	2	46	9	6	196	1	
11558	17	10	1400						179	4	7	2	8	
23493	8		597		10	477	5	2				95	3	
7442		11	5797		8	820	1	5				66	3	
2515	5								4	16		123	13	
9368	16	8							86	2		172	13	
4703	13	1										97	11	
7092	9		241	13	4				18	18		150	7	
6545	16	5							52	12		96	1	
5976	8	7	649									154	3	
22294	8	5										361	9	
9421	1	9										10	9	
1719	10	8							40	14	6			
787	8	11	2281	10								47	3	
1247	10	7	452	16					45	14	6	8	2	
516	3	9												
2247	14													
1921	4											40	11	
2765	18	1							4	10				
870	17	2												
1128	19	8												
2575	16	7												
655	10								186	5	7			
1166	3	9							9	10				
3875	16	8	1925	14								225	18	
2861	14	9												
2661	4	1												
1736	5	6	231	5		323	15							
1660	19	6				18	9							
1100	10													
			6800											
			1995	10										
89	4	10												
15	1	8												
473	12													
45														
			6270											
883	10		8009	12		220	18							
15708	17	2	51205	16	11	2386		9	772	6	6	2728	1	

Accounts at 31st March, 1864.

g ss.	Total.		Total Expenditure and Liabilities.			Dr. Balance.			Cr. Balance.		
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	
d.	6046	7 8	56663	1 6	4 4	11603	1 4	1782	13 8		
	9549	6 18	14217		9 9	2604					
	607		17604								
6	1581	13 8	13140	11 11	2 2	3140	11 2	5874	14 11		
9	1169	9 9	24662	17 6	9 9	6662	17 9	1479	19 11		
9	6683	5 5	14125	6 1							
	4	16	2520	1 1							
	123	13	123	13	2 2	123	13 2				
2	258	17 11	9627	13 5	11 11	2627	13 11				
3	97	11	4801			801	5 11				
11	410	12 6	7503	1 6	6 6	1694	9 11	2496	18 6		
2	148	13 6	6694	9 10	11 11						
2	803	1 9	6779	10 4	4 4	8655	17 11	720	9 8		
6	361	9 9	22655	17 11	11 11	592	11 6				
6	101	9 9	9592	11 6	6 6						
9	46	14 6	1766	5 2	2 2			1233	14 10		
	2328	13 6	3116	2 5	5 5			883	17 7		
6	506	13 13	1754	3 3	7 7	16	3 9	1245	16 5		
			516	3 3	9 9			1752	6 11		
	40	11 4	2247	14 8				38	5 11		
	4	10	1961	15 8	1 1			229	11 11		
			476					629	2 10		
	186	5 7	870	17 2	2 2			3371	0 4		
			1128	19 8	8 8			1424	3 5		
	9	10 12	2575	16 7	7 7			658	4 5		
	2151		841	15 15				200			
	555		2291	5 6	6 6			17708	14 6		
	18	9 9	1679	8 6	6 6			20000			
			1100	10 10				3320	11 6		
	6800		6800					2399	10 10		
	1995	10 10	1995	10 10				3200	10 2		
			89	4 10				1004	10 15		
			15	1 8		3		210	15 8		
			473	12 45				26			
			45					2616			
	6270		6270								
	8230	10 10	9114								
	57092	5 2	272801	2 4	4 4	43428	8 7	75484	7 11		

Statement showing Amount of Cont

PARTICULARS.			
<i>Dunedin to Waikouaiti.</i>			
James M'Kenzie, Pitching and Metalling 3 miles 18 chains	...	...	Febr
Kirkland and Lyall, Construction of Bridge near 24th mile post	...	...	Febr
<i>Waikouaiti to Shag River.</i>			
A. Halpin and Co., formation of 2 miles 60 chains	...	...	Dece
D. Kirby, Green Swamp Contract	...	...	Marc
D. Kirby, 2000 cubic yards metal	...	...	Marc
Jones and Co., 6000 cubic yards metal	...	...	Marc
<i>Shag River to Oamaru.</i>			
Barnes and Sigley, Trotter's Creek Bridge	..	...	Janu
<i>Dunedin to Taieri Ferry.</i>			
Hugh Scott, 3000 cubic yards metal	...	...	Febr
<i>Taieri to Tokomairiro.</i>			
Henry Wilson, 4000 cubic yards metal	...	...	Octo
<i>Tokomairiro to Clutha.</i>			
J. H. Lawlor, construction of 5 miles 26 chains	...	...	Janu
<i>Saddle Hill to West Taieri.</i>			
H. Scott, 1006 cubic yards metal	...	...	Feb
<i>West Taieri to Dunstan.</i>			
A. M'Kenzie, approaches to West Taieri Bridge, schedule contract (say £1000)	...	...	Mar
<i>Tokomairiro to Tuapeka.</i>			
J. Boyle and Co., Bridge at Woolshed	...	...	Mar
<i>Dunedin to Portobello.</i>			
A. M'Kenzie, clearing and forming	...	...	Mar
<i>Dunedin to West Taieri.</i>			
J. Reynolds, 150 cubic yards metal	...	...	Feb
J. Boyle, Viaduct	...	...	Feb
<i>Kawarau to Frankton.</i>			
Proudfoot and Armitage, Bridge over Clutha	...	...	Ma
Proudfoot and Co., Bridge over "Gentle Annie"	...	...	Ma
<i>Dunstan to Kawarau.</i>			
Sharples and Co., formation of road	...	...	No
<i>Roads Unprovided for.</i>			
H. M'Laren, fencing at Hawksbury	...	...	...
<i>Waikouaiti Bridge.</i>			
Jas. Bruce, erection of	...	...	Fe
<i>Telegraphs.</i>			
James M'Kenzie, Main Line, Clutha to Waitaki	...	...	De
Henry Hill, Branch, Tokomairiro to Wakatip	...	...	Ja
TOTAL			



ROAD ENGINEER'S REPORT.—APPENDIX.—TABLE

ROAD ENGINEER'S DEPARTMENT, OTAGO.

Contracts now in Operation, the Amounts Expended, and the Contingent Liabilities

Date of Contract.	Date for Completion.	Amount of Contract.			Amount Expended.		
		£	s.	d.	£	s.	d.
1864	1864						
January 1st	April 30th	4774	19	2			
January 1st	April 30th	466	15	9			
September 23rd, 1863	March 31st, 1864	2535	6		2100	5	
October 21st, 1864	June 1st, 1864	1943	15	2			
October 21st, 1864	May 31st, 1864	1750					
October 21st, 1864	June 15th, 1864	4925					
January 5th, 1864	March 31st, 1864	787			527	16	
February 1st, 1864	March 13th, 1864	1400					
September 27th, 1863	February 27th, 1864	2983	6	8	2386	5	
January 5th, 1864	June 30th, 1864	9897	8		4100	7	
February 1st, 1864	March 13th, 1864	241	13	4			
March 7th, 1864	May 7th, 1864						
March 24th, 1864	June 15th, 1864	649					
March 21st, 1864	June 21st, 1864	2281	10				
February 29th, 1864	May 1st, 1864	71 381	5 11				
March 10th, 1864	August 10th, 1864	6800					
March 29th, 1864	July 31st, 1864	1925	14				
September 2nd, 1863	March 2nd, 1864	1850			1618	15	
	Finished	136			136		
February 2nd, 1864	2nd August, 1864	1995	10				
September 15th, 1863	June 15th, 1864	6270					
January 19th, 1864	June 19th, 1864	9114			1104	8	
		63179	14	1	11973	17	

in respect thereof, as at 31st March, 1864.

CONTINGENT LIABILITIES.											
Balance Unexpended.				Retention Money.				TOTALS.			
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
4774	19	2	420	1		4774	19	2	5241	14	11
466	15	9				466	15	9			
435	1					855	2	2	9473	17	2
1943	15					1943	15				
1750		2				1750		2			
4925						4925					
259	4		105	11	2	364	15	2	364	15	2
1400						1400			1400		
597		10	477	5	2	1074	6		1074	6	
5797		8	829	1	5	6617	2	1	6617	2	1
241	13	4				241	13	4	241	13	4
649						649			649		
2281	10					2281	10		2281	10	
71	5					71	5		452	16	
381	11					381	11				
6800						6800			8725	14	
1925	14					1925	14				
231	5		323	15		555			555		
1995	10		18	9		1995	10		18	9	
6270						6270			14500		
8009	12		220	18		8230	10				
51205	16	11	2386		9	53591	17	8	53591	17	8

X.—PROVINCIAL ENGINEER'S DEPARTMENT.

Provincial Engineer's Department, Otago.
Dunedin, 9th April, 1864.

The Secretary of Public Works.

SIR,

I HAVE the honor to forward a Report on the state of the various works carried out and in progress from the 5th September, 1863, to the 31st March, 1864.

Reclamation of a portion of Otago Harbour.

Mr. M'Kenzie's contract for filling in about $5\frac{1}{2}$ acres has been completed. The contract sum was £8,100. A deduction of £166 10s. was made, on account of sundry small items not carried out. The total cost of this work has, therefore, been £7,933 10s. On the accompanying plan the extent of this contract is shown, colored green. Before passing to the consideration and explanation of other portions of the reclamation, I would state that on the 9th March last several allotments were sold, which, together with one allotment sold on the 6th April, contained an area of 3,685 square yards, or about three-quarters of an acre, out of the 26,620 square yards or $5\frac{1}{2}$ acres reclaimed under Mr. M'Kenzie's contract. The bonus on the 3,685 square yards realized the sum of £6,295. The amount of rental on the same will be £819 per annum, which, at 10 per cent., represents a capital of £8,190. It will be seen, therefore, that the sale of this small portion (three-quarters of an acre) has been productive of the sum of £14,485, or £6,551 10s. more than the total cost of the whole $5\frac{1}{2}$ acres reclaimed under M'Kenzie's contract.

The portion tinted red, comprising about $3\frac{1}{2}$ acres, or 18,150 square yards, has been filled in by prison labor. In order to avoid the collision of two Departments, it was considered advisable that the management of the works carried on by prison labor should be entirely under the control of the gaol authorities—(*vide* my letter of 10th March, 1864). On 14th March I handed over the responsibility of conducting the works, such as blasting, excavating, quarrying, embanking, &c., &c., to the gaoler—my responsibility at present extending merely to the preservation of correct lines and levels. Up to the 14th March a number of free men were engaged on all work above the level of the reclaimed ground, but at present the works are, with the exception of horse drivers, entirely carried on by prison labor. How far the employment of prisoners in blasting operations has been attended with success, I am not in a position to state.

In my previous report, dated 5th September, 1863, I said that by means of a simple galvanic apparatus, which I had prepared, I anticipated being able to remove about 5000 tons at one discharge, at a cost of about 3d. per cubic yard. A number of experiments made since the 5th September have proved the great advantage of simultaneously firing several deep holes with heavy charges over the usual shallow bores with light charges. As an example: On the 23rd January last three holes were prepared, respectively 40 feet deep 3 inches diameter, 46 feet deep 3 inches diameter, and 46 feet deep 4 inches diameter. The holes were charged with 425 lbs. of powder. The charges were ignited by means of a galvanic battery. The quantity dislodged was 3555 cubic yards, equal to 5052 tons. The expenses attending the operation are as under:—

	£	s.	d.
2 men 10 days boring, each 8s.	8	0	0
2 do. $11\frac{1}{4}$ do. 8s.	9	0	0
425 lbs. of powder, at 1s. 3d.	26	11	3
2 coils safety fuse, at 1s. 3d.	0	2	6
Cost of battery power	1	0	0
Blacksmiths' work	2	0	0
	£46 13 9		

If, therefore, 3555 cubic yards cost £46 13s. 9d. one yard cost $3\frac{1}{4}$ d.

It is proposed that the area tinted yellow, equal to $3\frac{1}{2}$ acres, or 17,747 square yards, shall be filled in by prison labor, and as it is intended only to embank this portion to the high water level, a great number of building allotments may be speedily thrown into the market, as the streets on three sides have been already formed.

A return is furnished shewing expenditure on works at Bell Hill Quarries, and quantity and value of materials removed by prison labor from August 31st, 1863, to March 14, 1864:—

RETURN, showing Expenditure on Works at Fell Hill Quarries, and Quantity and Value of Materials removed by Prison Labor from 31st August, 1863, to 14th March, 1864.

DATE.	Number of Carts or Dobbins per diem.	Number of Prisoners Employed.	Number of Free Men Employed.	Total Number of Men	Average Quantity Removed per man per diem.	Quantity of Refuse Removed into the Reclamation.	Value.		Quantity of Stone for Metal removed to Stockade.	Price.	Value.		Quantity of Building Stone Removed.	Price.	Value.		Total Value of Work Executed.	Expenditure Incurred, including Wages of Quarrymen, Carters, and Overseers.				
							£ s. d.	£ s. d.			£ s. d.	£ s. d.										
From 31 8, '63, to 26 9, '63	9	36	12	48	3 13	3027	2 6	378	7 6	292	5	73	0 0	68	2	616	0 458	3 6	191	16 9		
" 28 9, '63, to 24 10, '63	9	39	12	51	3 3	2587	2 6	323	7 6	306	5	76	10 0	29	2	218	0 402	15 6	185	11 9		
" 26 10, '63, to 21 11, '63	9	40	12	52	3 4	2625	2 6	328	2 6	381	5	95	5 0	31	2	3 2	0 426	9 6	299	15 0		
" 23 11, '63, to 19 12, '63	9	43	11	54	3 0	3153	2 6	394	2 6	474	5	118	10 0	155	2	1510	0 528	2 6	194	1 0		
" 21 12, '63, to 16 1, '64	9	46	12	58	2 25	2836	2 6	354	10 0	383	5	95	15 0	0					450	5 0	176	4 0
" 18 1, '64, to 13 2, '64	4	50	13	63	5 0	5066	2 6	633	5 0	484	5	121	0 0	0					754	5 0	229	2 0
" 15 2, '64, to 14 3, '64	5	45	4	49	5 0	5206	2 6	650	15 0	709	5	192	5 0	0					843	0 0	246	3 0
																			3863	1 0	1522	13 6

Expenditure on Labor as above	£	s.	d.	Value of Work Executed as above	£	s.	d.
Expenditure on Powder, Fuse, &c.	1522	13	6	Building Stone, stacked, 391 feet, at 2s. 6d.	3863	1	0
Purchase of Dobbins (new)	324	7	6	Pitching, 730 yards, stacked, at 3s.	48	17	6
Repairs to Dobbins	114	7	2	Plant, &c., on hand	109	10	0
Repairs to Tools	51	15	1		100	0	0
Battery, &c.	107	4	8				
Profit on the Work for the above period	11	14	0				
	1989	6	7	Total	£4121	8	6
Total	£4121	8	6				

C. R. SWYER, C.E.,
Provincial Engineer.

On the 30th January last I received instructions to prepare plans, &c., for a further reclamation from Otago harbor, extending from the north side of Jetty-street Jetty to the Anderson's Bay road. This will include an area of $15\frac{1}{2}$ acres. I estimate the probable cost of the work, including the embankment, pitching, culverts, &c., at £30,216. Tenders have been called for, and will be received on the 11th April. If an advantageous tender is received, I cannot too strongly urge upon the Government the desirability of at once proceeding with the work. Independently of the immense advantage in a sanitary point of view of getting rid of a great area of stagnant mud flat, the value of the reclaimed ground would, without doubt, realise an equal profit to that already disposed of.

It has been argued that the reclamation of the mud flats around Dunedin will seriously interfere with the tidal current, and that the consequence of the decreased volume of water passing along the channels and through the Heads will be a considerable silting on the bar, &c. Now, supposing the whole authorised reclamation, viz., 54 acres, 327 square yards, to be completed, it would equal 261,687 square yards, and the total area of the space included within Otago Harbour, or between Dunedin and the Heads is 11,939 acres or 57,784,760 square yards. The rise and fall of the tide is about 5 feet 3 inches, or equivalent to 101,123,330 cube yards of water which, at every tide finds its way through the passage at the Heads. Comparing therefore the quantity of water (457,951 cube yards) displaced by the proposed reclamation with the total quantity contained in the Harbour, the diminution in consequence of the reclamation is so inconsiderable as to be scarcely appreciable, being equal to 0.45 per cent. or one gallon from every two hundred and twenty-one gallons at present flowing out at the Heads.

Rattray-street Pier.

On the 16th March I received instructions to form and metal the Rattray-street Pier to its permanent level. This work is in progress, by day labor, at rates of wages varying from 5s. to 8s. per diem, according to the abilities of the various workmen employed. Further instructions have been verbally received to form, pitch and metal Water-street and Bond-street. I estimate the cost of these works at £994.

Jetty-street Jetty.

Since the date of my last Report the sum of £357 4s. 6d. has been expended on various repairs and additions to this Jetty. This sum includes removing a 30 cwt. crane from the Old Jetty to a new staging constructed for it alongside the New Jetty. In accordance with my suggestions, I received instructions on the 14th December to prepare plans and specification for the supply of water to the extreme end of the Jetty. On the 11th January a contract was entered into with Crawshaw and Co., to carry out the work for the sum of £378. I expect the contract will be completed on or about the 20th of this month.

The want of Landing Stages on either side of this Jetty is increasingly felt. I would again direct your attention to the suggestions contained in my report of October 1862, again referred to in my report of September 1863.

Stuart-street Jetty.

Since my last report the sum of £13 16s 2d has been expended.

On the 5th April I received instructions to supply and fix fender piles and mooring hooks, and to finish the planking at the end of the Jetty. These works are in progress by day labour, and the cost will be about £643.

Dunedin Old Jetty.

The sum of £50 9s 4d has been expended on repairs. Instructions were received on the 2nd April, to repair portions which were in a dangerous state. These repairs are in progress.

Pelichet Bay Jetty.

The sum of £6 17s 4d has been expended on repairs to this Jetty. No steps however has been taken to remedy the inefficiencies complained of in my last report

Moeraki Jetty.

A contract was entered into with Mr. George Smith on the 22nd May, 1863, for the sum of £977. As stated in my last report, bad weather prevented the contractor from finishing his work within the contract time, which was extended by the Government to the 2nd October. The final certificate was not, however, granted for the work until the 26th March, 1864. The total amount paid has been £977; the penalties for non-completion being remitted on my recommendation, as Mr. Smith had been already a loser by his contract.

A considerable amount of misunderstanding did, and probably does exist respecting this Jetty. It has been stated that it is inefficient, but it should be borne in mind that the portion already completed, is only the commencement of a Jetty, and was arranged to meet the vote of the Provincial Council, viz :—£1,500. My estimate for the work was £1,445 2s. 8d.. Twelve tenders were received, the lowest being £977, the highest £2,500. Three tenders were respectively £1,418, £1,455, and £1,494, shewing that my estimate was tolerably near the real value of the work. At present there is a depth of six feet at low water at the end of the timber staging; an extension of 264 feet would carry the Jetty into eleven feet at low water, and over a reef of kelp rocks, which at present render the Jetty unavailable for steamers or large vessels. The above mentioned line of rocks could not be avoided by any alteration in the direction of the Jetty. The smaller coasting crafts regularly load and discharge alongside in all weathers with ease and safety. I have thought it necessary to say thus much on the subject, in order that the erroneous impressions which may have existed may be dispelled.

Molyneux Jetty.

A contract was entered into with Mr. D. McLellan on the 25th April 1863, to carry out a portion of a Jetty or Wharf for the sum of £310. The final certificate was granted on the 8th January 1864. The total amount paid on account of this work has been £299 13s. 4d. The sum of £10 6s. 8d having been deducted for sundry small items not completed.

Port Chalmers Jetty.

The sum of £54 5s. 4d. has been expended on repairs. The inadequacy of the existing Jetty to the requirements of the Port was alluded to in my last report, September, 1863.

On the 5th of the present month, I received instructions to provide and fix 3 fender piles to this Jetty, and repair some broken piles, &c. The attempt to draw the piles resulted in their giving way or parting in the middle, disclosing the fact that the piles are almost entirely eaten away by a worm called the "Teredo navalis." At the time the piles were driven, viz., in June 1862, they were supposed to be black pine, they are however of mero, they have been in the water one year and ten months, and from the extraordinary rapidity with which these creatures carry on their operations I fear the whole of the present Jetty will give way, in six months from the present date.

Molyneux Punt.

As stated in my report of September, 1863, the dangerous state of the punt then in use at the Molyneux Ferry rendered it necessary that an efficient structure should be placed on the river as soon as possible. The form of punt I designed for this ferry has been found to answer in a most satisfactory manner. The guiding wire has been elevated to a height giving 30 feet clear headway over the summer flood line.

New approaches and jetties, with travelling platforms, have been erected on the north and south sides of the river, so as to render the approaches from the land to the punt easy at all states of the water level, that is so far as the variations in the water level enabled the operatives to work at the time the jetties, &c., were being constructed. I believe, since the control of this work has passed into the Marine Department the water has fallen lower than it ever did during the time I had charge. But it will be only necessary to lengthen the jetties to meet the reduced level of the water. The cost of the punt, &c., has been as under :—

	£	s.	d.
Punt	1410	15	11
Cost of wire	60	5	0
Elevation of wire, posts, winch, &c.	351	13	1
Approaches	1225	2	3
Total	£3047	16	3

The above work was carried out by day labor, and under peculiar difficulties. I am opinion that, with the experience already gained, the same work might be completed for at least 25 per cent. less, or for, say, £2,300.

I am aware that punts on a similar principle have been tendered for, under the direction of the Marine Engineer, at the Beaumont and Teviot Ferries, the lowest tender in each case being respectively £4,015 and £6,600. This does not, however, alter my opinion. Contractors who have never carried out similar works are naturally timid, and attach a large margin to their tenders to cover contingencies,

In connection with the Molyneux Ferry, a weigh-bridge capable of weighing from 4 lbs. to 10 tons has been fixed on the north side of the river. The cost, including office, &c., has been £452 9s. 6d.

In accordance with instructions received from the Secretary of Public Works on the 24th December 1863, I handed over all plans and documents referring to Jetties, Piers, Wharfs, Punts, and Harbor Works to the Marine Engineer, and as this gentleman is now responsible for such works, it is needless for me to make any further remarks or suggestions therewith.

Bridge over Tokomairiro River.

On the 27th May, 1863, a contract was entered into with Mr. J. R. Ross, to complete the work by the 27th October 1863, for the sum of £1073 2s. The contract specified that the piles should be of black pine, totara or blue gum. The contractor having substituted inferior wood known as "Mero" for black pine, a deduction of £100 has been made. The total amount paid on account of this work is £924 9s.

Bridge over Waikouaiti River.

Surveys were made and borings taken on the site of the proposed bridge, plans and specifications were prepared, and tenders received on the 1st February 1864, the lowest being £1995 10s, from James Bruce of Oamaru. The highest tender was £3897 18s. Mr. Bruce's tender was accepted to complete the work in six months from the date of acceptance. Nothing has been paid on account of this contract.

Bridge over the Kaitangata Creek.

On the 27th May, 1863, a contract was entered into with Mr. David Proudfoot to erect this bridge by the 27th August, 1863, for the sum of £529 3s. The severity of the weather rendered it necessary to extend the time to the 8th October, 1863. The work has been satisfactorily completed, and the total amount paid has been £529 3s.

Bridges over the Waipahi and Waikoikoi Rivers.

On the 9th May, 1863, a Contract was entered into with Messrs. Barnes and Sigley, to erect these Bridges by the 9th August, 1863, for the sum of £1995. The information as to the height of the flood line received at the time of making the Survey having been proved to be incorrect, and the position of the bridges having been altered by the Road Engineer, it was found necessary to raise the level of the roadway, and to increase the strength of the abutments and wing-walls. These alterations involved an extra expense of £1190 3s. 3d. The works were completed on February 9th, 1864, and the total amount paid on account of these bridges is £3185 3s. 3d.

Having received instructions on the 27th February, 1864, to hand over all documents relative to bridges completed and under contract, to the Road Engineer; it is unnecessary for me to make any further remarks.

MISCELLANEOUS.

Hulk, Thomas and Henry.

A contract was entered into on the 27th February, 1864, with Messrs. T. and W. Stone, to complete certain alterations and additions, for the sum of £560 on the 27th April, 1864. The sum of £160 has been paid on account.

Weighbridges for Jetty-street Jetty, and Stuart-street Jetty.

On the 18th January, 1864, a contract was entered into with Mr. M. Sholl, for the supply and erection near the Jetty-street Jetty, of a Weighbridge, capable of weighing up to ten tons, and for the removal of the old weighbridge to the Stuart-street Jetty, for the sum of £225. The amount paid on account of these works is £185 7s. 6d.

Cranes.

On the 16th January 1864, a contract was entered into with Alexander Cairns and Co. for the supply of one crane capable of lifting five tons, and one to lift three tons for the sum of £553. The sum of £250 has been paid on account of this Contract.

Lighthouses.

Surveys, levels, plans, and working drawings were prepared for the Lighthouse at Tairoas Head, and for the Leading Lights for the harbor entrance. According to instructions received on the 20th November 1863, all documents connected with these works were handed over to the Marine Engineer.

Telegraph Posts.

Plans and specifications were prepared and a contract entered into with Mr. McKenzie for the supply and erection of Posts between the Clutha and Waitaki rivers by the 15th of June 1864, for the sum of £6270.

Plans and specifications were prepared, and tenders received on the 18th January, 1864, for the supply, delivery, erection and maintenance of posts between Tokomairiro and Wakatipu Lake. Seven tenders were received, the lowest being £9,114, the highest £14,229. The tender of Mr. Henry Hill (£9,114) was accepted.

On the 20th January, 1864, the supervision of these contracts was, in accordance with instructions, handed over to the Road Engineer's Department.

South Dunedin Recreation Ground.

The plan for the drainage of this swamp has proved very successful. On the 16th February, 1864, I wrote, stating that I considered it necessary to introduce 100 lineal yards of 12-inch earthenware piping, in order to preserve the low water level for the drainage, the estimated cost being £75.

Not having received any reply to this communication, and finding that it was contemplated to remove the sluice gates and valves to the old outlet, I wrote on the 18th March, stating my objections to such a procedure. On the 28th March, I received a reply, informing me that the management of the ground had been handed over to the gardener, who would be held responsible for carrying out the plans for its improvement.

Dobbins—Bell Hill Works.

On the 1st February, 1864, a contract was entered into with Mr. James Buchan for the supply of six dobbin carts for the Bell Hill works, carried on by prison labour, for the sum of £18 10s each. £114 7s. 2d. has been paid on account of this contract.

Railway to Port Chalmers.

On the 23rd February, 1864, I received information that the Government had agreed to place my services at the disposal of the Commission on Roads, and authorising me to expend the sum of £100 on a preliminary survey. In accordance with instructions I have been engaged in the preparation of a plan, section, and estimate for this work.

As the consideration of the proposed "Dunedin and Port Chalmers Railway" will form the subject of a special report to the Commissioners on Roads. I need not here further allude to the matter.

Reports on railways generally have been furnished to the Commission, which, I presume will, in due course, be laid before the Government.

The Architectural Works carried out in my Department have been as follows :

Volunteer Shed.

The roof of this building (designed by Mr. Jackson) having been damaged in a gale, the sum of £35 8s 5d, was expended in rendering it secure, the work being carried out by day labour.

Hospital Additions, Dunedin.

A contract was entered into for £104, with William Marris & Co., on the 28th December, 1863, for the removal and re-erection on the Hospital Grounds of two of the guard rooms formerly occupied by the military. The sum of £405 9s 3d has been expended in making approaches, lowering gates, cottage, &c., building water closets, and making other additions and repairs.

H.M. Gaol, Dunedin.

Sundry materials amounting to £215 4s 11d, were supplied for use in additions to mess room, the work being performed by prison labor.

Provincial Government Buildings.

The sum of £1889 15s 10d has been expended in additions, alterations, fittings, fencing &c., at the offices of Treasury, Marine Engineer's, Superintendent, Provincial Secretary's, Provincial Council, Land, and Survey Departments. The whole of this work has been performed by day labor, with the exception of the alteration of Survey Office.

Immigration Barracks.

The sum of £69 16s. 2d. has been expended in alterations, tanks, &c., the work being performed by day labor.

Geological Survey Buildings.

The sum of £324 14s. 8d. has been expended on additions to Cottage-house for instruments, specimen cases, and other fittings, the work being performed by day labor.

Pilot Stations.

The sum of £80 14s. 3d. has been expended on alterations and repairs, the work being performed by day labor.

Port Chalmers School.

A Contract was made on the 31st March, 1864, with S. W. Woods, for the sum of £295 to complete certain additions on the 5th May, 1864.

Boat Shed at the Heads.

A Contract was made on the 12th February, 1864, with Wm. Marres & Co. for the sum of £127 16s. to complete the work on 11th March, 1864.

Harbor Offices, &c.

A contract was made on 1st February 1864 with James McMichael for the sum of £596, 12s. to complete the work on the 11th April 1864. The sum of £119, 7s 7d. has been paid on account.

Signal Station Port Chalmers.

Plans and Specifications have been prepared and Tenders called for.

Workshops and Store Yard.

The sum of £35, 17s 5d. has been expended by day labor.

Military Barracks.

The sum of £4, 10s 11d has been expended by day labor.

Monument to the late Capt. Cargill.

A contract has been entered into with John Young for the sum of £1515, to complete the work on 3rd December 1864. The sum of £26, 10s. 6d. has been paid on account. The balance of the vote of £2000 will be required for railing, &c.

Dead House, Port Chalmers.

A contract was made with George Connor on the 13th November 1863, to erect the building for the sum of £117. The amount has been paid

Central Police Station.

The sum of £180 8s. 5d. has been expended in repairs which have been performed by day labor. Plans and specification were prepared for additions and alterations, and tenders received on 14th March, 1864, but as the tenders were in excess of the amount voted, the matter has been deferred.

District Police Stations.

The sum of £4,409 1s. 0d. has been expended as follows :

Lake District	...	...	...	2,392	1	11
Cartage and erection of house at the Pyramids	...	...	...	34	10	0
Removal of station, Kaitangata	...	...	...	15	0	0
Arthur's Point, Shotover	...	...	...	55	10	0
Skipper's Gully	...	...	...	85	0	0
Mount Ida, stable, &c.	...	...	...	168	13	0
Miller's Flat	...	...	...	250	16	0
Kawarau	...	...	...	648	5	5
Hogburn lockup	...	...	...	162	0	6
Molyneux Ferry	...	...	...	97	2	3
Arrow River, lockup	...	...	...	280	0	0
Waikouaiti	...	...	...	15	18	0
West Taieri, lockup	...	...	...	123	14	3
Waitahuna	...	...	...	9	17	3
Tokomairiro	...	...	...	70	12	5

Court House, Port Chalmers.

Plans and specifications were prepared and tenders received on 25th January, 1864. The tenders were in excess of the amount voted, and the matter has been deferred.

Court House, Oamaru.

The contract of George Gemmell having been completed in an unsatisfactory manner, he has been called upon to rectify the defects complained of, but has hitherto neglected to do so. It is intended to cause the requisite alterations to be made at his risk and expense. A balance of £49 10s. of his contract sum, besides an amount due for extras, remains unpaid.

The sum of L18 15s. has been paid for fittings, &c.

Court House, Waikouaiti.

The sum of L12 11s. has been expended in certain alterations.

Court House, West Taieri.

A contract was entered into with Robertson and Chisholm, for the sum of L118 5s., on the 22nd February, 1864. Date of completion, 4th April, 1864.

Court House, Molyneux.

A contract was made with James Knox, on 17th November, 1863, for the sum of L398. The work was completed on the 28th March, 1864; a further sum of L95 having been expended on furniture and fittings.

Court House, Dunedin.

The sum of L149 0s. 4d. has been expended by day labor in repairs, &c.

Resident Magistrates' Court.

The contract of Robert Fenwick for the erection of this building was completed on the 14th October, 1863, and the balance, amounting to L406 19s. 6d., including extras, was paid to him. A contract was made on the 26th October, 1863, for the restoration of the building which had been damaged by fire. The amount of this contract was L364, and the deductions amounted to L10. The work was completed on the 21st December, 1863. A contract was made with James Reynolds, on the 23rd January, 1864, for the sum of L89 18s. A sum of L54 5s. 7d. has been paid on account. A contract was made on 21st July, 1863, with James M'Michael, for fittings, amounting to L181 4s. 6d. The deductions amounted to L22 2s. 9d. The work was completed on 17th September, 1863. The sum of L122 13s. has been expended in day labor, for erecting fittings, &c.

Court House, Tokomairiro.

The tender of James Dickson was accepted on 21st March, to complete the work in ten weeks for L509 4s.

High School Dunedin.

The contract of M'Kay and Goodfellow to complete the additions for £8553 has been proceeded with, and the sum of £5513 7s 11d has been paid on account. The sum of L42 10s 1d has been expended on day labor.

North Dunedin School.

The foundation on which this building was placed being found defective, it has been necessary to take down and re-construct the greater part of the School. The original structure was not designed in my Department.

The sum of L414 3s 5d has been expended in re-erection, repairs, &c., by day labor.

Middle Dunedin School.

A contract was made with William Geggie on 17th November 1863, for the sum of L2,352. The work has been proceeded with, and the sum of L769 8s 6d paid on account.

South Dunedin School.

Plans and specification were prepared of similar design to the Middle Dunedin School. The works have not been carried out by my department.

Caversham School.

The Contract of Duncan Jackson & Co. was completed on 22nd September, 1863, and the sum of £276 was paid within the period embraced in my report. The turret having been much shaken, and the walls injured by an incautious mode of ringing the bell, was overthrown in a violent gale of wind. A sum of L31 5s. 8d. has been expended in its restoration. A contract was made on the 16th January, 1864, with William Marris & Co. for fencing, &c. The sum of L65 7s. 7d. has been paid for contract and extras.

Green Island School.

The School Building is found to be very defective; and will require a considerable expenditure to restore it to a sound condition. The design was not prepared in my department. A Contract was made on the 14th December, with Hight and Kennedy for fencing, &c. The work has been proceeded with. The sum of L3 14s. has been expended in repairs, &c.

East Taieri School.

A contract was made with John Gray on the 28th March 1863, for £998, 10s. The works (including extras) were completed on the 6th October 1863, and a sum of L307, 10s. has been paid during the period embraced in this report. Tenders were received 8th December 1863, for fencing &c. None was excepted.

West Taieri School.

A contract was entered into with John Beck on 7th April 1863 for the sum of L707, 10s. The work was completed on the 19th January 1864 and the sum of L282, 10s. has been paid during the period embraced in this report. Plans and Specifications were prepared and Tenders called for Fencing &c., but none were received.

Tokomairiro School.

The contract of John Beck was completed on 6th October 1863. The sum of L307, 4s. 8d. of which L59, 4s. 8d. was for water closets &c. has been paid during the period embraced in my report.

Tenders for fencing &c. were received on 11th January 1864 but none was accepted.

Saddle Hill School.

Tenders were received for fencing, &c., on 11th January. None was accepted.

South Clutha School.

A contract was made with McKinley & Meikle on 5th February 1864. for the sum of L464. The work has been proceeded with. The sum of L20, 1s 3d. has been paid during the period embraced in my report, being balance of contract of Robert Mercer & Co.

Warepa School.

The sum of £49 19s. 0d. has been paid during the period embraced in my report for balance of contract of George Polson, for fencing, &c.

Moeraki Bush School.

The sum of £29 8s. 4d. has been paid during the period embraced in my report, for balance of contract of James Stephenson, for fencing, &c.

Oamaru School.

Tenders for fencing, &c., were received on 11th January, but none were accepted.

Oamaru Schoolmaster's House.

A design for a stone building was prepared, but it was afterwards determined to erect the structure in wood. Plans and specifications were prepared for a wooden building, and the tender of David Brunton, to complete the work in three months from the 4th April has been accepted. Amount of contract £516.

Waihola School.

A contract was entered into with Robert Bell for additions and repairs to school and Master's house, and fencing reserve on 29th June, 1863, for the sum of £99. A further expenditure of £43 15s. has been incurred. The work was completed on 1st December, and the sum of £142 15s. paid.

North Taieri School.

A contract was entered into with H. C. M'Cormack on 15th December, 1863, for erecting School and Master's House for the sum of L687 8s. before 23rd March, 1864. The sum of L549 18s. 5d., has been paid on this contract.

Blueskin School.

A contract was entered into with Cannon and Co. for erecting School and Master's House for the sum of L561 16s. on 10th December, 1863. The sum of L313 2s. 8d. has been paid on this contract.

Lower 'Waipori School.

A contract was entered into with John Beck, on 10th December for erecting School and Masters's House for the sum of L648. The sum of L380 10s. 5d. has been paid on this contract.

Schoolmasters' Residences in Dunedin.

A contract was entered into with Charles Nees on 1st February, 1864, for the erection of three Schoolmasters' Houses for the sum of L1398. The sum of L245 10s. 5d. has been paid on this contract.

Waikari School.

A design was prepared, but the works have not been carried out in my Department.

Campden School.

A contract was entered into with John Prosser on 1st February for the erection of the building by the 25th April 1864, the amount of the contract being £578 0s 8d.

Campden Schoolmaster's House.

A contract was entered into with Thomas Harman and Co., on 12th February, for the erection of the building for the sum of L498 16s. The work to be completed by 12th April, 1864.

Hospital, Tuapeka.

The sum of L126 11s 5d, has been expended in additions &c., by day labor.

Hospital Dunstan.

The sum of £77 18s 9d, has been expended by day labor.

Hospital Lake Wakatipu.

The sum of £2,414 1s 5d, has been expended by day labor.

Hospital Reserve Works.

The sum of L13 9s. has been expended by day labor.

Temporary Lunatic Asylum.

A contract was made on 6th February, with A. and T. Burt, for the erection of a force pump, for L27. The sum of L21 12s. has been paid on account. The sum of L1003 1s. 2d. has been expended in additions, the work being done by day labor.

Powder Magazine.

The sum of L180 13s. has been expended in forming a Magazine in the rock near Anderson's Bay, and in an adjusted balance of Currie and Co.'s contract.

Goldfields' Buildings.

The sum of L4501 11s. 6d. has been expended as follows, viz. :—

	£	s.	d.
Lake district	3433	9	4
Dunstan	36	18	0
Waitahuna	156	17	7
Tuapeka	78	15	11
Mount Benger... ..	432	7	6
Manuherikia	42	0	3
Kawarau	194	7	6
Hindon	72	6	5
Nevis	20	6	0
Gow's Creek	34	3	0

Toll Houses.

A contract was made with Charles Nees on the 9th December, 1863, for the erection of seven toll houses and bars for the sum of L2085 ; the sum of L1408 17s. 1d. has been paid on account.

Miscellaneous.

The sum of L515 9s. 11d. has been expended by day labor in fittings of Court for meeting of Provincial Council, repairing front of Webb's bonded store, and fittings of offices rented by Government.

I have the honor to be,

Sir,

Your obedient servant,

C. R. SWYER, C. E.
Provincial Engineer.

The Secretary of Public Works.

XI.—GEOLOGICAL SURVEY DEPARTMENT.

Geological Survey, Otago, New Zealand.

Dunedin, 13th April, 1864.

SIR,

I HAVE the honor to communicate (in compliance with Circular No. 25) a report of the work done in this department, for the period of eighteen months, up to the 31st December, 1863, my protracted absence in the field having prevented my furnishing any report of progress since that dated 25th September, 1862.

I also beg to enclose reports on the coal and building stones of the Province, in anticipation of the general account of the geology of the Province of which they form a part, as the results they contain may have immediate practical value.

The work done in this department may be classed under the following heads, viz :—

Fieldwork.
Laboratory.
Museum.
Meteorological.

Fieldwork.—The detailed geological examination of the coal-bearing districts of Green Island and Shag Point, which was in progress at the date of my last report (Sept., 1862), has not been satisfactorily completed from want of properly-qualified assistants, my own time having been necessarily employed in extending the preliminary geological reconnaissance into the more remote districts of the Province. In prosecuting this work in the month of November, 1862, I made a hurried journey to the interior of the Province, visiting the Wanaka and Wakatipu Lakes, which latter was at that time comparatively unknown. A short account of this trip and the opinion I then formed of the Lakes district as a goldfield, was communicated to Government immediately after my return.

In anticipation of joining the expedition to the West Coast, which had been proposed by the Chief Surveyor, further examination of the interior was discontinued during the earlier part of the summer, but this time was not altogether lost, as the Industrial Exhibition, which took place in the end of December, gave an opportunity of arranging and exhibiting to the public the collection belonging to the department.

As soon as it was found that the above expedition was to be delayed for another year, arrangements were made for exploring the mountains in the north-west portion of the Province during the remainder of the summer.

January, February and March were occupied in the examination of the mountains west of the Wanaka Lake, and in crossing the range by a lofty and nearly impracticable pass leading from the head of the Matakītiki to a large river which I discovered to flow into Jackson's Bay, and which I have since learned from the Maories on the West Coast is known to them as the Terrehwhatta.

The general narrative of these explorations has already been made public, and the geological and physical observations will form an interesting portion of a more general report.

In April an attempt was made to examine the western ranges from the Wakatipu Lake, by the valley of the Greenstone River; and, accompanied by Mr. Von Tunzelmann I reached so far as to satisfy myself that a depression occurred in that part of the Alpine chain, by which an easy route might possibly exist, but owing to bad weather and a short supply of provisions we had to return without reaching the western slope.

From May 1863, until the end of the year, I was engaged in the exploration of the West Coast of the Province by sea, the principal results of which have already been published. During this period, however, I had the advantage of securing the services of Mr. Hackett, as Field Assistant, and employed him in collecting specimens of the rocks from the various localities in the Eastern district, which I had previously examined and roughly mapped.

The work he performed with efficiency, and in addition to the large collection of specimens (700) of rocks and fossils which he made, he has furnished me with a careful report, full of original and valuable information, which will be submitted along with the general report of the Geology of the Province, which is in course of preparation.

His valuable report on the Moke Creek copper lode has already been published in *Gazette* (Vol. VIII. No. 288.). As the delineation of the form of the Wakatipu Lake basin would tend to throw light on the manner in which these rock-bound valleys had been formed, in October last I instructed him, in addition to his Geological Survey duties, to make a series of soundings of the waters of the lake, employing the same simple method that I had used in obtaining contours of the inlets of the West Coast. The results obtained, although not yet so complete as I wish them to be, are nevertheless full of interest as will be seen from the annexed account of his operations, which I submit in anticipation of the rest of his report. From his observations, the Valley of the Lake is evidently a clearly marked example of Glacier erosion, and is strictly analogous to any of the sounds on the West Coast.

Geological notes sections and specimens have now been accumulated from every part of the Province, with the exception of a small district to the South of the Clutha River, and another to the west of the Waiau, so that I hope shortly to publish a sketch map of the Province geologically colored and accompanied by illustrative sections. This work however, must only be looked upon as preliminary as it can only be an approximate delineation of the structure of the country, no minute geological survey having yet been made of any part of it, nor perhaps would a very minute geological survey be of much practical use excepting in the case of those districts where extensive deposits of brown coal prevail.

There are however, extensive tracts of country which still require careful examination on account of the probability of their containing minerals of commercial value, and to effect this will be the principal object of the field work in future, in addition to the survey of the districts which are yet unexamined.

EXTRACT FROM MR. HACKET'S REPORT.

The soundings of the Wakatipu Lake were commenced on November 24th, and continued to the 26th December, but were interrupted several times by high winds and a heavy sea. During the bad weather it was of course impossible with so small a boat to obtain correct soundings, but the few days of calm weather enabled me to make a great number of exact observations. According to your instructions, the line made use of was common thin twine, wound round a wheel one fathom in circumference. The weight attached was about six pounds, which by means of the thin twine, could be distinctly felt when it touched the bottom. The soundings were thirty in number, which as shown in the accompanying section, (which will be hereafter published), tend to prove that the bottom of Lake Wakatipu is a plateau. In its transverse section, it extends from near either side perfectly horizontal, and in its longitudinal axis, there is a gradual deepening towards the base of the 'Remarkable mountains.' At this place there is a level depression where, for several miles the lead casts show the same depth and then gradually rise. The depth opposite the Von being 195 fathoms, at Half-way Bay, (26 miles distant,) 211 fathoms, the intermediate depth being 216 fathoms.

The gradient of the bottom in the deeper line of soundings averages 12 feet in a mile, but some parts show a less inclination.

At the two extremities of the Lake, its bottom has the greatest inclination, the sounding, one mile from the head of the Lake being 62 fathoms, and one mile from Kingston 66 fathoms.

The deepest part of the lake, viz., from the entrance of the S.E. arm, opposite Rat Island, and down that arm in the face of the "Remarkables," is particularly flat, the soundings ranging from 216 to 211 fathoms for a distance of more than 12 miles.

From this deep plateau the rise towards Kingston is more rapid than towards the head of the lake. This might be accounted for by the absence of rivers of any size bringing debris into the lake, as it is the case at its northern extremity. All the rivers of any magnitude, as the Rees, Dart, and Greenstone, having their embouchures near the head of the lake, must necessarily influence to a considerable extent the depth of the lake by the enormous amount of accumulated deposit, which in course of time their waters have brought down.

From the foregoing data it is evident that the lake was formerly a continuation of the valleys of the Dart and Rees rivers, into which ran the Greenstone, Von, and probably at one time also the Shotover, and that these waters had their exit by the Mataura Gap at Kingston.

To assist in the explanation of the causes which have led to the change, I may mention the fact of having found boulders of greenstone rock on the borders of the lake near Queenstown, and even at Kingston, and on the terrace between it and the Mataura River, which boulders and pebbles could only have come from the Greenstone River—at least I have not been able to discover this rock *in situ* elsewhere near the lake.

It is very probable that even now, part of the water of the lake flows down its original bed, viz., through the shingle terrace at Kingston into the Mataura, as we have ample evidence of this terrace being composed of porous material, there being a great number of small streams running on to it from the hills on either side, which water is mostly absorbed a few yards from the entrance of the stream on the terrace.

LABORATORY.

Since the retirement of my first assistant Mr. Wood from the Survey on account of ill health, in December 1862, the work in the Laboratory has been principally performed by the present assistant, Mr. Skey, and during my protracted absence from town, a large number of useful determinations have been made by him.

The following Summary of operations gives a list of all the analytical examinations which have been made during the period of which this Report treats, the results of which are ready for reference when required, and will be found embodied in special reports on coals, building stones, &c :—

SUMMARY OF OPERATIONS PERFORMED IN LABORATORY,
FROM 31ST SEPTEMBER, 1862, TO 31ST DECEMBER, 1863.

I.—QUANTITATIVE ANALYSIS.

Name.	Locality.
Freestone used in the High School...	Lookout Point
" " " "	Tasmania
Tuffstone	Peninsula Quarry
Yellow shining Mineral in Decomposing Basalt	Bellvue
I. Kaolin	Tuapeka
II. " " " "	"
Impure Kaolin	Manuherikia
Auriferous Quartz	Coramandel
Decomposed Basalt	Flagstaff
" " " "	"
Black Sand	Watakip Lake
Compact Limestone	Oamaru
Crystalline " " " "	"
Copper Pyrites	From J. Vogel, Esq.
Hematite	Western Mountains
Iron Pyrites	"
Freestone	Spring Bay
I. Coal	Newcastle N. S. W.
II. " " " "	"
I. " " " "	Molyneux } Top of Seam
II. " " " "	" } Part of 20 ft. Seam,
I. " " " "	" } Middle "
II. " " " "	" } Bottom "
I. " " " "	"
II. " " " "	"
" " " "	Grey River
" " " "	Canterbury
" " " "	Grey River
" " " "	Canterbury
" " " "	Shag Point
Freestone	Moeraki
" " " "	Hawksbury
Limestone	Oamaru
Serpentine	Milford Haven
Copper Pyrites	Per Escort
" " " "	"
Dunite	Nelson
" " " "	"
Basaltic Conglomerate	Port Chalmers
Aluminous Shale	Woolshed Diggings
Basalt	Bell Hill
" " " "	"
Black Sand	Stewart's Island

SUMMARY.— (Continued.)

QUANTITATIVE ANALYSIS.

Name.	Locality.
Black Sand	Stewart's Island
Trachytic Porphyry	Portobello
" "	"
" "	"
Black Sand	Manuherikia
" "	Saddle Hill
Basalt	Pine Hill
"	"
"	"
Greenstone	Blanket Bay
"	"
Porphyry	Mount Alta
"	"
Limestone	Chatham Islands
"	"
Basaltic Dyke in Slate	Dunstan
Lithographic Limestone	Oamaru
" "	"
" "	Survey Office
Fossiliferous Limestone	Oamaru
"	"
Limestone Conglomerate	" 3½ miles South
Specular Iron Ore	Dunstan
"	"
Siliceous Limestone	Waikouaiti
"	"
Freestone	Caversham
Basalt	Mt. Cargill
Pebble of Serpentine	Milford Sound
Maori Axe of Jade	Moeraki
"	"
Tufstone	Anderson's Bay
Lignite	Kaikorai Bush Reserve
"	"
Copper Ore	T. B. Gillies, Esq.
Maori Axe	"
Calcareous Sandstone	Caversham
Graphite	Nelson
Basalt	Station by Kaikorai
"	"
Calcareous Sandstone	Upper Harbour West, near And's. Bay.
Basalt	Kaikorai Stream
"	"
Vesicular Basalt	Kaikorai Valley

SUMMARY.—(Continued.)

II.—PARTIAL QUANTITATIVE ANALYSIS.

Name.	Estimation of	Locality.
Coal	Water	Shag Point
"	"	Saddle Hill
"	"	Molyneux
"	"	Green Island
Kaolin	Silica	Manuherikia
Gold	Silver	Coromandel
Coal	Water	Shag Point
"	"	Green Island
"	"	Molyneux
"	"	"
"	"	"
"	"	Waitahuna
"	"	Saddle Hill
"	"	Molyneux
"	"	Green Island
"	"	Molyneux
"	"	Saddle Hill
Basalt	Silica, &c.	Hill near Laboratory
" decomposed	Silica, Alumina, &c.	" "
Silicified Wood	Water	Blueskin
Copper Pyrites	Copper	Western Mountains
" "	"	" "
" "	"	" "
Basalt	Carbonic acid	Bell Hill
Copper Pyrites	Copper	Moke Creek
Hematite	Iron and silica	Helensburn
Magnetic iron	Iron, &c.	Western Mountains
Green opal	Water	Mount Charles
Basalt	Water and iron	Pine Hill
Opalised wood	Water	Blueskin
Copper Pyrites	Copper and insoluble matter.	Per Escort
Mica schist	Water	Western Mountains
Hematite	Iron	Helensburn
Copper Pyrites	Copper	Moke Creek

SUMMARY.—(Continued.)

III.—QUALITATIVE ANALYSIS.

Name.	Locality.
Iron Pyrites	Shag Point
Platina	Nelson
Coal Ash	Shag Point
"	Molyneux
Crystalline Tuff	Peninsula
Iron Pyrites	Green Island
Sand	Silver Stream
Iron Pyrites	Saddle Hill
Fireclay	Molyneux
Pyrites	Moeraki
"	Silver Stream
"	Shag Point
Spring Water	Hepburn's Creek
" "	Sheriff's Creek
" "	Helensburn
Chabasite in Basalt	"
Mispeckel... ..	Western Mountains
" "	"
Malachite... ..	Waitaki
Limonite	Western Mountains
Magnetic Iron in Pebble	" "
" in Slate Rock	" "
Magnetite in Quartz	Type specimen
Molybdenite	" "
Antimony Ore	" "
Chrome Iron Ore	Unknown
" " very impure	Waitaki
Serpentine	"
" with Chrome Ore	"
Serpentine	Near Milford Haven
Limestone... ..	Oamaru
Olivine in Vesicular tuff	Kaikora
" in Basalt	"
Silicate of Copper	Western Mountains
Thomsonite	Caversham Road
Alum Shale	Woolshed Diggings
Augite in Basalt	Roslyn
Jasperized Clay	Shag Point
Chrysolite	Western Mountains
Magnesia Rock	Do.
Selenite	Matanika Point
Metamorphic Rock	Mount Atta
Galena	Per V. Pyke, Esq.
Carbonate of Lime in Basalt	Sunny Side
Basalt	Dunstan
Galena	Do.
Carbonate of Lime	Roslyn
Hematite	Flagstaff
Quartz with Gold	"
Galena	Nelson
Manganesian Garnets in Gem Sand... ..	Wetherstone, (Bank N.S.W.)
Zircon	Timbril's Gully, Highlay
Augite in Limestone	Oamaru

MUSEUM.

Although as yet, no accommodation has been provided for the arrangement and display of specimens, a varied collection has been accumulated and roughly catalogued in connection with the Geological Survey of the Province, and it is greatly to be desired that a properly furnished Museum be speedily erected for their reception.

At present they are lodged in one of the Barrack Rooms, and are not only difficult of access for the purpose of reference, whereby the work is greatly delayed, but are also liable to damage. The erection of cases has however been commenced, in anticipation of a sufficient sum being granted for the establishment of a Museum, and by the time a proper building can be supplied, there will be a well-arranged, though small collection ready to occupy it.

The Mineral Specimens may be classed as follows :—

Typical mineral specimens procured in England for the Government, along with a collection from the Westmoreland mineral lodes—presented by Mr. C. S. Wood	...	...	...	...	206
Specimens of Nelson mineral veins, and of the rocks presented by James Hill, Esq., and of the West Coast, by J. Rockfort, Esq.	...	...	...	...	45
Rocks of the Chatham Islands, collected by Wm Mudie, Esq.	...	...	...	...	24
A large collection of Moa bones, principally collected by W. D. Murison, Esq.	...	...	...	...	...

OAMARU SERIES.

Tertiary fossils and rock specimens from Oamaru Cape	...	...	...	...	115
Oamaru limestone fossils, most of them presented by Mr. Hutchinson	...	...	...	...	93
Fossils from Waireka strata	...	...	...	...	82
" from Maruwenua	...	...	...	...	50
" from Caversham and Green Island	...	...	...	...	70
" from Hampden district	...	...	...	...	100
" from Waitaki Gorge	...	...	...	...	70
" from Tertiary limestone of the Wakatipu Lake	...	...	...	...	70

CARBONACEOUS SERIES.

Fossils from the Pomahaka...	...	...	...	...	30
" from Mataura Falls	...	...	...	...	10
" from Clutha	...	...	...	...	10
" from Shag Point	...	...	...	...	50
Unfossiliferous specimens of the Tertiary Rocks	...	...	...	...	72
Building stones	...	...	...	...	25
Coals	...	...	...	...	35
Clays	...	...	...	...	18
Limestones, including five for Hydraulic cement	...	...	...	...	22
Copper ores	...	...	...	...	7
Iron ores, including chrome iron and specimens of igneous rocks of the Eastern Seaboard	...	...	...	...	237
Schists of the Wanaka and Hawea Districts, presented by Mr. McKerrow	...	...	...	...	20
Specimens of the Metamorphic rocks of the Eastern part of the Province	...	...	...	...	30
Schists of the Wanaka Districts	...	...	...	...	44
" of the Kakanui Mountains...	...	...	...	...	40
" of the Dunstan District	...	...	...	...	50
" of the Wakatipu Lake	...	...	...	...	86
" of the Greenstone River	...	...	...	...	32

COLLECTION FROM THE WEST COAST,

Embracing Schists,—Micaceous, Feldspathic, Argillaceous, and Hornblende—Foliated Gneiss, Gneiss-Granites, Red and Grey Granite, Diorite, Porphyry, Felstones, Marble, Serpentine Nephrite, Grits, Sandstones, Shales and Coal—various materials and ores.

Total	510
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This makes a total of 2376 specimens, of which 2000 have been obtained within the Province. Among these specimens are, of course, many duplicates which will be ultimately rejected and exchanged for collections from other parts of New Zealand, whereby the utility of the Museum will be much increased.

The following is a list of minerals which have been ascertained to occur in the Province :—

			LOCALITIES.
1. Gold (native, nearly pure)	..	... ..	Moeraki.
Do. alloyed with silver	...	.. ..	Imbedded as grains in cin- nabar.
Do. alloyed with copper	...	... ..	Auriferous drifts.
2. Cinnabar, sulphide of mercury	...	... ..	In alluvial deposits on the Obefisk ranges.

Cinnabar is the most common ore of quicksilver or mercury. When pure it contains 86.2 per cent. of mercury and 13.8 of sulphur. The specimens which have come under my notice are tolerably pure, and should this mineral be found in quantity it would be most valuable. The reduction of the mercury is a very simple process, and could be carried on in the Province without complicated machinery.

3. Magnetite, magnetic oxide of iron	As black sand and rolled fragments in the alluvial drifts, as crystals and masses imbedded in the chlorite- schist and gneiss, and other metamorphic rocks.
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Should this be found in quantity (and in veins rather than the form of sand) it would constitute a most valuable ore of iron, it being the same from which the celebrated Swedish iron is manufactured. In districts where it co-exists with large supplies of timber a very superior charcoal iron might be made.

Hematite or Specular iron ore, do. red and brown	}	Peroxyde of iron,	As iron sand and as veins in the crystalline rocks and schists west of the Lakes.
Glaucosite, Silicate of iron.				...	... ..	In certain schists and in the middle tertiary or green sand series.
Iserine Ilmanite	}	Titaniferous oxide of iron	Black sand of various parts of the coast, and in some of the rivers.

From the examination of many samples of "Black Sand," it appears that this mineral is less common in this Province than in the North Island.

Brookite, Oxyde of Titanium	...	... ..	In trap at Otepopo.
Iron Pyrites, di-sulphide of iron	...	... ..	In schists, quartz veins, brown coal.
Marcasite, white do	...	... ..	In brown coal series.

The iron Pyrites occurring in the schistose rocks generally contains gold, and in some cases in sufficient quantity to render the extraction remunerative. (See the Results of Assays.)

Mispickel, arsenical iron	...	... ..	In diorite or magnesian felt- stone, Milford Sound ; also in alluvial drifts elsewhere.
Chromite, Chromic iron.	...	... ..	Milford Sound.
Vivianite, Phosphate of iron	...	... ..	As crystals in Moa bones.
Siderite, Carbonate of iron	...	... ..	In cavities in the contorted schists.
Sphaerosiderite	...	... ..	In basalts.
Clay iron ore	...	... ..	In brown coal series

This is the principal iron ore used in England, and is almost an essential to the manufacture of iron. Its presence should therefore be carefully tested. To be of any use, however, it must occur in large quantities, and be easily accessible.

Manganite, Oxyde of Manganese	...	... ..	Veins in the schist, and as rolled fragments in the alluvial drifts at the Kawa- rau and Clutha.
Rhodonite, Silicate of Manganese	...	... ..	Do. do.

Towanite, Sulphide of Copper	Moke Creek, in a lode.
Copper Pyrites, with iron	
Malachite, Green Carbonate of Copper	{ Waitaki, Pomahaka Kakanui Mts. ?
Silicate of Copper	Gneiss on the W. Coast, Milford and Bligh's Sound.
Cobalt bloom, Oxyde of Cobalt... ..	In schist and gneiss rocks on the West Coast
Scheelite, Tungstate of Lime	Found by Caples on the Rees River, Wakatipu Lake
Galena, Sulphide of Lead	In the Rough Ridge schists
Quartz (crystalized) }	In reefs, &c., in the schists
Do. (amorphous) }	
Agate (mixture of amorphous and crystalline quartz)	In the porphyritic rocks
Jasper	In volcanic rocks at Moeraki and Otepopo
Plasma (dark green, mixture of crystalline and amorphous quartz)	Do.
Chalcedony, (white, do)	Do.
Carnelian (red do)	Do.
Arragonite, do	In cavities in basaltic rocks.
Calcite, Carbonate of Lime	As marble and limestone and as crystals in tertiary rocks.
Gypsum, Sulphate of Lime	Crystalized in the Moeraki clays
Chlorite, Silicate of Magnesia, Alumina Iron and Water	{ In schists and amorphous in the vesicular basalt at Otogo Heads and elsewhere
Muscovite, Potash mica	In schists and gneiss
Biotite, Magnesian mica	West Coast
Margarite, Pearl mica	In schists and gneiss
Lepidomelane, Black mica	Do.
Garnet... ..	In the gneiss granite and quartzites of the W. Coast
Epidote, silicate of alumina, iron and lime ..	In the gneiss, granite and granulites of the West Coast.
Phrenite	In the trap rocks of Moeraki and Otepopo.
Felspar, silicate of alumina and potash	In all schists and crys- talline and basaltic rocks.
Labradorite	In the Flagstaff Hill trachy- dolorite.
Albite	In the diorites of the West Coast.
Tourmaline	In granite and gneiss of West Coast.
Lithia-mica	In marble of Thompson's Sound.
Lepidolite	West Coast gneiss.
Chrysolite, silicate of magnesia and iron ...	Basalts of Saddle Hill and elsewhere.
Olivine, do. do. with water	Milford Sound.
Serpentine do. do.	Do.
Nephrite jade or Maori greenstone	Milford Sound. Also 1 rolled pebble in Silver Stream.
Asbestos, fibrous hornblende	Do.
Steatite, silicate of magnesia, alumina and water	Milford Sound.
Schillerspar, do. with iron pyrites	West Coast.
Augite, silicate iron of lime and Magnesia ...	Basalts around Dunedin.
Diallage, silicate of magnesia, lime and iron ..	Dioritic rocks on the West Coast.
Bronzite, do. variety of do.	Do.
Hyperstheme	Do.

Hornblende, silicate of alumina, lime, magnesia and iron	Veins in syenitic and older trap rocks.
Tremolite, do. variety	In Milford Sound.
Chabasie, zeolite	In vesicular basalts near Dunedin.
Gmelinite ,,	Do.
Natrolite ,,	Do.
Mesolype ,,	Do.
Ozokerite, fossil resin	In the brown coals.
Graphite, plumbago	In the schists, and as scales or black lead in marble on the West Coast.
Kaolin, porcelain clay	Manuherikia Plains, Arrow River, &c.

HERBARIUM.

The botanical collection which has been obtained in the Province by Mr. Buchanan comprises over 4500 specimens—embracing about 650 distinct species of plants. The majority of these specimens have been transmitted to Dr. Hooker for the purpose of being described in his forthcoming Hand-book of the New Zealand flora. A complete set has been retained, however, to form a Herbarium for future reference in connection with the Museum—the specimens having been so arranged and numbered that the species can be accurately named from the lists which Dr. Hooker has kindly undertaken to furnish.

The number of species given above include 350 flowering plants; and as there are about 50 of the most common species that have not yet been collected, the total number of flowering plants in the Province may be taken at 400 species. As the total number in New Zealand is only about 800 species, we may therefore conclude that the collection is tolerably complete. The districts around Waikaiva and west from River-ton are now the only promising localities that remain for examination, but there is little prospect of these yielding much novelty.

The number of ferns which have been found is 80, and I believe there is hardly any chance of future additions being made to this number.

Of mosses, 160 species have been collected, among which there are many new; but in this class of plants Mr. Buchanan considers that there still remains an ample field for future discovery.

Only 60 species of lichens and algæ have been preserved; a large collection of these plants, which was made on the West Coast, having been destroyed through damp.

Although I consider that most of the plants in the Province have now been collected much still remains to be done in tracing the geographical distribution of the various species, for, although the area is small, it apparently embraces several local assemblages of plants, the study of which in detail cannot fail to throw much light on the various capabilities of soil and climate. As a marked instance of this local distribution, we may compare the flora of the West Coast, where there is a constant excess of moisture in the atmosphere, with that of the Wanaka Lake district, which lies close to the eastern base of our Alps, and where we get climatic conditions of a dry continental character, which could hardly have been expected to occur in any part of New Zealand. This difference of climate is very clearly indicated by an extreme divergence in the character of the flora, especially as regards the proportion which the lower orders of plants bear to the higher and which is approximately as follows:—

WANAKA LAKE DISTRICT.

Flowering Plants, 300 species. Cryptogams (exclusive of Fungi,) 80.

WEST COAST DISTRICT.

Flowering Plants, 250 species. Cryptogams (exclusive of Fungi,) 350.

The full extent of these local differences in the Flora, cannot however be ascertained until the species of plants have been critically examined by Dr. Hooker, but on the receipt of the lists, it will form a most interesting subject for future Report. The

only list of species which he has yet furnished is that of a small collection of Alpine Plants, which were obtained in the mountains in the neighbourhood of Mount Aspiring, at from 5,000 to 8,000 feet elevation above the sea level, and which with few exceptions had not been previously gathered in the Province.

It is as follows:—

(A) Previously Described.

Senecio Lyallii
 Geum parviflorum
 Caltha Novæ Zelandæ
 Euphrasia revoluta
 Euphrasia antarctica
 Forstera clavifera
 Forstera sedifolia
 Gingidium aromatica
 Drapetis Lyallii
 Pentachondra pumila
 Epilobium indeterminabile
 Raoulia tenincaulis
 Raoulia glabra
 Brachycome radicata
 Coprosma repens
 Raoulia australis
 Gunnera proripeus
 Epilobium confertifolium
 Cardimine hirsuta
 Dracophyllum rosmarina
 Ranunculus Sinclairii

(B) Plants previously discovered, but undescribed:—

Ranunculus Lyallii
 Raoulia Sutcliffei
 Haastia Sinclairii

(C) New Species.

Ranunculus Buchanani (Hooker fil: 1864.)
 Ranunculus (species yet unexamined)
 Ourisia " "
 Brazle Novæ Zelandiæ
 Veronica (species yet unexamined)
 Veronica " "
 Claytonia " "
 Pimelia " "
 Pratia " "
 Hectorella cœspitosa (Hooker fil. 1864).

Both from the Wanaka Lake District and the West Coast, live plants and seeds of a variety of flowering shrubs have been collected for cultivation, and some of them belonging to the following Genera will probably form graceful additions to the garden. Eurybia, Ranunculus, Hoheria, Carmichellia, Metrosideros, Weinmannia, Aciphylla, Coprosma, Olearia, Cassinia, Gaultheria, Veronica, Myosotis, Fagus, Senecio.

As part of the work connected with the Museum, I may mention in conclusion that about 200 illustrative drawings and sketches have been prepared principally by Mr. Buchanan, of scenery, birds, fishes, molluscs, plants and fossils, and that in addition to the tracing of the maps of the Survey Office for the use of this department, the following geological sketch sections have been prepared:—

1. From the Dunstan Ranges to the mouth of the Waitaki River.
2. Of Oamaru Cape.
3. Across the Otepopo Valley.
4. Showing the Junction of the tertiary series with the schists on the Otepopo River.
5. From the Chain Hills to the sea.
6. From the Taiari Plain to the mouth of the Kaikorai Stream.
7. From the Chain Hills to Flagstaff Hill.
8. Of the brown coal series between Coal Point and the Molyneux River.

9. Of the Goldfields from Tokomairiro River to the Lammerlaw Ranges.
10. Enlarged diagram of the "Tuapeka Diggings."
11. Strata at the Mataura Falls.
12. Of the passage of the argillaceous variety of schist into the highly contorted and quartziferous schist with which the gold is associated in Otago.
13. Tertiary strata on the upper Pomahaka.
14. Tertiary strata on the Manuherikia River.
15. Section of the Manuherikia Plains.

METEOROLOGICAL OBSERVATORY, DUNEDIN.

Since the establishment of the Meteorological Observatory, in September, 1862, the necessary observations, which have been unremittingly taken and reduced by Mr. Gore, have been published every month in the *Provincial Gazette*, and likewise daily in the newspapers.

As the results now give a continuous and reliable record of the weather for the period of fifteen months, up to the end of December, 1863, it may be perhaps advisable to give an abstract of the mean results, although the period is far too short to allow of our forming successfully any accurate deductions respecting the climate. The observations may be classed under these heads:—

1. The self-registering instruments which indicate the Maximum and Minimum Temperature of Air for the twenty-four hours, also the Solar and Terrestrial radiations, the mean degree of moisture, the total amount of water evaporation, the total velocity and pressure of wind that has passed over the place during the same period, and likewise the total rain fall. These instruments are recorded every morning at ten o'clock.

2. Observations are taken three times a-day, as recommended by the Board of Trade, at 9.30 a.m., 3.30 p.m., 9.30 p.m., when the atmospheric pressure, temperature of air, and temperature of evaporation are obtained, together with the necessary remarks on the wind and state of the sky; the velocity of the wind per hour at the time is taken and the corresponding pressure found. From the results of these observations, a correct comparison can be made between this and other climates.

3. On the 7th and 21st of every month, hourly observations are made of the same kind as those taken each day at the above periods, but during the whole 24 hours for the purpose of completing the diurnal curve of the phenomena for the reduction of exceptional observations made in the field at irregular hours.

The instruments used are of the best construction, and have been carefully corrected by the Kew Observatory Standards.

Up to the end of July last, the Observatory was situated close to the Geological Office, 350 feet above the sea level, but as it was found that a better situation would be desirable, especially with a view to getting a fairer average of the wind, the instruments were moved to the present site, 200 feet higher, where the force and direction of the wind can be obtained with accuracy.

Besides the daily reduction and tabulation of the results which involve much labor, the observer, as Meteorologist for the General Government, transmits every month to Auckland a full copy of the results accompanied by a sheet of curves which represents all the phenomena in the diagrammatic method required by the Board of Trade for comparison with those constructed by the Royal Engineers in other parts of the world.

As it is now well ascertained that the climate of Dunedin is very different from that experienced in many parts of the interior of the Province, it is highly desirable that meteorological observations should be recorded at various localities where Government Officers are stationed, for the purpose of comparison with the standard observations at Dunedin. The most suitable places for the establishment of these stations would be Queenstown, Dunstan, Tuapeka, Inch Clutha, Oamaru, and the Upper Waitaki Plains.

The instruments required, which would cost about £10 a set, are as follows:—

Two registering max. and min. dry bulb thermometers.

Two do. wet do.

One aneroid barometer.

One spare thermometer.

One rain gauge.

The indications of these instruments, if carefully recorded every morning about 9 a.m., accompanied by notes on the direction and force of the wind, and state of the sky, would afford all the necessary elements for comparing the climates of the Province.

If the expenditure for this purpose be sanctioned, and the services of observers secured, I will be glad to undertake the selection and fitting up of the instruments, and to draw up the form of register and the instructions necessary to insure a uniform method of observation. At these stations the observer's time would only be occupied for a few minutes each morning, as the records might be transmitted to this office at regular intervals, where the necessary reductions and comparative tabulation could be made, and the results prepared for publication.

Averages for the Year ending 31st December 1863.

		Reduced to the sea level and 32° Fah.	
Mean Atmospheric Pressure	29·819 inches
Extreme range of Barometer, from 30·581 to 28·901	1·680 "
Mean Temperature or Air	49°·5 "
Mean Temperature for winter months, April to September	45°·2 "
Mean Temperature for summer months, October to March	53°·1 "
Mean Elastic Force of Vapour	0·283 "
Mean Temperature of the Dew Point	43°·0 "
Mean Humidity of the Atmosphere Saturation = 1000	·685 "
Total Rain Fall	33·027 "
Total Evaporation	28·900 "

I.—Atmospheric Pressure.

Year	Month.	Mean reading for month.	Extremes.		Range.
			Highest.	Lowest.	
1862	October	Inches. 29·794	Inches. 30·364	Inches. 28·942	Inches. 1·422
"	November	29·851	30·330	29·445	·885
"	December	29·790	30·139	29·074	1·065
1863	January	29·944	30·349	29·105	1·240
"	February	29·882	30·581	29·277	1·304
"	March	29·960	30·337	28·990	1·347
"	April	29·826	30·274	29·320	·954
"	May	30·011	30·473	29·268	1·205
"	June	30·080	30·441	29·379	1·062
"	July	29·740	30·471	29·124	1·347
"	August	29·727	30·382	29·257	1·125
"	September	29·596	30·263	29·167	1·096
"	October	29·741	30·192	29·214	·951
"	November	29·595	30·268	28·901	1·367
"	December	29·736	30·142	29·307	·835

II. Temperature of Atmosphere.

Year	Month.	Mean for month.	Mean daily range of temp. in shade.	Extremes.	
				Highest Maximum	Lowest Minimum
1862	October	Fah. 46·3	Fah. 17·7	Fah. 70·4	Fah. 31·0
"	November	54·1	19·2	63·8	40·2
"	December	54·7	16·9	75·3	38·0
1863	January	57·7	19·5	84·7	42·0
"	February	58·4	18·6	89·9	40·0
"	March	55·2	17·2	79·7	42·0
"	April	48·2	16·4	74·4	33·2
"	May	48·0	16·5	71·6	33·5
"	June	43·7	15·0	67·2	31·1
"	July	43·2	13·9	62·9	33·0
"	August	41·5	13·5	62·0	32·0
"	September	46·8	15·2	67·9	31·0
"	October	43·2	14·4	68·7	36·5
"	November	50·8	16·9	74·0	38·5
"	December	52·6	16·5	81·2	36·0

III. Humidity of Atmosphere.

Year	Month	Mean Elastic Force of Vapour.	Mean Dew Point.	Mean humidity Sat. 1.000.	Total Evaporation for Month.
		Inches.	Fah.		Inches.
1862	October	.269	42.2	.730	3.82
"	November	.314	46.2	.670	3.74
"	December	.336	48.1	.700	3.97
1863	January	.369	50.6	.690	3.78
"	February	.364	50.2	.717	3.94
"	March	.352	49.3	.680	2.26
"	April	.282	43.4	.680	1.32
"	May	.264	41.7	.680	1.17
"	June	.220	36.9	.660	.91
"	July	.216	36.5	.686	.89
"	August	.229	38.0	.705	2.21
"	September	.226	37.6	.608	2.14
"	October	.270	42.3	.719	3.65
"	November	.285	43.7	.709	3.39
"	December	.318	46.6	.695	3.24

IV. Rain Fall and Winds

Year.	Month.	N. E.	S. E.	S. W.	W.	N. W.	Totals for each Month.
1862	October	.039	.064	2.205	.029	.275	2.812 inches
"	November	.587	.00	2.037	.000	.236	2.860 "
"	December	2.072	.90	1.324	.000	.040	3.326 "
1863	January	.615	.183	1.214	.00	.000	2.012 "
"	February	.098	.000	1.640	.390	.000	2.128 "
"	March	1.176	.000	1.193	.761	.000	3.040 "
"	April	.350	.000	1.063	.747	.150	2.250 "
"	May	.127	.000	.040	.172	.000	.339 "
"	June	.697	.000	.326	.335	.010	1.368 "
"	July	.603	.000	.039	.544	1.130	2.307 "
"	August	.349	.270	.510	.540	.010	1.679 "
"	September	.300	.000	1.031	.941	.010	2.282 "
"	October	1.992	1.367	2.210	.105	.000	5.674 "
"	November	2.008	.000	2.099	.000	1.197	5.302 "
"	December	.242	.000	3.584	.605	.215	4.640 "
		11.253	2.174	20.356	5.169	3.273	Totals from Oct. 1862 to Dec. 1863.

V. Number of Days on which Rain fell in each Month, with the Winds,

Year	Month.	E	S. E.	S. W.	W.	N. W.	Totals for each Month.
1862	October	2	1	13	1	4	21 days
"	November	2	0	11	0	3	16 "
"	December	10	2	7	0	1	20 "
1863	January	4	1	5	0	0	10 "
"	February	4	0	5	4	0	13 "
"	March	3	0	7	3	0	13 "
"	April	3	0	8	6	2	19 "
"	May	3	0	1	2	0	6 "
"	June	4	0	2	7	1	14 "
"	July	3	0	1	6	4	14 "
"	August	3	1	5	3	1	13 "
"	September	2	0	7	5	1	15 "
"	October	7	4	7	2	0	20 "
"	November	9	0	9	0	2	20 "
"	December	6	0	9	4	2	21 "
		65	9	9	43	21	Totals from Oct. 1862 to December, 1863

VI.—Direction of the Winds.

Year	Month	N.E.	S.E.	S.W.	W.	N.W.	Calm	Total, Days
1863	October	6	3	13	4	3	2	31
"	November	9	1	8	3	4	5	30
"	December	11	2	7	2	2	7	31
1863	January	12	2	7	3	2	5	31
"	February	12	0	6	4	4	2	28
"	March	8	0	9	5	3	6	31
"	April	4	1	9	10	4	2	30
"	May	7	0	5	9	3	7	31
"	June	6	0	4	11	3	6	30
"	July	4	0	3	10	5	9	31
"	August	4	1	5	10	1	10	31
"	September	3	1	6	9	6	5	30
"	October	12	2	5	4	3	5	31
"	November	7	4	6	4	4	5	30
"	December	7	3	10	5	4	2	31
"		112	20	103	93	51	78	{ Totals from Oct. 1862 to Dec. 1863

VII.—The Pressure and Velocity of the Wind has only been taken for following Months.

Month	Mean Vel. per hour, taken from 10 a.m. Observations.	Extreme Velocity observed in month.	Corresponding pressure in lbs. on square foot.	
1863	Miles	Miles		
August	8.4	30.5	.30	4.2
September	8.4	45.0	.30	9.1
October	7.1	21.5	.20	2.0
November	6.6	33.0	.20	5.0
December	8.3	38.5	.30	6.8

VIII.—Meteorological Observations taken on the West Coast of Otago, for seven months, compared with those taken in Dunedin for the same period.

WEST COAST—MEANS FOR MONTHS.												
Year.	Month.	Temp. of Air.	Barometer.	Elastic force of Vapour	Deg. of Moisture.	Direction of Wind.					Total Days.	Rain fall for Month.
						N.E.	S.E.	S.W.	N.W.	Clm.		
1863.	June (1)	Fah. 49.0	Inches. 30.024	Inches. .232	Sat 1,000 .710	5	4	5	10	6	30	1.000
"	July (2)	48.0	29.794	.235	.775	3	3	4	19	2	31	14.750
"	August (3)	48.0	29.665	.265	.790	4	7	5	12	3	30	6.500
"	September (4)	56.0	29.797	.325	.800	2	4	8	16	0	30	16.700
"	October (4)	55.0	29.694	.363	.810	4	4	6	12	5	31	20.450
"	November (4)	56.5	29.584	.379	.735	4	4	9	13	0	30	18.250
"	December (5)	57.0	29.778	.393	.825	5	5	13	8	0	31	9.350
DUNEDIN.												
1863.	June.	43.7	30.080	.220	.660	6	0	4	14	6	30	1.368
"	July	43.2	29.740	.216	.686	4	0	3	15	9	31	2.307
"	August.	41.5	29.727	.229	.705	4	1	5	11	10	31	1.679
"	September.	46.8	29.596	.226	.608	3	1	6	15	5	30	2.282
"	October.	48.2	29.741	.270	.719	12	2	5	7	5	31	5.674
"	November.	50.8	29.595	.285	.709	7	4	6	8	5	30	5.302
"	December.	52.6	29.735	.318	.695	7	3	10	9	2	31	4.640

NOTES.—1—Foveaux Straits.
 2—Preservation Inlet and Thompson's Sound.
 3—Milford Sound.
 4—Kakapo Lake and Martin's Bay.
 5—Dusky Bay.

IX. Means for each hour in the day, deduced from hourly Observations taken on the 7th and 21st of each month from October, 1862 to December, 1863.

	Mid- night.	1	2	3	4	5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	9	10	11	Mid- night.
Atmospheric Pressure	.843	.831	.827	.818	.820	.836	.823	.824	.826	.827	.829	.819	.818	.818	.814	.820	.822	.827	.837	.849	.855	.851	.850	.849	.843
Average 29·830																									
Difference ...	+ 013	+ 001	-003	-012	-010	+ 006	-007	-006	-004	-003	-001	-011	-012	-012	-016	-010	-008	-003	+007	+ 019	+025	+021	+020	+019	+013
Temperature of Air ...	47.3	47.5	47.6	47.5	47.1	47.7	48.7	49.7	51.1	52.2	53.3	53.9	54.0	53.6	52.4	51.3	50.4	49.7	48.7	48.3	48.0	47.9	47.8	47.6	47.3
Average 49·7																									
Difference ...	-2.4	-2.2	-2.1	-2.2	-2.6	-2.0	-1.0	-0.0	+ 1.4	+ 2.5	+3.6	+ 4.2	+ 4.3	+ 3.9	+ 2.7	+1.6	0.7	0.0	-1.0	-1.4	-1.7	-1.8	-1.9	-2.1	-2.4
Elastic force of Vapour	.257	.261	.267	.261	.267	.264	.272	.275	.288	.286	.289	.296	.298	.303	.299	.291	.286	.287	.281	.276	.272	.272	.271	.267	.257
Average 278																									
Difference ...	-021	-017	-011	-017	-011	-014	-006	-003	+ 010	+ 008	+ 011	+ 018	+ 020	+ 025	+ 021	+ 013	+ 008	+ 009	- 003	-002	- 006	-006	-007	-011	-021

COALS.

Deposits of "brown coal" are extensively distributed throughout the Province, and, in the absence of true bituminous coals, are already largely mined and consumed for domestic purposes, so that they have acquired considerable commercial value.

As the disposition of these deposits will be hereafter discussed when treating of the geology of the carbonaceous strata, I shall only here mention the various localities where workings have been opened of sufficient extent to test the value of the deposits, and from which specimens were procured and subjected to chemical analysis. As these coals are, however, frequently undervalued, and the term lignite misapplied to them as indicative of their worthless character, it may be of advantage in order to show the true value of the Brown Coals as compared with other varieties of mineral fuel, to give a brief account of the views which are at present accepted concerning the nature and origin of carbonaceous deposits.

The term "coal" receives a vague application to a variety of substances which have been produced from the vegetation of past geological ages, by a slow chemical and mechanical change, and which is one of the forms of that process of decay by which all organised substances revert to their inorganic elements. The principal circumstance which determined the production of coal rather than humus or vegetable mould, seemed to have been the exclusion of the atmosphere from the vegetable matter before true decomposition had commenced. This exclusion was effected when a deposit of sediment, especially of an argillaceous character, was promptly superimposed upon it, in consequence of the depression under water of the area on which the vegetable matter had accumulated.

According to eminent chemists the process by which vegetable matter, which consists essentially of carbon, hydrogen, and oxygen has been converted into coal, depends on the elimination of the oxygen or incombustible element at the expense of a certain portion of the two former. The process is progressive and the value of the resulting coal depends on the extent to which the concentration of the elements, which give it value as fuel, has been effected.

In nature therefore a very complete series of substances represent its various stages—thus we have wood, peat, jet, lignite, bituminous coal, free burning coal, and anthracite. In these we have a series, step by step, increasing in the per centage of carbon and consequently decreasing in the per centage of hydrogen and oxygen, the last-mentioned substance, anthracite, being nearly pure carbon; and it is hardly necessary to remark that the carbon and hydrogen are the useful heat-giving constituents of coal, while the presence of oxygen greatly decreases its calorific powers.

The rapidity with which this process has progressed in any given case will depend on various circumstances, such as the manner in which the vegetable matter was deposited—the degree to which ordinary decomposition had progressed previous to the covering up of the mass, and the amount of pressure and temperature to which it has been subsequently subjected. But all these conditions are apparently subordinate to the time during which the above process has been in operation, or what is the same thing to the geological age of the deposit.

Deposits of coal evidently indicate the presence of dry land upon which the vegetation flourished, and from its peculiar botanical character, as well as the frequency and ease with which it has been submerged, it would appear that this land was of a low estuarine character, or at any rate was in close proximity to the sea or to large lakes. Consequently wherever such circumstances existed, coal formations would in all probability result. The popular opinion is, however, that deposits of useful coal are confined to what are known as the Coal Measures, at which period of the earth's history conditions highly favorable to the luxuriant growth and preservation of vegetable matter appear to have been more universally distributed on the surface of the globe than at any other epoch of which we have legible records.

Valuable sources of coal, which present only slight differences from true coal, may however, be found in the newer formations, such as the Oolitic and Cretaceous systems, whilst even the Tertiary series are remarkable for their local deposits of coal of various degrees of usefulness.

The term "coal proper" is applied to those substances found in the true carboniferous system, while those of a more recent date have been denominated by such vague terms as lignite and brown coal, the former having reference generally to those varieties presenting evident woody structure, whilst the latter is used by the Germans

to include all the varieties which are of more recent geological age. The latter term has therefore been adopted as the most applicable to our mineral fuels as a class, and I may here state that no coal has yet been found in the Province which has not the character of brown coal, excepting in the single case of that from Preservation Inlet, on the West Coast, the character of which appears to be intermediate between that of brown coal and what may be called true coal.

Brown coals differ in several important particulars from true coal, though whether these differences are essential to their geological age is a question still to be determined. The most characteristic difference consists in the quantity of water which they contain in combination—often reaching to 40 per cent., while from 10 to 20 per cent is usual, while true coal seldom contains more than 5 per cent. This defect should not be overlooked in an estimate of their value; for, take an example with 10 per cent—the fact that every 10 tons of coal contains 1 ton of water does not represent the magnitude of the loss, for this water absorbs a large quantity of the heat produced by the combustion of the 9 tons of fuel, in the conversion of the 1 ton of water into steam.

Notwithstanding its defects, brown coal will, I have no doubt be yet largely used in the country, both for domestic and other purposes. The disagreeable smell of Croesote and sulphurous gas which some varieties give off in burning, and which forms the strongest objection to their being adopted as a domestic fuel, can be altogether escaped by burning it in a stove possessing a good draught, adapted for its use.

It can also be used in this manner more economically than in an open fire-place, and in small stoves of the above description a very inferior quality of brown coal to that which we possess, is largely consumed in Germany for household purposes.

The principal defects of brown coal as a fuel for the purpose of raising steam arises from its greater bulk in proportion to its weight, and the reduction of its calorific power, owing to the large quantity of water which it contains, as previously explained. Both these disadvantages can only be remedied by the use of more than usually capacious furnaces with close fire bars and wide air passages. In the case of stationary engines this of course can be effected, and after a short experience I have little doubt that the stokers would prefer the brown coals to the more bituminous varieties, as they form no clinker, and give a steadier heat with a much less amount of labor.

They can never come however into use for steamers or for locomotive engines, where economy of space is the main consideration, as, judging from practical experiments and examination in the laboratory, the effective power of the brown coal is one-fourth less than an equal bulk of that from Newcastle. In other words, the quantity of brown coal required to do the same work as 20 tons of Newcastle coal, would require for storage the same space that would contain 25 tons of the better fuel.

As several patents have been taken out for the purpose of preparing a condensed fuel for steam purposes from varieties of non-caking coals, it is possible that some adaptation of this process might be applied to the brown coals, by which the water they contain would be driven off and replaced by a small quantity of bituminous matter, that would re-cement them in the form of solid blocks of convenient size and density.

The only coal examined that has been found to yield a gas of high illuminating power is that obtained at Shag Point, the gas derived from all other varieties being of very inferior quality, and deficient in the rich hydro-carbon. All the varieties of the brown coal can be highly recommended for the purposes of burning bricks and lime.

In describing the brown coals which are found in this Province, the following classification will be adopted from the portion of Dr. Percy's recent valuable treatise on Metallurgy which relates to fuels. It is founded on their external characters, which indeed indicate pretty faithfully the varieties in their composition.*

“(a) *Pitch coal*.—Compact, occasionally cleaving into prismatic pieces. Fracture “conchoidal. Pitch black. Lustre waxy or fatty.

“(b) *Common brown coal*.—Compact. Generally with slaty cleavage, wood-like “structure indistinct. Smooth conchoidal fracture. Color blackish brown to pitch “black. Lustre more or less glistening or slightly fatty.

(c) *Woody brown coal*.—Massive, possessing the form and structure of wood.

* PERCY'S METALLURGY.—VOL. I, P. 85.

“(d) *Schistose coal*.—Distinct slaty cleavage, sometimes separating into very thin laminæ.

“(e) *Earthy coal*.—Compact, but easily rubbed to powder. Dull, of various shades of brown.”

Perhaps to no class of mineral products can chemical examination be applied with more advantage than to coals, nor are there any class of results which have a more easy and significant application. A knowledge of the chemical constitution of a coal, especially when exhibited in a tabular form, so as to be comparable with others at once leading to a correct estimate of its calorific power and of its comparative commercial value. So soon, therefore, as the Laboratory arrangements were complete, attention was directed to the examination of samples of coal from various parts of the Province, as well as from other localities for the sake of comparison. It was not considered expedient at first to enter upon the somewhat delicate examination requisite to determine accurately the ultimate composition of these coals, it being thought that useful results would be obtained by processes of more easy application, and by which the proximate constituents could be determined with considerable precision. By ultimate constituents are meant the carbon, hydrogen, oxygen, &c., the determination of which is of much less practical usefulness than that of the proximate constituents, such as the fixed carbon or coke, the water, the ash, and the volatile matter; these latter results being at once available to the manufacturer of coke, the gas maker, and the metallurgist, while the former require certain calculations to render them of service.

The following is a brief outline of the processes which have been followed, which do not affect extreme accuracy. In fact, in dealing with a substance so variable as coal, this cannot be obtained, but still the results are perfectly reliable, and afford most useful information:—

- I. In each case a fair sample of the coal was selected, finely powdered and sifted through muslin. The powder thus obtained was then exposed to dry air till it had attained a constant weight.
- II. The water was determined by drying a weighed portion in a water bath at 212° until no further diminution in weight was suffered.
- III. A portion was burnt in a platinum capsule, the resulting residue being the amount of ash. The color of the ash was noted as indicative of the presence of sulphuret of iron,—the quantity and quality of the ash being of great importance to the value of the coal.
- IV.—A portion of the coal, coarsely powdered, was heated to a bright red heat in a closed crucible, so as to imitate as far as possible the conditions existing in a gas retort or coke oven. The carbonaceous substance or coke remaining after deducting the ash, is entered as fixed carbon, its physical properties being also noted as representing the coking properties of the coal. The loss during this process consists of volatile hydro-carbons (such as coal gas heavy and light oils, &c.) and water, which latter being subtracted leaves the quantity of volatile hydro-carbons.
- V.—The sulphur was determined.

The physical characters of the coal were also noted,—such as the color, structure, hardness, toughness, &c.,—these bearing upon their commercial value as affecting their liability to breakage and production of “small” in cutting or during transit. The specific gravity was also determined by accurate methods.

With regard to the quantity of water contained in these coals when first extracted from the mine, a great part of it (in some of the varieties) is given off when exposed to dry air, while the remainder requires exposure at the temperature of 212° . The former may be considered as an accidental element, which, to a great extent, may be escaped by a proper system of working and drainage of the mine.

The principal results of the analyses which have been made have been tabulated for convenient inspection, Class I. including only samples from this Province, while in Class II. are given some of the analyses also made in this Laboratory of coals from other localities.

Many other examinations of coals from the Province and elsewhere have been made besides those here given; these, however, are sufficient to indicate the nature of the principal varieties which have yet been met with.

	Sp. gravity	Percentage of				Color of Ash	Per centage after deducting Ash and Water.		Sulphur.	Color of Powder.	Nature of Coke.	Per cntge. of water when first extracted.
		Fixed Carbon	Volatile	Water.	Ash.		Carbon.	Gases.				
CLASS I.												
From the Province of Otago, Brown Coals												
No. 1. Clutha, Sample 1. ...	1279	40.02	38.27	16.10	5.61	White	51.12	48.88		Dk. brown	Dull	20.42
" " 2 a ...	1282	46.77	36.65	12.94	3.64	"	56.06	43.94	3.63	Dull do	"	26.12
" " b ...	1253	41.32	37.67	16.35	4.66	"	52.31	47.69		"	"	25.22
" " c ...	1267	41.38	35.92	17.50	5.20	"	53.53	46.47	3.85	Lt. brown	"	28.34
" " 3 ...	1275	41.83	29.61	16.43	12.13	Red	58.55	41.45		Dull Black	Irridescent	22.04
No. 2. Green Island, Sample 1. ...	1248	38.24	37.53	18.45	5.78	Light Buff	50.47	49.53	2.24	Dk brown	Slightly do	26.60
" " " 2. ...	1290	43.12	34.37	20.26	2.25	"	55.64	44.36		"	"	30.00
No. 3. Saddle Hill, Sample 1. ...	1294	42.33	41.04	14.22	2.29	White	50.81	49.19	2.32	Dull do	Dull	28.15
" " " 2. ...	—	41.15	35.87	19.34	3.64	Pure White	53.43	46.57	2.13	"	"	27.08
No. 4. Shag Point ...	1250	42.16	37.60	10.91	9.33	Chocolate	52.86	47.14	4.78	Dull brsh. bk.	"	12.30
" " " ...	1260											
No. 5. Tokomairiro ...	1290	42.10	40.17	11.80	5.93	Light Grey	51.17	48.83		Dull brown	"	23.40
Lignite ...	1308											
No. 6. Waitahuna ...	—	37.28	39.88	11.06	11.81	Light Buff	48.34	51.66	6.21	Brown	Stly. Irridsn	20.99
Semi-bituminous Coal.												
No. 7. Preservation Inlet ...	1290	61.83	28.93	4.40	5.14	"	69.00	31.00		Black	Dull	8.8
CLASS II.—From other localities in New Zealand and elsewhere												
Semi-bituminous Coal.												
Pakawau, Nelson ...	1330	50.10	38.08	3.56	8.26	Light Red	56.82	43.18	1.04	Brownish bk	Semi-metalic	
Buller River, Sample ...	1. 1250	62.70	31.55	1.05	4.70	White	66.52	33.48	1.85	"	"	
" " " ...	2. 1260	58.74	35.97	0.70	4.55	"	62.02	37.98		Brown	"	
Grey River, Canterbury ...	1330	62.37	29.44	1.99	6.20	Light Brown	67.94	32.00		Black	Cakes.	
Newcastle, Australia ...												
Market Sample ...	1. 1385	57.20	31.78	2.88	8.14	Light Buff	64.28	35.72	1.60	Dull Black	do do metallic	
" " " ...	2. —	55.36	31.59	3.00	10.05	"	63.67	36.33		"	"	
Labuan ...		56.15	34.57	7.56	1.72	Orange	61.89	38.11		Brown	Dull.	
Valparaiso ...		62.15	32.16	4.73	.96	Deep Red	65.90	34.10		Nearly black	"	
Vancouver Island ...		53.31	34.84	3.35	8.50	Light Grey	60.46	39.54		Dark brown	Semi-metalic	

None of these coals cake.

No. 1.—*Common Brown Coal from the Clutha Mines at Coal Point.*

This coal occurs in large quantities and under the most favourable conditions for working of any yet discovered in the Province. To the eye there appear to be many varieties of this coal, but chemical examination proves that these differ very slightly in composition. There are 5 or 6 seams dipping very regularly at a low angle, and associated with sandstones, conglomerates, shales, and fine clays, the whole series being clearly displayed in the section afforded by the sea cliffs northwards from the Molyneux Bay, as hereafter described. The principal seam is 20 feet in thickness, resting on a white pipe clay and roofed by a dull carbonaceous clay shade. The lower part of the seam is very black and compact and contains the largest per centage of water and ash. Towards the top of the seam it acquires a more laminated character, and the brown amorphous coal alternates with thin plates of jet. No fragments of wood or traces of unaltered tissue can be observed in this coal, but in the shales above, leaves and stems of plants are of frequent occurrence and perfectly fossilized.

(1). FIRST ANALYSIS. *

This specimen has moderately bright conchoidal fracture, and is traversed by cracks and contains laminæ of jet. The fresh fractured surface glistens but becomes dull on exposure. Its streak and powder are of a deep brown color. It burns freely with a very slight odour, makes no coke, and leaves a light grey ash.

		I.	II.	Average.
<i>A</i>	Coke	43.20	43.90	43.28
	Water	20.56	20.28	20.42
	Ash	5.29	5.35	5.32
<i>B</i>	Fixed Carbon		37.96	per cent.
	Hydro Carbon		36.30	"
	Water of Constitution		16.10	"
	Accidental Water		4.32	"
	Ash		5.32	"
		100 ..		
<i>C</i>	Relative per centage of Fixed Carbon		58.28	
	Relative per centage of Gaseous Matter		42.72	
Specific gravity from 1279 to 1282.				

Three analyses were made of samples taken from the top, middle, and bottom of the main seam. These samples were dry and firm to the touch, and appeared of very superior quality. They did not, however, show much difference upon analysis. The higher per centage of water than that in the previous sample is clearly due to their having been only recently extracted when subjected to analysis.

(a) *Sample from Top of Seam.*

Possesses a distinct laminated structure, the horizontal fractures being smooth and shining while the vertical are dull and ragged; traversed irregularly by thin plates of jet. It is dotted throughout with small round specks of a mineral resin, and of which it often contains large nodulated masses. There are crystals of iron pyrites in the cracks.

ANALYSIS.

		I.	II.	Average.
<i>A</i>	Coke	42.40	43.18	42.79
	Water	26.05	26.19	26.12
	Ash	2.98	3.20	3.09
	Sulphur			3.63

* In this and the following analyses *A* signifies the actual highest and lowest results of analysis obtained and the average of all that was made of the one specimen, as in many cases the amount of water or ash was determined several times over. *B* gives the composition deduced from the analysis, showing also the proportion of water that is given off at ordinary temperature (accidental water.) *C* shows the proportion which the fixed carbon bears to the gaseous matter, after deducting the water and ash, which may be considered as foreign matters.

<i>B</i>	Fixed Carbon	39.70	per cent.
	Hydro Carbon	31.09	"
	*Water of constitution	12.94	"
	Accidental Water	13.18	"
	Ash	3.09	"
		100. . .	
<i>C</i>	Relative per centage of Fixed Carbon	56.08	
	Relative per centage of Gaseous matter	43.92	
	Specific Gravity	12.63	

(b) From the Middle of the Seam.

Similar in structure and physical character to (a).

ANALYSIS.

		I.	II.	Average.
<i>A</i>	Coke	41.07	41.12	41.10
	Water	25.24	25.21	25.22
	Ash	4.12	4.22	4.17
<i>B</i>	Fixed carbon	36.93	33.68	per cent.
	Hydro-carbon	16.35	8.87	"
	Water of constitution	4.17		"
	Accidental water			"
	Ash			"
		100. . .		
<i>C</i>	Relative per centage of fixed carbon .	52.30	47.70	
	Relative per centage of gaseous matter			
	Specific gravity	12.67		

(c) From the bottom of the Seam.

This is a much blacker and more massive coal than either of the other samples. Its fracture is conchoidal in all directions and it can hardly be said to have a laminated structure. It contains fewer impurities, but nodules of iron pyrites are not unfrequently dispersed throughout its substance. The powder and streak are much lighter in color, however, approaching a chocolate tint. It possesses more illuminating power than either of the samples.

ANALYSIS.

		I.	II.	Average.
<i>A</i>	Coke	40.22	40.70	40.46
	Water	28.33	28.35	28.34
	Ash	4.56	4.48	4.52
	Sulphur			3.85
<i>B</i>	Fixed Carbon	35.94	31.20	per cent.
	Hydro Carbon	17.50	10.84	"
	† Water of Constitution	4.52		"
	Accidental Water			"
	Ash			"
		100.		
<i>C</i>	Relative per centage of Fixed Carbon	53.53	46.47	
	Relative per centage of Hydro Carbon			
	Specific Gravity	12.75		

*Allowed to remain in perfectly dry air until there was no further reduction in weight, it was found to have lost 21.8 per cent, and when re-exposed to the atmosphere, it re-absorbed of this in 22 hours 11.18, and in 56 hours, 11.62.

This result was obtained by operating on the coal in a powdered state. When small fragments were thus treated, the results were nearly the same, but the action much slower.

† Allowed to remain in the dessicator till the weight was constant, it lost 20.6 per cent. of water. Of this moisture it re-absorbed on exposure to the atmosphere:—

In 4 hours	7.71
In 22 hours	9.21
In 56 hours	10.33

A sample of the jet from the sandstone was also analyzed (Specimen 350).

It is bright, lustrous, and compact; burns only with very great difficulty, producing a light red ash. Its coke is iridescent, and unlike that of the samples from the Clutha mines. It cakes to a slight extent. Its powder and streak are black.

		ANALYSIS.			
		I.	II.	Average.	
<i>A</i>	Coke	50.21	50.50	50.35	
	Water	21.70	22.38	22.04	
	Ash	10.72	11.69	11.31	
<i>B</i>	Fixed carbon		39.04		per cent.
	Hydro-carbon... ..		27.61		"
	Water of constitution		16.43		"
	Accidental water		5.51		"
	Ash		11.31		"
		100...			
<i>C</i>	Relative per centage of fixed carbon ...		58.59		
	Relative per centage of hydro-carbon		41.43		

The Clutha coal mines were the first opened in the Province, and have now been in operation during the last five years. They are situated on a Government Reserve, and the lessee, Mr James G. Lewis, has expended a large amount of capital in their development, and employs the most extensive coal mining "plant" at present used in the Province. Nevertheless, from various adverse circumstances, and principally the difficulty of effecting the regular shipment of coals to market owing to the risks encountered by vessels at the mouth of the Clutha River, the mining has not been carried on so vigorously as might have been expected, and only a comparatively small quantity of coal has as yet been excavated.

The mine is on the sea coast, about 3 miles from the mouth of the Clutha River, and $\frac{3}{4}$ of a mile from the bend which the river makes at the North end of the Sandspit. At this point a wharf has been erected on the left bank of the stream for the shipment of the coals, where vessels lie alongside in safety at all times.

An iron tramway has been laid down between the mine and this wharf. The waggons reach the surface of a level shaft 70 feet above the water, which lies between the sea coast and the river, by an inclined plane worked by a drum and ropes.

The pit was first opened by a drive from the sea cliff, but this method was soon abandoned, and a second drive was opened from the bottom of a gully which intersects the terrace shelf. The coals are drawn from the pit, up a second incline plane, by means of a steam engine, but of late a horse gin has been found more economical for the purpose.

The carbonaceous strata underlie the level shelf above mentioned, which is half a mile in width, and is continued to the north along the coast range of hills, presenting an abrupt cliff 70 feet high to the sea, broken by narrow and deeply cut ravines. Only the lower 10 to 20 feet of the section thus exposed is, however, formed of the carbonaceous strata, as the upper portions consist of horizontally stratified ferruginous sands, clays and gravels, finely laminated and false bedded. In this formation, which is of recent tertiary age, no fossils were found, and it has the appearance of having been a freshwater or estuarine deposit, like that which surrounds the Taieri basin near the Waiholo Lake.

These sands yield nodules of impure silicious ironstone, which contain traces of phosphoric acid, forming the only indication of their ever having included organic matter. Towards the Sandspit the shelf is covered by hills of blown sand cemented by iron infiltrated from the vegetable matter in neighboring morasses.

The carbonaceous strata, which forms the lower part of the cliff, and acts as a breastwall that defends the overlying sands from the encroachment of the sea, consist of conglomerates, sandstone, shales, and fireclays, all containing more or less carbonaceous matter, and interstratified with well defined beds of coal. The strata have a prevailing dip to the E.S.E at an angle of from 7. deg. to 12 deg., but there is a fault at one place which for a short distance changes the dip to the opposite direction. In the distance of three miles, the following section was observed, which, as it is the best exposure we have in the Province of this important group of strata, I will give in detail, commencing at the North end. The measurements of the thickness are, however, to be considered only as approximate:—

	Feet.
Gravel grit - - - - -	6
Sandstone - - - - -	30
Laminated clay, with fossil Dicotylidinous leaves - - -	30
Fault, filled with clay of a bright blue color - - -	1
False bedded sandstones - - - - -	10
Quartzose gravel - - - - -	23
Coal - - - - -	8
Carbonaceous shale - - - - -	?
Grit - - - - -	?

Here the dip changes to S.W with an obscure fault ;—

Clay - - - - -	15
Quartz grit - - - - -	2
Brown coal - - - - -	10
Impure coal, and fine Clay - - - - -	10
Soft blue clay, with ironstone septaria - - - - -	6
Quartzose grit - - - - -	-

The dip again changes to E.S.E :—

Gravel stones - - - - -	10
Mullock - - - - -	4
Fire clay - - - - -	4
Shale - - - - -	6
Coal - - - - -	6.3
Fire Clay - - - - -	3
Gravel, with carbonaceous strata - - - - -	6
Impure fire clay - - - - -	4
Finely laminated sandy clays, with plant impressions - - -	16
Patch of quartzose "wash gravel," with iron pyrites, resting on coal (thins to 3 feet against the dip) - - -	4
Carbonaceous strata - - - - -	10
Sandy clay, with pebbles interspersed - - - - -	30
Conglomerate of slate, with pebbles irregularly stratified - - -	6
Grit (colored bright yellow) - - - - -	12
Carbonaceous shale - - - - -	6
Coal - - - - -	5
Carbonaceous clay - - - - -	15
Yellow and grey clay, with gravel beds and carbonaceous shale - - - - -	15
Grit and pebbly conglomerate - - - - -	30

A few chains are here obscured by sand, or occupied by the more recent formation

	Feet.
Red clay - - - - -	4
Coal - - - - -	2
Fire clay - - - - -	3
Fine pipe clay - - - - -	4
False roof of gravel stone - - - - -	1
Coal (main seam) - - - - -	18
Carbonaceous shale - - - - -	3
Pipe clay - - - - -	1
Gravel stone, with grit and stems of trees - - - - -	60
Coal - - - - -	2
Fine clay - - - - -	1

Conglomerate of pebbles of diorite schist, smooth and oval, of various sizes to 6 inches in diameter ; cemented by green and grey sand, containing magnetic iron sand and glauconite. Bedding decided to E.S.E. 15 deg. This conglomerate is cut by veins of calc spar, a few lines in thickness, that pass N. and S. right through pebbles and cement.

There are, therefore, in the above distance six seams of good coal exposed in the section, giving a total thickness of 56 feet, but doubtless in some cases the same seams are repeated by faults.

The coal seams are apparently very regular, and generally have a roof of tough shale. In only a few cases, however, they rest on fire clay, as more frequently the floor is of gravel stone.

In several of the gullies the coal strata are seen to crop out, preserving the same dip and strike as where seen on the coast, and workings, I believe, were opened for a short time on the bank of the Clutha River, near the Kaitangata Bush, at a distance of two miles from Mr. Lewis's pit. The coals could, therefore, be worked by shafts sunk almost anywhere in the terrace plain, and probably a better quality of coal would be procured in this manner.

As I have not visited the Clutha mines during the last 18 months, I applied to Mr. Lewis for particulars regarding their present condition, and in reply received the information given in the appended letter.

Clutha Coal Field, Kaitangata,
March 15th, 1864.

DEAR SIR,—

I BEG to acknowledge the receipt of your favour of the 14th inst., which came to hand on Thursday last, and I have lost no time in preparing and forwarding you the information you require. If you wish any farther I shall feel much pleasure in furnishing it.

I have no fresh discoveries to report. My attention has been directed to the thorough drainage of the coals, and placing the mine in as efficient a condition as possible, not only with the object of present working, but keeping in view its being carried on with as little waste of the mineral as the safety of the workmen will admit.

I have much satisfaction in being able to inform you that the quality of the coals has improved even beyond the most sanguine expectations and hopes I had formed. It is attended by a stronger and more continual supply of water than I ever before witnessed. This, although a very favorable symptom in opening a new coalfield has caused considerable difficulty and expense, as, in order to clear to the bottom of the coal, it became necessary to bring in a deeper level from the sea beach. The main road is now carried on a dead level about 83 yards from the eye or entrance of the mine. Of this distance, for the first 51 yards the coals were very soft, jointy, and full of galls, in fact, nearly worthless as fuel. Here, a gradual improvement began to take place and in a few yards became very strong, hard, and free from slips. Suspecting that we had now overtaken the regular roof, a narrow cutting was made, when it was found that such was the case. The clay roof which shows itself on the sea beach, had resumed its proper place precisely where the quicksand which had before overlain the coal, disappeared.

The coals at the back of our main road present a very fine face, with a good tough clay roof and regular floor of the same material as the roof, dipping under the sea at a very low angle. Having now sufficient space I have commenced opening out the workings on the bassett side by forming stalls of 6 yards wide, leaving pillars of 4 yards, and about from 2 to 3 feet of coal overhead, which, with the clay clod above, will, I think, ensure a perfectly safe roof. This appears to me to be the best and safest mode of working, and possesses this advantage—that, by throwing forward the level way end, the number of stalls may at any time be increased, so as to meet the demand for coals. This, I think, a very important point, as it would in a great degree prevent the inconvenience which may at any time arise from a falling off from any cause of the supply from Newcastle.

There are now employed at the face of the coals two experienced coal cutters with those in the road. On the days we are drawing out coals three additional hands are required. A steam engine has been erected for the purpose of drawing the coals up the incline to the terminus of the railway; but till there is a greater and more regular demand, I find it much cheaper to do this work by horse power.

The quantity of coal put out you will observe by the accompanying return is very small.

The fine clay at present has not been made any use of, although I believe, from some experiments made with it, that it is a valuable article. It has been my intention and I am prepared to take means to turn it to account, but till some satisfactory arrangements can be made, I should deem it highly imprudent in me to embark in it.

The iron stone at the South Coal Point, where we are working, is found in small nodules only, and these very poor, lying in the bottom measures. At the North Coal Point the nodules or balls are found large and rich, but I have not been able to ascertain where their position in the foundation is, as they lie scattered on the beach.

I do not think it necessary at present to take any further means for extending the workings, as by the plan adopted in opening them an ample supply for many years may be secured; but I think it highly probable that another seam of coal lies below the one we are now working. My reason for thinking this is that the roof and floor (dark bituminous shale) are very similar, and I have always found where this is the case that another formation has taken place beneath, and that the floor—particularly of the lower bed of the series—has been a strong dry clench. When the workings have been carried to some distance on the basset it may be worth while to prove this; the expense would then be trifling, as our present level would be deep enough to draw it. If we should find this to be the case, the probability is that the coal would be good; and, if so, although it would of course be considerably below the level of the ocean, there would be no difficulty in working it safely inland.

* * * * *

(Signed) JAMES G. LEWIS.

Dr. Hector, &c., &c.

No 2.—Common Brown Coal from Green Island.

This is a dull, earthy, and very moist coal when first taken from the mine, with a laminated structure and sub-conchoidal fracture. It is traversed by cracks in all directions, and though it has thin streaks of jet passing through it horizontally, it presents no trace of woody structure. The surfaces are covered with a white dusty powder, probably an efflorescence. It absorbs water readily with a crackling noise. Its streak is a dull blackish brown. It ignites slowly, and rather smoulders than burns; but yet when mixed with other coals, and especially with that from Shag Point, it forms a useful fuel. It leaves a very light ash, almost like that of wood, and its coke is slightly metallic.

		(1) ANALYSIS.			
		I	II	Average	
<i>A</i>	Coke	39.52	39.73	39.62	
	Water	26.71	26.50	26.60	
	Ash	5.06	5.30	5.21	
	Sulphur ... ..	...	...	2.24	
<i>B</i>					
	Fixed carbon... ..	34.41 per cent.			
	Hydro carbon	33.78 "			
	Water of constitution	18.45 "			
	Accidental water	8.15 "			
	Ash	5.21 "			
		100...			
<i>C</i>					
	Relative per centage of fixed carbon...	50.46			
	Relative per centage of gaseous matter	49.54			
	Specific gravity from 1229 to 1248.				

A second sample from this locality, but from another pit was also examined. Its external physical characters are the same, but it contains a much smaller proportion of ash.

		(2) ANALYSIS.			
		I.	II.	Average.	
<i>A</i>	Coke	40.08	39.58	39.83	
	Water	30.00	30.00	30.00	
	Ash	2.09	1.87	1.98	
<i>B</i>					
	Fixed carbon... ..	37.85 per cent.			
	Hydro carbon	30.17 "			
	Water of constitution	20.26 "			
	Accidental water	9.74 "			
	Ash	1.98 "			
		100...			
<i>C</i>					
	Relative per centage of fixed carbon...	55.64			
	Relative per centage of gaseous matter	44.36			

The three Collieries near Green Island from which the samples analysed above were obtained, are situated on the rise of the hill between the Kaikorai stream and the Chain Hills, immediately on the Great South Road at the distance of six miles from town. Two of these—the Walton Park and Shand Collieries—are worked by means of a shaft, and the Fairfield Colliery by means of an adit.

At the Walton Park Colliery where the shaft is 130 feet deep, the following strata were passed through :—

(a) Sands, clays, and ferruginous gravels of which no record was kept, and which belong to a recent Tertiary formation,	65 feet
(b) Bituminous shale and clay with thin bands of coal, ...	35 "
(c) Upper coal,	7 "
(d) Sandy clay and blind coal,	12 "
(e) Lower coal,	9 "
(f) Bituminous shale,	1 "
(g) Quartzose sand,	2 "
(h) Gray sandy clay,	1½ "
(i) Coal,	2 "
(A) Micaceous fire clay	4 "
(l) Sandy clay,	15 "

The lowest 14 feet of the shaft is used as a sump or well to collect the water, which is drawn by means of a horse gin. The upper seam from which all the coals to the present time have been raised, is 7 feet in thickness, 5 only of which are worked, leaving 2 feet on the roof to protect the workings. These workings extend about 50 yards N.N.E., and 35 yards S.S.W. from the shaft. The dip of the seam is E.S.E., and the run of the "heads" or joints is N. 80° W., which continue with great regularity and greatly facilitate the working. The floor of the seam in some parts of the mine is a bituminous shale or blind coal, with a thin seam of white plastic clay. In other parts of the mine the plastic clay is thicker when it creeps or rises in the floor of the workings, and so gradually fills them entirely.

The seam in most places is very regular, presenting great facilities for working, and as there is no refuse, the "goaf," or excavated space, has to be filled by the small coal—so that only the large coal is extracted. The coal is conveyed to the shaft by tram waggons, which are then drawn up by a horse gin to the surface, and delivered from a stage surrounding the pit mouth. This mine was opened some years ago, but has only been worked on the present enlarged scale during the last six months.

The lower seam, 16 feet below the upper, is 9 feet in thickness of solid coal, apparently of excellent quality, with a good roof and well defined heads or joints running E. and W., and not truly with the dip.

This seam has only lately been reached, and workings have already been commenced—the miners anticipating that the superiority of the coal will more than compensate for the greater expense of working at an increased depth. It is highly probable from the section given above that other seams of coal exist at a greater depth. The present output is 50 tons per week, at the value of 15s. per ton.

The seam of fireclay mentioned in the section appears of promising quality, but it would require to be properly tested before an opinion can be formed of its value.

The Shand Colliery, belonging to the Lanarkshire Coal Company, is contiguous with that of the Walton Park, being separated from it only by the main road. The workings are in the upper seam (*c of section given above*), but owing to the fall of the ground, it is much less deep seated, the depth of the shaft being only 58 feet. The upper clays (*b*) are also wanting, the coal being immediately overlaid by the ferruginous gravels of the newer tertiary series. This gravel is only a few feet on the top in some places, being overlaid by stiff clay. A little further to the east the gravel is, however, 25 feet thick, and contains much water, so that a shaft which was at first sunk to the depth of 80 feet fell in from want of support.

This mine is worked by means of a shaft and level or drive, for the purpose of drainage, being commenced near the stream in the adjoining valley, and communicating with the other workings. The shaft by which the coals are drawn has only been completed three months, and already about 150 tons of coal have been raised and disposed of. The workings are carried on in a very regular manner on the "Pillar and Stall" system, in a seam $6\frac{1}{2}$ feet thick, of which 2 feet is left at the roof, the rooms being 12 feet wide. The seam is very solid and good, the "heads" or joints running E. and W. (vertically) with but little dirt in them. There are no cutters or joints running across the direction of the heads in any of the brown coal seams.

The coals are drawn up the shaft to the surface by means of a "tackle" or windlass, worked by hand. In the seam are occasional round pebbles of white quartz, often weighing 1lb. The dip of the coal seam is S.E., about six inches per fathom. The floor is very hard and regular.

The Farefield mine, which was the first opened in this district (J. Smith, lessee,) is worked by a level driven from the out-crop Gulley, with an adit level to drain off the water. The extent of the workings is about twenty fathoms by ten, the system of working being the same as at the other adjoining mines. The three seams are here distinctly visible, but almost in contact.

The quantity of coals raised during the two years the mine has been worked is eighteen hundred tons, which have sold from twelve to fifteen shillings per ton.

The coal seams tend in a North-easterly direction from the Green Island Works, and have been struck in a road cutting in the Kaikora Bush, within two miles of the town. A small quantity of this coal has been excavated, but it is of very inferior quality, and from its containing about 58 per cent. of earthy matter, resembles the carbonaceous shale that forms the usual roof of the coal.

Excepting in this respect it appears to be of the same character as the Shag Point coal (No 4), and it has an unusually large percentage of gaseous matter, and notwithstanding its moist appearance only contains 12 per cent. of water. It would therefore be very desirable that the locality should be better tested by a properly sunk shaft, as coal of a superior quality might be obtained. The coal shale exposed in the present shaft dips at 50° to the eastward, and contains finely preserved specimens of fossil leaves.

No. 3.—*Earthy Brown Coal from Saddle Hill. Specimen 319.*

A soft dull brown coal, very moist, with homogeneous structure, and without a trace of vegetable tissue. Its fracture is uneven and rugged. Some portions of it being dotted with small white spots. Its powder and streak are of a dark brown color. In burning it gives off a disagreeable fetid smell. It does not coke, and yields an extremely light ash of a pure white color.

ANALYSIS :—

		I.	II.	Average.
<i>A</i>	Coke	37.24	37.65	37.45
	Water	27.42	28.87	28.15
	Ash	1.94	1.89	1.92
	Sulphur			2.32
Per Cent.				
<i>B</i>	Fixed carbon ... ..	...	...	35.53
	Hydro-carbon ... ..	...	...	34.40
	Water of constitution ... ..	...	...	14.28
	Accidental water ... ..	...	...	13.87
	Ash ... ..	...	...	1.92
100 . . .				
<i>C</i>	Relative per centage of fixed carbon ... ..		...	50.81
	Relative per centage of gaseous matter ... ..		...	49.19
	Specific gravity ... ..	...	...	1294.

An examination of a second sample from the same locality was also made.

ANALYSIS :—

		I.	II.	Average.
<i>A</i>	Coke	39.84	41.26	40.50
	Water	28.08		28.08
	Ash	3.24	3.34	3.29

					Per Cent.
<i>B</i>	Fixed carbon	...	...	...	37.21
	Hydro carbon	...	...	...	32.42
	Water of constitution	...	...	...	19.34
	Accidental water	...	...	...	7.64
	Ash	...	...	...	3.29
					100 ..
<i>C</i>	Relative per centage of fixed carbon	...	...	...	53.44
	Relative per centage of gaseous matter	...	...	...	46.56

The Saddle Hill mine, which is also in the Green Island coal basin, is situated on the west flank of Saddle Hill, about a half mile from the main road, and at a much greater elevation than the mines nearer to Green Island. It is on private property.

The coal seams crop out in a slipped portion of the face of the hill, and the levels are driven immediately from their outcrop there exposed. The extent of the working is about sixty yards in length and thirty in width, from which about 2000 tons of coal have now been extracted.

There are three seams of coal within a few feet distance of each other, the principal workings, however, being in the other seam. The seams are parallel, nearly horizontal and regular, having both "heads" and "cutters" (unlike the seams at the other mines, where there are only joints of the seam in one direction), the coal can be raised more economically than from the other mines. This mine, however, labours under the disadvantage of being at a greater distance from Dunedin, as also of having a bad road from the Great South Road to the mine.

The section exposed in the landslip of the strata is as follows:—

ABOVE—

Yellow and brown sand, laminated horizontally with their seams of bituminous clay and carbonised remains of plants with concretions.

Yellow sand.

					feet.
Upper seam	...	...	...	...	8
Blind Coal	...	...	...	...	2.0
Drab fireclay	...	...	...	...	2.0
Blind Coal, with streaks of Bituminous coal	...	...	...	...	0.5
Black blind coal	...	...	...	...	1.5
Middle seam	...	...	...	...	3.9
Fireclay mixed with blind coal	...	...	...	...	2.0
Lower seam (solid coal)	...	...	...	...	2.3
Blind coal	...	...	...	...	2.0

The whole of these dip slightly to the E.

The "headers" and "cutters" are not at right angles, the former running N. 70° W. vertically, the latter inclining a few degrees from the perpendicular. They greatly facilitate the workings; but neither of these joints trend exactly towards the dip of the seam as is usually the case.

As in other mines two feet of coal is left in the roof to protect the workings, the excavation being in the lower four feet of the seam, and partly in the hard floor below the coals.

From the above it would appear that in the Green Island basin there are three known seams of coal, averaging 7, 4, and 2 feet in thickness. At Saddle Hill the seams are closer together with the uppermost having the greatest thickness.

The nature of the coal in the different seams is the same, viz., good "brown coal," with occasional pieces of lignite and jet; the quality, is however, different in each seam, and even in different parts of the same mine. Some lower seams will most probably be discovered, as there is no indication of a change in the formation in the shaft below the lowest known seam, nor any sign of the neighborhood of bed rock. As in other parts of the Province, a seam of brown coal is found immediately on the schist (Otepopo, Dunstan, Kawarau) it is highly probable that the same order will here prevail, and that the thickest seams will be found on or near the base of the series.

No. 4.—Pitch Coal from Shag Point. (Specimen 276.)

This is the freest burning quality of brown coal that has yet been found in the Province. It corresponds exactly with Dr. Percy's definition of pitch coal, and may be considered to hold the same relative position among the brown coal series that cannel

does in the true or older coals. It is very compact, does not absorb water, and does not soil the fingers. Its color is a brownish black; fracture conchoidal and splintery; lustre fatty, resinous. Its streak is lustrous, and it gives a dull brownish black powder. It burns freely, with a rich, oily flame, with only a slight odour, leaving a bulky but light argillaceous ash.

Upon distillation it gives off a rich gas at high temperatures, and a large yield of gas oils if a low heat be carefully applied. Its coke is light and semi-metallic in lustre.

It occurs associated with the sandstones and conglomerates which compose Vulcan Head, immediately to the north of the mouth of Shag River, and is worked on the Government Reserve by Mr. Hutchinson.

There are 5 or 6 seams of various thickness, of from 1 to 6 feet; but they are much disturbed and faulted, and vary much in character. The principal seam from which the sample analysed was taken is 5 feet thick, but divided into two minor seams by a clay parting, which facilitates the working.

The coal is divided in all directions by joints, the surfaces of which are smeared with an ochreous clay. The extent of the coal seams on this promontory is very doubtful, as the strata are very much disturbed by local faults. The geological position of this coal, as stated elsewhere in this report, is probably among the oldest of the tertiary series in the Province. The Shag Point coal mine was opened in February, 1863; but since then only about 200 tons of coal has been sold, owing to the great difficulty that is experienced in shipping it from the exposed rocky point where the mine is situated. Hitherto this has been effected by lightering the coal in bags to a schooner lying in the offing, from a small rock-bound creek or inlet on the shore; but Mr Hutchinson is at present engaged in clearing the inlet from sunken rocks, so that in a short time he hopes to be able to bring his schooner alongside the wharf at the mines.

ANALYSIS.

				I.	II.	Average.
<i>A</i>	Coke	...	...	50.98	50.38	50.68
	Water	...	...	11.40	13.20	12.30
	Ash	...	...	9.36	9.00	9.18
	* Sulphur	..	...	—	—	4.78
<i>B</i>	Fixed carbon	...	...	...	...	41.50 per cent.
	Hydro-carbon	...	...	...	...	37.02 "
	Water of constitution	...	...	...	...	10.91 "
	Accidental water	...	...	...	...	1.09 "
	Ash	...	...	...	...	9.18 "
						100.
<i>C</i>	Relative per centage of fixed carbon	...	...	...	...	52.85
	Relative per centage of hydro carbon	...	...	...	...	47.15
Specific gravity from 1250 to 1260.						

No. 5.—Dull Brown Coal—Tokomairiro.

This coal is extensively used and has been mined during the last three years. It is undistinguishable in appearance and physical character from samples of that from the Clutha River, and from Green Island, having, like them, a brown powder and streak; the only discernible difference being that it yields a semi-metallic coke, which does not cake. Three specimens of the coal were examined with almost identical result, both having been procured direct from the pit.

ANALYSIS :—

				I.	II.	Average.
<i>A</i>	Coke	...	...	41.21	41.55	41.67
	Water	...	...	23.60	23.20	23.40
	Ash	...	...	5.80	6.00	5.90

* The sulphur, which it will be observed forms a large per centage, was arrived at by repeated determinations, all of which agreed very closely. The greater part of this sulphur seems to be given off with the gaseous matter when the coal is distilled, as only a small per centage of it is combined with the ash. This singular fact has been observed by Dr. Percy respecting a coal which was submitted to him for analysis from the West Coast of this island.

					Per Cent.
<i>B</i>	Fixed Carbon	...	...	...	35.77
	Hydro carbon	...	...	...	34.93
	Water of Constitution	...	...	...	11.00
	Accidental water	...	...	...	12.40
	Ash	...	...	...	5.90
					100.0
<i>C</i>	Relative per centage of fixed carbon	...	...	...	50.54
	Relative per centage of gaseous matter	...	...	...	49.46
Specific gravity from 1290 to 1308.					

The above coal appears to be very similar to that procured at the Clutha mines, and as there is every appearance of the continuous extension of the coal formation between the two places, the coal seams belong probably to the same basin. The mine is situated on the north side of the Tokomairiro River, six miles distant from the township. The access to it is very bad, as an abrupt spur of the hill has to be crossed by a steeply inclined road.

It is very probable however, that the coal may be found on the upper side of this spur, and nearer to the township, as the conglomerates which overlie the seams are met with at various parts before the present workings are reached. The coal has been found in several of the gullies near to the coast on both sides of the river, so that there is no doubt of the extensive development of the formation in this district. The seam which is at present worked is from eight to nine feet in thickness, and rests on a floor of dark carbonaceous shale, but the roof is of red or yellow quartz gravel, belonging to a newer formation, and therefore constituting a false roof, or one which has been deposited after the denudation of the strata which originally overlaid the coal.

The mine belongs to a Company who have let the workings to H. and A. Reed, who were Lancashire miners, and appear to conduct their operations in a most judicious manner. The coal is worked on the "pillar and stall" method, by which from four to five feet of the lower end is reached, leaving pillars of four yards square at equal distances. There are twenty of these pillars, and by a rough calculation there must have been about 3000 tons of coal removed, including the dross.

The only impurities are a few runs of clay mullock, and dispersed quartz pebbles. The seam rises to the N.E at from 5 deg. to 7 deg., and is cut very regularly by parallel joints that run from N.E to S.W. At present, however, I believe the workings are only in a portion of the seam which has formed part of a great landslip, and therefore nothing can be safely deduced respecting the lateral extent of the stratum that is being worked.

No. 6.—*Lignite, or "Woody Brown Coal," from Waitahuna. (Specimen 373.)*

A dull, friable lignite, possessing a great deal of woody tissue throughout. Slightly laminated; burns slowly, like turf, with a heavy, fetid odour. It contains a good deal of resinous matter, in small masses. Its powder is light brown. It leaves an imperfect lustrous coke, and has a light buff ash. It occurs in a thick bed in the bottom of the Waitahuna flat, and is perhaps of more recent origin than the brown coals in other parts of the Province.

ANALYSIS:—

		I.	II.	Average.	
<i>A</i>	Coke	42.70	44.78	43.62	
	Water	20.00	21.89	20.99	
	Ash	10.69	10.29	10.49	
<i>B</i>	Fixed carbon	...	...	33.13	per cent.
	Hydro carbon	...	...	35.39	"
	Water of constitution	...	...	11.06	"
	Accidental water	...	...	9.93	"
	Ash	...	...	10.49	"

100

C	Relative per centage of fixed carbon...	...	48.35
	Relative per centage of hydro carbon	...	51.65

Semi-bituminous Coal—Preservation Inlet.

This coal is the only one yet found in the Province which has any claim to be classed separately from the brown coals. The samples were, however, procured from very thin and impure stream and present great irregularities in their composition and external appearance. It is hard, compact and black, with a splintery cubical fracture, rarely conchoidal. Powder black, with a faint brownish tint in some samples. Streak black and shining. Coke unchanged; does not cake. Ash light buff. Owing to the variety of character which the samples present, the following three distinct analyses are given.

FIRST ANALYSIS:—

A	B	C
Coke ... 58.85	Carbon 56.87	Per centage of fixed carbon 69.00
Water ... 15.60	Hydro carbon ... 25.55	Gaseous matter... .. 31.00
Ash ... 1.98	Water of constitution and accidental water 15.60	
	Ash 1.98	

SECOND ANALYSIS:—

A	B	C
Coke ... 68.67	Carbon 64.43	Per centage of fixed carbon 69.01
Water ... 8.80	Hydro carbon ... 28.93	Gaseous matter 30.99
Ash ... 2.24	Water of consti. 4.40	
	Accidental water 4.40	
	Ash 2.24	

THIRD ANALYSIS:—

A	B	C
Coke ... 65.78	Carbon 54.58	Per centage of fixed carbon 68.05
Water ... 8.60	Hydro carbon ... 25.62	Gaseous matter 31.95
Ash ... 11.20	Water of consti. 4.20	
	Accidental water 4.40	
	Ash 11.20	

Specific gravity from 1290 to 1320.

This coal evidently belongs to a more ancient formation than the brown coals of the east part of the Province, although its geological age has not been yet satisfactorily determined. In its character it approaches to the coals on the west side of the Province of Nelson or from Newcastle, in Australia, and is, without doubt, the most perfectly formed coal that has been found in the Province.

It occurs only in their seams at the base of a great thickness of sandstone and conglomerate strata that rest immediately on the granite and slate which form the S.W. extremity of the Middle Island at Chalky and Preservation Inlets. Only three or four seams were discovered, and none exceeded eighteen inches in thickness, but the difficulty of searching for these is very great. The area occupied by the coal-bearing strata is not large, being confined to a group of small islands and a narrow strip of the coast at the entrance to the above-mentioned Sounds.

To the south of Preservation Inlet, however, there is a plateau elevated about 800 feet above the level of the sea, in which, I have reason to suppose, there is an extension of the same formation, and where, perhaps, payable seams of coal might be discovered.

Its occurrence has long been known to the whalers who visit the West Coast, and a considerable quantity of it was used many years since by Captain Howell for blacksmiths' work, when completing his schooner "Amazon" in Riverton. He has reported to Government that for this purpose he found it admirably adapted. About a ton of it also was excavated from a seam only nine inches in thickness and used aboard the "Matilda Hayes" for cooking purposes, during my late voyage to the West Coast. It was found to be most excellent fuel.

BUILDING STONES.

The varieties of stones useful as building material, and which can be obtained in the Province are—

1. Granites, gneiss, syenite, porphyry, and other rocks of the crystalline series.
2. Basaltic and allied igneous rocks.
3. Limestones.
4. Freestones, including all the varieties of sandstone.

The first mentioned are only to be obtained in the western coast of the Province, where they abound, and might be quarried and shipped with great ease from many of the inlets or fiords.

True granites of flesh color and grey tints are however confined to the south-west extremity of the Province, where they form a great part of the shores of Dusky Sound, Preservation Inlet and Chalky Inlet, as also of Stewart's Island. Gneiss granite, of equally good quality as building stone, is to be found in many other inlets, and on the north shore of Milford Sound there is one point where an immense accumulation of blocks of a grey variety of gneiss, mottled with crystals of garnet, and of all sizes and shapes, lying as if ready for shipment.

It is unnecessary to say anything in favor of these crystalline rocks as building material. Of all kinds of stone they are well known to be the most indestructible, and it is the great expense of dressing them, on account of their hard tough texture, which alone warrants the use of any other kind of stone for buildings of a permanent character. At some future time it is probable therefore that the sounds of the south-west coast of the Province will become famous for quarries yielding the most durable building materials of almost every variety of color, and that has been noticed among crystalline rocks. Small specimens of these rocks are deposited in the Geological collection—the mere inspection of which is a sufficient guarantee of their superior quality.

Basaltic Rocks.

The rocks which are commonly known in this Province as basalts or bluestones, belong to various groups of igneous rocks such as dolerites, trachy-dolerites, trachytic-porphry, clinkstone, &c. They are of tertiary age, and occur partly underlying and partly overlying the tertiary rocks; in the latter case being generally interstratified with tuffaceous clays and local beds of altered volcanic ash. They are principally confined to the eastern sea board of the Province, not occurring at a greater distance than 30 miles from the coast, excepting as a few narrow and very local dykes. The greatest development of these igneous rocks, is in the neighbourhood of Dunedin, where they are in common use for road metal and as building stone.

Twelve of the principal varieties of basalt have been analyzed, and from the results obtained, it appears that the external character of these stones, is, for ordinary purposes, a sufficient indication of their durability. Some of the varieties are no doubt very prone to decompose into a ferruginous clay when buried in the soil, but the complex process by which this change is effected, acts so slowly, that provided a sound quality of stone be at first selected, its effect may be practically disregarded, excepting when great durability is required, as in the case of the foundations of large permanent buildings.

The extent to which basaltic rocks are decomposed by acid, gives an approximate idea of how far they are likely to be acted on by the natural solvents contained in the soil, and in order to show the great variety which exists in this respect, the following selections from the analyses made are here given; the full details, though of great scientific interest, not having a sufficiently practical bearing to warrant their introduction into this report.

The varieties in the subjoined table are arranged in the order of their comparative values as building material (as dependent only, however, on their chemical composition,) commencing with the most durable.

In addition to the volcanic rocks which have been subjected to analysis, there is an extensive development of a more ancient group of igneous rocks in the central and western districts of the Province, consisting of diorites, felsites, and different varieties of hornblende trap, which are characterised mainly by the larger percentage of magnesia which they contain, but their composition has not yet been investigated.

Limestones.

The eight varieties of limestone given in the appended Table have been analysed, and some of them prove to be of excellent quality. The most ancient, and probably the best, of these, is a compact or sub-crystalline limestone from the Blue Mountain, in the Kakanui range, on the north-east side of Shag Valley.

This limestone, the occurrence of which I mentioned in my report of September, 1862, breaks into large rectangular blocks, which sometimes appear as if laminated from the occurrence of narrow parallel stripes of a dark blue color. Some of the beds are, however, truly fissile, and break into splinters. The weathered surface is gritty and harsh to the touch, its fracture is angular, and it is traversed by veins of calc-spar.

It forms a lenticular mass or stratum several hundred feet in thickness, interstratified with the slates of the Kakanui range. Its out-crop can be traced in a N.W. direction for at least five miles.

Wide flat valleys penetrate the limestone range at various points, having a very gentle slope to the Shag Valley Plains, so that quarries could be opened in very accessible positions. It is of a quality that will render it of great value for burning into quicklime; and brown coal, sufficiently good to be used as fuel for that purpose, could be obtained within a distance of a few miles.

If this limestone can be quarried in large blocks it will form a highly durable and ornamental building stone, as it possesses all the properties of blue marble, and is susceptible of a high polish.

No. 2 is a valuable limestone which was discovered in December last by Mr. Hackett (of this Survey) on the shore of the Wakatipu Lake, seven miles to the west of Queenstown.

Fossil shells appear to have been obtained previously from the same locality, but the existence of a valuable deposit of limestone had not been remarked. Its occurrence is very opportune in connection with the Moke Creek Copper lodes, which are within a few miles of this locality, as limestone affords the necessary flux required for reducing the crude ore to a concentrated and portable "Regulus."

Notwithstanding the hard compact texture of this limestone, from the fossils contained in it, it is without doubt of the same geological age as the incoherent strata of the East Coast, which I have elsewhere distinguished as the Oamaru Series. The impurities which it contains, amounting to about 10 per cent., consist principally of well-rounded grains of sand and iron pyrites, along with traces of bituminous matter. From Mr. Hackett's report, it appears that it may be obtained in large quantities from the locality indicated, and as it seems to me to be a remnant of an extensive marine Tertiary deposit, which has, at one time at least partially, filled up the Wakatipu Lake basin, it will probably be discovered in other places, where its position has preserved it from the erosive action by which that great basin was re-excavated.

The remainder of the specimens of limestones which have been analysed are from the tertiary strata in the neighborhood of Oamaru. Nos. 3, 4, and 5, are from Mr. Hutchinson's quarry, and are samples of the stone which has been burnt for lime during the last four years.*

The quarry is situated at a point where the upper tertiary strata have undergone alteration by the extension of submarine volcanic rocks, probably during the deposition. The stone used for burning is therefore, a product of metamorphism, and does not occur in regular beds, but as dislocated and concretionary masses intermixed with quantities of worthless rock, which greatly increases the expense of extraction.

No. 6, which has all the external character of the limestone used for lithographic purposes, excepting that it does not occur in slabs, is obtained from concretions of the same limestone as above which have been more highly altered, and are often so intermixed with fragments of volcanic rock as to resemble a slag.

* Since January, 1861, 30,000 bushels of this lime have been sold at the rate of 2s per bushel at the kiln, and 2s. 3d. in Faneidin.

SELECTION FROM THE ANALYSES OF BASALTIC ROCKS—CONDENSED.

Name and Locality.	Specific Gravity.	Soluble in Acid.	Silici.	Alumin.	Iron.	Lime.	Magnesia.	Alkalies.	Water of Constitution.	Colour.
1. Trachytic Porphyry—Portobello	2.445	5.86	66.40	24.35	1.52	0.54	Trace	6.54	1.10	Grey
2. Porphyry or Tracyhdolerite—Flagstaff Hill	2.519	11.46	59.32	21.06	5.93	7.36	0.20	5.57	1.20	Dark Greyish Green
3. Clinkstone (Spheroidal)—Bell Hill	2.621	17.55	54.19	21.27	6.61	3.50	Trace	10.27	1.04	Light Grey
4. Clinkstone (Laminated)—Blanket Bay	2.660	24.11	55.65	23.32	4.86	2.15	Trace	10.46	4.31	Light Green
5. Vesicular Basalt—Kaikorai	2.589	32.71	42.74	5.61	23.17	5.31	7.47	10.74	3.00	Reddish Grey
6. Porphyritic Basalt—Pine Hill	2.859	33.79	48.05	20.45	12.12	8.87	Trace	5.05	2.05	Dark Blue Grey
7. Dolerite—Kaikorai	2.875	41.79	40.51	20.71	12.09	10.35	5.11	9.33	1.90	Bluish Grey

No. 3 contained 3.94 per cent. of Carbonic Acid.

LIMESTONES.

Character and Locality.	Specific Gravity.	Carbonate of Lime.	Soluble Silica	Carbonate of Magnesia	Iron.	Alumina.	Insoluble Matter.	Colour, &c.
1. Sub-Crystalline, compact—Kakanui Mtns.	2.698	90.99	3.10	2.16	0.62	Trace	2.90	Loss 0.23—Pale Blue
2. Compact, earthy—Wakatipu Lake	2.702	91.60	0.20	2.94	0.84	Trace	4.80	Water 0.20—Dull Blue
3. Crystalline—Oamaru		95.81		1.40	Trace	0.73	1.66	Loss 0.40—Yellow
4. Crystalline, fossiliferous ”		95.95	0.26	2.17	Trace	0.45	.74	Loss 0.63—Reddish Yellow
5. Compact—”		93.42	0.50	2.58	Trace	1.01	2.45	Loss 0.04—Grayish Yellow
6. Lithographic—”	2.667	95.18		1.29	0.47	1.02	2.33	Trace of Sulphates—Yellow
7. Compact, granular ”		90.14	0.46		0.54	1.54	7.14	Loss 0.18—trace of Chlorides—White
8. Conglomeritic—”	2.583	87.08		Trace	0.79	2.85	8.58	Loss 0.70—trace of Sulphates—White

Nos. 7 and 8 are mere calcareous beds of the upper tertiary rocks at Oamaru, the exact locality being unknown.

No. 7 is so very porous and friable that, notwithstanding its purity, it is neither adapted for burning into lime nor for use as a building material, as it rapidly falls to sand on immersion in water.

No. 8 is a hard tough stone composed of slightly rounded fragments of crystalline limestone mixed with iron sand, and bound together by calcareous cement. It might be used to advantage as a building stone.

In addition to the foregoing limestones, a specimen of the calcareous septaria which occur so abundantly in the Moeraki clays, has been examined and found well adapted for the manufacture of hydraulic cement. Those singular objects which have attracted the attention of all travellers along the coast, from the perfect spherical form which they assume, occur of all sizes, up to six or eight feet or even more in diameter. They consist of a mixture of clay with carbonate of lime and iron, the consolidation having been effected by the eccentric shrinkage which took place when the elements entered into chemical combination and formed a natural cement. This is indicated by the circumstance that the fissures by which the spheres are traversed widen toward the centres and are closed on the surface, and that they are only partially filled by crystals of carbonate of the lime which has been a subsequent deposit lining their walls. The richest Septaria for the manufacture of cements are those of small size, but portions of even the largest will yield them of moderately good quality. The following analysis was performed upon a portion free from veins of carbonate of lime.

Septaria—From Hampden Beach.

Character—Very hard and compact.

Color - Mottled grey.

Specific gravity, 2.655.

Hygroscopic water, 60 per cent.

ANALYSIS:—

Soluble silica	...	...	...	...	...	80
Alumina and iron, partly as carbonate...	...	...	...	...	...	8.70
Carbonate of lime	...	...	...	...	...	72.40
Do. magnesia	...	...	...	...	...	30
Insoluble clay	...	...	...	...	...	17.80
						100.00

This analysis shows that this specimen is capable of affording a moderately good hydraulic cement, the per centage of clay being 17.80 and silica 80 = 18.60. This proportion would, however, be a little reduced if the Septaria were worked on a large scale from the quantity of calc-spar present in the form of seams.

As a guide to the comparative value of these Septaria I append the following extract from Tomlison's Encyclopedia article "Mortar and Cements:"—

Limestone containing clay	}	10 to 15 per cent.	Poor, sets in 14 days.
		15 to 25 per cent.	Rich, sets in 2 or 3 do.

Generally, if a limestone contain less than ten or more than thirty per cent. of clay it will not furnish a cement.

Lastly, a most valuable form of calcareous rock has been found in the Province viz., a white crystalline statuary marble from several of the Sounds on the West Coast, where it occurs in concretionary masses, included in chlorite and hornblende schist.

Unfortunately, this marble, which is of very superior quality, was only observed to form small masses that have the same small size and irregular shape as the concretions of quartz found in contorted mica schist, but from its purity and fine sparkling grain, were a large quantity discovered it would undoubtedly command a high commercial value as an ornamental stone. It was not analysed, as it consists of pure carbonate of lime, but occasionally it is speckled in the most beautiful manner with scales of brown mica and lead colored graphite or plumbago.

Freestones.

Freestones, which, in all countries where they can be procured, form the most desirable building material, on account of the facility with which they are dressed, occur abundantly throughout the Eastern part of the Province, among the Tertiary strata, and although they are used to a considerable extent as building material they are generally adopted with distrust, owing to their apparent want of durability. Chemical examination however proves that many of the varieties can be safely recommended as quite equal to freestones which are in use in England, provided proper care be taken in their selection, and that therefore the distrust is not always well founded. On the other hand, several of the varieties which have a most promising external appearance are found to contain a minute per centage of elements that will be certain to cause rapid decay when exposed to the influence of the weather. The stones chosen for examination by chemical analysis have been therefore such as present variety of character sufficient to indicate the principle upon which their selection as building materials should be made, and it is believed that all the varieties which may be examined will fall within the classes into which the specimens analysed have been divided.

In making a scientific examination of a mechanically-formed building stone, we have to regard its chemical and physical properties.

The former are of very great importance, as by a knowledge of the constituent minerals of a rock we arrive at a fair estimate of its power of resisting the various destructive chemical influences to which it will be subjected.

Chemical analysis in many cases affords the only means by which we can discover that a stone of most promising appearance, judging by the external characters, contains elements that will lead to decompose speedily, as frequently the stability of the material is seriously affected by the presence of some accidental impurity existing only in very small quantity. Thus experience has clearly shown that it is the presence of minute proportions of alkaline salts in the stone used for exterior masonry which has caused the disfiguration of some of the finest edifices in Great Britain.

It is therefore particularly necessary to ascertain the impurities which are contained in freestones, by which are meant the elements that do not form an essential part of the stone, but the detection of which is generally of more importance than the determination of the principal constituent minerals.

In making the various analyses hereinafter given, especial attention has been directed to this subject, and in the table appended, the presence, nature, and amount of these impurities have been indicated in separate columns.

On the other hand, the durability and value of building stones depend almost to an equal degree on their physical properties, as on those above alluded to. Their hardness and tendency to absorb water, their structure whether massive or laminated, the facility with which they can be broken into masses of convenient size and shape, or worked with the chisel with plane or curved surfaces, their power of resisting the effects of frost, the drying and baking action of the sun, all these are points which can only be imperfectly ascertained in the Laboratory, and require for their determination the opinion of the practical architect, founded on the experience which time alone can furnish.

As a means of increasing the useful application of the freestones of the Province, it may be suggested that by the method of artificially hardening the surfaces of stone, which has been patented by Ransome of Ipswich, we have a means of rendering durable, at a very small expense, even inferior varieties of freestone.

An experiment was made in the Laboratory on a small scale with a cube of the ordinary yellow Caversham stone, with a very successful result. Ransome's process consists in first washing the stone with soluble glass or silicate of potash. After this is entered into the grain of the stone it is decomposed by a solution of a salt of lime, which seizes the Potash, and leaves an insoluble silicate of lime as a cement that binds the particles of the stone together. In the experiment that was made it was found that the stone contained a sufficient quantity of the requisite salt of lime, so that upon the application of the "water glass" alone the cementing and hardening processes were found to have penetrated the surface of the stone to the depth of one sixth of an inch, which would be amply sufficient to resist the influence of the weather.

The following table gives a selection from the various analyses of Freestones which have been made, arranged so as to indicate at a glance the groups under which the principal varieties may be classed, and the relation they bear to one another.

From this table it will be seen that they are naturally divided into three groups, according to the nature of the cement which binds their particles together.

A. Silicious sandstone or freestone proper, containing particles of silicious sand cohering by a silicious, ferruginous or argillaceous cement. A perfect stone of this class, that is possessing the requisite tenacity and freedom from impurities, is the most useful building stone we can have, as it unites great durability with the property of being easily worked into any desirable form.

B. Argillaceous sandstone or clay stones. The gradation from the last class to this is represented in every stage as the silicious matter becomes deficient, and is replaced by clay as a cementing material. The stones belonging to this group can rarely be depended upon for durability.

C. Calcareous sandstones. In this class of freestones, to which most of the varieties used in Dunedin belong, the particles or grains of the stone are still partly silicious, but the cementing matter consists of carbonate of lime, derived from marine shells. These stones vary much according to the proportion of calcareous matter, and the extent to which it has combined with the sandy matter, or been dissolved from the fragments of shells, and re-deposited as a true cement. The great objection to the use of these stones arises from the circumstance, that if uniform in texture, they are soft and destructible, while if hard their consolidation has generally been owing to concretionary forces that never fail to produce great irregularities in the quality of the stone.

Many calcareous sandstones harden upon exposure to the atmosphere, but generally only on the surface, so that a crust is formed that peels off on the first attack of frost.

The distribution of the varieties of freestone throughout the Province is by no means fairly represented by the selection which has been made for the purpose of analysis.

The true silicious freestones are found at the base of the Tertiary formations, where they are associated with the brown coals. Among the schists there are, however, argillaceous beds in which the cleavage and jointing characteristic of metamorphic strata has been only feebly developed, that might be included among the most valuable building materials of this class. Such are to be found in nearly every part of the central district of the Province.

Of the silicious freestones the principal development is in the Horse Range, and where those hills abut on the coast at Shag Point, there are beds of excellent quality exposed, which, apparently, are continued into the interior, underlying the great conglomerate formation of which the broken ground along the east flank of the Kakanui Mountains is composed.

To the South of the Molyneux River there is another great development of this formation, associated with more ancient strata of undetermined geological age. The stone mentioned as from Waikawa belongs to this series of rocks and is said to be associated with a good quality of brown coal, both being convenient for shipment from the little harbor at that place.

In Preservation and Chalky Inlets on the S.W. coast, there is a third extension of silicious strata in an accessible position for shipment, and probably of more ancient date than those associated with the coal on the east coast. In this locality and especially on Coal Island, in the first-mentioned Inlet, many of the beds have the character of flagstones, and might be useful as paving material. Moreover the strata there rest on clay slates that present more perfect cleavage than any met with in other parts of the Province, excepting in the valley of the Matakataki and Dart Rivers; and if these strata were examined with care for that purpose, it is very probable that places would be found where quarries might be opened for the extraction of valuable roofing slate.

The argillaceous and calcareous sandstones are, without exception, confined to the upper Tertiary Rocks. Their variable and concretionary character has already been alluded to, but there undoubtedly exists large deposits which will afford most valuable building stone. The valley of the Waio, the neighbourhood of Dunedin, Waikowaiti, and Oamaru, yield many varieties of the stone, but none of them can be expected to present great differences in composition from the specimens of which the annexed analyses have been made.

In the following table, the specific gravity of the stones will be a useful guide in estimating the weight of a given volume of stone, as the number in the column may be considered as the number of ounces contained in one cubic foot. In the second column the Nos. 0—10 expresses the relative tendency which the varieties of stone have to absorb water, and to undergo disintegration by the action of frost.

SELECTED ANALYSES OF FREESTONE TO ILLUSTRATE THEIR GENERAL COMPOSITION.

Name.	Specific Gravity, or ozs. in cube foot.	Porosity 0 - 10.	Essential Constituents.			Impurities.			Water of Compression and Hygroscopic.	Colour, &c.
			True Sand.	Carbonates— Lime and Magnesia.	Insoluble Clay.	Soluble Clay.	Oxide of Iron.	Alkaline Chlorides.		
<i>A.—Silicious Sandstones.</i>										
1. Hobart Town ...	2560	1	86.7	0.0	7.1	4.2	Traces	1.0	1.81	Grayish White
2. Moeraki ..	2490	5	82.5	0.0	9.0	3.5	2.0	0.56	2.99	Rusty Brown
3. Waikawa ...	2677	2	80.1	5.8	0.0	7.4	4.6	0.0	2.51	Dark Greenish Gray
4. Arden's Bay ...	2445	4	70.8	0.0	25.4	0.0	1.8	1.3	2.28	Redish White
<i>B.—Clay-stones.</i>										
5. Saddle Hill ...	2240	4	56.0	0.0	28.5	10.8	1.7	0.7	4.05	Buff Yellow
6. Moeraki ...	2425	8	52.7	0.0	41.5	1.8	Traces	1.0	4.14	Gray
7. Mount Pleasant ...	2376	3	37.8	0.0	41.8	14.9	2.6	0.4	4.80	Greenish Gray
<i>C.—Calciferous Sandstones.</i>										
8. Kaikorai (a)...	2170	6	21.0	42.1	25.9	3.4	1.7	0.0	5.9	Buff Yellow
9. Caversham ...	2200	4	24.4	53.0	17.6	1.5	1.4	0.2	2.0	Bluish Gray
10. Hawksbury ...	2597	3	25.0	51.7	17.9	3.6	0.8	Traces	1.9	Bluish Gray
11. Kaikorai (b)...	2532	2	28.0	62.8	1.0	4.5	1.8	0.0	0.6	Grayish Yellow
12. Kaikorai ? (c) ...	2549	1	27.6	68.5	0.0	2.4	0.8	0.0	4.2	Grayish Yellow
13. Pleasant River ...	2307	1	29.5	64.1	0.0	1.2	0.8	0.0	0.0	Pure Gray

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Stone used in some parts of the High School Building, said to be from Hobart Town. (No. 1.)

This stone was examined for the sake of comparison, as it is considered of very superior quality by builders.

Its base is eminently siliceous, being a coarse sandstone, composed of grains of quartz, cemented by a very small proportion of foreign matter.

It contains, however, a certain amount of soluble and deliquescent alkaline salts, which prevent its being classed with the most durable stones. Neither moisture nor the treatment with sulphate of soda affect it to an appreciable extent. By lœvigation it was found to consist of:—

Impalpable matter	...	...	...	13.3
Coarse sand	...	...	...	86.7
Its composition, after deducting 55 of hygroscopic water is—				
Insoluble silica	...	...	...	93.69
Alumina	...	...	...	4.23
Iron	...	...	...	trace
Lime	...	...	...	.34
Magnesia	...	...	...	.32
Chloride of Sodium	...	...	...	.34
Water	...	...	...	1.26
				100.18

Building Stone from Moeraki, (Trotter's Creek). No. 2.

This is a loose and coarse grained siliceous sandstone, very absorbent of water on the undressed surface. Its color is a rusty red.

It contains a considerable quantity of broken and rounded pieces of quartz with a little mica, but from the salts of iron which it contains being so easily decomposed on exposure, it is a very inferior building stone.

ANALYSIS:—

Water of constitution	...	...	...	2.99
Alumina	...	...	...	2.72
Sesquioxide of iron	...	...	...	2.00
Lime	...	...	...	.56
Chlorine	...	...	...	traces
Water insoluble in hydrochloric acid	...	...	...	91.56
				99.83

Hygroscopic water at the time of analysis, .58. Specific gravity, 2.490.

This stone, broken up by the hand and carefully washed, yielded the following per-centages.

Light matter (fine sand and clay)	...	...	17.5
Heavier (large grained sand)	...	...	82.5
			100.0

This specimen was forwarded by G. Rich, Esq., of Moeraki.

Grayish Green Quartzose Sandstone from Waikawa—South Eastern District. (No. 3)

This Sandstone, which is very similar to some beds associated with the older brown coal formation in other parts of the Province, is composed of angular grains of transparent quartz, fragments of felspar, and flakes of mica, cemented by a little clay and carbonates of lime and magnesia.

It has a disagreeable color; but in texture and stability is superior to any of the sandstones in the Province which have as yet been examined, although others have been seen that will probably prove of quite as good quality. It absorbs water to a slight degree only.

When crushed to a coarse powder, and carefully lœvigated till the water ceases to be turbid, it yields—

Sandy matters	84.5
Clay and Cementing matters	15.5
	<hr/>
	100.0

Treated with sulphate of soda it exfoliated only slightly on the undressed surface. Its composition is as follows:—

Silica and undecomposed silicates... ..	79.87
Silica chemically combined	2.41
Alumina	9.66
Carbonate of lime	3.54
Magnesia	2.26
Water driven off at 212°	2.51
	<hr/>
	100.00

The locality from which this stone is procured is said to be favorable for shipment, but as yet we have no information respecting its geological position or mode of occurrence. The specimens analysed were furnished by the Provincial Engineer.

Arden's Bay, Otago Harbour.—No. 4.

This is a very smooth grained sandstone, white on the fresh fracture, but acquiring a warm tint upon exposure to the atmosphere.

It is composed of very fine grained white sand, and the greatest part of the cementing matter appears also to be siliceous. It absorbs water only to a moderate extent, and does not crumble much more easily when moist than when dry.

The surface became only slightly affected under the sulphate of soda test.

Upon lœvigation it gave

Sandy matters	70.8
Impalpable cementing matter	29.2
	<hr/>
	100.0

Its composition, after deducting 1.33 per cent. of hygroscopic moisture, is as follows:—

Silica and undecomposed silicates	96.28
Alumina ... ..	.99
Lime	traces
Iron (oxides of) ... ..	.78
Magnesia ... ..	.29
Alkaline, chlorides (principally of soda)	1.00
Water of constitution	8.09
	<hr/>
	100.23

The specimen was forwarded by the Provincial Engineer. If this stone can be quarried in large quantities, uniform in quality with the sample, it will be a valuable building material, although from the large quantity of impalpable cementing matter it contains it will not be durable if much exposed to the weather.

Building Stone—Saddle Hill (No. 5.)

This is similar to that from Arden's Bay in appearance, excepting that it is slightly vitrified, as if from the neighborhood of an igneous dyke.

It is harsh but not gritty to the touch, rather absorbent, and upon lœvigation gave—

Impalpable cementing matter... ..	44
Sandy residue	56
	<hr/>
	100

When heated with sulphate of soda it did not yield or crack, although an efflorescence formed on its surface, showing that it is porous. Its composition is—

Insoluble silica	...	...	...	84.52
Soluble do.	...	...	...	6.08
Alumina	...	...	...	4.84
Iron [sesqui-oxide]	...	...	...	1.68
Lime	...	...	...	traces
Magnesia	...	...	...	.53
Soda	...	...	...	.18
Water	...	...	...	1.80

 99.63

At the time of analysis, the specimen contained 2.25 of hygroscopic water. Specific gravity 2.240.

Building Stone—From near Moeraki (No. 6).

(Furnished by the Provincial Engineer.)

This stone is of a light grey color, and contains numerous small flakes and specks of carbonaceous matter. Although at first sight it appears to be superior to most others in the Province, especially if judged by the dressed face, it is really of very inferior quality, as it absorbs water rapidly and falls to sand. It, moreover, contains a large amount of deliquescent salts which must attract moisture from the atmosphere, and assist the process of disintegration.

Upon lœvigation it gave—

Clay	...	...	...	...	44
Sand	...	...	...	...	56

 100

It rapidly exfoliated when submitted to the sulphate of soda test and crumbled to sand in the course of a few days. Its composition after deducting 1.37 of hygroscopic water is—

Insoluble silica	...	...	...	52.77
Insoluble silicates	...	...	...	41.46
Alumina	...	...	...	1.77
Iron	...	...	...	traces
Soda (chloride)	...	...	...	.73
Magnesia (do)	...	...	...	.16
Lime (do)	...	...	...	.10
Water	...	...	...	2.77

 99.76

Mount Pleasant, Anderson's Bay (No. 7).

This is a smooth-grained tufa-stone or consolidated mud mixed with sand and fragments of various rocks. It consists of—

Sandy matter	...	...	...	...	38
Impalpable clay	...	...	...	...	62

 100

Although less porous and absorbent than many other stones it breaks up rapidly when tested with sulphate of soda, so that it will not resist the action of frost. It contains a small quantity of magnetic iron sand.

After deducting 3.0 of hygroscopic water its composition is—

Insoluble silica	...	...	...	79.82
Soluble do.	...	...	...	7.75
Alumina	...	...	...	7.21
Iron (oxides of)	...	...	...	2.60
Magnesia	...	...	...	traces
Alkalies	...	...	...	.42
Water	...	...	...	1.80

 99.60

From the manner in which this stone was formed it must necessarily be very unequal in its composition, and could not, therefore, be employed as a building material when uniformity of effect is desired, even if it were not of such inferior quality in other respects, owing to its porosity and the large per centage of impalpable clay.

Building Stone from Kaikorai Quarry—(No. 8.)

This stone is similar in appearance to the upper beds of the Caversham Sandstone, and contains a large per centage of an impalpable clay of a yellow color. Thus, by lœvigation it yielded :—

Yellow Clay,	...	...	...	48·
Shell Sand,	...	...	...	31·
Silecious do.	...	...	...	21·
				100·

Its composition from analysis is as follows :—

Insoluble Silica and Silicates	...	...	...	46·80
Soluble Silica,	...	...	...	3·40
Carbonate of Lime	...	...	...	40·45
do. of Magnesia,	...	...	...	1·70
Iron (sesquioxide)	...	...	...	1·75
Water and loss	...	...	...	5·90
				100·00

Specific Gravity, 2·170.

Sandstone from Sibald's Quarry, Caversham Valley. (No. 9)

This, like Nos. 7 and 9, is really an impure limestone; the impurity being quartz sand, with a little mica, clay, iron and magnesia. Upon lœvigation it gives,

Sandy matter ...	...	...	...	68
Calcareous clay	...	...	...	32
				100

Its composition is as follows, after deducting 1·64 per cent. of hygroscopic water :—

Carbonate of lime	...	...	...	51·22
Silica (sand)	...	...	...	43·64
Alumina or iron	...	...	...	2·92
Carbonate of Magnesia	...	...	...	1·56
				100·00

Specific gravity, 2·200

From the comparison of these results it will be observed that most of the lime must exist as calcareous sand, apparently fragments of shells. This is unfortunate, as if it had been dissolved and re-deposited as a calcareous infiltration or cement, a durable building stone would have resulted. There is no doubt the induration will proceed more actively when the stone is exposed to the air; but its particles have so little cohesion, that the weather, and especially the frost, will affect it more rapidly than the hardening process. When exposed to the crystalizing force of sulphate of soda its surface was much affected, but it rather threw off flakes than fell to sand. It absorbs water to a moderate extent, and when moist is very friable.

In the quarry it presents no decided bedding or jointings, but being soft is very easily worked. There are two varieties: the lower one just described being of a greenish gray color, whilst the upper variety is of a buff color. No line of stratification appears to divide them, and the principal difference in composition lies in the quantity of fine yellow clay which the light colored sample contains, which of course renders it of inferior value to the gray.

Building Stone from Hawksbury.—(No. 10.)

This is a calcareous sandstone similar to that obtained from Kaikorai and Caversham, and not only are its essential constituents the same, but they bear about the same proportion to each other.

When properly faced it appears almost impervious to water, but otherwise it gradually loses its coherence. It has the disadvantage of containing appreciable quantities of lime and soda in a form which renders them soluble in water. It is still, however, superior to either of the above. It contains a considerable quantity of magnetic black sand, and among the insoluble matter it contains mica.

ANALYSIS.

Soluble silica	...	...	...	...	70
Alumina	...	...	...	...	2.94
Proxloxiide iron	...	...	...	...	.90
Carbonate of lime	...	...	...	...	50.05
" magnesia	...	...	...	...	1.70
Chlorine	...	...	...	...	traces
Sulphuric acid	...	...	...	...	"
Soda	...	...	...	...	"
Insoluble matter in hydrochloride acid	...	...	...	...	42.94
Water and loss...	...	...	...	...	.77
					<hr/> 100.00

Freestone from Kaikorai Valley (No. 11)

This sample was taken from the bed of the stream, about a quarter of a mile below the old lime kiln quarry, on account of its having apparently resisted the action of the water

It has a finer grain and more compact texture, and contains a much smaller quantity of clay matter than is usual in the Caversham sandstones.

By lœvigation it was found to consist of—

Impalpable yellow clay	...	...	...	32.
Silicious and shell sand	...	...	...	68.
				<hr/> 100

ANALYSIS.

Insoluble silica and silicates	...	...	...	30.19
Soluble silicat	...	...	...	1.57
Carbonate of lime	...	...	...	60.86
Carbonate of magnesia	...	...	...	1.99
Alumina	...	...	...	2.90
Iron (sesque oxide)	...	...	...	1.78
Water and loss	...	...	...	.71
				<hr/> 100

It is impossible to say till workings are commenced whether this stone can be procured in large quantities, as it is extremely variable in its composition within short distances, but the specimen of which the above is an analysis, is certainly much superior to any of the other stones examined from the Caversham group of strata. It is very slightly porous, and withstood the sulphate of soda test.

Calcareous Sandstone from within four miles of Dunedin. No. 12.

(Per Mr. Hugh Calder.)

This is a very hard compact stone, having the character of an impure concretionary limestone. From the specimen submitted, which is like a portion of a flagstone, no judgment can be formed of its usefulness as a building material, but from its evident concretionary structure it can hardly be expected to occur in large quantities.

ANALYSIS.

Alumina	...	...	...	1.74
Oxide of iron	...	...	...	.79
Soluble silica	...	...	...	.72
Carbonate of lime	...	...	...	68.51
" magnesia	...	...	...	traces
Soluble chlorides	...	...	...	"
" sulphates	...	...	...	"
Insoluble matter, chiefly silica	...	...	...	27.65
Water and loss	...	...	...	.59
				100.00

Specific gravity, 2.549.

Impure Siliceous Limestone, from Pleasant River, 6 miles from Waikouaiti (No. 13.)

Per W. Mason, Esq.

This stone which it is proposed to use in the erection of the New Post Office in Dunedin, has a very close uniform texture and is well fitted for the execution of ornamental carvings. It is obtained from the Tertiary strata that underlie the basaltic rocks of Pakatapo and is of the same geological age as the Caversham and Oamaru Sandstones.

Its composition proves it to have more the character of a very impure chalky stone than of a freestone proper, and although it is without traces of Oolitic or granular structure, there is no doubt that it has been originally an impure calcareous mud, the consolidation of which has been due to internal chemical action. Being therefore of concretionary origin it will probably be liable to irregularities in quality, so that very careful supervision of the stone as it is extracted from the quarry will be necessary to insure uniformity.

Tested in the usual manner it is found to be very slightly porous and to resist the crystallising action of glauber salt. On the whole, it must be considered the best quality of Tertiary stone which has been examined. For public buildings, however, it will be perhaps, advisable to use the blue limestone (No. 1) of the Kakanui Range in the external work, provided a quarry is found from which blocks of sufficient size and free from flaws can be procured. The locality is only a few miles more distant from the shipping port, a disadvantage which is more than compensated for by the marked superiority in the quality of the stone. For ornamental carvings, however, that will not be exposed to the weather, no stone would be more suitable than the above mentioned from Pleasant River.

ANALYSIS :—

Alumina	...	...	...	60
Protoxide	...	...	...	83
Soluble silica	...	...	...	63
Lime	...	...	...	37.06
Magnesia	...	...	...	53
Carbonic acid	...	...	...	26.60
Sulphate of lime	...	...	...	traces
Insoluble matter, principally silica	...	...	...	29.53
Water and loss	...	...	...	4.22
				100.00

Specific gravity, 2.307

The following is a list of the principal localities where quarries have been opened, and from which building materials have been extracted for the construction of houses, &c., in this Province :—

LOCALITY.	NATURE OF STONE
Bell Hill	Spheroidal clinkstone.
Belvue	Porphyritic and vesicular dolerite.
Caversham Valley	Calcareous sandstone.
Kaikorai Valley	Do.
Green Island	Do.
Anderson's Bay	Argilaceous and tufaceous sandstone.
Arden's Bay... ..	Silicious sandstone.
Port Chalmers	Porphyritic breccia and conglomerate ; tufaceous sandstone.
Water of Leith	Dolerite and clinkstone.
Silver Stream	Trachy-dolerite, dolerite and sandstone.
Saddle Hill	Dolerite.
Sunny Side	Do.
East Taieri	Arenaceous schist.
West Taieri	Do. (Used for New Bridge.)
Waihola	Clinkstone, dolerite, and impure limestone.
Waikouaiti	Calcareous sandstone.
Hawkesbury... ..	Do. do. and argilaceous sandstone.
Pleasant River	Calcareous sandstone and impure limestone.
Shag Valley	Arenaceous schist.
Do. Round Hill	Calcareous sandstone.
Trotter's Creek	Silicious sandstone.
Moeraki Harbour	Clinkstone and dolerite.
Mount Charles	Trachytic porphyry.
Oamaru Plains	Calcareous sandstone and limestone.
Waitaki Valley	Calcareous sandstone ; dioritic and arenaceous schist.
Wanaka Lake	Arenaceous schist.
Wakatipu Lake	Do.
Waiou	Calcareous sandstone.

I have the honor to be,

Sir,

Your obedient servant,

JAMES HECTOR,

Provincial Geologist.

The Provincial Secretary, &c., &c., &c.

XII.—POLICE DEPARTMENT.

Commissioner's Office,

Dunedin, April 18, 1864.

SIR—

IN forwarding the Estimates for the year ending 31st March, 1865, you will perceive that the strength of the department as compared with the Estimates of last year is materially decreased; while I propose, without interfering with existing rates of pay, to lower the rate of those who enter the service from the 1st inst. by 1s. per diem. You will also perceive that the amount set down this year for contingent expenses as compared with that of last year shows a decrease of £13,239 9s. 4d.; this is mainly owing to the fact that up to this time much of the past outlay was necessitated by the sudden opening up of new goldfields, and may, therefore, be viewed in the light of initial expenditure.

Since I last had the honor to forward my annual report of the department, it has been found necessary to form stations, in addition to those already in existence, at Hindon, Dunstan Creek, Nevis, Port Molyneux, Hamilton's (headquarters of district), Serpentine, Snowy Mountain, Vincent, Skipper's Gully and Nine Mile.

The attached return shows the exact strength and distribution of the department on the 31st ult., a strength which I trust to be enabled to decrease rather than increase during the current year.

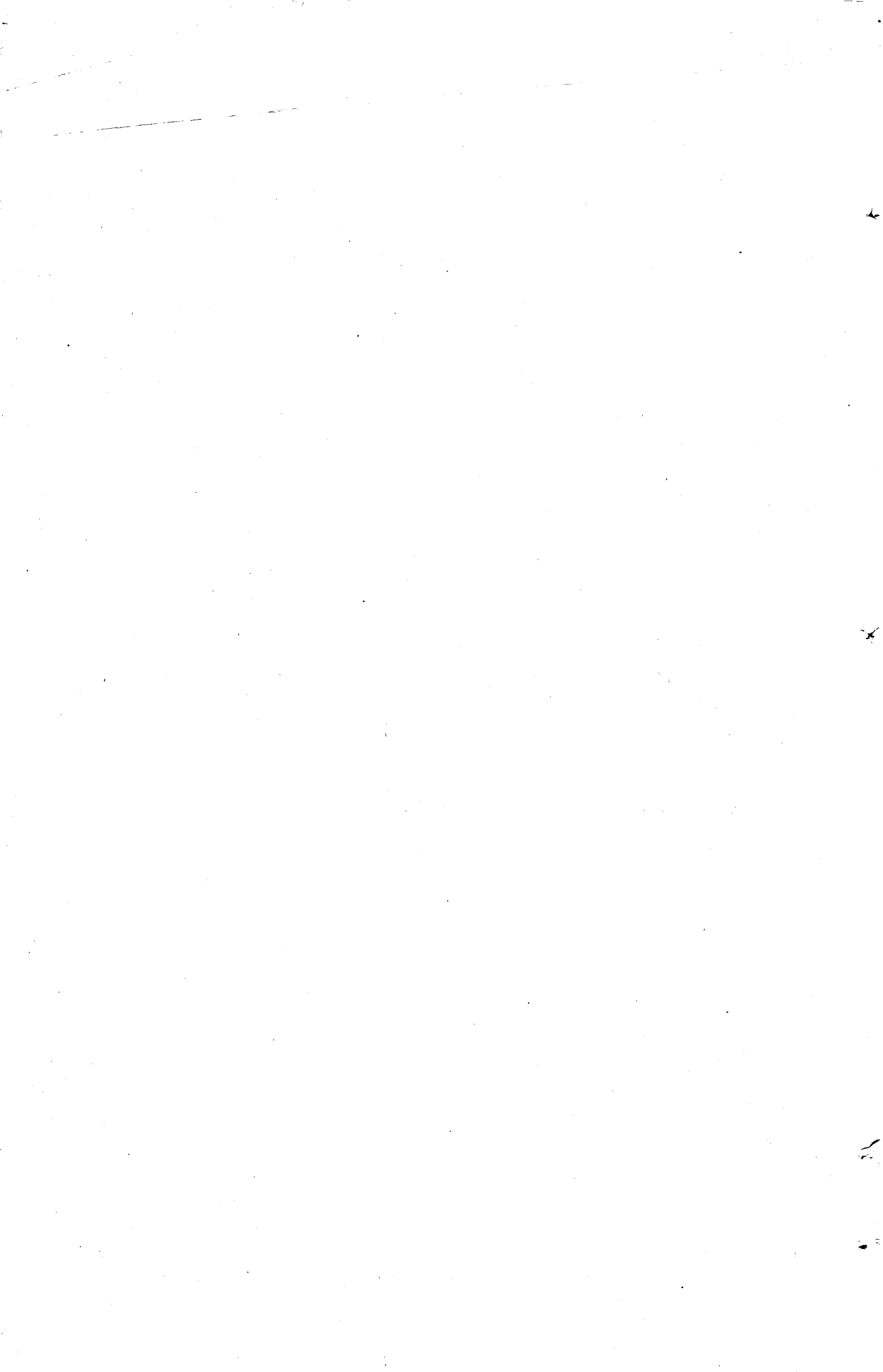
I have the honor to be,

Sir,

Your most obedient Servant,

ST. JOHN BRANIGAN.

Commissioner.



XIII.—GOLD FIELDS' DEPARTMENT.

PROGRESS REPORT.

To the Provincial Secretary.

SIR,—

I HAVE the honor to submit the following Progress Report on the condition and prospects of the Otago Gold Fields.

Discoveries.

2. Since the date of my last report the progress of discovery has been steady and continuous, and the variety of circumstances under which extensive auriferous deposits have been found, furnishes satisfactory evidence of the richness and permanence of the gold workings of this Province. Two entirely new districts, those of Hindon and Hamilton's, have been discovered, and on the older fields many new gullies and hills have been opened, and wrought with various success. Payable Quartz Reefs have also been developed at Waipori, the Serpentine, Skipper's Creek, the Arrow, and Hindon; specimens from all of which forwarded to this office warrant the belief that ere long quartz-mining will rank amongst the acknowledged industries of the Otago Gold-fields.

Produce.

3. Since the 31st July, 1863 (a period of nine months), there has been forwarded to Dunedin, per Government escort, 358,079 ounces of gold. In addition large quantities appear to have reached town by private hands,—369,397 ounces having been exported from Dunedin, and 7821 ounces (the produce of Otago) from Invercargill and Bluff harbor, making a total of 377,219 ounces. In addition, there are at the present time in the Treasury 7594 ounces of gold, in excess of the quantity on hand on the 31st July;—making a total for the nine month's produce of 384,813 ounces, or over 16 tons weight of gold, of the estimated value of £1,536,000. The monthly yield has thus averaged very nearly 43,000 ounces per month, showing an increase on previous years; and the escorts exhibit no sign of diminution, but rather the reverse.

Total Yield.

4. The total known yield of the Province, from the discovery of Gabriel's to the present date (April 19th), as ascertained by the export returns, amounts to 1,395,332 ounces, or 58 tons 277 lbs. weight troy, of the estimated value of (£5,500,000) Five-and-a-half-millions sterling. It is to be regretted that so much of this gold has passed out of Otago to Melbourne, whence it eventually finds its way to Britain as the (supposed) produce of Victoria. I append tables showing the total and comparative amount received per escort for each month and quarter since the discovery of Gabriel's, and also the destination of the exports.

TABLE

SHOWING THE TOTAL AND COMPARATIVE AMOUNT OF GOLD BROUGHT DOWN BY ESCORT FOR EACH MONTH AND QUARTER SINCE THE DISCOVERY OF GABRIEL'S.

	1861-62.				1862-63.				1863-64.			
	OZS.	DWTS.	OZS.	DWTS.	OZS.	DWTS.	OZS.	DWTS.	OZS.	DWTS.	OZS.	DWTS.
August	5,056	... 0			14,986	... 0			22,904	... 2		
September .. .	19,039	... 15			12,618	... 6			41,161	... 6		
October	46,613	... 5			38,777	... 14			40,612	... 14		
			70,709	... 0			66,382	... 0			104,678	... 2
November	73,904	... 0			37,664	... 18			43,803	... 8		
December	53,870	... 0			37,260	... 1			57,955	... 6		
January	47,391	... 0			48,567	... 5			32,335	... 14		
			180,165	... 0			123,492	... 4			134,094	... 8
February	42,473	... 0			72,311	... 14			38,042	... 7		
March	32,202	... 5			46,691	... 12			37,614	... 18		
April	22,862	... 10			70,010	... 12			43,649	... 11		
			97,537	... 15			189,013	... 13			119,306	... 16
May	22,945	... 10			47,631	... 5						
June	12,876	... 10			43,613	... 8						
July	10,375	... 18			30,398	... 9						
			46,197	... 18			121,643	... 2				
TOTAL			394,609	... 13			500,521	... 4			353,079	... 6

RETURN

OF GOLD EXPORTED FROM DUNEDIN, EXCLUSIVE OF GOLD, THE PRODUCE OF OTAGO, EXPORTED FROM OTHER PORTS IN NEW ZEALAND.

Destination.	1861.	1862.		1862.	1863.		1863.	1864.		Total.		
	1st August to 31st July.			1st August to 31st July.			1st August to 19th April.					
	OZS.	DWTS.	GRS.	OZS.	DWTS.	GRS.	OZS.	DWTS.	GRS.	OZS.	DWTS.	GRS.
To Great Britain	13,883	... 11	... 0	202,297	... 13	... 0	82,816	... 10	... 0	298,997	... 14	... 0
To Australian Colonies, &c. ..	448,355	... 19	... 6	312,088	... 4	... 0	286,581	... 7	... 0	1,042,025	... 10	... 6
Total.. ..	457,239	... 10	... 6	514,385	... 17	... 0	369,397	... 17	... 8	1,341,023	... 4	... 6

In addition to the above, 54,309 ounces of Otago gold (respecting the *destination* of which I have no information) have been exported from other Ports in New Zealand.

Condition.

5. The present state of the Mines may justly be characterised as eminently healthy, and affording great expectations of future prosperity. During my recent visit to the on this Gold-fields I enjoyed many favorable opportunities of forming an unbiassed opinion on this subject; and I now beg leave to lay before you a detailed account of the several districts.

Tuapeka Goldfield.

6. This, the oldest Goldfield in the Province, not only maintains its position as a rich and valuable auriferous district, returning altogether an average of 3000 ozs. per acre; but has, of late, undergone a surprising revival. Its population has been considerably augmented, and several new discoveries have been made within its borders. The township of Lawrence is slowly but surely growing in importance, and a general disposition towards settlement has been evinced by the miners and other residents. A large number of Residence Areas, of half an acre each, have been registered for the purpose of garden cultivation, and several hundred acres have been taken up under the Agricultural Leases Regulations. Altogether, there is no portion of the Goldfields progressing more satisfactorily, and the spirit of enterprise displayed by the miners is happily attended with results equally profitable to themselves and beneficial to the State.

Gabriel's.

7. The old gully, named after Mr. Gabriel Read, is still extensively worked, and the hills on the north side have been found to be richly impregnated with gold wherever they have been tried. At the celebrated "Blue Spur" the soil is being washed from the surface down to the bed rock, whereon there are fine deposits of the older tertiary formation. Races have been constructed from every available source, and the head waters of far-away creeks have been diverted by tortuous channels from their original beds to facilitate in the reduction of the hills at the head of Gabriel's and Monroe's. Judging from the results of the inroads already made it appears probable that at a not far distant date the range which now separates these two gullies, will be washed entirely away and a clean breach made right through; for on either side the resistless waters are continually doing their work, by day and night, and gold is found in paying quantities throughout. On the very top of the dividing range, sufficient gold was obtained, in sinking a reservoir, to repay the expense of the work. Further down the gullies similar results have been obtained. In the flat, or valley, through which the creek runs past Lawrence to the Tuapeka River, extensive workings are being carried on, and very rich patches are occasionally struck. The hills and spurs on either side of the valley are known to be auriferous. Some of these were, to my own knowledge, successfully but scantily worked in the early part of 1862. Little has since been done in that direction, but the entire valley from the head of Gabriel's to the junction of the Tuapeka with the Clutha is now occupied by a continuous chain of workings, although the population is too limited for any very systematic operations. At Wetherstone's, the beneficial effect of combined labor on a comparatively large scale, is abundantly evident. Originally the large flat there was unworkable by small parties, owing to the surface water, which sadly impeded the operations of the miners. But a channel having (in a period of severe and general depression) been constructed by the Government, this obstacle was removed and the Regulations for granting Gold Mining Leases coming into operation shortly after, some enterprising parties availed themselves of these favorable circumstances,—a large portion of the flat being taken up by working miners in blocks of from two to four acres. The result is that the whole of the ground is now in process of being thoroughly worked. A large number of men are employed at good wages, and the leaseholders derive a satisfactory remuneration for their outlay and enterprise. I know of no other part of the country which is being so well and properly wrought as this, and I cannot avoid expressing a hope that the Leasing Regulations will be yet more generally adopted by the miners, to whom they offer great facilities for the prosecution of mining enterprise under a system combining greater security of possession with the advantages derivable from associated labor.

Waitahuna.

8. The district of Waitahuna languishes somewhat, owing to the want of an adequate supply of water. The richness of the soil has been amply demonstrated, and those who are best acquainted with the locality, know that it has never yet been properly wrought

At some future day Waitahuna is sure to occupy a higher position in public estimation than it does just now. There is scarcely a spur between the main gully and Waipori, or between either and Gabriel's, that would not pay for sluicing on a large scale. Two or three gullies have recently been opened towards the head of Waitahuna River, as Bolger's Gully for instance, where some heavy nuggets have been thrown up. But the population is very sparsely scattered over the district at present.

Woolshed.

9. The workings at the Woolshed are carried on principally in the bed and banks of the Woolshed Creek, and a portion of the North Branch of the Tokomairiro River. Water wheels are pretty generally resorted to for raising the water to a sluicing level, and a race has been constructed from the upper part of the Creek near Mr. Miller's station. The miners have endeavoured to continue the workings further down the course of the Tokomairiro River, but have not met with much success. Apparently they have not sought to trace the auriferous deposits across the flat, yet there are good reasons for believing that eventually a deep lead will be struck in that direction. A few parties are still working at Adams's Flat, to the left of the old road over Mount Stuart; and Canada Bush has lately attracted a few miners.

Waihola.

10. Heavy gold has recently been struck near Lake Waihola, on the borders of a little creek which rises at the rear of Mary Hill. I have been shewn some very rich specimens of auriferous quartz (the stone highly oxidised), said to have been found somewhere in that neighbourhood, but the precise locality was not divulged.*

Waipori.

11. The district of Waipori is one of the most neglected and I am strongly of opinion that it is also one of the richest alluvial diggings in the Province. Discovered just before the commencement of an unusually severe winter season in 1862, and situated high up on the slope of the Lanmerlaw Ranges, it was speedily abandoned; not on account of any want of success, but because of the coldness of the climate and the scarcity of fuel. Little has yet been done in the way of developing its auriferous treasures, but that little is sufficient to demonstrate the fact of gold being thickly disseminated through the soil. On the Verter-burn, (or, as it is usually termed, Post Office Creek,) at the foot of the northern spurs of the Maungatua Ranges, miners have long been steadily at work, and a few men are still quietly working at the Lanmerlaw and other creeks. The immense flat through which the Waipori River pursues its course can scarcely be said to have been prospected. A few paddocks have been wrought here and there on its banks, and from these gold has been procured in remunerative quantities. I believe that the whole flat would pay well if systematically worked on a large scale.

* Whilst this Report was going through the press, a Report was received from Mr. Mining Surveyor Drummond respecting the Waihola Gold-Field, from which I extract the following:—

“The depth of sinking varies from four to six feet, generally through about eighteen inches of surface soil, from four to five feet of clay, and, in some places, about one foot of wash. The general character of the Gold is large, angular, and very little water-worn (nuggets having been found varying from one to four ounces), and is chiefly found in the bed-rock, which consists of blue slate lying horizontally, and of which from about four to twelve inches is taken up and washed. The Gold seems to be found in patches mostly on the lower side of the dips. The Prospectors have been at work for about four months, and state that the largest amount of Gold obtained by them in one week was twelve ounces. On the Saturday previous to my visit one party obtained six pennyweights to one tin-dish full; and, during the time of my visit, I saw about one-and-a-half pennyweights washed out of about six buckets of wash-dirt, the stuff being put through the cradle without being puddled.

“From samples of the Gold I have seen, and the character of the surrounding ranges, I have no doubt but that Quartz Reefs will be found in the immediate neighbourhood of the present workings, one Reef having been already reported to have been discovered about four miles from the Diggings, the discoverer of which, at the time of my visit, was about starting to prospect it, but declined being accompanied by any one, not wishing to divulge the precise locality till such time as he had tested the capability of the Reef.

“I would especially recommend the line of country between the Waihola and the Waipori to the attention of Quartz Reefers, and am of opinion that, if thoroughly prospected, good results would accrue.

“I am of opinion that, in most of the flats and gullies between the Waihola, Waitahama, and Waipori, patches of payable Gold would be obtained if properly prospected, and that a large tract of auriferous country between the above named places still remain to be developed, and might be made the means of affording profitable employment to many thousands of miners.

“Timber for fuel is within easy reach of the Diggings, a considerable amount being also obtained in sinking.”

Shetland Reef.

12. But the chief wealth of Waipori consists now in its Quartz Reefs. The Shetland Reef, which is under application for lease by the Otago Quartz Mining Company, enjoys the pre-eminence of being the first reef worked in Otago; and great credit is due to the enterprising men who, with little capital beyond their own labor, have brought this enterprise to a highly successful issue. They erected a battery of four stamp heads, worked by water power, and crushed everything from the cap of the reef downwards. The quantity crushed has been about thirty (30) tons per week, and the result an average yield of one ounce of gold to the ton of quartz; and they appear to have an unlimited supply of good stone. The company have recently added eight heads of stamps to their battery, have constructed an iron tramway, three quarters of a mile in length, to convey the stone to the machine, and are now engaged in driving a channel through the Range to carry off the underdrainage which tunnel when completed, will be nearly three-quarters of a mile in length. A new Reef has recently been discovered underneath the old workings in Nuggetty Gully (a small but very rich working opened at the time of the first rush in 1862) and if the splendid specimens forwarded to this office by the prospectors are a fair sample of the stone, it is an exceedingly promising lode and will handsomely repay the proprietors.

Riverine Districts.

13. Under this general title I include all those districts which abut on the Clutha River. There is now a continuous line of workings from the Tuapeka Junction to Quartz Point above the Kawarau; and both below and above those limits, detached parties of miners are successfully prosecuting their researches. There is little doubt, indeed, but that the beaches and banks of the Clutha are auriferous throughout its entire length. The beach workings have been for some time almost at a standstill, owing to the height of the water. Very general disappointment was caused last winter by the constant floods, which rendered the efforts of the miners unavailing. At the present time the river has fallen unusually low—numbers are, in consequence, flocking back to its banks from all quarters, and most cheering reports of their success are received. Several experiments have been made with a view to work the bed of the river beyond low water mark,—principally by means of dredging machines, of which there are now six in full operation within the Mount Benger district, and others within the boundaries of the Dunstan field. A certain degree of success has been attained, but the imperfect mechanical appliances now used require considerable improvement before the great problem of the concealed wealth of the Clutha can be satisfactorily solved.

Terrace Workings.

14. The bank or "terrace" workings (as they are usually termed), are co-extensive with the river itself. They consist for the most part of tunnelling operations carried on above high-water mark in the vast accumulations of drift gravel which compose the banks and terraced plains, the latter being apparently the dried-up beds of former lakes. Until recently it was generally supposed that the auriferous deposits were limited to the first thirty or forty feet of the bank, but experience has dispelled this illusion, and heavier gold is generally found at much greater distances. In the neighborhood of Clyde (Dunstan) one of these tunnels has been driven for a distance of three hundred and forty feet,—payable washdirt being found all the way. Two parties are now sinking shafts in the Dunstan Flat—one of these is about a mile, and the other a mile and a half from the river. The latter had reached a depth of fifty-eight feet at the date of the last report; and in both, the claimholders are sanguine of ultimate success.

Kawarau.

15. On the Kawarau River, operations similar in character to those of the Clutha, are being energetically carried on. Very rich tunnelling ground has been struck at the junction of the two rivers, near Cromwell; and also at the entrance of the Kawarau Gorge. At the latter place the ground is peculiarly rich, in proof of which I may quote a few well authenticated cases:—

Buchanan's party (four in number) obtained eight hundred (800) ounces in six months.

Another party cleared out with two thousand one hundred pounds (£2100) per man, the product of a few months' work.

A miner deposited with the Receiver at Clyde one hundred and twenty-five (125) ounces, the savings of himself and son in a fortnight.

Another deposited eighty and a half (80½) ounces, his own *clear gains* for the like period.

16. These are by no means isolated cases, though it is but rarely that miners will divulge their success. The claim of Scotland and party (adjoining Buchanan's) is known to have been amazingly rich; and many are quietly making "piles" in like manner. But the few men scattered over the enormous area of tunnelling ground which exists in these districts, are utterly insufficient in number to do more than barely test its great wealth. There is ample space and verge enough in the terraces for twice as many miners as all who are now in Otago to work for many long years. It is more than probable that the whole of the soil will yet be sluiced bodily away from the surface to the bed rock;—operations to which end have, indeed, been commenced at Quartz Point and other favorite localities. Tunnelling works have hitherto been greatly retarded by the dearness and scarcity of timber required for slabbing and propping the drives, but arrangements have lately been made for floating down a regular supply from the forests of the Hawea Lake, which if offered at a reasonable rate, will furnish an additional incentive to mining enterprise throughout the Districts of the Clutha.

Mount Benger.

17. The apparent produce of this district, as shewn by the escort returns, is very small, but this must not be accepted as a correct indication of the true yield; for (as explained in a former report) the greater part of the gold obtained within the limits of the Mount Benger field is disposed off either at Lawrence or in the Dunstan Township. There are few alluvial diggings in this Goldfield,—the workings being principally confined to the river beaches and the terraces. Several small gullies have been opened near Mr. Gairdner's station on the Tallaburn, and at the Devil's Back Bone on the Beaumont; but little prospecting has yet been done in that direction, although there is a vast extent of very promising country between Lawrence and Roxburgh, as there is also on the flanks of the Lammerlaw Ranges to the east and amongst the Umbrellas to the west. A small but very rich gully was lately opened up by the accidental discovery of gold during the construction of the road from Tuapeka, and I observed a solitary miner engaged in washing auriferous drift, obtained immediately below the surface soil, near the summit of a high range on the road side. Altogether, I regard this field as in a state of incomplete development.

Dunstan and Manuherikia Districts.

18. The produce of this field has been uniformly large during the period to which this report refers; and if the river continues at its present level, a greatly increased yield may be anticipated. The partially worked gullies of Conroy's, Hill's, and others in the Carrick Ranges still continue to support a limited population. Gold has been found on the mountains under the Leaning Rock, and on the very summit of the Obelisk or "Old Man" Range. The slopes of the Mount Pisa Ranges have been successfully opened up, and new ground has been struck near the head of the Manuherikia Valley, at Blackstone Hill, Dunstan Creek, and Mount St Bathans. The Manuherikia river has been turned in places, and the "flats" lying between that river and the Manorburn have been prospected with great success. These flats however can only be properly wrought by companies of associated miners, sufficiently strong in number to overcome the obstacles presented by the pervious nature of the soil, through which the water constantly percolates rendering futile the attempts of small parties. Latterly an auriferous Quartz lode has been discovered near Drunken Woman's Gully, on the western slope of the Rough Ridge. The discoverers have applied for a lease, and are taking measures for working the reef.

Wai-Keri-Keri.

19. Cultivation, though not carried on to so large an extent as on the Tuapeka field has yet made considerable progress in the Dunstan. In the valley of the Wai-Keri-Keri there are flourishing and well-kept market gardens, and the miners have largely availed themselves of permission to take up half-acre residence areas. The climate of the Dunstan is very warm and dry, and highly favorable to the rapid growth of vegetation, provided that due attention is paid to irrigation. The township of Clyde is rapidly improving owing to the recent sale of the allotments, which has produced a most beneficial effect.

Wakatipu.

20. This famous Goldfield still continues to yield enormous quantities of treasure, and exhibits no sign of exhaustion. Indeed, from my acquaintance with the country, I venture to predict that the day is very far distant when the Wakatipu shall be despoiled of a moiety of its golden treasures. Queenstown is now undoubtedly the second City in the Province, and from its position as a terminus it will long remain so.

Cultivation is also beginning to take root in the district. The exceedingly rich plains around Lake Hayes are eminently adapted for this purpose, and would attract a large agricultural population if promptly offered for sale.

Shotover River.

21. The Shotover River, with its tributaries, is now being thoroughly worked from below Arthur's Point to near its sources, and with extraordinary success. At Arthur's Point the Warden reports a yield of six hundred (600) ounces per week from one of the claims. From Maori Point—and more recently from "Jack B. B's Beach," instances of success are continually being reported by the Warden. As much as fifteen thousand pounds (£15,000) worth of gold has been taken from some of the river claims, and the washdirt is still rich, and by no means exhausted. Indeed, a theory has gained ground amongst the miners that the deposits of gold in the bed of the Shotover are continually renewed by the heavy floods bringing down the detritus of the auriferous rocks, which everywhere hem in the deep ravines and gorges formed by the channel of the river. Many circumstances seem to favour this not altogether improbable idea.

22. An apparently feasible scheme has been projected, for diverting the eastern branch of the river, above "The Fork," by driving a tunnel through the intervening range to the western branch. It is expected that about three miles of the river bed will thus be rendered free for mining operations, and application has been made for a lease for this purpose. An attempt is also being made to prospect "The Gorge," or old river bed between Arthur's Point and Queenstown, but I am not yet aware of the result. Another river bed of more modern date, which appears to lead in the direction of the Arrow, has not yet attracted the attention of the miners, although it presents indications of auriferous deposits. More attention has lately been paid to the terraced banks of the Shotover, which have all been found to contain gold in payable quantities—as much as six hundred pounds sterling (£600) per man having been obtained for two months' work. Hydraulic sluicing (for which Otago offers such abundant facilities) has been brought into operation, and here, as elsewhere, this has been found to be the best and most profitable method of reducing the soil and extracting the gold.

Mineral Lodes.

23. The Elgin Quartz Reef at Pleasant Creek may now be said to be in a fair way of being properly wrought, the machinery necessary for the purpose having been erected for crushing the stone. The force employed is water, as at Waipori, rendering steam power unnecessary, to the great advantage of the leaseholders. From the specimens forwarded for inspection, I anticipate a splendid return from this reef.

24. A lode of pyritous copper, yielding, as per analysis, twenty-four per cent. of metallic copper, mixed with iron pyrites, has been discovered at Moke Creek, and application has been made for a lease by the original discoverers. This lode is surrounded,—and indeed the cap of the reef itself is, in places, covered—by auriferous soil, and it is not improbable that the lode is itself impregnated with gold.

Lakeside Workings.

25. The creeks and terraces along the northern and eastern shores of the upper portions of Lake Wakatipu have been very imperfectly wrought, and bid fair to attract a large population at some future time. Gravel taken out with a shovel at random, from beneath the waters of the lake itself, has been found to be interspersed with gold. The Rees and Dart rivers have been irregularly prospected with varying results. At Precipice Creek (opened about a year ago) the depth of sinking and the rush of water, deterred many from setting in, but its auriferous character was nevertheless fully proved; indeed, gold has been found high up on the eastern slopes of the Dividing Range itself. The Upper Lake District may therefore be regarded as a promising field for future enterprise.

Arrow.

26. This locality, the scene of Fox's rush, still maintains a large population, and mining operations are being carried on with great energy at the Twelve Mile Creek and other localities. Here too the terraces are yielding well wherever they have been tested. Below the township the river does not appear to maintain its auriferous character; and there is reason to believe that its former course was somewhere in the

direction of Lake Hayes. It is surprising that the terraces along this line have not yet been tried. A Quartz lode has been struck about three quarters of a mile below the Camp, but I am not in possession of any official information respecting its value extent.*

Cardrona.

27. The upper portion of the Cardrona Valley has been steadily and profitably worked ever since its discovery. The population has never greatly fluctuated in numbers, which may be set down at from 250 to 300 persons. As there is no escort thence, the yield cannot be stated, but there is ample evidence of its being capable of supporting a much larger population, since it includes a very extensive area of auriferous ground, much of which is yet untried.

Gentle Annie.

28. The "Gentle Annie Creek" also maintains a limited population but the appearance of the surrounding country induces the belief that the present workings are but the prelude to much more extensive operations. The Roaring Meg and other adjacent creeks are also being wrought with success, and as the Kawarau River has been found to be auriferous throughout its entire length, a large accession to the population of these outlying districts may be anticipated, when the road, now in process of formation from Clyde to Queenstown, shall be opened for traffic.

Nevis.

29. Notwithstanding the difficulty of access to the Nevis Valley, several hundred persons are reported to be engaged in mining operations thereon. There is no doubt of its being a large and valuable goldfield; and if a practicable road was constructed, either from Clyde or Cromwell, mining enterprise on the Nevis would be greatly facilitated and encouraged by the consequent reduction in the cost of provisions and mining implements. It is impossible to estimate the yield, as the produce is sent to Queenstown and Clyde, but there is reason to believe that it is considerable. The discovery of a Quartz lode on the Carrick Ranges was lately reported, but the prospectors do not appear to have taken any action for working it.

Nokomai.

30. New ground is continually being discovered in this district, and the small population located there are doing well. The main workings are situated on the banks of the Nokomai River, and the adjacent terraces. Heavy finds are occasionally reported from them.

Wakaia Valley.

31. A scattered population is located throughout the Wakaia Valley, with what result I am not informed. The Creeks at the head of the Pomahaka have also been prospected, and a few parties are working there. On the Waikaka Creek payable ground has been struck, and indeed gold appears to be disseminated through the soil in the whole of the country lying southwards and towards the sea-coast.

Mount Ida Goldfields

32. The Mount Ida Goldfield has been much less wrought than the geological characteristics of the country would warrant. Unfortunately, it was discovered just as the winter set in, and the severe winter experienced by the miners doubtlessly operated as a severe discouragement. It is a fact worthy of note that every field opened in this Province during the winter season has been abandoned before its resources have been fairly tested. Such was the case with Waipori, Mount Ida, and Hindon; yet I question whether more promising fields exist in Otago. On my recent visit to the Hogburn, the scene

* Since writing the above, the following notice of the Arrow Reef has appeared in the "Lake Wakatipu Mail":—

"The Arrow Reef has been partially worked for some time past by the present holders of the claim on which it is situated who have opened up a considerable extent of ground, laying bare the Quartz leader first discovered, and also, latterly, the Main Reef, which is apparently an extensive one, dipping towards the river. The crown of the reef is about ten feet from the surface. The casing consists of a blue, clayey and pulverised quartz concrete, which has been found to yield good gold, and is considered a sure indication of the auriferous nature of the reef itself. A quantity of quartz already obtained from the leader has been crushed by a single hand stamper, and although the process is tedious to an extreme, the results have been sufficient to pay the party moderately good wages, a great portion of the stone having yielded at the rate of five ounces to the ton, and although in all probability the average yield of the reef will have to be calculated at something less per ton, yet this may be taken as a fair test of the value of the claim."

of Parker's discovery, it occurred to me that the district had been only very superficially explored;—indeed the main workings have been carried on in an eroded valley, from which it is more than probable that the richest deposits have long since been washed away. In my last annual report (p. 15) I referred to the fact that “gold of a much rougher and heavier description” was found towards the head of the Hogburn and contiguous creeks; and hazarded an opinion that “far richer deposits would be discovered nearer to their sources in the Mount Ida Ranges.” Auriferous ground has since been opened on the very summit of the ranges, more than 3000 feet above the level of the sea, at a place improperly termed Clarke's Gully;—the diggings being on almost level table land. If some of the spurs and terraces towards the head of the Hogburn, and more immediately underlying the ranges were tested, I am strongly of opinion that very rich ground would be discovered.

Hamilton's.

33. On the opposite side of the huge natural amphitheatre, known as the Maniototo Plains, and exactly facing the Hogburn is the mining district of Hamilton's. In October, 1863, a miner named Brockleman, and three others, who had been working sometime at the Hogburn, had their attention attracted to the “made hills” on the northern slopes of the Rock and Pillar Ranges, and determined to try them as soon as their means would allow them to purchase a pack-horse. Two months, however, elapsed before they were able to effect this purpose, when they started with four weeks' provisions, and commenced working up towards a landslip in the face of the mountain. Fifteen holes were sunk by the prospectors with varying results—the average yield being a quarter of a pennyweight to the dish, with from 6 inches to 1 foot of washdirt. On the third day they obtained from another hole a prospect of 1 pennyweight to the dish, and immediately marked out a prospecting claim; and on the same day communicated the discovery to the Warden at Mount Ida. A rush set in, and a considerable area of auriferous ground was discovered. The deepest sinking is immediately under the landslip referred to, where a depth of from 70 to 80 feet is obtained, with thick deposits of payable washdirt. A very large extent of country yet remains unwrought in this district, which promises to be a very permanent field.

Sowburn.

34. Westward from Hamilton's is the Sowburn, on the banks of which some parties have been working for a considerable period. There is no doubt but that a considerable tract of auriferous country, consisting principally of “spur” or hill workings, remains to be explored between the Pigburn and this locality, and also beyond,—namely, round the Western slopes of the Rock and Pillar Ranges.

Murison's.

35. Bounding the Maniototo Plains to the westward are the Rough Ridge Ranges. Little has yet been done towards their exploration, but they present every indication of being rich in the precious metals. At the back of the Messrs. Murison's station a gully has been not unsuccessfully worked by a few miners, but the great wealth of this district, as indeed of the whole of Otago, will be developed rather in the spurs than in the gullies, which but too frequently present the least promising,—although the most readily chosen—field for mining operations. The miners have yet much to learn in this way: and I feel assured that when more attention is paid to the slopes of the ranges, (formed as these are by landslips from the adjacent auriferous rocks,) the produce of our goldfields—great as it now is—will be very considerably surpassed.

Hyde.

36. Under the name of Hyde is designated the district previously known by the inconvenient phrase of “The Nine Mile,”—a name so common on all goldfields as to cause the most extreme confusion. These diggings are not by any means a new discovery—men having been quietly working them since the winter of 1862. But the present rush has a more recent date, since it was only in January that any attention was paid to this remote and neglected, but exceedingly rich locality. There is now on the ground a population varying from 800 to 1000 men. The workings, which are situated on the eastern face of the Rock and Pillar Ranges, about eight miles below the Taieri Lake, are principally hill workings,—the miners following “the lead” from spur to spur towards Phillip's lower station. Many of the claims are very rich, and when water is brought in in quantity, larger results may be expected. I incline to the belief that a second floor will be found below the pipe clay, now regarded as “bottom.”

Taieri River.

37. A little below Hyde some parties are working in the bed of the Taieri River with considerable success. Intermixed with the sand are found some rather fine gems,—rubies, or zircons. It is scarcely possible to take a dish of sand from the river at this point without finding more or less of gold in it. I am much surprised that the resources of the Taieri have never been fairly tested. Much further down, below the Deep Stream, it has been turned, and, as I am informed, with highly successful results. If a little more attention was paid to the bars and beaches of the Taieri it is probable that, although it may not be equal to the Clutha or Shotover, it would be found to be more or less auriferous throughout; and as its course could be turned with comparatively little difficulty it is to be hoped that the attempt will ere long be made.

Fullarton's.

38. Four miles below Hyde, on Saxton's run, on the eastern bank of the river, is Fullarton's, (or the Twelve Mile,) an old field discovered in 1862, but now revived. The new ground (first opened, I believe, by the miner whose name has been given to the workings) is comparatively deep, namely—from 50 to 70 feet. The miners located there are not numerous, but are reported to be doing very well, with plenty of likely looking country adjacent to that already opened.

Murphy's Flat.

39. This is another locality which has been more or less worked since the winter of 1862. It is situated on a watershed of the Stoneburn, a tributary of the Waihemo, or Shag River. Along the Stoneburn itself a few scattered parties of miners are working in the banks, over a distance of 10 miles. The sinking in both of these localities is little more than surfacing—being only from two to five feet, whilst the average earnings of the men are reported by Mr. Inspector Golder as varying from £2 to £6 per week.

Hindon.

40. This district may be said to consist of two distinct yet connected fields: That on the eastern watershed of the Hindon Ranges—discovered by Mr. Simon Fraser—and that on the western watershed, opened up by Nicoll and party. Frasers' Creek, flowing through a deep ravine, was first opened in August or September. It does not appear to have been thoroughly worked at first—too much attention having been paid to the channel of the watercourse, and too little to the promising spurs adjacent. Gamecock Gully is situated lower down the river, and has also been but imperfectly wrought. Nicoll's Gully, and the numberless other gullies beyond, in the direction of the Deep Stream, were discovered in October, 1863; and on the announcement of the discovery a great rush took place. Many did exceedingly well upon this field; but three causes combined to prevent its being fairly tested. In the first place it is too near Dunedin, and consequently a large proportion of the people who assembled there were but indifferently acquainted with the science of mining. Water also is very scarce; for, situated on an elevated table land, devoid of high ranges, Hindon possesses no running creeks of even inferior magnitude; and in Otago, miners will seldom endure to convey the wash dirt to water, of which there is plenty within a few miles; and, lastly, as I have before observed with regard to other fields, the rush took place in the middle of winter, and few could be found to submit to the consequent inconveniences. The Hindon district was, therefore, abandoned at an early date, not, however, until a very large extent of country had been proved to be highly auriferous, and to which, ere long, a large population will again be attracted.*

* During the progress of this Report through the Press the following Report was received from Mr. Warden Charles Broad:—

May 16, 1864.

"SIR,—I do myself the honor to report to you for the information of the Government, several cases of individual success which have been brought under my observation on my usual periodical visit to this place.

"1st. Callaghan and party working in Fraser's Creek last week found a nugget weighing a little over twelve ounces, and also four ounces of coarse gold on the side of the Creek at twenty feet deep in a sort of gutter.

"2nd. Casey and party working on the same place, last week got half-an-ounce out of a tin

Mullochy.

41. Mullochy Gully is a small tributary of the Taieri, on the eastern bank of which it is situated, about three miles from the West Taieri Road. It was opened about June 1863, and a few parties are yet vigorously at work there, turning the creek, and generally earning moderate wages.

Seacoast.

42. Gold still continues to be found at intervals along the coast, intermixed with the sands of the sea. There is here abundant scope for science and enterprise, which will some day no doubt be brought to bear upon the golden treasures which now lie neglected along the shores. The Department has recently been presented with a small quantity of iron sand plentifully intermixed with gold, obtained from a small creek which runs through Molyneux Township near the coast. In former reports I have drawn attention to similar deposits at Coal Point and Moeraki Beach; and I may mention that a splendid sample of heavy gold obtained from the Horse Range, near the latter place, was recently shewn to me by Mr. Young, of Hampden.

Mining Leases.

43. The Regulations for granting Mining Leases within the Province of Otago are at length beginning to be more generally adopted. The system hitherto pursued in regard to this phase of mining operations has been to discountenance all speculative applications, whilst affording every possible encouragement to parties of associated miners, for whose benefit alone the system has been devised—a policy eminently adapted to promote the best interests of the mining community. It is greatly to be hoped—and it is expected—that the miners will still more eagerly avail themselves of the advantages offered by the Regulations during the ensuing year.

Capabilities of the Soil.

44. Around all the principal Goldfields there are extensive tracts of land admirably suited for agriculture and horticulture. Notwithstanding the great height of the mountains and that of some of the workings, the adjacent valleys and plains are of comparatively moderate elevation. All the ordinary grain and root crops may be successfully cultivated, and in one District, the Dunstan, which is only 600 feet above the sea level, pumpkins, squash melons and cucumbers of great size are readily produced; and I am assured by Mr. Bladier, a well-known Victorian vigneron, now resident in the Wai-Keri-Keri Valley, at Dunstan, that the climate of that locality is less liable to frost than either the south of France or the district of Bendigo in Australia, and highly favourable to the culture of some species of the vine.

Cultivation

45. Nearly three hundred persons have availed themselves of the opportunities offered by the Gold-fields Rules and Leasing Regulations to commence cultivation on the Gold-fields; and gardens are now becoming a marked feature in the improvement of the country, a circumstance which essentially contributes to the health and comfort of the mining community, whilst it evinces a disposition toward settlement worthy of all encouragement. Reserves for commonage, and which are also available for agricultural leases, on easy terms, in blocks of ten acres, have been made at Dunstan and Wakatipu, (in addition to the Tuapeka Reserve,) by the cancellation and purchase of the runholders leases. I append a Return, indicative of the extent and progress of this movement.

“dish, and one ounce out of three tin dishes—one piece weighing seven pennyweights. This was obtained out of their old claim abandoned three months ago.

“3rd. Ormond and party took down eight pounds weight of gold last week, also obtained in Fraser's Creek; a man called Joe the baker saw this weighed.

“I have only again to express my opinion that Hindon has never yet been properly tested, and that it will yet prove one of the richest Gold-fields in the Province:

“I have the honor to be, &c.,

(Signed)

“CHARLES BROAD.”

RETURN

SHOWING THE NUMBER OF HALF-ACRE RESIDENCE SITES REGISTERED, AND THE NUMBER OF, AND EXTENT OF LAND COMPRISED IN, APPLICATIONS FOR AGRICULTURAL LEASES ON THE GOLDFIELDS.

	½-Acre Residence Areas.		Agricultural Leases.	
	Number	Extent.	Number.	Extent.
Gabriel's	61	30½	46	460
Waitahuna	35	17½	8	80
Mount Benger	48	24	...	...
Manuherikia	19	9½	...	...
Dunstan	12	6	8	77
Arrow	1	½	8	80
Queenstown... ..	18	9	11	90
Upper Shotover	No	Return	Received.	...
Mount Ida	No	Application.	...	...
Hamilton's	5	2½	...	...
Nokomai	2	1	...	...
	201	100½	81	787

Survey and Sale.

46. Since the date of my last report, sales have been held of town Sections, at Lawrence (Tuapeka), Clydesdale (Dunstan), Cromwell (Kawarau), Queenstown and Kingston (Wakatipu). Other townships, as Alexandra (Manuherikia), Roxburgh (Teviot), Hamilton's and Mount Ida, have been surveyed and will shortly be available for sale. Suburban sections are also in course of survey at Tuapeka, Dunstan, and Wakatipu, and I doubt not will command a ready sale if placed in the market at an early date; for I am aware that there is, at present, a very strong desire to purchase such lands for the purpose of settlement.

Pastoral Leases.

47. A portion of the Goldfields Reserve, consisting of two runs (Nos. 53 and 54) around the Tuapeka Goldfield, being larger than was immediately requisite for commonage or agriculture, has been divided into 5 blocks, and leased by auction, subject to conditions favorable to the Government and the mining community. 40,200 acres have thus been economised, at an annual rental of £1128 6s. 8d.—being an average of 6¾d per acre. 16,800 acres are still left for commonage, in the immediate vicinity of the gold workings at Gabriel's and Waitahuna.

Lignite.

48. It is a subject for congratulation that although wood for fuel is scarce, extensive deposits of Lignite, or Brown Coal, have been discovered on almost every field. The rate at which it is supplied varies from one pound (£1) to one pound fifteen shillings (£1 15s.) per ton, delivered at the pit's mouth. The machinery necessary

for weighing being difficult to procure on the diggings, the mode usually resorted to for ascertaining the quantity is by computation, ten bags of five bushels each being ordinarily considered equivalent to a ton weight. I append a list of the various localities in which coal has been discovered.

Waitahuna Flat	<i>Waitahuna District.</i>	Robertson's Flat
Lawrence	<i>Gabriel's District.</i>	
Butcher's Creek	<i>Mount Benger District.</i>	
Molyneux River	<i>Manuherikia District.</i>	Manuherikia River
Clyde	<i>Dunstan District.</i>	Bannockburn
Kawarau	<i>Mount Ida District.</i>	
Hogburn	<i>Hamilton's District.</i>	Coal Creek
Hyde.		

Population.

49. The population of the Goldfields has not greatly varied since the date of my last Report. From the latest returns furnished by the Wardens, the entire number of residents on the Goldfields is estimated at 25,945 persons, distributed thus:—

	Miners.	Others.	Total.
Gabriel's District	900	700	1,600
Waitahuna	250	130	380
Woolshed	260	45	305
Waipori	250	50	300
Mount Benger	2,650	430	3,080
Manuherika	2,200	500	2,700
Dunstan	3,500	700	4,200
Arrow	1,600	180	1,780
Lake Wakatipu	2,400	1,100	3,500
Upper Shotover	1,500	300	1,800
Nokomai	360	40	400
Nevis	600	50	650
Waikai Valley	1,075	75	1,150
Hamiltons	800	200	1,000
Hyde	1,000	250	1,000
Hindon	300	50	350
Mount Ida	1,250	250	1,500
	20,895	5,050	25,945

This return can only, however, be regarded as approximate, and I have reason to believe that the entire population of the Otago Goldfields does not exceed 22,000, of whom probably 18,000 only are miners.

Management.

50. The management of the goldfields, so as to ensure the efficiency of the service, in combination with reasonable economy, has always been a subject of anxious interest. As will be seen by reference to the large map forwarded with my last report, the mining population is scattered over an immense area, extending from the Silver Stream and Lake Waiholo to the West Coast Mountains, and from the Kakanui Ranges to the Mataura. This circumstance necessitates the stationing, in numerous localities, of officers whose presence is necessary to the collection of revenue, and the settlement of disputes. If the population was three times as large as at present, very few additions would require to be made to the present staff. But notwithstanding the difficulty thus created, every possible facility has been afforded to the residents in our goldfields, at a cost considerably less than the ratio of similar expenditure in other gold producing countries. The total amount expended during the financial year ending 31st March, 1864, for salaries and contingencies, was £22,594 7s. 4d. The revenue derived from the goldfields during the same period was £100,142, 19s. 8d.

Amalgamation of Offices.

51. Considerable saving and increased efficiency is anticipated from the judicious amalgamation of offices. Thus the offices of Registrar and Receiver have now, on all the fields, been combined with that of Clerk of the Courts—the duties appertaining to the whole of which, can, without difficulty, be discharged by one and the same officer. This arrangement allows of officers being stationed in remote districts which previously were without any supervision; so that without any additional cost to the State, the requirements of the miners are more readily attended to. The total number of officers of the Goldfields Department stationed in the field is forty-three, of whom there are—

- 12 Wardens, acting also as Resident Magistrates.
- 14 Registrars and Receivers, acting also as Clerks of Court.
- 1 Clerk.
- 4 Inspectors of Licenses.
- 8 Bailiffs.
- 3 do, acting also as Inspectors of Licenses.

Mining Survey Staff.

52. This branch of the service has been found to be so generally useful as to necessitate enlargement. It now consists of four mining Surveyors and two Assistants. A slight increase has this year been asked for. The labors of these gentlemen are by no means confined to the ordinary duties of mining survey. They have been employed to construct roads and bridle tracks, to resurvey Townships, to erect cairns and snow-poles, to survey gold-fields reserves, lignite beds, and agricultural leases, and generally their services are at the disposal of the Government for any purpose whenever required. I cannot speak too highly of the ability, zeal, and energy, evinced by these officers in the prosecution of their multifarious duties.

Concluding Remarks.

53. In conclusion I beg leave to reiterate my opinion (which frequent visits to the Gold-fields strongly confirms,) that the future of Otago as a gold-producing country is firmly assured beyond the reach of question or doubt. I am quite convinced that, even yet, gold-mining in this Province is but in its infancy. On few fields have any but the most simple appliances been brought into operation. Machinery, (as I have before stated,) there is comparatively very little in use. Yet, even so, the gains of the miner are, on the average, far larger than in any other part of the world. The progress of discovery has dotted the country with isolated diggings, which will all ere long be connected in one continuous Gold-field. At present they only serve to prove the vast—I had almost said—the unlimited extent of auriferous ground; which, I do not hesitate to assert, is unparalleled. Slowly also, the miners are *unlearning* the experience gained in other countries, and beginning to understand the peculiar character of these workings. The great problem of the general diffusion of gold in Otago is now being practically solved. In Australia and California, riverine action has been the main agent in the deposition of the precious metal. Here that agency must be ascribed to the period when numerous Lakes washed the bases of the mountains; and hence it is that the “terraces” and “spurs” are found to contain more certain deposits than the gullies, which are often only casual surface depressions or eroded vallies, whence the auriferous drift has long since been eliminated by the action of the mountain torrents. Time and the teachings of experience can alone render the miners cognizant of the true or probable position of the deposits in each locality, but every year—nay, every month and week—is pregnant with such lessons, and when this subject is more fully understood, Otago will have passed through the feverish spring tide of early discovery, and its attendant “rushes;” and will enter upon the full enjoyment of that mature and permanent prosperity, which must inevitably result from the more systematic working of the mines, and the progress of settlement on the Goldfields.

I have the honor to be,

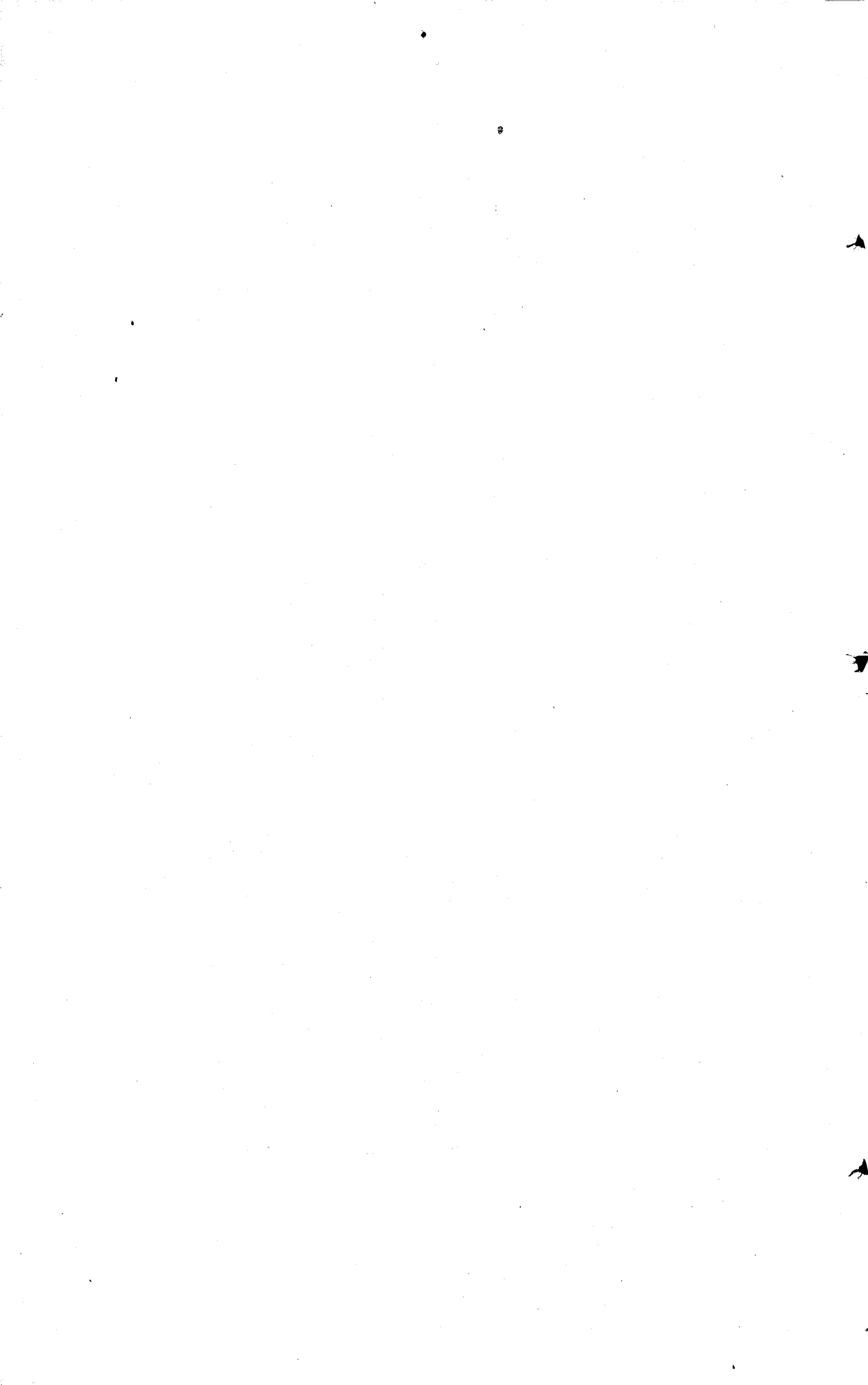
Sir,

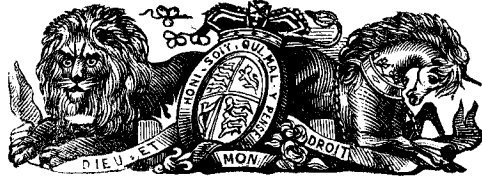
Your obedient servant,

VINCENT PYKE,

Secretary of the Goldfields' Department.

Dunedin, April 19, 1864.





REPORT OF THE COMMISSION
ON
ROADS AND THEIR CONSTRUCTION,

APPOINTED BY

HIS HONOR THE SUPERINTENDENT,

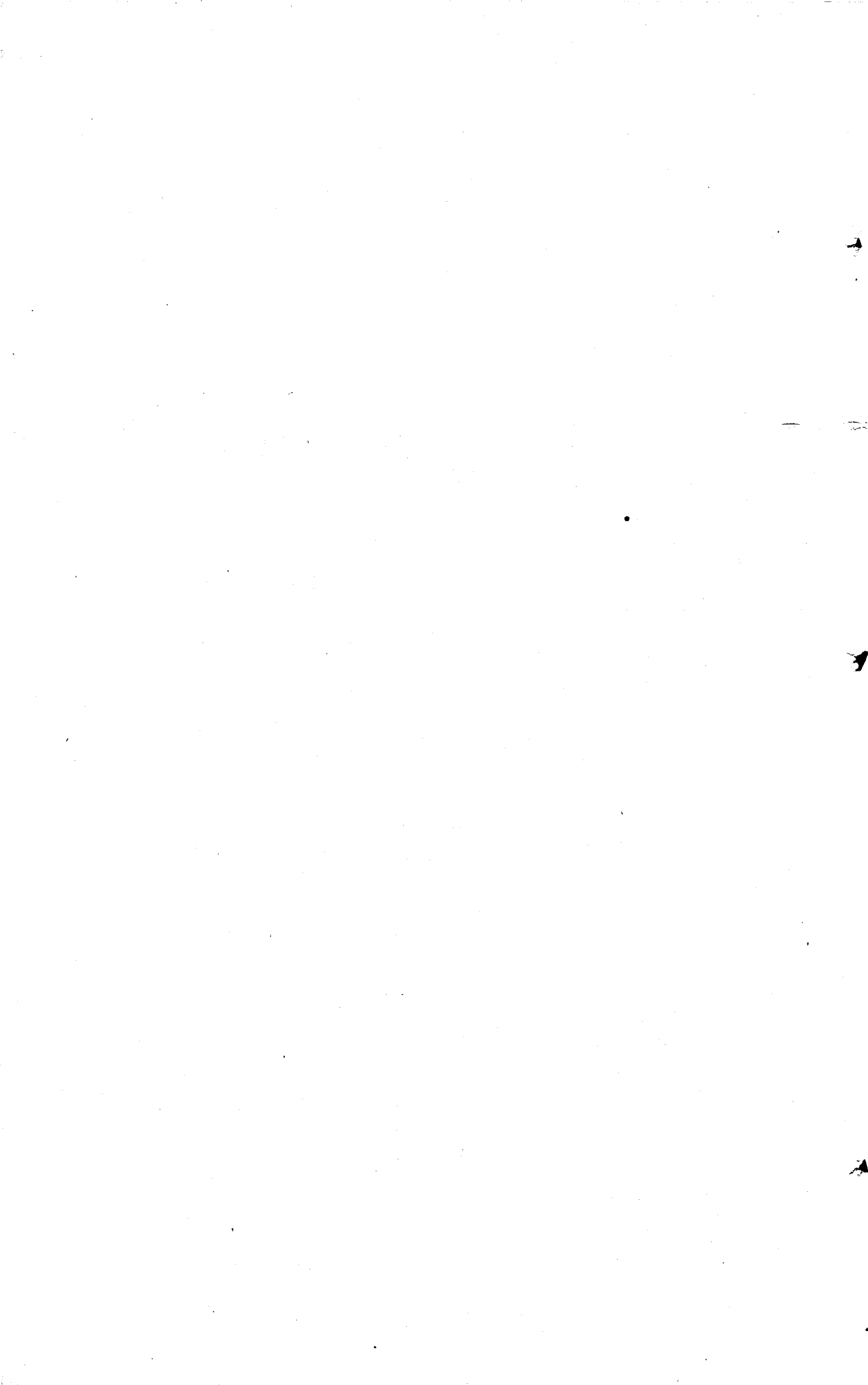
ON THE 14TH DECEMBER, 1863,

“ IN ACCORDANCE WITH THE RECOMMENDATION OF THE SELECT COMMITTEE OF THE COUNCIL,”

REPORT 3, SESSION XVII.

MEMBERS.

F. J. MOSS, Esq., M.P.C., Chairman.
A. J. BURNS, Esq., M.P.C.
J. CARGILL, Esq., M.P.C.
J. HARDY, Esq., M.P.C.
M. HOLMES, Esq., J.P.
J. T. THOMSON, Esq., C.E., Chief Surveyor.
T. TAYLER, Esq. (Port Chalmers.)



REPORT OF THE COMMISSION

ON

ROADS AND THEIR CONSTRUCTION.

The Commission appointed by your Honor began their enquiry on the day of their appointment, and closed the examination of witnesses on the 21st March, 1864. By extending their enquiry over this period, they have been able to obtain the opinions of many professional and experienced men in New Zealand and Australia. The result will be found in the various documents, correspondence, and evidence appended to this report.

Traffic returns, for six weeks ending 13th February, have also been carefully taken and will be found in the appendix.

The evidence and correspondence being necessarily voluminous, the Commission, in stating the conclusions at which they have arrived, think it desirable to summarise as briefly as the question will admit, the grounds upon which their conclusions have been formed and to take the different subjects in the order in which they have been considered.

Common Roads.

1. The attention of the Commission has in the first instance been directed to the common roads of the Province, and they find that a very large expenditure is and always will be necessary to make them of sufficiently good gradients and solidity to carry the heavy traffic for which they are required. Full evidence was obtained on this subject, and taking the Tokomairiro Plains as an illustration, it will be seen that suitable roads are estimated by Mr. Paterson to cost £3000 per mile. The subsequent maintenance of such roads is estimated at from £300 to £400 per mile per annum, while for roads of inferior construction, subject to the same heavy traffic, Mr. Oliver states that there are cases in which the maintenance might be expected for some time to equal per annum the first cost of construction. Of this the road from Saddle Hill to the Taieri Ferry is given as an illustration. The first cost of metalling (15 feet) and levelling the old formation was from £1200 to £1600 per mile, and the repairs for the subsequent six months about £700 per mile.

Common Roads.

It also appears that until the end of 1861, when the heavy traffic began, £1200 to £1800 per mile was considered sufficient as a rule, for the construction of common roads.

The present road from Dunedin to the south side of Saddle Hill was constructed by the Road Engineer in 1860, and placed under the inspection of Mr. David Calder, who states in his evidence that the cost of the first mile to Hillside, with wages at 7s. per day, was only £1400 while no repairs were required for three years after its construction. It is worthy of note with reference to this road that Mr. Calder attributes the low cost to the natural features of the country having been followed by the Engineer. This appears to have been done in opposition to a considerable pressure put upon the Government of the time to make the road by costly cuttings, which would have absorbed £20,000 afterwards spent in extending it to the Taieri Plains. (*Vide Appendix A.*)

The Commission find that the total sum expended on the roads of the Province to present date is £435,000. When they consider how difficult, uncertain and costly the communication still is between the various parts of the Province, they are convinced that the expenditure for the construction and maintenance of suitable turnpike roads will necessarily be enormous, and that by the time they are completed and this great expenditure incurred, it will still be necessary to seek the greater facilities to traffic which well organised railways afford.

They are therefore of opinion that the wisest and most prudent course will be to accept this position at once and to regard all macadamised roads which may in future be constructed as mere temporary expedients, sure under any circumstances in the course of a few years to be relieved by railways of the heavier portion of the traffic, and to become then parish rather than high roads. They recommend that so far as common roads are concerned the system pursued in the early days of the Province should be adhered to—that deep cuttings and heavy works involving great expense should be avoided—the natural surface of the country followed as a rule and the capital cost of the road reduced to its former limits of £1200 to £1800 per mile where possible. The Commission are also of opinion that it would be well, if practicable, either to prohibit by legislation or to limit by increase of toll the use of the narrow tyred large waggons which have of late been adopted, and which none but roads of the very best and most solid construction are fit to carry.

Railways.

2. Regarding Railways as a necessity, the want of which is being daily more felt, the Commission proceeded to consider whether the time had arrived when they could be safely undertaken, and if so, the description of railway which it would be most advisable to adopt. Their attention has been directed both to railways worked by horse power and by locomotives.

Horse Railways.

Respecting horse railways, and after a full examination of their cost and power the Commission are satisfied that they are only suitable as temporary expedients, and in exceptional cases where the traffic is of a simple character and in one direction. Where the traffic is both up

Horse Railways.

and down, and of a mixed kind, it is clear that lines of this description would require to be organised on the same basis as the usual locomotive railways. They would require the same stations and sidings, and thus be worked at a great expense while their utmost power would soon be reached and the development of traffic (especially the passenger portion) be comparatively trifling.

3. The systems which then remained for consideration were—

- 1st. The patent wooden rails of Mr. Davies
- 2nd. That adopted in Queensland.
- 3rd That which has been generally adopted for Trunk lines elsewhere.

Davies' Patent
Wooden Rails.

Mr. Davies' system is now being tried in Southland, but the scarcity of timber along the main lines of this Province, as well as the heavy character of the traffic, convinced the Commissioners without further enquiry that for Trunk lines, wooden rails would be inexpedient and expensive in maintenance to a degree that quite unfits them for the purpose.

Queensland Railways.

Respecting the Queensland system, they have been favored by Mr. FitzGibbon with full information, which will be found in the Appendix. Its distinctive features are the adoption of a 3 ft. 6 in. guage, 35 lb. rails, and rolling stock of a very light character.

It is maintained that by the adoption of this guage and light rolling stock, sharper curves and steeper gradients can be used, and the cost of the line be thus materially reduced. The sum per mile at which the Queensland line (174 miles) is to be constructed is £7,049, the highest average being for a section of 69 miles £8,951, and the lowest for another section of 50 miles, £5,507. It is, however, to be observed, that Mr. FitzGibbon confines his recommendation of the 3ft. 6in. guage to lines "where the traffic is not likely during 10 years or so to exceed 200 tons per day each way." In this Mr. FitzGibbon must evidently refer to a line of unusually level character, as he states in paragraph 23 of his Report, that these light locomotive engines, while drawing upon a level railroad a gross load of 160 tons, will only draw 65 tons up an incline of 1 in 100, and 35 tons up an incline of 1 in 40.

Mr. Dobson, in his evidence, states on the other hand, that the powerful engines used in Victoria on the Sandhurst line, will only take a train of 13 waggons, equal to about 60 tons, up an incline of 1 in 50, and Mr. FitzGibbon must therefore rely upon very short inclines to convey the load of 35 tons up an incline of 1 in 40. Deducting, however, from the tonnage given by Mr. FitzGibbon, the weight of the rolling stock (considered on ordinary railways as one half the load) it will be seen that the powers of such a line to carry goods and passengers between Dunedin and the country, are far short of what would be required. It is requisite also to bear in mind that frequent trains of small carrying power involve a necessary increase in the number of engines, and the quantity of rolling stock, causing not only a corresponding increase of expenditure under that head, and of wear and tear, fuel, main-

Queensland Railways. tenance, salaries and staff, but larger and more expensive station accommodation.

The evidence of Mr. Doyne (who was engineer to the Dun Mountain Railway), will be also found of value on this guage, as well as on railways of similar guages with which he has been connected or acquainted elsewhere.

Mr. FitzGibbon, in paragraph 46 of his report, further estimates that by the time the railway is opened between Ipswich and Dalby (119 miles), "say on the 1st January, 1868, the traffic which was "ascertained in 1861 to be about 4,000 tons will have increased to "10,000 tons per annum."

In Otago during the dullest six weeks of the year, when business was much interrupted by holidays, unusually heavy gales, and other causes stated in the evidence, the traffic returns show that the average for each working day between Port Chalmers and Dunedin by water up and down was 253 tons goods and 224 passengers, equal to 271 tons, or 84,000 tons per annum, and that an additional 109 tons per diem was brought from other ports to Dunedin. Of this, had there been a proper pier and railway accommodation, a considerable part would probably have been put into trucks at Port Chalmers. It will also be seen that the average between Dunedin and the South for the same period was 385 tons goods, and (excluding passengers by Halfway Bush), nearly 1900 passengers per week.

That this, so far as goods are concerned, is below the average of the year, a comparison of the imports of the Province with the respective populations of the town and country districts, gives good reason to suppose. Accepting it however as a basis for calculation, the Commission are satisfied that the natural increase to be expected before a railway of any kind could be completed, and the development, especially of passenger traffic, that would result from greater facilities and lower charges would render the guage of 3 feet 6 inches (however applicable it may prove to the general traffic of pastoral and thinly settled, or to branch feeding lines in level countries,) quite unequal to the wants of Agricultural Districts, such as the Taieri, Tokomairiro, and Clutha, and to the requirements of a trade which (exclusive of passengers) may already be taken at the lowest estimate at 20,000 to 25,000 tons per annum.

The Commission therefore are of opinion that for the trunk lines required the 3 feet 6 inch guage is not applicable to the circumstances of the Province, and that in all cases where the works are to be constructed so as to meet the wants of a rapidly increasing traffic, the saving (as estimated by Mr. Swyer in his report) between the two guages of 3 feet 6 inches and 5 feet 3 inches is so small that it would be better to adopt light rails and railway stock on the latter guage, and thus be enabled to increase their weight and the capabilities of the line as required.

4. Having arrived at this conclusion, the Commission carefully considered, in the first instance, in what directions the existing traffic and prospective wants of the Province would justify the adoption of a system of more powerful trunk lines.

Southern and Western
Districts

Beginning with the southern and western districts, in which the pressure is most felt, they find in evidence that the traffic between Dunedin and the Goldfields is estimated by competent carrier's agents at 200 tons per week, exclusive of the large quantities sent to the Lake District via Invercargill. The traffic returns taken by the Commission show 385 tons for the up and down traffic to Goldfields and other places inclusive. Taking the distribution of this 200 tons according to the figures given in the evidence, the average rate paid after a long period of dry weather, exceeds £10 per ton, equal to a gross charge for carriage to the Goldfields alone, and exclusive of that via Invercargill, of fully £100,000 per annum. Allowing for the increased rate of carriage in bad weather and that the present prices are variously stated in the evidence, to range from absolute loss to mere wages to the carriers, the Commission are of opinion that the actual sum expended on carriage to the Goldfields is in excess of this sum. They find also that of this traffic three-fourths (according to the distribution of numbers furnished by the Goldfields Office) would be conveyed along the southern and western roads by a rail in those directions from Dunedin. These estimates are exclusive of passenger traffic, which at the Taieri Junction is returned at 1813, and at the Half-way Bush at 1266 per week, making a total of 3079 persons in and out of Dunedin by the various roads, exclusive of North Road, weekly.

These facts have been sufficient to give the Commission a fair idea of the large sums expended by the southern and western roads on carriage which is nevertheless so insufficient, inconvenient and costly, that it is stated in evidence as depriving the Miners and Country Residents of an "immense number of the common necessaries of life that are used by the population of the Victorian Goldfields, but unknown here."

Northern Districts

With reference to the Northern Districts, the traffic appears to be of a growing kind, but to be supplied for the present by Coastal steamers to Waikouaiti, Moeraki, and Oamaru and by common roads from those Ports without that pressure being felt which cripples communication to the South and West.

River Navigation.

5. The River Navigation of the Province, it is scarcely within the scope of the Commissioners' duties to touch. They have thought nevertheless that it would be desirable to obtain some information as to the time required, and cost of dredging the channel between Port Chalmers and Dunedin, in order that they might compare them relatively to a railway along the shore. On this subject they have received from Mr. Balfour, Marine Engineer, a Report which will be found in the Appendix. It will be seen, that to deepen the harbor with one dredge to a depth of 12 feet, would probably cost £76,000, and occupy a period of $7\frac{1}{4}$ years. The expenditure would be gradual and it will no doubt be undertaken, but the result is too distant to render it a substitute for railway communication, in addition to which they concur with Mr. Balfour that as the Province advances both rail and river will be found useful and necessary.

River Navigation.

While on this subject the Commission may also be allowed to refer to that portion of Mr. Balfour's report in which he incidentally expresses his hopes of success in the exploration of the Clutha from Tuapeka to the Beaumont, with which the Government have instructed him to proceed. Should that gentleman's anticipations be realised, and the river prove capable at moderate cost of being made easy of navigation, it will by developing new country, render more than ever necessary a better, cheaper, and more regular communication by land between Dunedin and the Clutha to connect them with each other and with the intervening country. In this case, as with Port Chalmers, the Commission believe that the rail and the river will be found to have each its peculiar advantage, and that both will be useful aids to the progress of the country.

6. Having carried their enquiry thus far it became necessary for the Commission to ascertain if possible the cost of an efficient Railway from Port Chalmers to Dunedin, and thence to the Clutha.

Dunedin and Port
Chalmers Line.

In the easy country between the Taieri and the Clutha the estimates made by the engineers examined were sufficiently close to enable the probable cost to be calculated, but between Dunedin and Port Chalmers on the one hand, and the Taieri Plains on the other, nothing but thorough surveys and sections could be depended upon. With a view to obtain these the Commission sought the aid of the Government. Mr. Swyer was instructed accordingly to survey for them the line to Port Chalmers, and Mr. Paterson that to the Taieri Plains. The result of the Port Chalmers survey is not known in time for its insertion in this report, but the amount estimated is £200,000, rolling stock included. Upon the remunerative prospects of this line, if the survey confirm the estimate, the Commission think it unnecessary to enter. The traffic returns compared with the low capital cost of the line, speak for themselves and require no comment.

Central Southern,
and
Western Line,

The great question of communication from Dunedin with the fertile plains of the South, and the Gold-fields of the South and West can only be solved by the adoption of the route via Saddle-hill. In the absence of complete survey the probable cost of a railway in this direction may be gleaned from the estimates in the Appendix.

Estimates of Cost.

Mr. Swyer's are for a single line between Dunedin and the Clutha, £11,681 per mile. Mr. Paterson's estimates (exclusive of rolling stock, stations, purchase of land, and other incidental expenses included by Mr. Swyer) are £12,700 for a line over average country only, and without reference to a probably large sum for crossing the hills between Dunedin and the Taieri Plains. Mr. M'Kenzie's estimates, excluding however many necessary items in those before mentioned, are £9,320 per mile. Respecting the estimates of Mr. Swyer and Mr. Paterson it will be seen that the difference is considerable, and caused by different estimates of the quantity of earth work, the number of bridges and culverts and similar items, as well as the 10 per cent. added by Mr. Paterson for contingencies. It is impossible to say which estimate will prove correct until the line is properly surveyed, gradients decided, and sections taken.

Cost of Victorian Lines. The Commission were struck with these estimates as compared with the very high cost of the Victorian lines; but are informed by Mr. Doyne, in his evidence, that railways equal in solidity and efficiency could now be constructed there at £10,000 to £15,000 for single, and £15,000 to £20,000 per mile for double lines. Mr. Holmes, in his evidence on the same subject, considers that the single line which is over favorable country, could be constructed at £10,000 to £12,000 per mile, and that the double lines which are through a difficult country would cost under £35,000. They find also that in Tasmania (vide Mr. Doyne's evidence), Messrs. Peto, Brassey and Co., have offered to construct at £8,500 per mile (including rolling stock, stations, and all incidental expenses) a line of 44 miles, over a country of which one-fourth is said to be heavy, and the other three-fourths unusually light. Considering therefore the very favorable nature of the country between the Taieri and the Clutha, the estimates of Messrs. Swyer and Paterson will leave a good margin for difference in price of labor and material between Otago and Tasmania.

Cost of Tasmanian Lines. The cost of the Canterbury railways, over somewhat similar country, is stated by Mr. Holmes to be £12,000 per mile, and so far confirm the estimates quoted.

Guage. 7. The important question of guage has occupied the serious attention of the Commission. They find that while in Southland the 4 feet 8½ inch has been adopted, 5 feet 3 inches is being used in Canterbury by recommendation of the late Mr. R. Stephenson. The opinions of scientific men appear unanimously in favor of the guage of 5 feet 3 inches, as giving more room for the working parts of the locomotive, costing very little if anything more in construction, and being far superior in efficiency.

The Commission therefore recommend the guage of 5 feet 3 inches for adoption on any trunk lines that may be constructed in Otago. At present the Southland Government are only committed to lines running from the Bluff to Invercargill and thence to the North. The Commission therefore recommend the Provincial Government to urge upon Southland the adoption of the Canterbury and Otago guage, on any lines they may run to the eastward, and thus avoid all the serious evils, the annoyance, losses, and hindrance to communication which a break of guage must inevitably cause.

Terminus. 8. On the subject of Terminus, the Commission fully appreciate the importance of having one Central Terminus in Dunedin, instead of a variety of Stations

They recommend that a proper space be reserved from the Harbor reclamation for this Central Terminus. It would be advisable to select the site at once and by either making the main streets now in course of formation at a level which would carry them over the railway, or by such other means as might be found most suitable, avoid level crossings which cannot be otherwise than dangerous in such positions.

9. The Commission having carefully considered the present traffic and the prospective wants of the Province, recommend two Central Lines of Railway for the development of the country.

Central Southern, and
Western Line.

One of these central lines running to the southward, and thence north and west, should connect Dunedin with the rich agricultural districts of the Taieri, Tokomairiro, and Clutha, and be commenced with as little delay as possible. The same line might be extended, as circumstances rendered advisable, southerly to the Mataura, and northerly and westerly to the Dunstan and Wakatip. Branch lines would naturally be proposed as the works advanced. Each of these would be considered on its own merits, and might be constructed on any system which appeared most suitable at the time.

Central Northern Line.

To the north it will probably be some years before it is necessary or advisable to attempt Railway communication between Dunedin and Waikouaiti, and the line when made will in all likelihood coast the shore, and thus aid but little in the development of the country through which it passes.

The Commission, however, recommend that from Waikouaiti to the Waitaki, a line be surveyed so soon as the survey of the Central Southern and Western line is completed. The time for commencing the construction of this line, the Commission do not venture to determine. Much will depend upon the quality of the country through which it is to pass, the expense of construction, and other points which the survey will decide.

Single or Double Lines.

10. The Commission have carefully considered whether the lines they recommend should be single or double, and obtained useful information on this head.

They recommend that for lines to the interior, land should be obtained for a double line, but the works constructed for a single line with exception of such over bridges as may be required. Mr. Geo. Holmes' evidence will show that this can be changed, at little sacrifice, into a double line when required.

11. The Commission recommend that these lines should be constructed at the smallest possible cost, consistent with simple strength and efficiency. The lesson to be derived from the Victorian railways should be carefully studied, and the errors made in constructing them in a style and of a finish unsurpassed by any Railways in the world should be carefully avoided.

12. The Commission are much impressed with the fact brought out during their enquiry, that direct profit from railways is dependent much more on the capital cost than on the population of the country through which the lines run. There appears to be no substantially made line in which the first cost has been kept down, that has not paid. The Peebleshire line in Scotland, and the portion of the line opened in Canterbury, running in both cases through thinly peopled districts, are notable illustrations of this fact.

Financial Basis.

13. It is not necessary for the Commission to go into detail as to the financial basis on which the Railway system of Otago should in their opinion rest.

In the evidence of Mr. Sholl, Mr. Doyne, and Mr. G. Holmes, which is appended, full information will be found on this important subject.

The Commission after carefully considering the question concur in the opinion so emphatically expressed in the evidence, that in countries like Otago where there is no surplus capital, and where money finds ready and profitable employment, residents are indisposed for railway undertakings or any investment yielding them less than the current high rates of interest. The capital must therefore be raised chiefly in England. Local and London Directories would be formed, and all the evils attending conflicting interests and views be thereby incurred.

Provisional Guarantee
for Port Chalmers Line.

In order, however, that the comparatively small line between Port Chalmers and Dunedin may, if desired, be commenced without the delay necessarily attendant on the action of the Provincial Council, and its confirmation by the General Government.

They consider that the line between Dunedin and Port Chalmers might be constructed under a guarantee of 6 per cent. *upon a fixed sum*—PROVIDED a Company can be formed to carry out the work, before railways to the interior are commenced. A guarantee on an *indefinite* sum, according to the practice of the Indian Railways, they consider objectionable, as entailing all the evils of expensive and double supervision, conflicting Boards of direction and much delay. In a guarantee of any kind the most ample precautions will of course require to be taken with regard to junctions and extension in other directions hereafter.

Central Lines.

14. The Central Southern and Western, and the Central Northern lines should, in the opinion of the Commission, be regarded in a different light to the Dunedin and Port Chalmers line. They are intended not only to increase but to *create* facilities and to aid thereby in the development and progress of the Province. They would render the country more habitable, more capable of sustaining a dense population, and should be viewed, in the opinion of the Commission, as great and necessary Public Works, and not as commercial speculations.

15. The great advantage of such public works it is needless to demonstrate. No more signal instance could be given than the solid progress and prosperity which it is asserted they are bringing to the colony of Victoria, in spite of the extravagant scale on which they have been there planned and executed.

Responsibility incurred by the Province in executing Central Southern, and Western Line.

The Commission have therefore applied themselves to ascertain, so far as calculation on such a subject is possible, the responsibility which the construction of such public works would entail upon the Province. They confine their attention for this purpose to the Central Southern and Western line, of which they consider the immediate execution of the first sections required, leaving other lines for consideration at some future time, when that chief undertaking so important in their opinion to the progress of the Province, is in course of completion. They consider that the estimates of Messrs. Swyer and Paterson respectively, justify the belief that the cost of this line may be taken in the one case at an average of £12,000, and in the other at £16,000 per mile, for the whole distance from Dunedin to the Clutha, while thence to the Dunstan and Wakatip no great difficulties would be likely to occur to prevent extension, and the cost be much less than the higher of these two estimates. But confining themselves to the Dunedin, Tokomairiro,

Responsibility incurred by the Province in executing Central Southern, and Western Line.

and Clutha sections of the line, they assume that the Government, who are the largest landed proprietors in the country, will for that and the reasons before referred to, undertake the construction of the line, leasing or working it when completed as may be found best at the time. They assume, also, that in the issue of the necessary debentures the railway will form part of the security by a first charge on its earnings, in addition to the land required by the General Government to be set aside for such purposes. On these terms the gross annual liability of the Province should not at furthest exceed £50,000. Against this the receipts of the railway would be set off, and a gross revenue of £100,000 to £110,000 would pay not only working expenses, but interest in full. On this point the experience of the Government lines in Victoria may be useful. The Commission find that in 1860-61, these lines were open to the extent of 90 miles. A considerable portion of this was only available for passenger traffic, the arrangements for goods being incomplete, yet the receipts per mile were very nearly £1,600—of which two-thirds were for passengers and one-third for goods—and they have increased until, in 1864, they are at the rate of £2,350 per mile per annum. It is also worthy of notice that at the time to which these statistics are computed (30th June, 1861) the Victorian Government had expended £4,540,000 on common roads and bridges, and that the cost of land carriage had been reduced to 10d. per ton per mile, while it is stated in the same report (*vide* essays attached to catalogue of the Victorian Exhibition, 1862) that “hitherto only a small proportion of the goods’ traffic between Melbourne and the goldfields has passed over the railway, in consequence of the limited extent opened, and it is confidently anticipated that the revenue will increase in a much higher ratio than the length.”

The Commission also find that the statistics of the railways of Great Britain, prove—as contrasted with those of Victoria—the extent to which higher rates, the absence of competition, and social differences make up for the want of large cities and dense population. The returns to which they refer give for 1849 and 1856 respectively the following results:—

	Miles	Passenger Traffic per Mile per annum.			Goods Traffic per Mile per annum.			Total Receipts.			Working Expenses.
		£	s.	d.	£	s.	d.	£	s.	d.	
1849	5580	1140	0	0	1000	0	0	2140	0	0	960—47 per cent.
1856	8502	1200	0	0	1500	0	0	2700	0	0	1294—48 per cent.

The Commission believe that in Otago, as in Victoria and elsewhere, it would require two or three years fully to develop the traffic. It must to a considerable extent be created; cultivation and settlement must be undertaken, and time is required for these purposes. But, taking the lowest estimate of the receipts, they would evidently—if they required supplementing from the general

Responsibility incurred by the Province in executing Central Southern and Western Line.

revenue of the Province—do so to only a very moderate extent. On the other hand a great saving would be effected in the maintenance of common roads—the revenue would necessarily be increased by increase of population—a most useful class of men would be introduced to carry on the works—the country made more attractive to those accustomed to the conveniences of life elsewhere, and the public lands be much increased in value. There would also be a very large saving effected by the public, who now pay, in addition to great personal trouble, loss of time, and inconvenience, an average rate of 2s. to 2s. 6d. per ton per mile for goods, and 9d. to 1s. per mile as passengers, while on railways generally the charge would not be likely to exceed 1s. per ton for goods, and 3d. to 4d. per mile for passengers, according to the class of carriage taken. Considering further the very large sum spent in the carriage of goods and passengers in the present primitive style on the southern and western roads, and the natural increase which must take place in this traffic before the railway can be completed—considering the freedom from competition, and that it will therefore be possible to keep down the working charges by running trains only at such times and intervals as the traffic requires—considering the experience of other colonies, and considering that the united imports and exports of the Province amounted in the year just past to very nearly £6,000,000.

The Commission are convinced that if the capital cost can be kept down to anything near the higher amount at which it is estimated, the responsibility of constructing as speedily as possible the first sections to the Clutha of the Central Southern and Western line may be safely undertaken, and will require even for the first few years after their completion a comparatively trifling contribution from the revenue of the Province. The information given by Mr. Geo. Holmes on the Victorian Railways, which will be found in the examinations attached; the evidence of Mr. Dobson as to Canterbury, with a population of 24,000; and the evidence and statistics furnished by Mr. Bathgate as to Peeblesshire, with a population of 10,000, confirm by practical experience the opinion of the Commission on this subject.

16. The Commission also recommend that the same Legislative Act which will be necessary to authorise the sections of this railway from Dunedin to the Clutha should, if practicable (and especially if the Debentures are to be made a first charge on the line) include the whole of the Central Southern and Western line, which they recommend from Dunedin to Lake Wakatip. It could then be made from the Clutha in further sections to such points as might from time to time be found advisable, care being taken to secure as soon as possible the land required for a double line. Deviations would thus be possible should landowners prove unreasonable, and known and large contractors, seeing the extent of the works contemplated, would probably compete for their construction, while smaller contracts might hardly be worth their notice.

17. The Commission finally recommend, should the Port Chalmers line not be taken up by a company (under the guarantee of 6 per cent. on an estimate of its cost), before the preliminary steps for the execution of the Central Southern and Western Line are completed, that its construction should be undertaken by the Government as a necessary part of the Railway system of the Province.

In concluding their report, the Commission have much pleasure in expressing their thanks for the readiness with which their applications for information have been met, and their high appreciation of the services rendered by the several gentlemen whose reports and evidence will be found attached.

FREDERICK J. MOSS,

CHAIRMAN.

Dunedin, 28th March, 1864.

MINUTES OF COMMISSION

ON

"ROADS AND THEIR CONSTRUCTION."

Appointed by His Honor the Superintendent, in accordance with the recommendation as per their Report iii., Session xvii., 1863.

MEMBERS OF COMMISSION :

Arthur John Burns, Esq., M.P.C.
 John Cargill, Esq., M.P.C.
 Mathew Holmes, Esq., J.P.
 John Hardy, Esq., M.P.C.
 Frederick Joseph Moss, Esq., M.P.C.
 John Turnbull Thomson, Esq., C.E.
 Thomas Tayler, Esq., Port Chalmers.

FIRST MEETING OF COMMISSION AT THE SURVEY OFFICE

14TH DECEMBER, 1863.

Present—

Messrs. Tayler
 Burns
 Thomson
 Moss
 Cargill

Mr. F. J. Moss was elected Chairman of the Commission on the proposition of Mr. Thomson, seconded by Mr. A. J. Burns.

Resolved—

1. To apply to the Government for a Clerk to the Commission.
2. To apply to the Government for the traffic returns.
 - 1st. Between Dunedin and the Dunstan, via West Taieri and Tokomairiro respectively.
 - 2nd. Between Dunedin and the Taieri, Clutha, Waikouaiti, and Oamaru, by sea.
 - 3rd. Between Port Chalmers and Dunedin, by lighter.
 - 4th. Return of tonnage of goods and produce imported into and exported from Dunedin.
3. To write to the following gentlemen—

Messrs. T. Patterson, C.E.
 Swyer, C.E.
 Balfour, C.E.
 Millar, C.E.
 M'Kenzie, Contractor,

Requesting them to embody in a report to the Commission their opinion as to the most suitable means of land communication between Dunedin and the Agricultural Districts North and South, and between Dunedin and the Goldfields ; and to let the Commission have their Report as soon as possible.

Letter to be addressed to the Chairman Roads Commission, Survey Office, Dunedin.

The Commission then adjourned till Thursday next at 12 o'clock.

SECOND MEETING OF COMMISSION AT THE SURVEY OFFICE,

21st DECEMBER, 1864.

Commission met at 2 o'clock, p.m.

Present—

Messrs. Moss, Chairman
Thomson
Hardy
Burns
Tayler
Cargill

The Minutes of the last meeting having been read and confirmed,

The Chairman notified the appointment of Mr. Hertslet as Clerk to the Commission.

It was then resolved,

1. To request the Provincial Secretary to sanction the appointment of Mr. Thomas Fraser to take returns of the traffic between Dunedin and the Dunstan via Tokomairiro and the West Taieri respectively, at the junction of the East and West Taieri roads, both ways, at 15 per day.
2. To request the Provincial Secretary to sanction the appointment of some person to take returns of the traffic between Dunedin and Port Chalmers, up and down; and between Dunedin and the Taieri, Molyneux, Invercargill, Waikouaiti, Moeraki, and Oamaru.
3. That the person so appointed shall apply to the agents of each vessel arriving from beyond the sea for the amount of tonnage of import goods.
4. To write to Mr. Davies, C.E., informing him of the appointment of this Commission on "Roads and their Construction," and requesting an official report as to his system.
5. To write to Mr. Bathgate, Manager of the Bank of Otago, requesting him to favor the Commission with any information as to the Peebles Railway, which is quoted as one of the cheapest lines in Great Britain.
6. To apply to Mr. Sholl for information as to the cost of constructing, maintaining, and working the railway with which he was connected in Victoria.
7. To request the Provincial Secretary to apply to the Government of Tasmania to be good enough to furnish the Provincial Government of Otago, with a copy of Mr. Doyne's report on Railways and Tramways in Tasmania.
8. To write to Mr. Fitzgibbon, of Nelson for particulars as to the cost of constructing and maintaining the Dun Mountain Railway at Nelson.

The Clerk was instructed to notify to each member of the Commission the time of the next meeting one day previous to such meeting.

The Commission then adjourned till Monday the 5th January, 1864, at 2 o'clock p.m.

Roads Commission,
22nd Dec., 1863.

R. Rutter, Esq., 5 Temple Court,
Collins-street west, Melbourne.

SIR,—I have the honor to inform you that a Commission to inquire into the question of "Roads and their Construction" has been appointed by His Honor the Superintendent, and that your communication of 21st July last, addressed to His Honor, respecting certain improvements and economy in the construction of Railways and Tramways, has, among others, been laid before them.

I should now feel obliged if you would be good enough to favour me, as Chairman of the Commission, as soon as possible with further and fuller particulars as to your system, accompanied with such drawings and illustrations as you may deem necessary for the purpose of elucidation.

I have the honor, &c.,
FREDERICK J. MOSS,
CHAIRMAN.

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THIRD MEETING OF COMMISSION,
5TH JANUARY, 1864.

Present—

Messrs. Moss, Chairman
Holmes
Tayler
Burns.

The minutes of the previous meeting having been read and confirmed,

The Chairman read a letter from Mr. Rutter, of Melbourne, addressed to the Superintendent, and which had been forwarded by His Honor for the information of the Commission; also letters from Messrs. Paterson and Balfour, in reply to the circular addressed to them by him; also a report from Mr. Bathgate on the cost of constructing the Peebles line of railway. A copy of the letter addressed by the Chairman to Mr. Rutter, in reply to his letter to His Honor the Superintendent, was also read.

The following resolutions were then unanimously adopted :—

1. To refer the report of Mr. Bathgate and the letter of Mr. Rutter to J. T. Thomson, Esq., C.E., for his consideration.
2. To convey to Mr. Bathgate the thanks of the Commission for his report, and to inform him of the intention of the Commission to avail itself of his offer, and to apply to him for further information should it find occasion to do so.
3. To write to Messrs. Holmes and Richardson, of Christchurch, for information as to the general cost of the construction of railways of a simple and inexpensive kind.

* No reply to the above letter received.

4. That the operations of this Commission would be much facilitated if the Government would obtain from the Engineer Departments an estimate of the approximate cost of dredging the channel between Port Chalmers and Dunedin so as to admit vessels of a large tonnage; and of the construction of a railway between the same places, and also of the time which would be occupied in either or both operations.

The meeting then adjourned to Tuesday, 12th instant, at two o'clock p.m.

FOURTH MEETING OF THE COMMISSION.

12TH JANUARY, 1864.

The Commission sat at 2 p.m.

Present—

Messrs. Moss, Chairman
Holmes
Hardy
Burns.

The minutes of the last meeting having been read and confirmed,

The Chairman read a report from Mr. Davies upon the system of wooden rails for railways; also a report from Mr. James M'Kenzie on the subject of roads and railways, their construction and cost.—Reports appended.

The meeting then adjourned till Tuesday, the 19th instant, at 2 p.m.

FIFTH MEETING OF THE COMMISSION.

19TH JANUARY, 1864.

Commission met at 2 p.m.

Present—

Messrs. Moss, Chairman
Holmes
Tayler
Thomson.

The Minutes of the last meeting having been read and confirmed,

It was resolved that the Commission take evidence.

The meeting then adjourned till Tuesday, 20th instant.

SIXTH MEETING OF THE COMMISSION.

26TH JANUARY, 1864.

Commission met at 2 p.m.

Present—

Messrs. Moss, Chairman.
Cargill
Thomson
Hardy,

The Minutes of the previous Meeting having been read and confirmed

The Traffic Returns were submitted to, and considered by the Commission.

A copy of Mr. Doync's Report on the Launceston and Deloraine Railway, also of the Minutes and Report of a joint Committee of the Tasmanian Houses of Parliament upon the same subject, which had been supplied by the Tasmanian Government at the request of the Provincial Government of Otago, were laid upon the table by the Chairman.

It was then resolved—

That Mr. Paterson, Chief Provincial Road Engineer, should be requested to nominate some member of his staff to give evidence before the Commission at its next meeting, on Tuesday, the 2nd February, at 2 p.m., on the subject of the cost of constructing and maintaining the present system of roads in this Province.

The Meeting then adjourned till Tuesday, 2nd February, at 2 p.m.

The Meeting of the Commission appointed to take place on the 2nd instant was postponed by order of the Chairman, in consequence of the holidays, till Thursday, the 9th instant at 2 p.m.

SEVENTH MEETING OF THE COMMISSION.

9TH FEBRUARY, 1864.

Commission met at 2 p.m.

Present—

Messrs. Moss
Thomson
Tayler

The Minutes of the previous Meeting having been read and confirmed,

The Traffic Returns for the two last weeks were submitted to, and considered by the Commission.

Mr. Swyer's estimate of preliminary Railway Surveys submitted and considered. Mr. Oliver, Inspector of Roads, and Mr. Martin Sholl attended to give evidence before the Commission, and Tuesday, the 16th instant was appointed for their examination.

A report from Mr. Swyer, C.E., Provincial Engineer on the cost of constructing Railways, was laid before the Commission, and also a map descriptive of a proposed line of Railway to Port Chalmers.

It was then resolved—

1. To discontinue taking the traffic returns after Saturday the 13th instant.
2. To arrange if possible with the Secretary of Public Works to continue the traffic returns at the various Toll Bars in the form used by the Commission.
3. That the Commission, having proceeded so far in its enquiry, are of opinion that no time should be lost in making Railway Surveys from Port Chalmers to Dunedin, and from Dunedin to the Clutha, and that a copy of this resolution be forwarded to the Government at once.

The meeting then adjourned till Tuesday, 16th at 2 p.m.

EIGHTH MEETING OF THE COMMISSION.

16TH FEBRUARY, 1864.

Present—

Messrs. Moss, Chairman
 Holmes
 Hardy
 Thomson
 Burns.

The minutes of the previous meeting having been read and confirmed,

The traffic returns of the last week, as also abstracts and averages of the traffic during the period the returns were taken, were submitted and considered.

MR. THOMAS OLIVER, ROAD INSPECTOR, EXAMINED :

1. What experience have you had of road making in this Province ?

My experience of road making in this Province commenced in February, 1857. I then took charge of all the roads outside of the boundary lines of townships, and in October, 1861, I took charge of the Northern half of the Province, and in July, 1862, I was appointed General Inspector.

2. Can you tell the Commission the cost of the various macadamised roads and dray tracks—for construction as also for keeping in repair ?

For the first three years I was employed in opening up the outlying districts by horse tracks. The approximate estimate of such tracks as under :—

Formation of unmetalled horse tracks through the country to a width of		
10 feet	£320	per mile.
Formation and metalling to a width of 4 feet and 6 in. deep	520	„
Clearing, formation, and metalling through bush	900	„
Formation of dray tracks, through open country, to a width of 16 feet	500	„
Formation and coating of gravel to a width of 14 feet	800	„

These tracts answered very well for the traffic at the time they were constructed. In the latter end of the year 1861 the traffic began to increase, and it was considered necessary to have these dray tracts metalled. The metalling to consist of blue stone, or half blue stone and half gravel, to the width of 15 feet and depth of 10 inches.

Cost of re-forming and re-metalling such	£1600	per mile
Cost of maintaining, with medium traffic, from £200 to £240	„	„

This construction has proved quite unfit for heavy waggon traffic. In place of from £200 to £240 the cost in some cases will be nearer £1000 per mile per annum. For the last eight or ten months roads of 24 feet formation and 15 feet width of metal have been entirely metalled with blue stone to a depth of 10 inches. The cost of such roads is about £2100 per mile. This construction when laid on a hard formation makes a very good road, but when the formation is at all soft pitching is required for the heavy traffic now passing along some of the roads.

3. What will be the cost of keeping in repair roads metalled with blue stone only to a width of fifteen feet ?

With ordinary traffic I should say from £200 to £240 per mile per annum when metal is laid on a firm bottom or pitched, but for such traffic as the roads are now subject to, in large waggons with narrow tires, it is impossible to give

an estimate,—because when rushes take place, and in wet weather, ten or fifteen of these heavy waggons will follow along in the same track, and completely cut through the metal. There are some such cases, even where the metal has been laid upon a firm foundation, in which for some time the cost per annum for keeping the roads in repair might be expected to equal the cost of construction. The actual cost of keeping in repair for the first six months, immediately after its construction, the road from Dunedin to the Taieri Ferry, which is a fair average road, was about £700 per mile for the six months. This included some additional metal. The cost of the road, as contracted for, from Saddlehill—

For six miles	...	...	£1,600 per mile.
"	"	Contract	1,300 "
And one Contract	...	...	1,200 "

The contracts were for metalling fifteen feet and levelling the surface. The formation was done previously by day labor in forming the dray track.

MR. MARTIN SHOLL EXAMINED.

1. Have you any, and what, experience in the construction and working of railways?

I was for eight years connected, as secretary, with the first main line of Victoria—that connecting the cities of Melbourne and Geelong. My duties commenced with the formation of the company in 1853. From that year, until 1856, I was engaged in raising the necessary capital, and, from 1857 to 1860, in conducting and managing the traffic operations of the company. The line was purchased in 1860 by the Victorian Government, and is now incorporated in the General System of Railways. The stock of the company was guaranteed by the Victorian Government.

2. What were the nature and terms of the guarantee?

The capital of the company was £350,000, in £20 shares, which bore a guarantee of five per cent. interest for 21 years, amounting to a liability of £17,500 per annum. The assistance rendered by the Government to this company was as follows:—

1. A donation of £1000 towards preliminary expenses, such as surveys, plans, &c.
2. A free grant of sufficient land for terminal and intermediate stations.
3. A free grant of a belt of Crown Land, 100 yards in width, along the entire length of line.
4. A minimum guarantee of 5 per cent., for 21 years, upon the estimated capital £350,000.
5. The conditions attached to the guarantee were as follows:—
6. The Government to have, if demanded, a prior mortgage over the undertaking to secure repayment of any advances under the guarantee.
7. The guarantee ceased absolutely at the end of 21 years.
8. The guarantee to be payable only in the event of the profits of the annual working of the railway fall short of 5 per cent., in which case the Government agreed to make up the deficiency.

9. Where the profits of the railway in one year exceeded 5 per cent., the excess over that rate to be apportioned thus :—Supposing the profit yielded to be 8 per cent., 5 per cent. to be distributed to the shareholders, the remaining 3 per cent. to be divided between the Government and the company, the 1½ paid to the Government to be applied in liquidation of advances, and so on until repaid.
10. Her Majesty's mails to be conveyed free of charge.
11. Troops, baggage, stores, &c., and persons in Government service, after first year of working, to be conveyed at half the public charges.
12. Two members of the Board of Directors to be named by the Government for the protection of its interest under the guarantee.
13. Right of purchase after ten and within twenty years upon payment of a sum equal to sixteen years purchase by the annual divisible profits of three preceding years, or at option ₹250 for every £100 stock.

3. Can you place the Commission in possession of any other instances of guaranteed lines in Europe, India, or America ?

The system of Government assistance to railway undertakings by a guarantee of interest is now recognised in all countries where there are railways. I hand in a tabular memorandum of the principal lines in India and elsewhere which have been constructed by State aid.

Name of Railway.	Date of Incorporation of Company.	Amount of Capital.	Nature of Guarantee.
Indian Railways—		£	
East Indian Railway	Aug. 1, 1849.	10,700,000	Five per cent. guarantee by the Honorable East India Company for 99 years.
Great Indian Peninsula	Aug. 1, 1849.	8,333,000	Do do do
Calcutta and South Eastern... ..		250,000	Do do do
Madras	June 14, 1853.	4,000,000	Do do do
Eastern Bengal		1,000,000	Do do do
Scinde and Punjab	July 2, 1855.	2,500,000	Do do do
Great Southern of India		1,000,000	Do do do
Bombay Baroda and Central India	July 2, 1855.	1,750,000	Do do do
		29,533,300	Up to the year 1855.

In addition to this guarantee the Honorable East India Company make a free grant of land required for the railway and works for the term of the guarantee, and attach the following conditions :—The Railway Company have power of surrendering the works at any time after the line is opened, upon giving six months notice to the Government, and the East India Company undertake to repay the whole that has been expended by the Railway Company. The East India Company reserve the power within six months after the expiration of 25 or 30 years of purchasing the railway at the mean market value in London of the shares during the three previous years. In case the railway company fail to complete the line or to work it satisfactorily the Government is entitled to take possession and to repay within six months the sums expended less any advance on amount of guarantee.

Name of Railway.	Date of Incorporation.	Amount of Capital.	Nature of Guarantee.
American Railways.		£	
Buffalo and Godrich	1853		Six per cent. for 21 years guaranteed by the Municipalities and Townships.
European and North American ...	Sept., 1863	1,391,000	This line connects St. John's, N. B., with the railway system of the United States and Canada. The stock is in part Shares and Debentures, guaranteed by the Provincial Governments.
Grand Trunk of Canada ...		9,500,000	Provincial Guarantee, £2,000,000.
Great Western of Canada ...		2,000,000	Guaranteed by the Local Government aided by the Subscriptions of Municipalities.
South America—			
Arica and Tacna (Peru) ...		500,000	Five per cent. interest guaranteed by the Government of Peru for 25 years.
Belgium—			
Eastern Junction ...		392,500	The Belgium Government guarantee 4 per cent. for 50 years; the line is conceded to the Company for 90 years.
France—			
Great Central ...		3,600,000	Here the State purchases the land, undertakes the earthworks and works of art, and the Company lays down the iron way and furnishes the rolling stock. Any interest over 8 per cent. is divided with the State, and power of purchase is reserved.

Name of Railway.	Date of Incorporation.	Amount of Capital.	Nature of Guarantee.
Royal Swedish ...		416,670	The Swedish Government Guarantees £5 per cent., 4 per cent. of which is paid to the Shareholders as interest, and the remainder is applied as a sinking fund.
Zealand, Denmark	1853	535,000	The Danish Government guarantees a minimum dividend of 4 per cent. for 90 years, reserving power to purchase the undertaking after 25 years at par.
Irish Railway— Limerick ...	1855	100,000	This line is assisted by the contribution of several Baronies, repayable after three years from any surplus over 4 per cent. earnings.

4. Was any portion of your capital raised in London ?

Two-thirds of the share capital, about £250,000, was raised in London, and subsequently the company sold debentures to the amount of £200,000 there also.

5. Was much difficulty experienced in disposing of the shares in London, and how did you proceed to place them ?

We had a very energetic agent, and experienced no difficulty in raising the required capital. The were two circumstances which somewhat operated against our shares, first, each shareholder was liable for double the amount of the shares he held, and secondly, the guarantee was not very well defined, being only expressed in a letter from the Colonial Secretary, instead of being the Act of the Legislature. Our mercantile agents in London were Donald Larnach, manager of the Bank of New South Wales, and Robert Brooks, of Cornhill, both men of considerable mercantile influence. These gentlemen in conjunction with an agent from the Directors, acting under power of attorney, offered the shares, as fully paid up, by tender. They were taken up freely, and as soon as a third of the capital had been subscribed, they were admitted to the Stock Exchange, and commanded a premium of from ten to twelve per cent. The works, which were designed for a single line, were constructed for a double line, and turned out far more costly than had been anticipated, and it became necessary to raise a further sum of £250,000; a large portion of which was obtained in London on 7 per cent. 7 years' debentures. The railway was partly opened for traffic in 1857, but owing to the non-completion of a junction line, then in the hands of the Government, the expected traffic was not realised, and for a year the railway paid no more than its actual working expenses. The debenture interest consequently fell into arrears. The holders of debentures claimed a prior right to the guaranteed share interest, and hence arose a conflict, attributable altogether to the estimated capital being in the first instance insufficient.

6. Can you suggest any supplementary conditions which would be desirable in the event of Provincial Guarantees being given for Railway purposes ?

In such an event I should place great importance upon the estimate of capital being soundly arrived at before any guarantee were conferred. To secure this I would have the proper line maturely surveyed by the Government

I conceive that the Province would only be called upon to advance the guaranteed interest between the time when the capital would be raised by the sale of shares and the opening of the railway for traffic. This at furthest ought not to exceed two years, and say the guarantee was 6 per cent. the entire advance by the Government would not exceed £20,000. During the remaining period of the guarantee there is a reasonable probability that it would be altogether nominal by reason of the self-sustaining and remunerative character of the undertaking itself.

9. How long would it probably take to raise capital and obtain the necessary plant from England?

Judging from the experience of the railway I have referred to I should say not more than twelve months. If a fourth of the capital, or even less, were raised in the Province, the earthworks, which require the main part of the time, could be at once commenced. Contemporaneously with the transmission of shares, orders for rails, engines, and carriages, might be forwarded to England for execution—conditional upon the capital being raised there.

19. What is the average of working expenses in railways in Victoria?

The working expenses of the Government line to the interior are at least seventy-five per cent., but the Hobson's Bay Railway, to which the Port Chalmers line would be somewhat parallel, shews that during three years their average expenses have been barely 50 per cent. This line, although competed with by another Harbor Railway, and by water carriage, continues to pay 10 per cent. per annum, adds largely to an already substantial reserve fund, and maintains its reputation so well in the London market as to preserve its shares and debenture stock at a high premium.

11. In what manner could a company be organised without waiting for powers from the General Government?

Assuming that the consent of landowners could be obtained, I should say that sufficient powers could be taken for constructive purposes under the existing Joint-Stock Act of New Zealand.

NINTH MEETING OF THE COMMISSION.

TUESDAY, 23RD FEBRUARY, 1864.

Present—

Messrs. Moss, Chairman
Hardy
Thomson
Burns
Tayler

The minutes of the previous meeting having been read and confirmed,

MR. ALEXANDER MACKAY, FARMER, DUNROBIN, EAST TAIERI, EXAMINED:

1. How long have you been resident in Dunedin?

Twenty-two years, the last eighteen of which have been spent in Otago.

2. Do you think the present system of roads suited to the requirements of the Province?

Far from it. They are quite unfit for heavy traffic, and will always cost a great deal for repairs.

3. Can you tell us what is the available acreage of the Taieri Plains?

The total acreage is said to be about 23,000 acres, of which, at least in my opinion, three-fourths are fit for immediate use. The remainder consists of swamp-land that will not probably be used for some time to come.

4. What is the chief market for Taieri produce ?

Dunedin.

5. What is the usual cost of conveying such produce to market ?

Hay, £2 ; oaten hay or straw, £3 per ton ; and other produce at about the same rates, exclusive of tolls.

6. What is the distance of your farm from Dunedin ?

About 10½ miles.

7. Do you think that the present cost of carriage to market limits the amount of land put into cultivation ?

Decidedly so ; and if the cost of carriage could be reduced and transit made quicker, easier, and more certain, I have no doubt that the quantity of land under cultivation would be much increased.

8. Is much stock or dairy produce supplied to Dunedin from the Taieri ?

Owing to the cost of carriage the supply is limited to butchers' meat, butter, cheese and poultry. The quantity of all would be much increased if there were fewer difficulties in getting them to market. For example, I have had myself last week to give a man 30s. to cart in three hives of honey, and then only as a favor. Getting poultry, eggs, and similar produce to market is equally troublesome and expensive. Milk, of which large quantities are produced in the Taieri cannot of course be sent to town, except in the winter, and then only in small quantities.

9. Do you think, if a railway were proposed between Dunedin and the Taieri that the landowners along the line would be willing to give the land requisite for that purpose ?

I think so. Very few would be likely to ask more than the cost of fencing, in ordinary cases, as the idea of a railway has been for a long time very favorably regarded on the Taieri.

(Signed)

ALEX. MACKAY.

The traffic returns with abstracts and acreages were submitted to and considered by the Commission.

The Clerk was then instructed to write to Mr. James Smith of Springfield, Tokomairiro, requesting him to attend at the meeting of the Commission appointed to take place on Tuesday next, 1st March, to give information respecting the roads, traffic, and produce in the district of Tokomairiro.

The meeting then adjourned till Thursday next, 25th instant, at 2 p.m.

TENTH MEETING OF THE COMMISSION.

TUESDAY, 25TH FEBRUARY, 1864.

Present—

Messrs. Moss, Chairman
Burns
Thomson.

The minutes of the last meeting having been read and confirmed,

A letter was read from the Provincial Secretary informing the Commission of the action which had been taken by the Government upon their resolution of the 9th instant, a copy of which had been forwarded to the Government.

MR. THOMAS PATERSON, C.E., CHIEF ROAD ENGINEER, EXAMINED :

1. What will be the first cost of constructing macadamised roads to bear heavy traffic such as that to the Goldfields ?

The cost of such roads would vary very much in different districts. The cost of a road from Dunedin to Waikouaiti will amount to about £4000 per mile. A well constructed road in the Tokomairiro would cost about £3000 per mile. In the Upper Taieri and Manuherikia Plains about £2000 per mile; In the Waikouaiti and Horse Range Districts about £3500 per mile. The high cost of roads in this Province is caused by the irregular and hilly nature of the ground, the great scarcity of stone suitable for building and metalling, and also from the high rate of wages in the colonies.

2. What will be the annual cost of maintenance of a well constructed road ?

From £300 to £400 per mile,

3. What will be the approximate cost of constructing single line railways in his Province, on level, undulating, and hilly ground ?

This also depends very much on the district, but for an average, assuming that the railways were commenced from Dunedin, or from some other seaport, and were constructed in convenient sections from the commencement, so as to obviate the great expense of land carriage for the heavy materials required in railway construction, the cost will probably be from £10,000 to £20,000 per mile for a single line. Assuming the line in question to be from Dunedin to the Dunstan, via the Lower Taieri Plains and Tokomairiro or Clutha Ferry, and thence by the valley of the Clutha to Kawarau Township, I am of opinion a good line could be constructed at an average rate of £13,000 per mile from the Taieri Plains, but the cost of the line from Dunedin to the Taieri Plains, a distance of about ten miles, cannot really be even approximately estimated without the aid of plans and sections shewing the work. At a rough guess I imagine that it would probably cost about £50,000 per mile for a single line. The prices on which the above estimate is based are as follows :—

PERMANENT WAY AND FENCING (SINGLE LINE).

	£	s.	d.
Ballasting 3520 c. yds., at 7s. 6d.	1,320	0	0
Sleepers, 1760, at 7s 6d.	660	0	0
Rails, 110 tons, at £12	1,320	0	0
Chairs, 73, ,, at £9	657	0	0
Vish plates and bolts, 8 tons, at £15	120	0	0
Oak kegs, 3600, at 1½d.	22	10	0
Spikes, 60 cwt., at 20s... ..	60	0	0
Rail, laying 1760 yards, at 1s. 6d.	32	0	0
Carriage of material, 200 tons, at 20s.	200	0	0
Fencing 3600 lineal yards, at 1s. 6d.	540	0	0
<hr/>			
Total permanent way and fencing	5,031	10	0
Earthworks, 35,000 c. yds.	3,500	0	0
Bridges, level crossings, culverts and drains... ..	3,000	0	0
<hr/>			
	11,531	10	0
Contingencies, 10 per cent.	1,168	10	0
<hr/>			
	£12,700	0	0

or say a total average cost of £13,000 per mile, exclusive of cost of land, and stations,—the quantity of land required being from eight to ten acres per mile.

4. In looking at the Goldfields and Agricultural settlements of the Province through what routes will the greatest traffic be taken?

The traffic from Dunedin and the Agricultural Districts to the south of it will, I believe, be carried to the interior of the Province by Tokomairiro and Tuapeka, and thence up the Valley of the Clutha, and the traffic from the seaports and agricultural districts north of Dunedin will be carried by the Shag River Valley, the Taieri and Manuherikia Plains to the Clyde Township, where it would join the road via Tuapeka. A road from Clyde Township to Cromwell Township, and thence via Kawarau Gorge to Queenstown, on Lake Wakatipu, would provide means of communication for the extensive tract of auriferous country in the Arrow and Shotover districts, and would eventually form a line in the chain of communication between the eastern and western shores of the Province. The extension of the main road along the Clutha Valley from Cromwell Township to Wanaka and Hawea Lakes would connect Cardrona district with the main line of communication. In addition to these two main routes, there will no doubt be a considerable amount of traffic from Dunedin to the interior districts carried by the short road crossing the Lammermoor Ranges, but this will only be used as a summer road, and no great improvement can be effected on its present condition. The high summit level of this road also renders it liable to be blocked up from snow storms. The traffic from Oamaru at present finds an ingress into the interior of the Province by the track passing along the Waitaki and Lindis Valleys. This is already a very good dray road, and with some additions and improvements it will, I believe, be found sufficient for the traffic of the district. The Southern Trunk line would of course require to be continued southward to the Maitara, and branch lines would be required from it, but as I am unacquainted with that district, I do not define any route or means of opening up this large and, I believe, important part of the country, nor do the lines suggested afford direct means of communication between Dunedin and the Nokomai Goldfields.

5. On what districts would you extend railways?

Should it be thought desirable to introduce railways, I would suggest as probable lines—

1st. From Dunedin to Port Chalmers.

2nd. From Dunedin to the Taieri, Tokomairiro, and Clutha to Maitara.

3rd. From Tokomairiro or Clutha up the Clutha Valley to the Kawarau, Junction.

4th. Light branch railways might with advantage and economy be formed in some districts, such as the Manuherikia and Taieri Plains, where there would be little expense for earthworks and bridges, and where ballasting could be easily obtained. A railway could, I believe, be constructed in this district for £5000 or £6000 per mile.

6. On what districts do you think that dray roads only can be taken?

I have no doubt that a railway could be constructed to connect Dunedin with Waikouaiti, Hampden, Oamaru, and the railway system of Canterbury, but such a line would, from various circumstances, be a very expensive one to construct, and as the district has the benefit of harbors at various points along the coast, I think that a metalled dray road will answer for the requirements of many years. A metalled dray road from Palmerston by the Shag River Valley to the Taieri Plains, would afford a good means of communication with the interior, and would open up a good district of country.

7. What means would you advise for determining upon a system of land communication, viz. :—What are the macadamised roads? what the dray tracks? and what the bridle tracks?

The answer to this question has, to a considerable extent, been given in previous answers, and a map showing the proposed lines will supply the answer to the remainder.

8. Would you shew a map with the several species of land communication laid down on it?

I will have one prepared.

9. On a railway between Dunedin and the Taieri would you recommend a steep gradient of 1 in 50, or an easier gradient of 1 in 150?

I would recommend a medium gradient of 1 in 70, which would I think answer all probable requirements for some time to come.

10. Can you give any instances of steep gradients in railways?

The Caledonian Main Line has a continuous gradient of 1 in 70 for about five miles, and the North British Railway and the line between Carlisle and Edinburgh have at several places gradients as steep as 1 in 70. The great North of Scotland, from the present terminus at Aberdeen to the former terminus on the outskirts of the town, was constructed with gradients of 1 in 59 in some places, and curves of 52 chains radii. The Port Patrick Railway, forming part of the main route from Scotland to Ireland, has also at various places gradients as steep as 1 in 70, and on a branch from the main line to Port Patrick Harbor there is a gradient of 1 in 35 with 10 chain curve. Most of the heavy traffic on the Caledonian is worked on the steep inclines by aid of auxiliary engines. The traffic along the North British is not sufficient to require an auxiliary engine. On the great North of Scotland the traffic on steep inclines is worked by powerful tank engines.

11. Seeing there is a distance of 50 miles of level country after passing the Chain Hills, about five miles from Dunedin, would it not be desirable to continue the line as level as possible to Dunedin?

I do not think it essential. The steep portion being at one end of the line where it would not derange the traffic, and where auxiliary powers could easily be obtained.

12. Would you think a double line between Dunedin and the Taieri desirable?

Yes; I think it certainly would be so—because all the traffic traversing the railway spoken of must necessarily pass over that portion of the line. Still, I think the traffic could safely be conducted on a single line.

13. Do you know anything of the Peebles Railway?

I have travelled upon it, and am acquainted with it as being one of the cheapest lines in the country. It is a fair line for light traffic.

14. Would a line of this description be suitable for the traffic here?

I am of opinion that it would.

15. Which in your opinion would be the best sites for railway termini in Dunedin?

The question is so important a one that I would rather defer giving a reply until the route of the main line is determined upon; but, at all events, it should be near the level of the sea, and one central terminus for all the railways terminating in Dunedin.

16. Can you give us any instances of towns where a central terminus has been adopted in preference to independent termini ?

Carlisle, Edinburgh, Glasgow, Perth and others.

17. Have any objections been found in the practical working of this system ?

I know of none. On the contrary independent termini are being done away with wherever it is practicable.

18. To what do you attribute the cheapness of the Peebles line ?

It is a line upon which no heavy works were required, passing through a country favorable to such a construction, and it was formed at a time when labor was very cheap, and easily obtained.

It was then resolved—

That Mr. Paterson, having this day stated in his evidence before the Commission, that if provided with a proper staff he could undertake the survey of a railway line between Dunedin and the Taieri, so as to indicate its direction, and supply a statement of the probable cost during the approaching session of the Provincial Council ; the Commission beg to urge upon the Government that it would be very desirable such survey should be made at once, as the commencement of the survey of the line to the Clutha before recommended.

The Clerk was instructed to forward a copy of the above resolution to the Provincial Secretary for the information of the Government.

The meeting then adjourned till Tuesday, the 1st of March, at 2 o'clock p.m.

ELEVENTH MEETING OF THE COMMISSION.

TUESDAY, 1ST MARCH, 1864.

Present—

Messrs. Moss, Chairman
Thomson
Hardy
Burns.

The minutes of the previous meeting having been read and confirmed,

MR. DONALD REID OF SALISBURY, NORTH TAIERI, FARMER, EXAMINED :

1. How long have you resided in Otago ?

Thirteen yeers.

2. Do you think macadamised roads sufficient for the wants of this Province ?

Yes ; if properly made.

3. Do you consider the present roads properly made ?

The only road I would call a road is the Main South Road, and I think that good and suitable for the traffic of the Province.

4. What is the distance of your place from Dunedin ?

About ten miles.

5. What is the cost of conveying produce to market ?

£2 per ton, or equal to 4s per ton per mile.

6. Do you think if the cost of carriage were reduced there would be increased cultivation ?

I think were would.

7. Have you heard the subject of a railway to the Taieri discussed ?

I have never heard the question discussed. I think very few of the settlers in the Taieri would object to give their land for the purposes of a railway.

8. Have you yourself considered the subject of a railway to the Taieri ?

I have, but do not think the traffic sufficient to support a railway.

9. Do the members of your family frequently come to Dunedin ?

No.

10. Supposing they could go in and out in a quarter of an hour at the cost of 1s would they come in more frequently ?

Yes, certainly ; and I think if there were a railway they would probably come in four or five times to once at the present time.

11. Would you be likely, if you had the facilities offered by a railway, to send in a larger amount of produce of different kinds than you do at present ?

Yes.

MR. JAMES SMITH, OF SPRINGFIELD, TOKOMAIRO, EXAMINED.

1. How long have you been resident in Otago ?

Sixteen years.

2. Do you not carry on business in Tokomairo ?

Yes ; I am in business as a merchant, and have a wool stapling establishment, am a runholder in the neighborhood, and have between 500 and 600 acres ^{of} land under cultivation.

3. At what do you estimate the tonnage of goods per annum you receive from Dunedin ?

About 800 tons.

4. Can you tell us the amount of wool you send into Dunedin in the course of a year ?

About 850 bales.

5. Do you send any agricultural produce to Dunedin ?

No ; the expense and difficulty are too great. Oats, at the present time, would cost 1s 6d per bushel to send to market ; wheat, 2s 3d ; wool, 10s per bale ; pressed hay, 80s per ton, unpressed, 260s ; although occasionally by watching chances one might get it done for less. I have never a large stock of hay at Springfield which I do not know how to dispose of.

6. What number of fat calves have you sent during the past year to Dunedin ?

About 100, and could have sent a great many more were it easier and cheaper to do so ; but, excepting in my own drays, I find it difficult to get them sent at

all. In fact I have shot many calves upon the run to save the expense and trouble of getting them to market. One of the chief difficulties consists in getting them into Dunedin on the exact day they are wanted, which affects their value very materially.

7 What is the distance from Dunedin to Tokomairiro ?

About 37 miles, and it generally takes the drays 36 hours from Tokomairiro.

8. Have you any idea of the land under cultivation in the Three Hundreds of Tokomairiro ?

I cannot say exactly, but I should say about 10,000 acres.

9. Have you any opinion of the amount of land available for cultivation provided a profitable market could be found for the produce ?

I should say about 60,000 acres.

10. As the imports shew that there is in Dunedin a market for a large consumption of agricultural produce can you tell how it happens that so little is grown in and supplied by your district ?

I attribute it to the difficulty and expense of getting produce to market.

11. Among the articles imported and apparently produceable in this Province are grain, flour, bran, hay, potatoes, carrots, butter, cheese, bacon, and eggs, does your district send any, and what quantity, of these articles to the Dunedin market ?

None whatever to my knowledge.

12. Supposing the 60,000 acres you speak of were under cultivation, what would you consider the aggregate value of its produce ?

I should say, valuing agricultural produce at a price which would shut out imports, and of course on the supposition that they could be brought cheaply to market, not less than £5 per acre in Tokomairiro.

13. Have you heard the question of a railway from Dunedin to Tokomairiro mooted ?

I have not heard it much spoken of.

Do you think if one were proposed there would be any difficulty in obtaining land for that purpose ?

I think not ; for my own part I would be willing to give mine, and I think other landowners would do the same.

MR. BATHGATE, FORMERLY SECRETARY TO THE PEBBLES RAILWAY, EXAMINED.

1. Can you tell the population of Peebles at the time the railway was constructed ?

The entire population of Peebleshire was about 10,000, of whom the town contained 2000.

2. What is the nature of the country through which the Peebles line runs ?

Essentially pastoral, consisting of large tracts of hilly country with smaller agricultural districts in the valleys. The principal valley is about the average width of a mile.

3. What are the chief products of the country ?

Stock, wool, and a small quantity of timber and agricultural produce. The county occupies the centre of the South of Scotland. The agricultural parts of the county are about 600 feet above the level of the sea, and the remainder about 1000 feet. Coal, lime, bricks, and building materials, as well as flour and the necessaries of life, have to be imported.

4. Was there much opposition to the railway at starting ?

At first there was a great deal of mistrust and doubt as to our success, but gradually all feeling of doubt and mistrust was removed when the railway commenced its operations. This doubt in the minds of many was founded on the thinness of population and want of traffic. All experience has gone to prove that traffic never fails. There is no line in great Britain that yields less than £10 per mile per week. During the first half year the Peebles line yielded only £6 12s per mile per week. The traffic has increased every year, during a period of eight years, until it is now nearly double that amount. The chief element of success is in all cases the cheap cost of construction. This is obtained by following the surface of the country and avoiding expensive works.

5. What were the ordinary means of conveyance at the time when the railway was originated ?

There was one stage coach each way daily between Peebles and Edinburgh throughout the year, and during the summer months there was an additional coach each way. The roads were thoroughly good and well metalled.

6. What has been the effect of the opening of the railway upon the turnpike roads ?

Their traffic has greatly diminished, and the roads are used now chiefly for local purposes. The revenue from the toll bars has diminished in proportion, but is still sufficient for the repairs of the roads, and the trustees have been able in some cases to lower the rates.

A letter was then read from Mr Swyer, Provincial Engineer, forwarding for the information of the Commission a map of the proposed line of railway between Dunedin and Port Chalmers. The map having been inspected and considered by the Commission—

It was resolved : —

That the Chairman acknowledge the receipt of Mr Swyer's letter and map, and inform him that the Commission suggest, for his general guidance, that the line proposed between Dunedin and Port Chalmers, in order to be practicable, must be designed and constructed on the lowest possible scale of expenditure, as they feel firmly convinced that it is only by keeping down the capital cost that the railway system in Otago can be initiated with any prospect of success.

 TWELFTH MEETING OF THE COMMISSION AT SURVEY OFFICE.

TUESDAY, 8TH MARCH, 1864.

Present—

Messrs. Moss, Chairman
Hardy
Cargill
Thomson

The minutes of the previous meeting having been read and confirmed—

A letter from Mr Swyer forwarding an amended map of the proposed line of railway between Dunedin and Port Chalmers was submitted to and considered by the meeting.

MR. JOHN CRATE, (TRADING UNDER THE STYLE OF PICKFORD & Co., GENERAL CARRIERS), DUNEDIN, EXAMINED :

Do you find any difficulty in forwarding goods into the country, summer and winter?

I find no difficulty, but the rates vary greatly.

2. Do you forward goods to all parts of the Province?

Yes.

3. Can you tell us the ordinary rates of cartage to various parts of the Province?

They have fluctuated greatly but are at present, to Tokomairiro, £3 10s. to £4; to Tuapeka, £6 10s.; to Beaumont, £9; to Teviot Township, £10; to Manuherikia, £11 10s.; to Dunstan, £12; to Hogburn, £11; to Hamilton's, £11; to Black's, £10 10s.; to Dunstan Creek, £13 10s. Kawarau Junction is at present supplied from Oamaru, but when the road and bridge are finished will be supplied via the Dunstan. To the Lakes, from Dunedin direct, £18; and by way of Invercargill, £14 10s. Rates have been very much higher, but the tendency is to fall as good roads are made and the price of horse feed recedes.

4. Do you think it would affect the price of cart hire if a law were passed compelling the use of broader tires to large waggons?

A heavier toll was levied in Victoria on Yankee waggons than on any other, in order to induce the use of broader tires, but we found from experience that it was better to pay the extra toll, as the draught power of the horses was so much increased by the use of the narrower tires.

5. Can you tell us the amount of goods sent to the Dunstan and other parts of the Province via the south road?

To Tokomairiro, weekly, about	18 tons.
„ Tuapeka	32 „
„ Teviot	8 „
„ Dunstan	25 „
„ Manuherikia	10 „
„ Kawarau	20 „
„ Black's	5 „
„ Hamilton's *	30 „
„ Lakes	30 „

Total 178 tons

Including the minor diggings I should estimate the amount of goods as exceeding 200 tons per week. My estimate, I wish to state, is confined to the mining population, with the exception of a portion of the goods to Tokomairiro.

6. You have stated that you think the tendency of cart hire is to fall, year by year. Do you think that the present rates limit in any way the consumption of goods in the country?

I am quite certain they do to a very great extent in every article consumed, and many articles are quite excluded from use in the country, in consequence of the present high rate of cartage. I find, for instance, from my own experience, and the experience of others, that an immense number of the common necessaries of life that are used by the mining population of Victoria are unknown here.

7. If the roads were made thoroughly good would the price of cart hire be materially reduced below the present rates ?

If the roads were thoroughly good the rates might, I think, be reduced 25 per cent.

8. Is carrying remunerative at the present rates ?

I think as a general rule that the carriers are barely making wages.

9. Can you tell us whether the carrying trade during January and the early part of February just past was active or otherwise ?

The demand for cartage during January and February was limited, owing to the large supplies sent up in December. The trade is more active now, owing to the demand for goods in the country.

MR. JOHN REID, (OF THE FIRM OF JOHN REID AND Co., CARRIERS' AGENTS,)
DUNEDIN, EXAMINED :

1. Do you find any difficulty in forwarding goods into the country summer and winter ?

I find no difficulty as a rule, provided there be not less than two dray loads to send at one time.

2. Do you forward goods to all parts of the Province ?

Yes, to the various diggings.

3. Can you tell us the ordinary rates of cartage to various parts of the country

To Tokomairiro	...	...	£ 3 10 to £4 per ton.
Woolshed	...	...	4 10 ,, 5 ,,
Waitahuna	...	...	5 10
Tuapeka Junction	...	...	6
Teviot	...	...	13
Lake Wakatipu	...	...	18
Dunstan	...	...	12

- 3*. Have rates varied much during the past year ?

The rates above given are much below the average of the year, though slightly higher than they were some time back, when they were at the lowest.

4. Do you think it would affect the price of cart hire if a law were passed compelling the use of broader tires to large waggons ?

It would have a tendency to raise the price of cartage.

5. Can you tell us the amount of goods sent to the Dunstan and other parts of the country, via the South Road ?

I cannot do so, but shall be glad to give the Commission the amount passed through my books. A large quantity goes into the country without passing through the hands of agents.

6. Do you think the consumption of goods would be materially increased if the cost of carriage were less ?

I do not think so generally speaking.

7. If the roads were made thoroughly good would the price of cart hire be materially reduced below the present rates?

Not materially; from the fact of carrying being at the present time barely remunerative.

8. What was the state of the carrying trade during the months of January and February last?

Rather depressed—improving, however, towards the end of February.

9. Do you think that the water communication of the Clutha could compete with the waggons to Tuapeka and the Teviot?

No. Storekeepers prefer having their goods sent direct from the market to their destination.

10. Can the waggoner compete with the communication by sea to the Clutha Ferry?

No. The freight of water being about 2*l.* 10*s* per ton measurement, and by waggon, say 7*l.* per ton dead weight.

MR. JOHN DE CARLE (OF THE FIRM OF DE CARLE AND CO., CARRYING AGENTS)
DUNEDIN, EXAMINED :

Stated, that having heard the examination of Messrs. Crate and Reid, he agreed with what they had said with the following exception :—

1. Do you find any difficulty in forwarding goods into the country summer and winter?

There are times when the difficulty of obtaining and the high rate of cartage act as a prohibition to the use of many goods, and nothing but articles of absolute necessity are forwarded.

3. Can you tell us the ordinary rates of cartage to various parts of the country?

The rates of cartage to the Teviot cannot be quoted under 15*l.* per ton; the other rates quoted by Messrs. Crate and Reid I agree with.

6. Do you think the consumption of good would be materially increased if the cost of carriage were less?

I agree unquestionably with Mr. Crate upon this subject.

7. If the roads were made thoroughly good would the price of cart hire be reduced materially below the present rates?

Materially reduced below the average rates, but not, I think, below the present rates. I mean by this that as we have had a long period of fine weather, the roads are now in good order, and the rates in accordance therewith.

8. Is the carrying business remunerative at the present time?

I am certain that it is not. In illustration, I will give you the rate to Weatherstons. To carry 30 cwt. a man would require three horses, which at 35*s.* per week each, would be L5 5*s.* for fodder; the time occupied would be about one week, to and fro; he receives for this L9, so that out of L3 15*s.* per week he has to pay tolls, shoeing, wear and tear, commission, his own living, and all other expenses, generally finding himself about 1*l.* per trip poorer than when he left. The Dunstan Road would illustrate this still more forcibly.

It was then resolved—

To apply to the Provincial Secretary for information on the following subjects :—

1. The amount expended upon roads in this Province up to the present time.
- 2: Return of the population on the Goldfields.
3. As much information as obtainable as to the cost of dredging the Harbor, and any other particulars connected therewith.

THIRTEENTH MEETING OF THE COMMISSION (SPECIAL) HELD AT
THE SURVEY OFFICE.

FRIDAY, 18TH FEBRUARY, 1864.

Present—

Messrs. Moss, Chairman
Thomson
Burns
Hardy.

The minutes of the previous meeting having been read and confirmed,

MR. DAVID CALDER, SENIOR, MEADOWHEAD, NEAR DUNEDIN, EXAMINED.

1. Have you not had considerable experience in road and bridge making ?

Yes ; I was engaged for six or seven years before coming to Otago in the north of Scotland under Mr Joseph Mitchell, C.E., Engineer for Highland Roads and Bridges, and in the south of Scotland two and a-half years building bridges by sub-contract under Stevenson, Brassey and Mackenzie on the Caledonian Railway. After this I came to Otago in 1849, and in 1858, when the construction of metalled roads was first commenced in the Province, I was appointed under Mr Thomson, at that time Provincial Engineer, to act as inspector and overseer. In that capacity the following roads were carried out under me :—

1st. From Dunedin Jetty to the head of the North East Valley, including George Street and King Street.

2nd. From Dunedin Jetty to the foot of Saddle Hill on the south side.

2. Were these works carried out by contract or day labor ?

By day labor.

3. Do you recollect the cost per mile ?

I cannot exactly say, but the first mile from Dunedin to Hill Side cost about 1400*l*.

4. What was the width of road and depth of metal ?

The road was 28 feet wide between the side drains, and 14 feet metalled to a depth of 9 inches in the centre, and 7 inches at the sides.

5. Did the remaining part of the road cost at the same rate

About the same, with the exception of the heavy cuttings at Saddle Hill.

6. What were the gradients ?

1 in 16, with the exception of one cutting at Saddle Hill which was 1 in 12. The latter was made when Mr Roy was acting as Provincial Engineer.

7. Do you think it would be possible to make roads at the same cost now?

I do, provided they are laid out on the same economical principles. I mean by this that the roads should follow, as nearly as possible, the natural surface of the country, and wind round the hills instead of going through them. But for this economical principle having been adopted the roads I refer to would have cost three times as much as they did, without obtaining as good a gradient after all.

8. Was there any objection made at the time to this system of following the natural surface of the country?

Yes; I remember a long correspondence in the papers and a great outcry at shorter cuts not being made, and I remember also when a calculation was made it was found that the sum saved by following the surface of the country would carry the road from Look-out Point to the Taieri.

9. How have the roads to which you refer stood the traffic thrown upon them?

For the first three years they required no repairs, and some parts of them have not had any money expended on them to the present day.

10. Do you think that system of road making would suffice for the ordinary traffic of the country, not including the very heavy traffic to the goldfields?

Yes, certainly.

11. Did that system admit of a full load being taken from Taieri to Dunedin without the use of extra horse power at the hills?

It did.

12. Do you think it a good system, and one applicable to all parts of the Province?

I do, because a greater number of miles of road quite suitable to the ordinary traffic can be made for the same money.

13. Supposing that railways were made in this country, would the cheap roads you speak of be sufficient?

Yes, I think so, and it would be a great waste to make them of a more expensive character.

14. At the time the road from Dunedin to Saddle Hill was made, what was the rate of wages?

7s. per day; towards the end of the work they were reduced to 6s. 6s. I may add that part of the work was done in the winter time.

A copy of a letter from the Chairman of the Commission to the Provincial Secretary, in terms of the resolution of the last meeting, was then read.

A letter from Mr. FitzGibbon, Engineer in Chief and Commissioner of Railways, Queensland, (in reply to a letter from the Chairman dated 22nd December last, requesting information as to the cost of constructing, maintaining, and working the

Dun Mountain Railway, Nelson, N.Z.,) was then read, supplying the information sought for, and forwarding, for the information of the Commission, a copy of his Report to the Government of Queensland, upon a proposed line of railway from Ipswich to Dalby and Warwick via Toowoomba.

Mr. FitzGibbon's Report having been read and considered,

It was resolved—

“That the Chairman acknowledge the receipt of Mr. FitzGibbons letter and Report, and convey to him the thanks of the Commission for his attention, and inform him that his Report and letter are receiving careful consideration.”

“That Messrs. Swyer and Paterson be asked for Reports embracing the following points:—

Difference in cost between the guages respectively of 3ft. 6in., 4ft. 8½in., and 5ft. 3in.

Their capacity and suitability to Otago, as well as their capability of expansion in power as the traffic increases.

Letter from the Provincial Secretary read, forwarding documents received by the Government in 1859, 1861, 1862,* relative to the expense of dredging the harbour, and promising the other information sought by the Commission in their letter of the 9th instant, as to the amount expended on roads; and, the present population of the gold fields.

A letter from Mr. Paterson, C.E., asking to borrow Mr. FitzGibbon's Report, and promising further information, was then read. Request granted, and letter and Report ordered to be forwarded.

A table of the Receipts, Expenditure, &c., on the Peebles Line of Railway supplied by Mr. Bathgate was submitted and considered.

Resolved—

“That the Chairman acknowledge the receipt of Mr. Bathgate's tables, and convey to him the thanks of the Commission for the same.”

“That the Report of the Commission to His Honor the Superintendent be prepared and submitted for consideration at the next meeting.”

FOURTEENTH MEETING OF THE COMMISSION.

TUESDAY, 15TH MARCH, 1864.

Present—

Messrs. Moss, Chairman
Thomson

MR. E. DOBSON OF CANTERBURY, N.Z., EXAMINED.

1. I believe you are Engineer for the Lyttelton and Christchurch Railway?

* NOTE.—These documents it has not been considered necessary to print as Mr. Balfour's Report has since been received.

Yes, I laid out the line in 1859, and have been in charge of the works ever since.

2. What is the description of the line ?

The guage 5ft. 3in.—the steepest gradient 1 in 150—length of line six miles—steepest curve 40 chains radius excepting at the stations. The line runs for two miles through a mountain range, involving a tunnel of 120 chains in length which is being executed without shafts, the remainder of the line is over level country.

3. Can you tell us the cost of the line ?

The contract, exclusive of rolling stock and stations, was taken at £240,000, of which the tunnel cost £198,000. Rolling stock and stations are estimated at £60,000, making in all about £300,000.

4. At the time the Railway was proposed, what was the population of the Province ?

I think about 16,000, but reference to the tables will supply the information. The present population of the Province is under 24,000.

5. Has not a portion of the line been opened ?

Yes, pending the completion of the tunnel, a branch line has been made from a wharf on the Heathcote River into the main line. Goods are now brought from the ship's sides by steam lighters to the Railway Wharf, and then conveyed by land to the Christchurch Station, a distance of five miles. This portion of the line is leased for three years on the following terms :— 1st year $6\frac{1}{2}$ per cent ; 2nd year $7\frac{1}{2}$ per cent ; and 3rd year 10 per cent, with 5 per cent additional for depreciation of rolling stock, and the contractors to keep the line and rolling stock in repair. The charge made by the lessee is 5s. per ton for goods ; wool pays 5s. per bale, including one month's free storage, weighing, and marking ; passengers 1s. 6d. and 1s. 3d. for first and second classes respectively.

6. Can you give us any information as to traffic ?

I have no particulars. The line was only opened on 1st December last, and the Goods Sheds have been full ever since ; the principal shed is 340 feet long ; the ordinary number of passengers is about 100 per day ; but on special occasions sometimes reaches 1000.

7. Do you anticipate when the tunnel is finished, there will be much increase of traffic ?

I think the opening of the tunnel will greatly increase the trade between Canterbury and the Australian Colonies.

8. What number of trains are now running ?

Seven regular trains per diem each way—mixed, passengers and goods.

9. What is the weight of the rails used on this line ?

Fish-jointed rails, 71lbs. to the yard. The engine is a tank engine, weighing 21 tons. A second engine of the same weight has just arrived.

10. Why was the 5ft. 3in. guage adopted ?

The guage first decided on was 5ft. 6in., but was reduced to 5ft. 3in., to correspond with the Victorian guage. All the rolling stock was made in Victoria.

11. Do you think 5ft. 3in., a more appropriate guage than the 4ft. 8½in., used in England?

I do because it gives sufficient room for the machinery without being inconveniently wide.

12. Would the adoption of a narrow guage have made any difference in the cost of the tunnel?

No, the width of the tunnel was decided on for the sake of ventilation, and not for the sake of guage.

14. Was there any opposition to this Railway when first proposed?

Yes; it was at one time a very unpopular measure, and regarded as a visionary undertaking.

14. Is it regarded with more favour now?

Yes, all opposition has ceased, and the Provincial Council has authorised an extensive loan, for the purpose of extending railways—North and South. A Railway Commission is also sitting for the purpose of finally settling the direction of the proposed line.

15. Do you know anything of Victorian Railways?

Yes; I have just returned from making a careful inspection of the whole of the Victorian lines, for the purpose of reporting upon the subject to the Canterbury Railway Commission.

16. Does it appear to you that it will be necessary to incur the same expense in making railways here?

No, the principal Government lines have been executed on a most magnificent scale, both as to the bridges and the station buildings.

17. What is the character of the gradients on the Victorian lines?

The maximum gradient on the Government lines, is 1 in 50, and it is found by experience that Beyer and Peacock's engines, which will draw 65 loaded trucks on the level line, from Williamstown to Melbourne will only draw 13 over the inclines on the Sandhurst line.

18. Has the passenger traffic between Lyttelton and Christchurch, much increased since the portion of the Railway was first opened?

Yes; more than tenfold—before the Railway was opened there was only one passenger cart, holding about 6 persons, and simply ran between Christchurch and the foot of the Range, making two trips per diem each way. Now an omnibus meets every train running from the Heathcote Station, to the foot of the range, and two omnibuses run daily through from Christchurch to Lyttelton by the Sumner Road—a distance of 11 miles. Of course there will be a still further increase when the tunnel is opened.

MR. WILLIAM DOYNE, C. E. OF VICTORIA, EXAMINED.

1. What has been your experience as a Civil Engineer?

In 1839 I entered upon the practical study of Engineering, by being bound apprentice to Mr. Edward Dixon, the Resident Engineer of the London and South Western Railway, Mr. Locke being Chief Engineer. In that capacity I was engaged on the works of the Gosport Branch Railway till 1842, when

I was given charge of the construction of the permanent way for the Hamburg and Bergedorf Railway under Mr. Lindley. After its completion I joined Sir John McNeil's staff on the Irish Railways, upon which I was engaged in various operations until 1845, when I was appointed to prepare the plans for the West Flanders' Railways, of which Mr. George Stephenson was the consulting Engineer. After the completion of these I joined the staff of the London and North Western Railway, early in 1846, under Mr. Robert Stephenson and my old master Mr. Dixon; under them I was employed in various works until the middle of 1847, when I was appointed to take active charge of the construction of the Rugby and Leamington Railway, which I completed in 1851. I then entered into general practice as a Civil Engineer, and was engaged in a variety of works, chiefly in the mining districts of Wales, until 1855, when I was appointed to organise the Army Works Corps. I took command of it early that year, and served with the army in the Crimea, till its return to England in 1856. In the following year I was appointed to the Ceylon Railway. I have been a member of the Institution of Civil Engineers for about 10 or 12 years. Since that period I have had some Australian Colonial experience. I have constructed a difficult Mineral Railway in New Zealand. I have examined all the railways in Victoria and New South Wales and have made myself acquainted with their mode of construction, and the cost of labor and materials.

2. Were you not Engineer for the Dun Mountain Railway ?

Yes.

3. What is the character of that Railway ?

It is constructed on a gauge of 3ft. with rails weighing 30lbs. to the lineal yard; it extends from the Port of Nelson for a distance of 13 miles up the adjoining mountain range; the total elevation is 2,800ft. It follows a tortuous course along the sides of the mountain, with curves in some instances of 50ft. radius and an average gradient on the mountain side of 1 in 18.

4. Is that line worked by locomotives ?

No, it could not be worked by locomotives; a locomotive would scarcely carry any load up such an incline and over such curves, and the wear and tear in descending, from the constant use of the breaks, would be enormous.

5. How is the Dun Mountain Railway worked ?

The empty waggons are hauled up to the mines by horses, and descend with loads by gravitation.

6. Do you know anything of the Festignog Railway, in North Wales ?

Yes, I have frequently travelled upon it.

7. Is it not worked by locomotives ?

I believe it is now; it was formerly worked by horses in the same manner as the Dun Mountain Railway—the curves and gradients are, in my opinion, superior to those on the latter line, and are suitable for being worked by a very light locomotive.

8. Would such lines be suitable to a mixed traffic of passengers and goods ?

No; they are only applicable to a traffic running down hill, and of a very simple character, like that on the Dun Mountain or the Festignog Mines. For-

merly there were many railways and tramways in England and Wales worked in this manner for mineral purposes, but I know of no instance in which they have afterwards been applied to general purposes where it has not been found necessary to convert them into full power railways. My opinion on this point will further be found in paragraph 16 p. 11 of the Deloraine Railway Report, 1863, and also in pages 18 and 19 of same Report. (See note at foot.)

9. Do you know the 3ft. 6in. railway which is about to be constructed in Queensland?

I am not aware that a railway for general purposes has ever been constructed on such a gauge, and therefore there has been no practical experience on the subject. Such a gauge must necessarily greatly limit the power of the railway, and can only be applicable in exceptional cases.

10. Do you think there would be a great difference in cost between the 3ft. 6in. and the 4ft. 8½in. gauge.

The difference in cost appears to me to be more than counterbalanced by the imperfect and diminished value of the narrower line. The relative value of the two systems depends upon the country, the traffic, and other circumstances which have to be considered in each case. For example upon the level plains of Bengal, where the traffic is light, they may advantageously be used as feeders to the main line; but I know of no instance in any

* I feel quite certain that it would be a great mistake to construct a tramway or any railway of less power than the one I propose between Launceston and the West. A tramway or a horse railway could not carry the mixed traffic that will pass over this line. Tramways have never been found applicable except to a mineral traffic, and then only in exceptional cases. To construct a tramway for this purpose would be to ignore all the history of railway progress, and to pay again in Tasmania for the experience which has been so dearly bought in England. I have watched the gradual conversion of tramways into railways over a period of above 20 years, and I confidently state that under similar circumstances no experienced person in England would attempt to apply a tramway. I have since I have come to these colonies constructed one narrow gauge horse-power railway, which answers the purpose for which it was required perfectly well: and I have also, when consulted upon the subject, recommended a tramway from Fingal to Perth, to be worked by horse power in preference to a locomotive railway; but these are just the cases in which such roads work well, namely,—one single mineral to be conveyed over them at very low speeds, in a very cheap description of rolling stock. Sharp curves, steep gradients, and very lightly constructed works, are applicable to these cases, but would be destructive to the economical working of such a traffic as would have to pass over the western line. I believe that a tramway in this case would neither carry the goods required nor be a profitable undertaking.—(*Deloraine Railway Report, page 11.*)

Mr. Bruce objects—1st, that I have adopted the 5ft. 3 inch gauge of Victoria instead of the 4 ft. 8½ inch gauge used in England. 2nd—That the permanent way and rolling stock are too heavy for the necessities of the case.

He states that the 4 ft. 8½ inch gauge is found *good enough for England and Europe*. On this statement I distinctly join issue with him. That gauge was adopted arbitrarily in the infancy of railways to enable the ordinary horse waggons of the North of England to travel along the form of tramplate then used, and was from them imported into the Railway system of England, and from these to Foreign Railways, but further experience has brought nearly all railway engineers of later date to the conviction that it is too narrow, and broader gauges have been introduced whenever it has been practicable to do so. Even in England where an alteration in gauge could not be introduced without creating the great inconvenience of a "break of gauge" causing a transfer of all goods and passengers where the different gauges met; Mr. Brunel adopted the gauge of 7 feet. In Ireland, in India, and in Victoria broader gauges than 4 ft 8½ inch have been insisted upon, and I believe that almost every engineer of standing in England wishes that an uniform gauge broader than 4 ft. 8½ inch had been adopted in that country. On the several objections raised by Mr. Bruce I have to observe, that, in my opinion (in which, from recent experience, I believe I should be supported by nine-tenths of the engineers of England), the introduction of such light rails and engines would be destructive to the economical working of the proposed railway. They may be applicable in certain cases, but they are not in this; and I am convinced that if so light a rail as 50lbs. to the yard, and the light engines which would travel over them, were introduced in this case, they would have to be abandoned in a few years, and what I propose or something more powerful, be introduced in their stead, thus causing a reconstruction of the line at an early date. But on these points "Doctors will differ," and I should therefore add, that while in England this year, I consulted with Mr Hemans, (an engineer of higher standing in the profession than either Mr Bruce or myself) and his opinion was, that a heavier rail and greater locomotive power than I had estimated would be desirable. Mr. Hemans paid much attention to the subject, and he was in possession of the necessary data for forming an opinion, which Mr. Bruce cannot possibly have been. I placed in Mr. Hemans' hands copies of the plans, sections, and estimates of the line, the details of my estimates, and the cost of labor, and schedules of prices on which they were founded.—(*Deloraine Railway Report, p. 19.*)

country I have examined for a railway, where the nature of the country required steep gradients, in which I would venture to use the 3 feet 6 inch gauge worked by locomotives.

11. Do you know the cost of the Victorian Government Railways ?

Yes ; they have cost from £30,000 to £40,000 per mile, including the double lines.

12. Do you think such an expenditure necessary ?

No ; I consider the works are unnecessarily expensively designed, and most of the contracts were let at a time when labor was double the present rate. Railways, of equal power, could now be constructed in Victoria for £10,000 to £15,000 per mile for single, and £15,000 to £20,000 for double line. I may add that I have lately laid out a railway in Tasmania, which it is intended to construct on a gauge of 5 feet 3 inches, rails 70lbs. to the yard for a single line only, except at stations ; and Messrs. Peto, Brassy, and Co., have offered to construct it at £8500 per mile, including rolling stock, stations, and all incidental expenses. Over one-fourth of the line the works are heavy, the remainder unusually light. My estimate, presented to the Tasmanian Government, was £8287 per mile.

13. What is the length of the line ?

Forty-four and a half miles.

14. Are you acquainted with the system of guaranteeing a fixed interest to railway companies which has been adopted in India, Ceylon, and South Africa ?

Yes.

15. Can you give the Commission an opinion as to the practicability of carrying out undertakings of this kind by such means ?

While in India, I made myself familiar with this question, and while in London, last year, I again renewed the inquiry, with the view to forming a company for the construction of a railway in Tasmania. I consulted the best informed persons on such subjects, and the conclusions I arrived at will be found in my evidence before the Deloraine Railway Committee, before referred to, page 15, paragraph 21. *

* While in London I made particular inquiries on this point, and found the unanimous opinion of the best informed persons there to be that this railway could only be carried out by an English company established upon the same principle as those formed for the construction of the Indian and Cape of Good Hope railways. In these the amount of money to which the Government guarantee applies is unlimited. The companies receive the stated rate of interest for the number of years named upon whatever sum the railways cost. Any less advantageous terms than these would render the financial position of a company extremely doubtful, and would require them to raise their capital on much worse terms. On consulting Mr Bracey respecting his willingness to contract for this railway he positively declined to have any thing to do with it if he had to trust to the financial arrangements of a company. The Indian Government guarantee interest to the railway companies on unlimited sums for 99 years, and the large amount of their stocks that are on the London market, and the facility with which they can be obtained by persons wishing to invest in such securities, make it extremely difficult to float stock of a more doubtful character. I may add generally that I believe the construction of this railway by a London company would be a most objectionable mode of proceeding, as it would involve great difficulties and expense in management which may be saved by a local administration. I feel convinced that the only economical system to base the finance upon is the issue of Government Debentures of the same character as those issued by the adjoining colonies. Any change in the usual practice creates a doubt in the mind of the English public as to the value of the documents. I was informed by the London stockbrokers that any description of stock issued that differed in form from those the public are accustomed to was difficult to sell, even though the security might be as good or better. I wish it to be understood that I do not assert that this undertaking could not be carried out by means of a company, but that there are great disadvantages attending its introduction,—it increases the expense in raising the capital, and produces a cumbersome and much more expensive system of management. —(*Deloraine Railway Report, page 15.*)

16. How has the system of constructing railways through the intervention of companies worked in India?

No system could have worked worse. There is practically no control over the expenditure, though there is a most vexatious system of check placed upon every person concerned. The Companies' officers in India cannot act in anything without the consent both of the Board in London and that of the Government Officers placed to watch them. The result is what might be expected. Time is wasted in discussion and correspondence. Money is wasted through the want of system, arising from too many heads, each capable of upsetting all the others do, but incapable of acting alone. Yet this mode of management appears inseparable from the unlimited guarantee principle. The Ceylon Railway is a notable example of the pernicious effects of the company system. While the checks placed by the London Board on the Executives in Ceylon, only resulted in rendering it impossible to construct the works; the funds were spent in England, in the purchase of rails and engines, which would not be required for many years, and might prove wholly inapplicable, as they were ordered before the route of line was decided upon, or the gradients or curves known. The result was, that after much time had been wasted, the Government were driven to compensate the Company for the withdrawal of the contract, and to commence *de novo*, raising the necessary funds by the issue of debentures, and appointing a local management.

17. Is there any data upon which the average traffic of railways may be calculated in proportion to population?

Yes; the last year twenty times the population of Melbourne travelled over the Melbourne and Hobson's Bay Railway Company's line. This is about the same average that has been found to obtain elsewhere under similar circumstances.

FIFTEENTH MEETING OF THE COMMISSION.

(SPECIAL.)

MARCH 21, 1864.

Present—

Messrs. Moss, Chairman
Thomson.

The minutes of the previous meeting were read and confirmed.

MR. GEORGE HOLMES, (OF THE FIRM OF GEORGE HOLMES AND CO., ENGINEERS AND CONTRACTORS) EXAMINED:

1. You are a member of the firm of George Holmes and Co., Engineers and Contractors?

Yes.

2 Will you be good enough to state to the Commission what experience you have had?

I was for upwards of 12 years engaged on Railways as a Civil Engineer in England, Ireland, the United States, and Canada. I have for the last 12 years been engaged as Contractor for railways, wharves, iron bridges, &c., in Victoria, and am now making the Tunnel and Railway between Lyttelton and Christchurch, Canterbury.

3. You are thoroughly acquainted with the Victorian Railways?

Yes. Both Government and Joint Stock lines.

4. How many miles of Government lines are now being worked in Victoria?

Melbourne to Sandhurst, 97 miles (double line); Melbourne to Geelong, 50 miles, (single line); Geelong to Ballarat, 50 miles, (double line); in all upwards of 200 miles, including sidings. There are also in progress 60 miles, which will be opened between Sandhurst and Echuca for traffic in November next,

5. Can you tell us the cost of these lines?

The double lines averaged about £45,000 per mile, and the single line about £16,000.

6. How do you account for such a difference in cost?

The single line between Melbourne and Geelong runs throughout the greater part of the distance on level plains, having very few bridges or expensive engineering works to encounter. It was also far from being well constructed in the first instance by the Joint Stock Company, from which it was afterwards purchased by the Government.

7. Could well constructed railways, with similar gradients and curves, now be made in Victoria at a less cost?

Yes, considerably less if the designs were simplified. All the extensive viaducts, bridges, culverts, tunnels, and station buildings were executed in a most elaborate style, without reference to cost. At least a million of money might have been saved in the above items only.

8. At what rate do you consider efficient railways could now be constructed in Victoria?

The double lines, from the difficult nature of the country through which they pass, would now cost probably about £35000. The single line, which goes through an easier country, would cost about £12000.

9. Do you know anything of the traffic returns of the Victorian railways?

Not in detail, but I was informed very recently by the Chief Commissioner of Railways that they paid last year 3 per cent. on the outlay, over and above the working expenses. The revenue is increasing daily, as the railway system becomes more developed. It is now £1000 per week more than it was six months ago, and will increase still further when opened to the cattle and sheep traffic from the Murray.

10. Do you think that the Government lines in Victoria have been constructed as well and as cheaply as those undertaken by joint stock companies?

Much more so, owing to the continual differences and conflicting interests between the local Directories and those appointed by the shareholders in London and elsewhere.

11. As a rule, then, you consider that it would be better that the Government should undertake the construction of railways?

Yes, in colonies where capital is scarce for the reasons above stated, and because the Governments can always get their contracts for large works taken at a cheaper rate than joint-stock companies.

12. Can a Government in your opinion work railways when constructed as economically as joint-stock companies?

No, they become a depot for Government patronage, whereas shareholders and proprietors soon observe if patronage is abused where they are interested. A Government in my opinion would always do better by leasing their lines after construction. The Dutch Government have adopted this system with success, and the Victorian Government are about to follow their example, and are now inquiring into the Dutch system for that purpose.

13. Do you think if the Victorian Government leased their lines they would get more than the 3 per cent now derived from them ?

I am positive if they were to lease the lines for seven years, they would get for the 1st year 4 per cent on the capital, and an increasing rate annually up to 6 per cent for the last year.

14. Then the Victorian Railways show a deficiency of 2 per cent which has to be provided from the general revenue ?

Yes, but the immense benefits derived from them in settling the country, the great saving which has been effected by them in the construction and maintenance of common roads, would be cheaply purchased at a much heavier contribution.

15. Can you tell us the present receipts and expenditure of the Government lines in Victoria ?

Over £10,000 per week receipts. The working expenses and maintenance of way and rolling stock under 50 per cent, the exact figures I do not remember at the moment.

16. Is there anything in the American or Canadian system of Railways which you think preferable to that adopted in Victoria ?

Nothing, excepting the simplicity of their stations and buildings ; the ballasting and permanent way of the Victorian lines I consider far superior. I have known lines in America on which the working expenses and maintenance, owing to the defects of the permanent way, and the temporary character of the culverts, bridges, and viaducts, amounted to 95 per cent of the gross receipts.

17. Do you know anything of the system of the 3ft. 6in. guage and light engines adopted in Queensland ?

I do, and have a very poor opinion of it. I have seen the light engines used in America, and they have been after trial invariably given up as quite inadequate to carry any large amount of traffic.

18. Do you know of any line in Victoria, now in use, for which the 3ft. 6in. guage could have with advantage been substituted ?

I believe that this guage is only suited to saw mills or such like traffic, besides which the cost of the earthworks and superstructure would be little less than is required for an ordinary railway. As to light rails and light rolling stock they could be used with equal if not greater advantage on the usual guage, but the traffic would have to be very light to warrant their use. The only advantage of the 3ft. 6in. guage is that it can be constructed on sharper curves, but the loss of power when so constructed is immense and renders this advantage useless.

19. On what guage is the Lyttleton and Christchurch Railway constructed ?

Five feet 3 inches.

20 Do you think the 5 feet 3 inches guage preferable to the 4 feet 8½ inches

Decidedly ; it is safer, and gives more room to the working parts of the engine, besides affording greater width for seats in the passenger carriages. The 5 feet 3 inch gauge is the result of close practical experience and scientific investigation. The 4 feet 8½ inch is a chance gauge, adopted by the elder Stephenson.

21. Are you aware that the 4 feet 8½ inch gauge has been adopted in Southland, for the line from the Bluff to Invercargill, and Invercargill to Riverton ?

Yes ; and I regret it very much, for a "break of gauge" in the Middle Island will be a great calamity.

22. Do you think that railways will cost more here than in Victoria ?

Yes ; owing to the higher price of labor.

23. What is the cost of a mile of railway over level country in Canterbury ?

I have just completed five miles in Canterbury over a level, but in some parts swampy, country for £60,000, stations included, being about £12,000 per mile. I believe that substantial and well-constructed railways will be made in Canterbury at from £10,000 to £12,000 per mile.

24. Are you acquainted with the general features of the country in Otago ?

No ; I have never been out of Dunedin.

25. Can you tell us the number of passengers conveyed weekly over that portion of the line between Lyttelton and Christchurch which is opened ?

The average is from 1000 to 1200 per week.

26. We have been told that on the Sandhurst Line it has been found that Beyer and Peacock's engines will only draw thirteen loaded trucks over inclines of 1 in 50 ; can you give any further information on this point ?

I have known the most powerful engines in possession of the Victorian Government come to a standstill on some of the heavy gradients with a gross load of 70 tons. Everything would of course depend upon the length as well as the steepness of the incline. Beyer and Peacock's engines are the most powerful in Victoria. The 13 loaded trucks would probably weigh 60 tons.

27. Is there any difficulty in increasing the width of embankments, bridges, and other works when a single line is made into a double line ?

No. The embankments may be stepped so as to make a solid junction. Under bridges may be widened at very little expense. Over bridges should at first, if possible, be built the width for a double line.

28. Is there any unusual risk of collision, or much additional expense in working a single line ?

No, not if worked in connection with the Electric Telegraph. I have seen single lines 400 miles long in America, working very heavy traffic by this means.

SIXTEENTH MEETING OF THE COMMISSION.

MARCH 22, 1864.

Present—

Messrs. Moss, Chairman
Thomson
Burns

The minutes of the last meeting were read and confirmed.

Memorandum from Mr. Pike, Secretary of the Gold-fields Department, forwarding Return of the population on the various Gold-fields—read.

Letter and report from Mr. Balfour, Marine Engineer, on the cost of dredging the harbour between Dunedin and Port Chalmers—read.

The report was then brought up and read by the Chairman.

Resolved—

“That the report be adopted, copied, and presented to His Honor the Superintendent.”

APPENDIX

TO

REPORT OF COMMISSION.

(A.)

14th February, 1860.

James Macandrew, Esq.,
Superintendent.

Sir—

I HAVE the honor to acknowledge the receipt of your letter of 13th instant with enclosures, and having carefully considered the same, beg respectfully to state my reasons for adopting the line of road now under construction at Look-Out-Point.

The summit is 375 feet above the sea level, and the road on either side of the ridge rises from points little above that level. The gradient I adopted for this is 1 in 16, being the same as has been laid off on other portions of Trunk Roads in the Province when passing over high ridges. To carry a road over Look-Out-Point at the above gradient there were two plans, the relative merits of which had to be considered before adopting either: one by siding along the slopes until the summit was attained, the other by cutting through the summit and embanking the valleys. From the survey and levels taken by Mr. Garvie, the former involved a distance from the foot of either rise of 224 chains, the latter involved a distance of 202 chains, giving the slight advantage of 22 chains, or nearly a quarter of a mile. The former involved side cuttings only and was estimated to cost £2750: the latter involved a direct cutting of 70 feet at the summit, amounting to 181,377 cubic yards of earthwork, which at the present rate of wages would cost £22,622, to which must be added £2000 for the rest of the distance, or £24,622. These questions had to be dealt with two years ago, and the circumstances of the Colony, though greatly more prosperous now, would not warrant an alteration of the plans at that time designed and prepared.

Mr. Howorth truly remarks that roads should be *level* and *straight*, and thickly populated and wealthy provinces spend enormous sums to attain these desiderata, and properly so. But would this course be advisable in an infant Colony like this in its first efforts to span an extensive but sparsely populated country? In other words would it be advisable in order to save a distance of a quarter of a mile to spend £21,872, a sum that would make a metalled road as far as the Taieri Ferry? I think not. But there are other considerations to be weighed by professional advisers of Governments in modern times. These are the substitution of railways for trunk roads, and if the Colony progresses in the way that even moderate persons anticipate, the present trunk road will ere many years, have a railway running parallel to it. With such anticipations the inordinate expenditure called for by the Honourable Member for the Central District I am still of opinion would be injudicious.

In conclusion, I would beg leave to state that considering the works are not nearly finished, the gentlemen complaining of them to your Honor are not in a position to judge fairly of them. I have no doubt that many of the objects of their animadversions are in course of removal or rectification, it would not, therefore, be unreasonable for me to solicit a suspension of their active interference till the works are reported completed.

I have the honour, &c.,

(Signed)

J. T. THOMSON, C.E.

APPROXIMATE EXPENDITURE on Roads, from 1854 to 1864, continued from Returns published in the Provincial Government Gazette, No. 218, of 3rd December, 1863, including contingent liabilities on account of contracts in course of completion, so far as the said Expenditure is disclosed by the accounts in the Road Department up to 22nd day of March, 1864.

	To Sept. 1862 as per <i>Gazette</i> , 218.			To 31st March, 1863.			To 22nd March, 1864.			Total.			Grand Total.			Including Contingent Liabilities on Contracts, viz. :—			Remarks.
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	
MAIN ROADS.																			
Maintaining the Main Road through the City of Dunedin, and filling up the Market Reserve, Princes-street south	6578	6	6	260	0	0	350	5	0	7188	11	6							
Maintaining the Main Road through the town of Port Chalmers ...													7188	11	6				
NORTHERN TRUNK.																			
Dunedin to Waikouaiti ...	17916	0	2	14112	7	3	54981	9	3	87009	16	8							{ Jas. M'Kenzie 4774 19 2
Waikouaiti to Shag River ...	4573	5	7	50	4	6	5235	5	11	9858	16	0							{ Kirkland & Lyall 406 15 9
Shag River to Oamaru ...	3901	6	2	3096	18	8	15531	7	9	22529	12	7	119398	5	3				{ A. Halpin and Co 435 1 0
SOUTHERN TRUNK.																			
Dunedin to Taieri Ferry ..	50091	14	4	4815	15	7	12812	10	6	67720	0	5							Hugh Scott 1400 0 0
Taieri Ferry to Tokomairiro ...	13776	9	9	7341	14	7	24615	0	0	45733	4	4							{ H. Wilson 1034 0 10
Tokomairiro to Clutha Ferry ...	2341	19	9	644	15	0	13999	11	0	16986	5	9							{ J. Henderson 39 6 0
Clutha Ferry to Mataura ...	3150	11	2	108	12	6	2302	4	3	711			136000	18	5				{ J. H. Lawlor 7204 15 0
NORTHERN INTERIOR.																			
Oamaru to Waitaki ...	2305	7	10	978	16	7				3284	4	5							
Oamaru to Interior or Wanala	2071	9	10	1210	4	2	9389	14	2	12671	8	2							
Palmerston to Manuherikia ...				1456	15	8	4602	7	6	6059	3	2	22014	15	9				
Carry Forward ...	106706	11	1	34076	4	6	143819	15	4	284602	10	11	284602	10	11				15294 18 5

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(B.)

APPROXIMATE EXPENDITURE (Continued).

	To Sept. 1862 as per Gazette 218.			To 31st March, 1863.			To 22nd March, 1864.			Total.			Grand Total.			Including Contingent Liabilities on Contract, viz. :			Remarks.			
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.				
Brought Forward ...	106706	11	1	34076	4	6	143819	15	4	284602	10	11	284602	10	11				15294	18	5	
CENTRAL INTERIOR.																						
Saddle-hill to West Taieri ...	6904	4	6	3197	2	4	6817	19	11	16919	6	9							W. Scott.	241	13	4
Do. (Silver Stream Bridge)				433	19	8			89	4	10			523	4	6						
West Taieri to Dunstan ...	2712	14	2	1541	2	6	6072	7	1	10326	3	9										
Tokomairiro to Tuapeka ...	3585			3022	16	1	5906	11	4	12514	7	5										
Tuapeka to Dunstan ...				78	8	8	22380	1	5	22458	10	1										
Dunstan to Wanaka ...				37	2	10	9516	11	3	9553	14	1	72295	6	7							
SOUTHERN INTERIOR.																						
Popotunoa to Mataura ...	3124	3	4	73	1	6	1286		4	4483	8	10	4483	8	10							
MAIN BRANCH ROADS (North)																						
Dunedin to Portobello ...	3925	4	2	609	5	10	779	10	11	5314		11										
„ West Taieri ...	2934	10	4	159	5	9	1320	10	1	4414	6	2										
N.E. Valley to Timber District	1541	19	7	442	8	4	505	2	9	2489	10	8										
Northern Trunk to Waikouaiti							2234	2		2234	2											
„ Moeraki Bay				996	8	10	1469	5	2	2465	14											
„ Port Chalmers	3123	13	2	5639	13	5	2718	11	1	11481	17	8	28399	11	5							
MAIN BRANCH ROADS (South)																						
Southern Trunk to Clarendon...				482			870	17	2	1352	17	2										
„ Kaitangaita				900			1128	19	8	2028	19	8										
„ Clutha Mouth				1193	5	4	2295	10	7	3488	15	11										
West Taieri to Waiholo ...							656	2	5	656	2	5										
„ Tuapeka ...	1119	6	6							1119	6	6	8646	1	8							
Forward ...	135677	6	10	52882	5	7	209867	7		398426	19	5	398426	19	5				15536	11	9	

APPROXIMATE EXPENDITURE (Continued).

	To Sept. 1862 as per <i>Gazette</i> 218.			To 31st Mar., 1863.			To 22nd Mar. 1864.			Total.			Grand Total.			Including Contingent Liabilities on Contracts, viz.			Remarks.	
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.		
Brought Forward ...	135677	6	10	52872	5	7	209867	7		398426	19	5	398426	19	5					
MAIN BRANCH ROAD (INTERIOR)																				
Lee's Stream to Tuapeka ...							1086	12	7	1086	12	7								
Landslip Hill to Bengel Burn...																				
Kawarau to Frankton with branch to Arrow River ...							2884	13	8	2884	13	8								
Lawrence up to Gabriel's Gully							2861	14	9	2861	14	9								
Havelock to Waitahuna ...							2661	4	1	2661	4	1	9494	5	1					
MISCELLANEOUS.																				
Dunstan to Kawarau ...							2245	8		2245	8									
Dunedin to Wakatip ...																				
Roads unprovided for ...							1888	15	6	1888	15	6								
Roads and Bridges on Goldfields							2600	10		2600	10									
Main District Roads to meet contri- butions from districts ...																				
Supplemented Roads													6734	13	6					
Branch road to Kaikorai Quarry							1919	11	1	1919	11	1								
Streets in Port Chalmers ...				79	9		246	17	3	326	6	3								
Main street through Hawkesbury				335	17	10	1161	19	2	1497	17									
Mounds and Guide Posts on roads in interior ...													3743	14	4					
	135677	6	10	53287	12	5	229424	13	1	418399	12	4	418399	12	4			15999	1	9

W. M. HAWKINS,
Clerk Road Department.

(C.)

ABSTRACT OF TRAFFIC RETURNS BY WATER

*From 4th January to 13th February 1864 (both days inclusive,
but omitting Sundays)—36 days.*

Between	Total Tonnage	Daily Average	Total Passengers	Daily Average
Port Chalmers and Dunedin	8770	243	3506	97
Dunedin and Port Chalmers	380	10	4568	127
Total up and down	9150	253	8074	224
Waikouaiti and Dunedin	2	Nil.	46	1
Dunedin and Waikouaiti	283	10	85	3
Total up and down	285	10	131	4
Moeraki and Dunedin	Nil.	Nil.	Nil.	Nil.
Dunedin and Moeraki	75	2	5	Nil.
Oamaru and Dunedin	2	Nil.	16	Nil.
Dunedin and Oamaru	443	13	12	Nil.
Total up and down	445	13	28	Nil.
Taieri and Dunedin	} Nil.	} Nil.	} Nil.	} Nil.
Dunedin and Taieri				
Clutha and Dunedin	Nil.	Nil.	Nil.	Nil.
Dunedin and Clutha	200	5	Nil.	Nil.
Southland and Dunedin	149	4	193	5
Dunedin and Southland	530	15	136	4
Total up and down	679	19	329	9
Other Ports and Dunedin	3719	103	27	Nil.
Dunedin and other Ports	338	9	192	5
Total up and down	4057	112	219	5

The above Abstract is compiled from the Traffic Returns taken for the Commission on "Roads and their construction" by Thomas Callender.

H. C. HERTSLET,

Clerk to the Commission.

ABSTRACT RETURNS OF TRAFFIC,

Between the 4th of January and the 13th February 1864 (both days inclusive)—41 days

<i>Taieri Junction</i>	Vehicles of all kinds	Goods (Tons)	Passengers	Daily Averages.
To Dunedin } via West Branch }	1003	362	2306	{ 24 vehicles 9 tons 56 pssngers
From Dunedin } via West Branch }	1078	912	2091	{ 26 vehicles 22 tons 51 pssngers
To Dunedin } via South Branch }	1045	232	3139	{ 25 vehicles 6 tons 76 pssngers
From Dunedin } via South Branch }	830	490	309 5	{ 24 vehicles 12 tons 75 pssngers
<hr/>				
<i>Half Way Bush</i>				
<hr/>				
To Dunedin } via Half Way Bush }	836	110	4090	{ 20 vehicles 2 tons 100 pssngers
From Dunedin } via Half Way Bush }	979	138	3379	{ 24 vehicles 3 tons 82 pssngers

The above Abstract is compiled from the Traffic Returns taken for the Commission by Thomas Fraser, at the Taieri Junction ; and James Gillon, at the Half Way Bush.

H. C. HERTSLET,

Clerk to Commission.

(D.)

Dunedin, 9th January, 1864.

Sir—

I HAVE the honor to acknowledge the receipt of your letter of the 19th ultimo, requesting me to furnish the Commission with my views and opinions relative to the most suitable means of opening up the communication by land, between Dunedin and the Agricultural Districts, North and South ; and between Dunedin and the different Gold Fields of the Province.

In reply, I have much pleasure in stating that any information, which from my knowledge of the country, it may be in my power to give, I shall be happy to lay at the disposal of the Commission.

With regard the country North of Waikouaiti, towards Oamaru, I have no definite knowledge, and can therefore give no expression of opinion as to its requirements. The road by Palmerston to Manuherikia, is also unknown to me.

Since receiving your letter, I have had occasion to travel to the Dunstan, by way of West Taieri, Deep Stream, Roughridge, &c., which is in fact the Main-road to the Dunstan Gold Fields. This is certainly a very rough country for good road making, and indeed, after leaving the Taieri no material of suitable description is to be found for the purpose, until reaching McPherson's Station, where some quartz is to be obtained.

At the same time, I am of opinion that with a judicious use of the material obtainable, the road may be made serviceable for the present requirements during 9 or 10 months of the year, with no very extraordinary outlay ; the nature of the soil generally being such as will stand a great deal of traffic without much injury.

There are however many soft places and crossings of creeks, which require putting in order, to make them good for wet weather and winter traffic. For this purpose I think it would be best to pitch these parts with best Quartz Schist, and blind the pitching with gravel, or schist, or with the best material which could be obtained.

I feel satisfied that this mode would be the best method of treating this district at present, and would be highly useful in winter months.

At the present time the weather is favourable, and the road good. By keeping a track good in Summer, adjoining the made places above indicated by me, which would be preferred by the teamsters generally to the made road ; the pitched parts would only be used in winter, and would therefore require little or no repairs.

The agricultural and gold fields districts, South of Dunedin, I think should be dealt with very differently to the Dunstan Road. The country intersected by the road from Dunedin, to the Taieri Ferry, Tokomariro, and to the Clutha Ferry, will be and indeed is now, the most important agricultural district in this Province, and will at no distant day demand a far cheaper and speedier means of communication for its development, than the common roads of this Province.

The best mode of opening up the communication of these districts, in my opinion is by Railway.

In the absence of any engineering assistance, I am not prepared to hazard an opinion as to the practicability of carrying a line of Railway, by Tokomariro, to Tuapeka, or otherwise ; but I have no hesitation in stating that there are no difficulties in the way of making a Railway to Clutha Ferry, which could be extended as settlement proceeds south of the Molyneux.

The system of Railway construction I should be inclined to advocate, is, that of a single line, similar to that which has been adopted in South Australia ; and which in

my opinion is the cheapest and most advantageous of any adopted in the adjoining colonies. The system adopted in Victoria is of the most expensive kind; indeed, I believe the most expensive in the world without any real advantage. I remember the Edinburgh and Glasgow Railway when it was made, and the Victorian Railways have been constructed very much on the same principle; but in later years all that unnecessary expenditure is now done away with in such works, and quite as useful and good Railways, constructed at one-half, or two-thirds of the previous cost. All that is required being simply sound work, with reasonable curves and gradients.

With the exception of Cargill's Hill, Lookout Point, and Saddle Hill; the whole district to the Clutha Ferry, is favourable for railway undertaking, and although I beg to have it understood that my estimate as hereafter stated, is made without engineering or surveyor's assistance, I believe it will be found pretty correct.

I base my calculations on the supposition that the Railway would be carried parallel or in close proximity to the Main South Road; but it is quite probable that by crossing the head of the Taieri Plains, leaving Waihola Lake on the left-hand side going south, may be found a preferable and cheaper route. In the construction of culverts, good rubble and brick to be used—ordinary bridges of rubble backings and brick facings, and timber bridges for the crossing of large streams, &c. I do not take into consideration any outlay that may be incurred in the purchase of land, as in a new country like this, I consider that all country lands required for Railway purposes, should only be paid for at say, double or treble their original cost, as the increased benefit arising from improved communication ought to be more than equivalent to the value of the land taken up.

Having now laid before you my views with respect to Railway communication, I beg leave to subjoin a general estimate of the probable cost of works such as I have indicated, viz:—say,

15,000 cubic yards earthworks, @ 3s.	...	£2,250	0	0	
Ballast, 2,900 cubic yards	„ 6s.	...	870	0	0
Sleepers, 1760,	„ 6s.	..	528	0	0
Bridges and Culverts	...	...	1,500	0	0
Rails and fastenings, including cartage, say, 160 tons					
per mile, @ L.12 per ton	...	...	1,920	0	0
Laying do. 1,760 lineal yards @ 2s. 6d.	...	...	220	0	0
			<hr/>		
			£7,288	0	0

Say seven thousand three hundred pounds, per mile, for a Railway equal to the best in the world for commercial purposes,—stability, without ornament, and capable of running trains with perfect safety at the rate of forty miles per hour.

The above estimate would be applicable for about fifty miles of Railway, from Saddle Hill to the Clutha Ferry. The distance between Dunedin and Saddle Hill, being of a more expensive character.

Say probably about half-a-mile of tunnel at ninety pounds (L90) per yard	...	...	L79,200	0	0
7 miles between Dunedin and Saddle Hill, say @ L12,000	...	...	84,000	0	0
			<hr/>		
And for 50 miles @ L7,300	...	...	163,000	0	0
			365,000	0	0
			<hr/>		
			L528,200	0	0

L528,200 (five hundred and twenty-eight thousand two hundred pounds) exclusive of rolling stock and stations.

I believe that the above estimate is a fair one, as through the Taieri and Tokomairiro Plains, about four thousand pounds per mile would be found sufficient, leaving the balance of 3,300l. per mile, to compensate for any expensive country not taken into consideration between Tokomairiro and the Clutha, and other contingencies.

To recapitulate, say—

7 miles Dunedin to Saddle Hill ...	...	163,000	0	0
50 ,, Saddle Hill to Clutha Ferry ...	...	365,000	0	0
		<hr/>		
		528,000	0	0
Say for rolling stock, stations, and sidings, 15 per cent. ... ..	...	79,200	0	0
		<hr/>		
		607,200	0	0
And for engineering and supervision, say 5 per cent. ... ..	...	30,360	0	0
		<hr/>		
Total ... ..	...	637,560	0	0

six hundred and thirty seven thousand five hundred and sixty pounds.

Before concluding, I have the honor to invite your attention to the question of a Railway Terminus in Dunedin, and would point out the site lately and now being reclaimed in Dunedin harbour, as the most suitable spot, taking into consideration the certainty at no distant day, of a railway being constructed to the Port, and which I think should be a government undertaking, as no system of Railways for this Province will be complete without extension to Port Chalmers.

The site is undoubtedly the best one for the terminus of a Railway in Dunedin, and I trust you will pardon my divergence from the general question in alluding to the subject, as I feel sure that in the event of a Railway being constructed to the Port, this would be selected as the site of the terminus, and in any further extension of railways in the Province, it is most desirable that the whole should be concentrated in one spot, as past experience has shown that the termini of all Railway communication, must eventually be brought to one focus and that in the central position of commercial cities.

In conclusion, I deem it unnecessary on my part to point out the great advantages that would accrue to this Province, by carrying out a system of Railway communication such as I have indicated. The agricultural and pastoral interests of the Province, are, I think, sufficiently large, to justify the commencement of such a system; but when the extensive trade with the Gold Fields is taken into consideration, the matter in my mind is set beyond doubt.

My knowledge of Railway matters is more of a practical, than theoretical or engineering nature, but if I can afford the Commission any more information regarding the construction of Railway works, I shall be happy to place my experience at their disposal.

I have the honor to be, Sir,

JAMES MCKENZIE.

Frederick J. Moss, Esq.; M.P.C.

(E.)

Great Northern Railway, Contractor's Office,
Invercargill, January 4th, 1864.

SIR,—

I BEG to acknowledge receipt of your favor of 21st December, and I now do myself the honor to enclose report as to the system of wooden railways.

My engine and waggons can be seen daily at work on the Bluff Harbour and Invercargill Railway; and it would well repay a visit—a personal inspection is far preferable to any written description—it should be seen to be properly appreciated. I shall be most happy to give any information that might be further required.

I have the honor to be,

Sir,

Your most obedient servant,

JAS. R. DAVIES

F. J. Moss, Esq., Chairman Roads Commission,
Survey Office, Dunedin, Otago.

Great Northern Railway, Contractor's Office,
Invercargill, January 4th, 1864.

SIR, —

IN presenting to your notice an example of an economical and safe system of railway construction, thoroughly applicable to meet the wants and requirements of your Province, it is to be presumed that it will in some degree tend to facilitate the views of those who earnestly desire an extension of their commerce by a full development of their natural resources; and, as the attainment of so desirable an object can alone be effected by a vigorous and determined effort, it is obvious that cheap railway communication must, of necessity be resorted to.

My plan consists of wooden rails, 6 x 6, sunk into transverse sleepers, and fastened in a secure, simple, and inexpensive manner, which, in their turn, are embedded in ballast, making a complete and perfect permanent way.

The bearing or carrying wheels of the engines and carriages are as broad as the rails, and have no flanges, but are kept on the rails by means of guide wheels; each wheel of the engines and carriages (except the driving wheels of the engines) acts independently upon its own axle, totally unconnected with its opposite wheel, and by this improvement the great torsional friction, concussion, and oscillation, produced by the arrangement of wheels in ordinary locomotive engines and carriages, is entirely obviated.

W. B. Adams remarks—"They are not wheels but rollers, being fixed to a shaft or axle, which revolves with them. The result of this is, that the wheels (if exactly the same diameter) can only roll forward in a curved line, and upon irregular rails; they *slide* and *grind* with a vibrating movement, tending to crystallise both rails, tires, and axles, which latter are exposed to an enormous torsion in addition."

"If the wheels, instead of being constructed like *garden rollers*, both in one piece with the axle, were made to revolve *independently* of each other, the grinding, sledging, and torsion would disappear, and both wheels and axles might be made considerably lighter, and a very large amount of risk and danger be removed."

The adaptability of my improvements in the construction of engines and carriages to wooden rails have been thoroughly established by actual trial on a short line laid down near the Geelong and Ballarat Railway, at Green Hills.

The engine employed weighed eight (8) tons when in working trim, and passed over the line, during a period of nearly two years, 180,000 times, being equal to fifty years traffic on an ordinary railway, and 36,000 miles in actual distance travelled.

The wear and tear of rails at the end of that time was scarcely perceptible; the line was sixteen chains long, with gradients of 1 in 70, 1 in 37, and 1 in 29, and a curve of 8 chains radius.

The maximum speed attained was from 30 to 35 miles per hour.

The same engine is at present working on wooden rails, loading materials, &c., on the Bluff Harbour and Invercargill Railway, where she can be seen daily.

She passes from 30 to 40 times per day over a curve of *ninety* (90) feet radius with the greatest ease.

I beg further to state that the Southland Government are constructing the Great Northern Railway with wooden rails, and will use my improved rolling stock. The carriages and waggons being manufactured here at Invercargill, and the locomotive engines at Melbourne.

The benefits to be anticipated from the use of wooden instead of iron rails are rapidity of construction, reducing the cost of permanent way nearly four-fifths, allowing curves of much smaller radii to be used, and consequently effecting in a mountainous district a large saving in the expense of earthworks.

In conclusion, I beg to direct your attention to the accompanying sheet, showing a comparative estimate of the cost of iron and wooden rails.

I have the honor to be,

Sir,

Your most obedient servant,

JAS. R. DAVIES.

F. J. Moss, Esq.,
Chairman Roads Commission,
Survey Office, Dunedin, Otago.

COMPARATIVE ESTIMATE OF IRON AND WOODEN RAILS.

COST PER MILE OF IRON RAILS.			
120 tons Rails, at £12 per ton, delivered	...	...	£1440 0 0
33 tons Chairs, at £10 do.	...	...	330 0 0
600 Fish Plates	} 18 tons at £20	...	360 0 0
2400 Fish Bolts			
8 tons Spikes	...	...	57 0 0
9520 Keys, at £6 per thousand	...	...	57 0 0
			£2187 0 0
COST PER MILE OF WOODEN RAILS.			
32000 S. feet of 6 x 6, at 25s. per	...	...	£400 0 0
Keys and Tongues	...	...	60 0 0
			£460 0 0
Iron Rails, per mile	...	£2187 0 0	
Wooden do., do.	...	460 0 0	
Balance			£1727 0 0

Per Mile in favour of Wooden Rails in the permanent way alone.

(F.)

Dunedin, January 28, 1864.

SIR,—

I HAVE the honor to acknowledge the receipt of your letter of the 19th ult., in which you inform me that at a meeting of the "Commission on Roads" it was resolved to apply to myself and other professional gentlemen for their opinion as to the most suitable means of opening up the communication by land between Dunedin and the Agricultural districts North and South, and between Dunedin and the different Gold Fields, &c.

It will I think be useless for me to enter into the explanation of the results derived from actual experiments extending over some 40 years, which have established the fact, that as a communication by land between any two points having a constant traffic, however small, no system can compete with the railway.

The question, however arises, and it is rather a difficult one in many cases to decide, what kind of railway should be adopted. It will be to this question I shall in the present communication mainly confine my observations, and in order that you may be able to judge how far my estimates, &c., are reliable, I would state, that having previously served my apprenticeship as an architect and surveyor, &c., I was from the year 1844 to 1852 engaged as Resident Engineer under John Hawkshaw, Esq., Engineer-in-Chief to the Lancashire and Yorkshire Railways, and President of the Institute of Civil Engineers, the highest office to which any engineer can attain.

During this period, viz., from 1844 to 1852, I personally superintended the construction of 100 miles of railway in England, amounting at an average (for works only) of £28,000 per mile, to £2,500,000; also, in Ireland of 65 miles amounting at an average of £10,000 per mile to £1,170,000. During this time I was also engaged in works connected with the reclamation of 80,000 acres of land from the sea.

I arrived in Victoria in 1852, and on the strength of my testimonials was at once appointed Chief Assistant Engineer to the Melbourne, Mount Alexander and Murray River Railway Company, at a salary of £600 per annum.

For about twelve months I was employed surveying trial lines for 300 miles of railway into the interior. In 1853, I was appointed Engineer-in-Chief to the Company, at a salary of £1000 per annum. During the time I was engineer to the Company I surveyed, designed, and laid out the works for the Melbourne and Williamstown Railway—including the pier at Williamstown. My original estimate for this work was £362,000 or at the rate of £43,000 per mile for a double line. The works, as ultimately carried out by the Government, slightly exceeded this amount. I also made additional surveys for 437 miles of railway.

I held this appointment until 1856, when the works of the company being handed over to the Government I resigned, although requested to hold office at the same salary under the Government Engineer-in-Chief.

From July, 1856, to March, 1862, I practised in Victoria as a Civil Engineer and Architect, and amongst other works carried out the St. Kilda and Brighton Railway at a cost of £132,265. My remuneration being 4 per cent on the outlay.

I have made the foregoing statements with the object only of shewing that the construction of railways has been a subject constantly occupying my attention for the last 20 years. The lines upon which I have been engaged have been of the most varied character both as regards the country through which they passed, and the works by which they were constructed.

Experience has proved that very light rails and very heavy rails are equally objectionable—the light rail being too elastic and the heavy rail too rigid. The most useful is the double headed rail, weighing about 75 lbs. per lineal yard, fixed in cast-iron chairs, the rails being secured at the joints with fish plates, bolts and nuts, and to the chairs with compressed oak keys. The chairs are laid upon wooden sleepers, and secured thereto with compressed oak trenails. This form of permanent way is adapted for the most approved kind of points, switches, and crossings. The best gauge between the rails would be 5ft. 3in. The sleepers are laid upon a bed of broken stone, or ballast as it is usually called, and after the chairs, rails, &c., are adjusted the whole is boxed in or surrounded with gravel to within about 3 inches of the upper surface of the rail. For the purposes of boxing nothing could be better than the coarse gravel or shingle which is found in abundance on the plains of the Taieri, Tokomairiro, Clutha, the Shag Valley, and I believe generally throughout the plains of this Province.

My estimate of the probable cost for one mile of railway for double and single lines, according to the foregoing description, is given, and further explanations in reference to the estimates will be found in the Appendix.

With reference to these estimates it may reasonably be asked, how is it that with the well known fact before us that British railways have cost on average £45,000 per mile, that it is possible to construct a double line of railway in New Zealand (equal to a first-class English line) for £18,946 per mile, when the value of labour is at least double what it is in Britain. An investigation into the various expenses incurred on the British lines shew that the principal causes of the excessive cost of their construction have been—1st—Legal and parliamentary expenses, and contests with competing schemes; the average of six companies was at the rate of £1,507 per mile—2nd—Exorbitant sums paid for land and compensation—property worth only £5000 had been sold to a railway company for £120,000—a great portion of the land taken for railway purposes has realised to the owners from £2000 to £10,000 per acre; a mile of railway would require on an average 8 acres to the mile, being at the rate of from

£16,000 to £18,000 per mile for land and compensation only. An exceedingly independent attitude should be assumed by a Government or a company in treating with landowners. As a class, landowners derive more benefit from the introduction of railways than any other persons. As it is never absolutely necessary that a line of railway should be limited to one direction, or rather course, and (excepting in cases where an individual section or allotment is entirely absorbed or rendered useless by the railway) a gift of the land required ought to be expected—3rd—Extravagant outlay on the construction of works. It cannot be denied that engineers have in many cases caused structures to be erected at double and treble the cost actually required for the purposes of traffic; instances are common on every line in England and the colonies of elaborate works in masonry, which are seldom seen except by shepherds. In townships, and in the vicinities of large towns, a certain amount of style may be, and is desirable, but through country districts it is absurd to do more than is absolutely necessary to ensure a perfect working line.

Although the view which I have been able to take of this province has necessarily been of the most cursory character, still I should almost unhesitatingly say, there are no difficulties more than those which ordinarily occur—that is, I should consider this an ordinary or average country; there are certainly localities which would require special attention, and would involve costly work, but there are long stretches upon which little more would be required than ballast, fencing, permanent way, and level crossings; taking, however, a length of 100 miles, I have no hesitation in submitting the following estimates for 1 mile of single line, as given in the Appendix.

Although outside the request contained in your letter I would take opportunity of remarking that the facilitating of the traffic from Port Chalmers to Dunedin appears to me of the greatest importance, the total length is $7\frac{1}{2}$ miles, which at my estimate for a double line of railway at £18,947 per mile amounts to £142,102.

With a magnificent natural dock, such as is possessed by Port Chalmers, no necessity exists for expensive works to form artificial docks in Dunedin, it would cost only a trifle more to transmit goods and passengers by railway from a pier at Port Chalmers than it would from one of the numerous jetties in Dunedin. Goods landed at Port Chalmers could be brought to the central terminus in Dunedin, and without unloading, forwarded if required, into the interior north or south, I do not anticipate that a channel will ever be dredged and kept open, which will allow a first-class steamer or sailing vessel to berth alongside the Dunedin jetties.

From the Central Terminus in Dunedin, going southwards, the evident course is round Cargill's Hill, but whether through Look-out Point or round by the Beach could not be determined excepting by a special survey. I incline at present to the Beach route; thence crossing the Kaikorai River and hitting the spur of the range as quickly as possible in order to creep up the side of the mountains to Saddle Hill; at this point a tunnel is inevitable, but by keeping well over to the east of the present turnpike road an opportunity would be afforded of following down the side of the hills into the Taieri Plains, and having reached these I do not think there is the slightest difficulty to overcome until reaching the Clutha or Molyneux. From Dunedin to the Clutha is a distance of about 48 miles, and the cost of forming a railway thereto might be estimated at £561,572, being at the rate of £11,689 per mile of single way.

From Tokomairiro and the Clutha to the various Goldfields I consider it would be extremely injudicious to attempt the construction of railways. The population will be constantly fluctuating in numbers and shifting in position. Good dray tracks and bridle roads are all that ought to be expected. The Taieri, the Tokomairiro, and the Clutha Plains, on the contrary being, as they are, the hearts of agricultural districts, should be provided with easy and permanent means of communication with the capital and port.

In order to open up the Northern portions of the Province with Dunedin, I am at present of opinion that the line having been constructed to Port Chalmers, might be from thence carried round to the Blueskin Bay; thence to Waikouaiti, and on to the Northern boundary. The country to the north of Dunedin is not very dissimilar in character to the south, and the same average estimates would apply in both cases.

At intervals along the main lines branches would be found necessary in the course of time, and probably even at the same time the main line was being constructed. Such branch lines running up the various great valleys would provide for the requisite communication with the interior.

For some time past there has been a great cry for tramways as being a cheap and efficient method for facilitating locomotion. There is no doubt that tramways do facilitate the locomotion of a particular traffic; such as that connected with coal pits, mines, quarries, &c., &c., and it was from such tramways that railways at present in use took their rise.

Tramways are excellent as feeders to a trunk line of railway, but can never be made satisfactorily suitable for general traffic.

The economy of power on a railway or tramway on a macadamized road cannot be doubted. I should estimate that a horse would draw four tons on a tramway or railway with favorable gradients when he would only draw one ton on a macadamised road with equal gradients. On a macadamised road the cost of moving one ton one mile is 1s. 7½d., on a tramway or horse railway 5d., and by using locomotive power the cost would be reduced to 1½d. In the north of England the cost of conveying coals has been reduced to seven-eighths of a penny per ton per mile.

For those districts through which a railway is not considered necessary I do not consider there is any better description of road suited for general and ordinary traffic than one formed on the following principles:—1st. A good, sound, evenly-pitched stone foundation, from 6 to 9 inches in depth—2nd. A layer of hard stone broken to an uniform gauge of 2½ inches and laid from 6 to 8 inches in thickness—3rd. The top to be covered with a thin coat of fine clean gravel—4th. The whole to be well rolled with a three ton roller before the road is opened for public traffic. I believe half the expense of the maintenance of a road might be saved if such a system as the one above described were adopted. At present the metal is merely placed upon the road, the traffic is turned on, and it is only after the stones have been ground sufficiently to form a quantity of fine stuff that the road assumes anything approaching an even surface. This small stuff, however, is acquired at the expense of the broken metal, which has in the meantime been converted into rounded pebbles and lost that angularity of form essential to the binding and forming a solid roadway.

In conclusion I would remark that the satisfactory decision of any line of railway or road can only be arrived at by careful trial surveys and sections. This work would in itself involve almost a separate staff to be connected with either the Provincial or Road Engineer's Department. Whatever, therefore, may be my views as to the direction of line in various districts, it is very probable my present opinions may be materially altered upon the production of further and more reliable data.

For the details of the cost of construction of railways and explanations connected therewith, I beg to refer you to the accompanying appendix.

I have the honor to be,

C. R. SWYER,

Provincial Engineer.

ESTIMATE FOR ONE MILE OF RAILWAY.

DOUBLE LINE.

With gradients not steeper than 1 in 60 ; curves not sharper than 20 chains.

Page.		£	s.	d.
65	Earthworks, 30690 c. yds. at 3s.	4603	10	0
66	Bridges and Culverts, say	3000	0	0
66	Fencing, 3020 lin. yds. at 2s.	352	0	0
66	Side-drains, 1760 c. yds. at 1s.	88	0	0
66	Level Crossings and Gates, say	200	0	0
67	Ballasting, 8791 c. yds. at 6s.	2637	6	0
67	Permanent Way, 1760 lin. yds. at £3 2s. 10d....	5529	6	8
67	Stations, 1 every 5 miles, $\frac{1000}{5}$	200	0	0
68	Sidings do. $\frac{600}{5}$	120	0	0
68	Rolling stock, $\frac{90843}{100}$ say	1000	0	0
68	Purchases of land and Compensations	314	0	0
69	Supervision, including all expenses connected with surveying and engineering	902	4	0
	Total	£18946	2	8

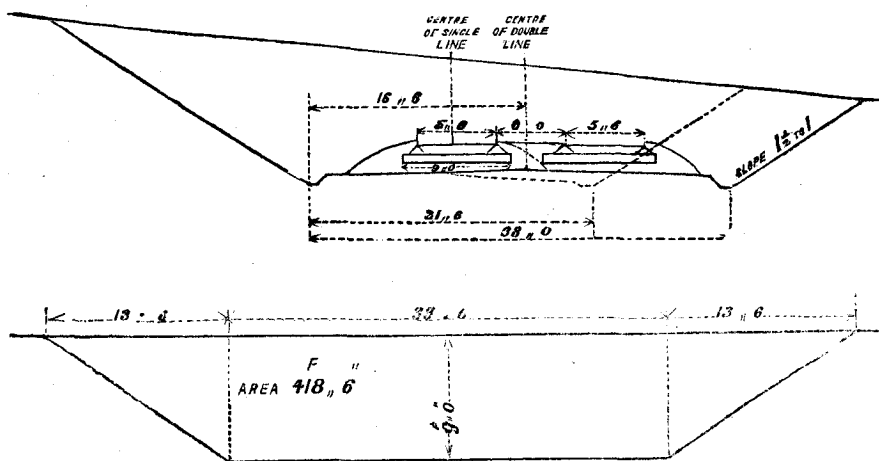
ESTIMATE FOR ONE MILE OF RAILWAY.

SINGLE LINE.

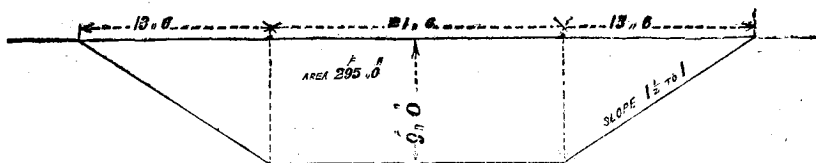
With gradients not steeper than 1 in 60 ; curves not sharper than 20 chains.

Page.		£	s.	d.
65	Earthworks, 21633 c. yards, at 3s.	3244	19	0
66	Bridges and Culverts, say	2000	0	0
66	Fencing, 3520 lin. yards, at 2s.	352	0	0
66	Side Drains, 1760 c. yards, at 1s.	88	0	0
66	Level Crossings and Gates, say	200	0	0
67	Ballasting, 4493 c. yards, at 6s.	1347	18	0
67	Permanent Way, 1760 lin. yards at £1 11s. 5d....	2764	13	4
67	Stations, 1 every 5 miles, $\frac{1000}{5}$	200	0	0
68	Sidings do. $\frac{600}{5}$	120	0	0
68	Rolling Stock, $\frac{45422}{100}$	500	0	0
68	Purchase of Land and Compensation,	314	0	0
69	Supervision, including all expenses connected with surveying and engineering	556	11	6
	Total,	£11,688	1	10

EARTHWORKS.



Section of Double Line.



Section of Single Line.

1st class gradients not less than 1 in 100, and curves 40 chains.

Single line $\frac{1760}{2}$ viz., per mile $\frac{1}{2}$ cutting $\frac{1}{2}$ bank 880 x 3 — 2640 x 295 — $\frac{778,800}{27}$ — 28,844 cube yards.

Double line. — 880 x 3 — 2640 x 418 6s. — $\frac{1104840}{27}$ — 40,920 cube yards.

25 per cent. may be deducted from the above workable but heavy gradients, say 1 in 60, and curves of 20 chains, then—

Single Line...	28844	...	25 p. c.	...	21633 c. yds.
Double Line	40920	...	25 p. c.	...	30690 c. yds.

BRIDGES AND CULVERTS.

About one bridge per mile is generally considered a fair average.

In the neighbourhood of large towns and through towns themselves, circumstances vary so much that it is impossible to form an average for such localities; £3000 per mile may be taken as a safe average for bridges and culverts over say 100 miles of railway, double line.

Cases occur at the crossing of large rivers, as the Taieri, Clutha, &c., necessitating the expenditure of probably 20,000*l.* to 40,000*l.* in one bridge, but all things taken into consideration, 3000*l.* per mile is the lowest sum that ought to be calculated upon over a length of 100 miles.

Double Line	...	...	...	£3000 per mile.
Single Line	...	...	...	2000 per mile.

FENCING.

Posts to be of split manuka, or black pine, 9ft. apart, 4ft. 6in. above the ground; each panel to have 4 rails of goa, red pine or birch.

This item would be the same for a double or single line.

1760 x 2 ... 3520 lin. yds., at 2s £352 0 0

SIDE DRAINS.

The object of the side drains is to prevent the surface water running down the slopes of the cutting or to the foot of the embankments, it is therefore evident that they need be cut only on the one or higher side of the railway. A sufficient drain would contain 1 cube yard of material per yard forward.

1760 lin. yds. ... 1760 c. yds., at 1s. £88 0 0

This item will be the same for a single or double line.

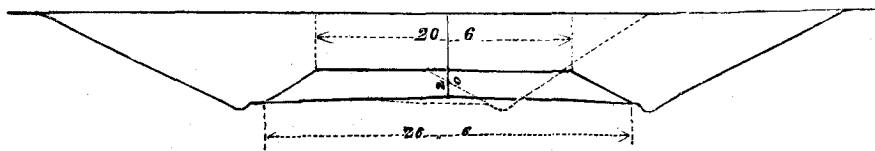
LEVEL CROSSINGS AND GATES.

Level crossings can in many places be made to take the place of bridges, and when adopted they save the first cost of the bridges and of the contingent heavy embankments or cuttings. There arises, however, the necessity, in most cases, of the employment of a man to attend to the level crossing, and his salary, say £100 per annum,

represents a capital of £1000 at 10 per cent.; but when it is considered that at least £1500 would have to be sunk in building a bridge only, and a considerable sum expended in forming either cuttings or embankments as approaches to the bridge, it is manifest that a level crossing has the advantage on the score of economy; the interest of the money required for a bridge and approaches being far in excess of the amount required to pay for the construction of a level crossing, and the annual salaries and repairs. These situations also provide comfortable settlements for servants of the Government or company who have been injured or outlived active service.

1 set of level crossings and gates may be assumed at £200, and one may be assumed per mile.

BALLASTING.



For a double line of railway the ballasting is required to have a bottom width of 26ft. 6ins., and a top width of 20ft. 6ins., as per sketch—giving an average width of 23ft. 6in.

The ballasting for a depth of one foot above the formation level should be composed of sound, hard stone, broken to a uniform guage of $2\frac{1}{2}$ inches—upon this the sleepers are laid, and the chairs and rails fixed; the sleepers may then be what is termed “boxed in” for a depth of one foot, with gravel, which is better for this purpose than broken stone. An average price of 6s. per cubic yard is taken for the ballasting throughout.

Double Line—		c. y.		sleepers.		
$20\cdot6 \times 20\cdot6$	— 23·6 x 2 x 5280	— 9191	...	400	...	8791 c. yds.
Single Line—						
$9\cdot0 \times 15$	— 12·0 x 2 x 5280	— 4693	...	200	...	4393 c. yds.

PERMANENT WAY.

The description of Permanent Way proposed as the most economical would be double-headed rails, 75lbs. per lineal yard, fish jointed, with plates $18 \times 3 \times \frac{3}{4}$, and iron bolts $\frac{3}{4}$ or $\frac{7}{8}$ diameter, oval holes in plates, cast iron chairs 35lbs. each, fastened with compressed oak keys and trenails.

Estimate for One Mile Single Line.

Rails, 75lbs. per lin. yd., including fish joints, bolts, &c.,			
1760 x 2 x 75, equal say 118 tons at £12	...	1416	0 0
Chairs, 35lbs. each, 55 tons at £9 10s.	...	522	10 0
Keys, 3520, each at $2\frac{1}{2}$ d.	...	29	6 8
Trenails 7040, each at 1d.	...	44	0 0
Rail-laying, 1760 lin. yds. at 2s. 6d.	...	220	0 0
Sleepers, 9·0 x 10 x 5, 1760, each at 5s. 6d.	...	528	0 0

Total for single line of rails £2759 16 8

$\frac{2759\cdot16\cdot8}{17\cdot0}$ say £1 11s. 5d. per lin. yd., or £2764 13s. 4d. for one mile of single line.
 $\frac{5519\cdot13\cdot4}{1760}$ £3 2s. 10d. per lineal yard for double line.

STATIONS.

A station every five miles may be assumed as a fair and probable proportion on a length of, say 100 miles of railway. At the termini and principal towns expensive station buildings would necessarily be required, but many of the intermediate stations

would be of the simplest possible character. As an approximate estimate £20,000 to be expended on stations for a line of 100 miles in length is, if anything, too small, but with strictest economy I am of opinion the necessary expenditure might be kept within the amount stated.

Thus $\frac{£20,000}{100 \text{ miles}}$ £200 per mile.

SIDINGS.

On a single line of railway it is requisite that sidings should be made in order that up and down trains may be enabled to pass each other, and whenever a double line of railway is required the same amount of extra accommodation would be needed for standing trucks, &c. This item of expenditure therefore will stand the same on the estimates for single and double lines. Allowing 300 feet as the length of the straight line in the siding, and adding the cost of the curves, points, and switches, with extra excavations, the total cost would be £600.

$\frac{£600}{5 \text{ miles}}$ £150 per mile.

ROLLING STOCK.

The undermentioned list of rolling stock is the smallest it would be safe to calculate upon as requisite for the lightest possible traffic on 100 miles of railway.

		£	£	
12	Locomotives	each	2000	24000
20	First Class Carriages	"	400	8000
12	Composite, do.	"	350	4200
40	Second Class do.	"	300	12000
200	Goods waggons	"	60	12000
40	Third Class Carriages	"	200	8000
12	Horse boxes	"	150	1800
12	Carriage Trucks	"	120	1440
12	Break and guard vans	"	200	2400
100	Sheep trucks	"	90	9000
100	Cattle trucks	"	80	8000
				<u>£90843</u>

$\frac{90,843}{100}$ say £1000 per mile.

LAND AND COMPENSATION.

Assuming the most favourable circumstances, and that in many cases considerable concessions would be granted by land owners, still it would not be safe to calculate that a less amount than £314, per mile, would be required on account of this item.

For 100 miles the probable average would be as under, at 8 acres per mile.

Proportion per 100 miles.		acres per mile.	Average price per acre.	Total.
8	miles	at	8	1000 — 16,000 0 0
15	"	at	8	50 — 6,000 0 0
25	"	at	8	25 — 4,600 0 0
60	"	at	8	10 — 4,800 0 0
				<u>£31,400 0 0</u>

$\frac{31,400}{100}$ —£314 per mile.

SUPERVISION.

By the item "Supervision," is meant the professional superintendence requisite to ensure to the Government, or a company, a proper fulfilment of the contract work, which would be necessary to provide a first-class line of Railway, and of carrying out and determining all contracts in reference thereto.

A percentage of 5 per cent. has been proved a fair and reasonable amount for such supervision.

The expenses attending trial surveys, would not be included in the estimate of 5 per cent.—trial surveys might be extended indefinitely, but having decided the route of the proposed Railway, the preparation of the working surveys, and sections of plans for bridges, &c., &c., and the necessary supervision ought not to exceed five per cent.

Double Line—						
18,044	2	8	at 5 per cent.	...	902	4 0
Single Line—						
11,131	10	4	at 5 per cent.	...	556	11 6

(G.)

Dunedin, 31st December, 1863.

DEAR SIR,—

AT your request I now put together a few particulars concerning the Peebles Railway—the cheapest which has yet been made in Britain—of which undertaking I was one of the projectors, that you may consider whether the information be of any service to you in the important question of railway accommodation to this colony.

Eleven years ago, in an after-dinner conversation with Mr. Wm. Chambers of Glenormiston, (the eminent publisher), and another friend, we had under our notice the necessity of having a railway to Peebles, to develop the resources of the inland district, and prevent it falling behind the neighbouring counties, then better accommodated with the means of transit. Seven years before, we had been engaged in a railway scheme for that district, but the crisis of 1845 came on, and as the line was expensively laid out, costing £250,000 for 20 miles, and we did not know where to look for the capital required, we abandoned the undertaking, after having obtained an Act. Benefitting by our former experience, we resolved to commence anew, and to be guided by the following principles :—

1. The landowners who would be materially benefitted by the line, must take a deep interest in it, and give the land required at agricultural value.

2. The line to be single.

3. The station buildings to be cheap and inexpensive in construction.

4. The line to follow the undulations of the country, so as to avoid the cost of heavy earthwork.

5. Costly viaducts and other expensive works to be avoided.

6. In short, everything to be done to keep down the capital, as we were satisfied the remunerative character of a railway does not depend on traffic alone, but on the proportion the traffic bears to the capital cost ; that is to say, a cheaply made railway, with a small traffic will pay better than one with a larger traffic but more expensively constructed. We were fortunate enough to secure the services of an engineer (Mr. Bouch), who had broken through the established precedents of his profession, and constructed a cheap branch railway to St. Andrews, in Fifeshire, at a cost of about £5000

a mile. We surveyed our country and finally laid out a line 19 miles in length, following the contour of the surface. The line had to rise midway to a height of 300 feet above the sea level, and then to fall 350 feet. The character of the country was such, that one of the directors of the North British Railway Company (Sir James Forrest of Comiston, Bart.) had previously declared at a public meeting held in reference to a railway scheme, that his directors had been anxious to accommodate Peebles with a branch line, but that the physical obstacles were such as to be wholly insuperable. Instead of meeting any such difficulties, our engineer was enabled to lay out the line, so that the total earthwork of the 19 miles amounted to no more than the average quantity in a single mile of ordinary railways.

The following estimate was submitted by the engineer to the first public meeting held on the subject :—

1. Earthwork, ballasting, &c.	L10462	12	9
2. Rails, chairs, sleepers, &c.	18758	17	6
3. Rail laying	1222	4	0
4. Drains, culverts, &c.	1090	0	0
5. Bridges and crossings... ..	6110	0	0
6. Retaining walls	400	0	0
7. Station houses	2950	0	0
8. Fencing	3611	1	8
9. Ten per cent. for contingencies	4460	9	6

L49065 5 5

being about 2,700*l.* a mile for the works, exclusive of parliamentary and preliminary expenses, and the value of the land required.

The works were afterwards actually let to Messrs. Bray and Dyson, of Leeds, Yorkshire, for £35,982, which included everything except the rails, which were furnished by the Company, and excepting also the station-houses, which were erected under a separate contract. This was within the Engineer's estimate. In completing the works some additions were made not originally contemplated, among which was a bridge and access to the station at Peebles. These cost L8000.

The station-houses were also better finished than was intended at first. No station-masters' houses were at first included. The stations and houses cost L5,852. More than a year elapsed before the Act was obtained, and in the meantime the rails rose in price. I have no note beside me of the actual price paid for rails, but taking the cost roughly at L20,000, the expenditure will stand thus :—

1. Bray and Dyson's Contract	L35,982
2. Extra Works	8,000
3. Station Houses, &c.,	5,852
4. Rails	20,000

L69,834

Add to this the price of land acquired 22,000

Parliamentary, Preliminary, Engineering, & other expenses 10,000

And you have total cost of line ... L101,834

This brings out the actual cost of the works to be about L3,700 per mile, and of the whole line including land and all expenses, about L5,400 a mile. The first of these sums L3,700 a mile is the figure which should be looked at in considering the cost of a similar line in this country, as there should only be a trifling expense in getting an Act of the Assembly, and the land should be given free. But allow the expense of land and parliamentary and other charges to be an equivalent for the increased cost of labour and material in the Colony, no reason appears why a similarly constructed line should not be made here, for at most L6000 a mile.

The gradients of the Peebles line were at first believed by many to be impracticable. For three miles after leaving the North British Railway, there is a severe gradient of 1 in 53, amounting to a rise of 298 feet. The line continues to rise by an easier gradient for 4 miles, and then there are 3 miles further of about 1 in 70. It falls by a similar inclination of 1 in 70 feet for three miles on the other side, and

reaches Peebles by a steady descent for the rest of the journey. No difficulty has been experienced in working the line. The trains keep good time, taking for the ordinary journey one hour. There are six stations on the road, and the repeated stoppages consume the time. A fast train stopping at all the stations except one, runs in the summer season in 45 minutes. So slight an effect has the worst gradient on the traffic, that there is a station in the middle of that incline, at which the trains stop regularly and with ease.

Although accommodating a thinly peopled and pastoral country, and not tied at the inland terminus to any other railway, the Peebles line has been a complete success, and is now earning a $6\frac{1}{2}$ per cent Dividend. The fares for the third class, who form the greater part of the passengers, are a penny per mile. The rate for coals and heavy traffic is twopence per ton per mile. This country presents several peculiarities which would render a railway more profitable here than at home, in equal circumstances :

1. The whole population travel oftener, and the greater proportion being males engaged in active business, improved facilities of transit would be taken advantage of to an extent beyond belief.

2. Larger fares and rates would ungrudgingly be paid both by passengers and for carriage of goods. The community which has paid £1 per ton per mile for carriage of goods and still pays the reduced rate of 3s. 6d., would cheerfully pay sixpence or even ninepence. In this would be found compensation for thinness of population, and the established fact must be borne in mind that the railway itself would create traffic by the rapid developement of the resources of the interior. These notes are necessarily imperfect as my means of information here are limited, but all the facts may be relied on.

If the Government here act on the principles which regulated us in carrying out the Peebles line, ultimate success would be certain. The railway would not only maintain itself, but would add materially to the prosperity of the Province. If I may be so bold as to hazard an opinion, I might add, that to me it seems useless expenditure improving at great cost trunk lines of road, which ultimately must be useful for mere local accommodation, and that the true policy is to form at once lines of railway as economically made as possible, which will probably lead to a partial reconstruction of the local roads, as they will naturally converge on the railway stations. In any view the improved transit is only a question of time, and not a day should be lost in reserving from future land sales the land required. Townships might be laid out at the railway stations, and the increased value of the ground would add something to the public Exchequer. Land in the immediate vicinity of a station might be also sold at a higher price. Inducements might be afforded to railway labourers in the shape of free grants to those who remained at a fixed wage during the whole progress of the works.

The subject is full of interest and importance, and I rejoice to find that it is under the consideration of a Commission of our most intelligent citizens. I augur a hopeful result, and if I can be of the slightest use in affording any further information it will be most willingly placed at your service. I have purposely refrained from entering on the cost of rolling stock, as it is one of minor importance. The Peebles line was fully equipped for 1200*l.* a mile.

I am, Dear Sir, &c.,

JOHN BATHGATE.

F. J. Moss, Esq.

THE PEBBLES RAILWAY.

Main Line, 18½ Miles; Sidings, 2½ Miles; Total, 21¼ Miles.

Table of Receipts and Expenditure, from Opening to 31st August, 1863.

Year Ending.	PASSENGER TRAFFIC.					GOODS TRAFFIC.						Total Revenue.	EXPENSES.					Prop. of Exp. to Rev.	Miles Run.	Cost per Mile.	Dividend per Cent.
	1st Class.	2nd Class.	4th Class.	Total.	Receipts.	Merchandise.	Grain.	Coal and Lime.	Total Tonnage.	Livestock.	Receipts.		Traffic Depart.	Loco. Depart.	Way Depart.	Gen. Charges.	Total.				
					£	Tons.	Tons.	Tons.		£	£	£	£	£	£	£					
31st August, 1856	11998	28710	54661	95369	4237	5142	1388	26342	32872	793446	7683	1113	2590	1239	399	5349	69	87475	1/3	2½	
" 1857	11823	21201	65585	98609	4820	10894	1654	33385	45933	1024626	9446	1475	2569	916	461	5421	57	59348	1/8	2½	
" 1858	12836	20317	65950	99103	4886	13021	2009	36350	51380	1335133	10019	1866	2341	935	455	5597	55	55443	2/	Pref. 5, Ord. 2	
" 1859	13859	21098	69943	104900	5376	18073	2699	33496	64268	1785848	11224	1510	2155	910	380	4955	44		1/6	Pref. 5, Ord. 2	
" 1860	14330	21724	73981	110035	5684	18923	2358	39476	60757	1726216	11800	1483	2454	1029	439	5405	45			5	
" 1861					5700					6500	12200						50				5
" 1862					6074					6832	12956						50				5
" 1863					6279					8014	14284						60				Pref. 5, Ord. 6

NOTES.

1. During the last three years the line was wrought by the North British Railway Company, for 50 per cent. of the gross proceeds, and the details were not kept by the Peebles Company.
2. The Goods Traffic is chiefly Imports; Peebleshire, being hilly and pastoral, had few exports, except wool, young timber for pit-props in the coal districts, and some grain.
3. The number of Trains, each way, daily, was, 3 for 8 months, and 4 for 4 months. Some of the Trains were mixed—passengers and goods. Recently 4 trains for 6 months in the year.
4. The Rates for passengers were 3d per mile, 1st class; 2d., 2nd class; and 1d. 4th class. Return tickets were given to 1st and 2nd class at a fare and a half.
5. Coals and heavy traffic were carried at two pence per ton per mile. Merchandise at various rates up to 6d.
6. The chief increase in the passenger traffic is in the 4th class; a class, generally speaking, who never travelled at all before the introduction of Railways.
7. The goods traffic doubled itself in six years. There is no exception on any Railways of the steady progressive increase of traffic. A Railway creates traffic. For example, City manure could be conveyed from Dunedin to the agricultural districts at a profit.
8. The total revenue doubled itself in eight years.

(Referred to in my evidence.)

JOHN BATHGATE.

(I.)

Road Engineer's Department, Otago.
Dunedin, 23rd December, 1863.

Sir—

IN answer to your letter of the 19th inst. relative to means of communication between Dunedin and the interior of the Province, I beg to refer you to evidence given by me in September last, and published in the Report of the Select Committee on Roads and their constructions for general opinions.

Since that evidence was given, I have had various opportunities of acquiring a knowledge of the nature of the country and of its capabilities, wants, and requirements; but as that examination is not yet completed, and I am now making arrangements for an early inspection of some other districts, for the special purpose of acquiring information to guide me in selecting the best route for internal communication, I think it better to defer making any further report in the meantime.

I have the honor to be, &c.,

J. PATERSON,

Chief Engineer of Roads.

Frederick J. Moss, Esq.,
Chairman of the Roads Commission.

(J.)

Provincial Engineer's Department, Otago,
Dunedin, March 1, 1864.

SIR,

IN accordance with instructions from the Secretary of Public Works, I am engaged making a preliminary survey for a Railway from Dunedin to Port Chalmers.

From existing surveys in the Survey and Land Offices I have compiled a map which will answer every purpose until it may be thought desirable to make a survey upon which a contract could be based, such a survey it would not be judicious to have made until (1), the course of the line had been definitely settled; (2), the landowners agreed with; (3), the sanction of the Council obtained.

The plan forwarded herewith shews an approximate centre line of railway, and the names of the original owners of the various sections through which the proposed line will probably pass. My next step will be to take a section over the line, as shown in the plan, which, with other information, I shall forward as early as possible.

I may remark that although the line as ultimately determined upon may not be exactly the same as the one shown, still I do not anticipate there will be so great a difference as to make it necessary to treat with land owners other than those named on the plan.

I have the honor to be, &c.,

C. R. SWYER,

Provincial Engineer.

Frederick J. Moss, Esq.

(K.)

Provincial Engineer's Department, Otago,
Dunedin, March 7, 1864.

SIR,

I HAVE now to inform you that on the 3d and 4th inst. I made a careful eye survey of the Coast Line between Dunedin and Port Chalmers, with the object of testing the advisability of adhering to the approximate line as laid down on the plan accompanying my letter of the 1st inst. My observations have induced me to alter the line in several cases, as the works which would be necessary to carry out the red line would be exceedingly heavy and costly. I have laid down in the plan a line in blue which, although not quite so favourable as regards curves, is still an easy and practicable line, and upon which any amount of speed could be obtained.

By referring to the plan you will perceive that I have altered the direction of the line on the approach to Port Chalmers—my reasons for the alteration were, 1st, the greater depth of water in Sawyer's Bay than was expected; 2nd, the difficulty of passing through the town of Port Chalmers without injuring valuable properties; 3rd, the great length of pier which would be required to get into deep water. The blue line crosses Sawyer's Bay at its narrowest part, and in the shallowest water and skirting the east side of the Peninsula terminates with a pier, which at a very short distance from high water mark obtains 22 feet of water at low water; a pier at this point 264 feet in length would be equal to a pier 1782 feet in length on the red line. I may add that Captain Thomson the harbour master approves of the proposed position for the pier. My next step in this matter will be to take an accurate section of the blue line, which I shall forward as early as possible.

I have the honor to be, &c.,

C. R. SWYER,

Provincial Engineer.

Frederick J. Moss, Esq.

(L.)

Ipswich, Queensland,
January 29th, 1864.

Sir—

I AM only now in receipt of your letter of the 21st December last, forwarded to me from Nelson, and in reply to the queries contained therein, beg to make the following statement.

The Dun Mountain Railway, 3 feet gauge, is 14 miles in length, 11 miles of which have been constructed over a most difficult country; the rise in that distance being 2800 feet, 10 miles of it having a gradient of 1 in 19.

The average cost of the line was under L2000 per mile.

The cost of keeping the line in good working order is about L50 per mile, per annum, and the cost of haulage is under 6d per ton, per mile.

Where long distances—say over 20 miles are to be traversed by passenger's traffic—steam power should be used instead of horses, because more economical, and more satisfactory in every way.

Where the traffic is not likely during ten years or so, to exceed 200 tons each way per day, I would recommend a 3ft 6in gauge Railway, with rails 35lb to the lineal yard, and locomotive engines, 12 tons weight, in working trim.

The government of this Colony, have upon my recommendation, endorsed by some of the most eminent engineers in England, adopted a 3ft 6in gauge, for a system of Railroads, intended to be carried out through this colony.

I take the liberty of sending by book post, copy of a report which I drew up for this government upon the first 180 miles of the proposed system.

Messrs Peto and Brassey, the eminent contractors, who have just finished some very extensive Railway contracts in New South Wales, have, as well as others, offered to make the 1st section of 70 miles, for a sum within my estimate as appended to the report, and the first sod of the first Queensland Railway, is to be turned by the Governor, on the 10th proximo.

You will see by my report, that 3ft 6in gauge Railways can be constructed, including land, station buildings, and rolling stock; over an ordinary country, for about five thousand pounds per mile, which estimate has been confirmed by the offers referred to.

3ft 6in gauge Railways have been at work for some time in Norway and Belgium and are now being constructed in India and elsewhere, and are found to answer admirably for a moderate traffic and speed of 20 miles an hour.

The cost of maintaining such a Railway, properly constructed, will not exceed in these colonies, L50 per mile, per annum; and the cost of haulage—depending greatly upon the amount of traffic, should not exceed 2d per ton.

Sir Charles Fox, C.E., 8 New-street, Spring Garden's, London; having had great experience in the construction of narrow gauge Railways in India and elsewhere and having more than any other engineer, given attention to the details of their construction and equipment, has been selected by the Government of this Colony, on the recommendation of the Duke of Newcastle, to act as their consulting engineer and agent in England, for the purchase of rails, engines, carriages, iron bridges and equipment generally of the lines now being commenced in this country; and in case the Government of your Province should embark in the construction of Railways, whether broad or narrow gauge, I would strongly advise that Sir Chas. Fox, or some equally eminent *Engineer*—not merchant, be employed for the selection of such plant and materials as you shall require to procure in England.

Sir C. Fox is consulting engineer for the Railways 4ft 8½in gauge, now being made at the Cape of Good Hope.

Should your Government require any additional information on the foregoing or other matters connected with my profession, I shall be happy to afford it.

I am, Sir, &c.,

A. FITZGIBBON,

Engineer-in-Chief and Commissioner of Railways, Queensland.

Frederick J. Moss, Esq,

1863.

 QUEENSLAND LEGISLATIVE ASSEMBLY.

Report from A. Fitzgibbon, Esq., C.E., upon Proposed Line of Railway from Ipswich to Dalby and Warwick via Toowoomba.

(Ordered by the Legislative Assembly to be printed, 6th August, 1863.)

Brisbane, Queensland,
July 9th, 1863.

TO THE HONORABLE THE SECRETARY FOR LANDS AND WORKS.

SIR,—

1. In accordance with the instructions which you did me the honor to favor me with, I beg to submit for the consideration of the Government the following Report and Approximate Estimate for a line of Railway from Ipswich to Toowoomba and Dalby, and from Toowoomba to Warwick.

2. In doing so, I would premise, by stating that I have carefully examined the leading features of the routes, by which it is possible at a moderate cost to construct a line of railway between the places mentioned.

3. In inspecting these routes I was, as you are aware, accompanied by Mr Hannam, a gentleman upon Mr. Austin's staff, and who was formerly engaged upon the survey for the late Tramway Company. From this gentleman I received considerable information respecting the country through which the proposed line of railway must pass; and I am much indebted to Mr. Austin for permitting me to avail myself of Mr. Hannam's services, as well as for the data with which he kindly furnished me from his office, in regard to prices of work and materials at present obtaining in the district.

4. I would avail myself of this occasion to thank you also for the prompt attention you have at all times paid to my requirements, and for having for the purposes of this investigation placed at my disposal such documents as exist in your department bearing upon the subject proposed to be investigated.

5. It will be convenient, in the consideration of this enterprise, to discuss the questions involved in the following order, viz. :—

1st.—The routes along which the proposed lines of railway should pass.

2nd.—The mode and cost of constructing the railway.

3rd.—The traffic to be carried upon it, including the working expenses of the railway.

4th.—General observations.

6. Respecting the route over which the railway should pass between the places already named, and commencing with that from Ipswich to Toowoomba, I would, in the first place, remark, that, on the whole, I think the site for a terminus at South Ipswich, selected by the late Tramway Company, is a very good one; I should, however, wish to examine the country in the neighborhood of the town more in detail, before concluding the site mentioned to be on every account the best.

7. There are two routes along which a railway may be constructed from Ipswich to the foot of the Main Range in the direction of Toowoomba, viz. : by Laidley, crossing the Little Liverpool Range, in the neighborhood of that place, or by Ferny Lawn and Tarampa.

8. At your own suggestion I examined the last-mentioned line, but I fear that the difficulties to be overcome would not be less than those to be met with on the Laidley line, while the line would be some miles longer ; I therefore consider it advisable, for the present and until a more careful examination of the country, especially between Ipswich and Ferny Lawn, can be undertaken, to confine my attention (with a view to estimating its cost) to a line via Laidley.

9. I do not apprehend any difficulty in finding good gradients along the Laidley route, with the exception of the crossing of the Little Liverpool Range, which will require a very careful examination in order to get a fair working gradient at a moderate cost. *The Tramway Company proposed to cross this range with gradients of one foot in thirty, which seems to have been the ruling gradient on their proposed line ; but, bearing in mind that the railway in question will be the main artery of communication from the head of navigation of Moreton Bay to the vast interior country, and into which channel numerous feeders will undoubtedly flow by and by, I think it of the highest importance that upon the portion of the line under consideration, the best gradients be adopted which, without an extravagant outlay, the features of the country will afford.* I hope therefore we may be able to get over the Little Liverpool Range, with gradients of not more than *one in forty-five or fifty.*

10. The ascent up the Main Range may be accomplished by more than one route' by availing of some of the spurs which run from it into the low country. As the summit level to be obtained by the railway is somewhat over 1,400 feet above the general level of the low country at the foot of the range, and as it is desirable as before stated, to avoid if possible gradients steeper than one foot in fifty, say 100 to the mile especially where the height to be attained is so great and the incline consequently so long, it will require a length of line of nearly fifteen miles in order to get up the Main Range. Making such an ascent by railway is under the most favorable circumstances a serious undertaking, and usually involves heavy works.

11. Although the country extending from the summit of the Main Range to the extremity of the spurs in the low country is much broken and of a very irregular character, without many leading features, and although the sides of the spurs up some of which the railway must be taken are much cut up by water-courses—corrugated, as it were—necessitating either very numerous and sharp curves on the line, or heavy works to avoid them ; still I can say that I see my way to making the ascent at a moderate outlay, debouching on the high ground in the neighborhood of Toowoomba.

12. This portion of the line will require much study and patient investigation, in order to decide upon the route which will afford the best gradients and curves, with the minimum of works ; so that I do not think it will be possible to have the finished surveys and plans of it completed under twelve months from the time of commencing the necessary field work.

13. The line from Toowoomba to Dalby would pass by Gowrie and Jondaryan. The country presents no difficulties, and excellent gradients may be had nearly the entire distance.

14. The line from Toowoomba to Warwick would pass by Westbrook, close to Camboya, through Clifton station, and considerably to the south of Allora township Dalrymple Creek. A careful and detailed examination of the country will have to be made in the neighborhood of Warwick, in order to determine the best mode of approaching that town.

15. It would be most inadvisable to take the line from Toowoomba through Drayton direct, on account of the extremely steep gradient which it would involve ; but the latter town can be readily accommodated (should the inhabitants of the district hereafter desire it), by means of a short branch from the main line to the lower extremity of the town.

16. The route from Toowoomba to Warwick, while not presenting quite so favorable a profile as that from Toowoomba to Dalby, is nevertheless of a very easy character; while the districts through which it will pass, extending beyond it, and which it will serve, are, as I am informed, and can readily believe, some of the best in the Colony for agricultural no less than for pastoral purposes.

17. The necessary surveys and finished plans for the several divisions of the proposed railway may be completed within the following periods, provided a sufficient number of properly qualified and experienced engineers accustomed to railway field work, can be secured, and enabled to commence and carry out the required operations in a systematic manner, viz.:—Ipswich to the Little Liverpool Range, six months; Ipswich to Toowoomba, twelve months; Ipswich to Dalby, eighteen months; Ipswich to Warwick eighteen months.

THE MODE AND COST OF CONSTRUCTING THE RAILWAY.

18. Were it assumed that at the very outset a very large goods traffic should be provided for, I would at once recommend the construction of a Railway of a gauge not less than 4 feet 8½ inches, similar to that in general use upon the English and American lines; which may be constructed over an ordinary country at a cost of ten to twelve thousand pounds per mile, inclusive of land, buildings, and rolling stock.

19. Believing, however, that perhaps for the next twenty years only a comparatively moderate amount of traffic may be looked for, and that the object to be accomplished should be, while sufficiently providing therefore, as well as a reasonable increase of it, to open up the country at the minimum of capital outlay, I have no hesitation in recommending in the present case the adoption of a Railway having a 3 feet 6 inch gauge.

20. Whereas the locomotive engines in ordinary use upon the European and American railways weigh from twenty-two to thirty-six tons, the engines to be used upon the line I propose will weigh no more than eleven to twelve tons. The weight of engine being thus reduced a rail of 30 lbs to 35 lbs per lineal yard will be sufficient instead of 70 lbs to 90 lbs per yard; and the permanent way, bridges, and superstructure of the line generally, may be of a much lighter and less expensive character than would be admissible upon a line of broader gauge.

21. Again, whereas upon lines having a 4 feet 8½ inch, or wider gauge, curves of less than ten chains radius cannot with prudence be used, except at stations; upon a line such as that I propose, curves of half that radius may be adopted with safety, thereby effecting an immense saving in works wherever the course of the line is tortuous, through broken country, or along sidelong ground.

22. Locomotive engines, such as I propose to use, capable of passing round curves of five chains radius, will draw upon a level railroad a gross load of 160 tons at a speed of fifteen to twenty miles an hour; a gross load of 65 tons up an incline of 1 foot in 100, and of 35 tons up an incline of 1 foot in 40.

23. On a 3 feet 6 inch gauge goods and passenger carriages seven feet in width may be used, sufficiently commodious for every purpose, and they may be made of 30 feet or more in length, similar to those in use upon the American lines.

24. I would here remark that there is nothing novel in a railway of light construction, as compared with the Victorian, New South Wales, American and European lines, as many suppose there is; nor is there anything novel in a light locomotive engine. One of the first engines made for the Liverpool and Manchester Railway, the "Rocket," only weighed 9 tons, and the weight of rail did not exceed 35 lbs per yard.

25. Heavier engines and permanent way were only adopted upon the great trunk lines in England because of the great increase of traffic thereon; but there seems to have been no valid reasons for the feeders to those trunk lines, or for Colonial lines, having a moderate traffic only, following the example.

26. I do not suppose any one will be found to argue that a railway having a 4 feet 8½ guage, with a 70 lb rail, and correspondingly heavy superstructure, such as that which suffices for the traffic of the railway from London to Liverpool, is now required or is likely to be required for many years, in order to accommodate the traffic between Ipswich and Dalby, or Warwick.

27. To the objection that the light engines proposed to be used will draw a comparatively light load, it may be replied that it is very easy to increase the number of trains per day as the traffic increases; and I may here observe that with the aid of the Electric Telegraph a single line may be made to do with perfect safety four times the amount of work which it could do without it. Upon the Great Western Railway of Canada, from Niagara Falls to Detroit, a single line when I saw it, 263 miles in length, twelve trains ran over the line from each terminus every day with perfect safety.

28. Sir Charles Fox and other eminent engineers are strong advocates for the adoption of such a Railway as I now propose, in countries where the conditions are similar to those existing in Queensland; and they are now engaged in having such lines constructed in several districts in India, and upon the European Continent, as feeders to the great trunk lines, and in many cases are independent undertakings.

29. My estimate for the construction of this Railway provides for a width of fifteen feet at formation level, and for bridges and culverts of a similar width, the former having superstructures of iron, and the culverts being in many places of iron also. This will allow of the bridges being strengthened hereafter, whenever it may be necessary to lay down a heavier description of permanent way, and to use very heavy and powerful engines, with a 4 feet 8½ inches or 5 feet 6 inches gauge; in such an event the light permanent way after being taken up may be relaid in extension of the main line or as a branch line therefrom.

30. My estimates provide for a single line of Railway of 3 feet 6 inches gauge, with the necessary terminal buildings at Ipswich, and stations averaging twelve miles apart along its entire length, having double lines of rails at each as passing places.

31. The item—permanent way—includes iron rails of 35lbs. to the yard (except upon the inclines at the Little Liverpool and Main Ranges, where I propose that heavier rails should be used), fish plates, wrought iron chairs of a peculiar construction, and fastenings, transverse sleepers, ballast, and cost of delivery of materials upon the line, and the labor of laying the track.

32. The estimate further includes all works, workshops and buildings, land, rolling stock, survey, and the engineering superintendence, and management required to complete the Railway for traffic.

33. The following are the amounts of my estimate for the three main divisions of the proposed Railway:—

Ipswich to Toowoomba—say 69 miles—£617,349 13s. This sum includes £150,000 for the ascent of Main Range, 15 miles in length; and £80,000 for the crossing of the Little Liverpool Range, 7 miles in length, with tunnel at top. The average cost of this division of the line is therefore £8,951 per mile.

Toowoomba to Dalby—say 50 miles—£279,349 11s.; giving an average cost per mile on this division of £5,587.

Toowoomba to Warwick—say 55 miles—£329,467 13s.; giving an average of £5,990 per mile on this division.

These estimates I believe to be liberal, and are such as I have no doubt competent contractors will be found to undertake the works for.

34. Comprised in them are three items of expenditure, which are larger than is at all usual on railways generally, and but for which the sums total in the present

instance, would be much less than they are. One item is that of ballast, which is usually composed of coarse gravel, of which, however, there is an utter absence in the neighbourhood of the proposed routes of the three divisions of the line; this will necessitate the use of broken stone ballast instead of gravel along the entire line, and increase its cost by about £700 per mile.

35. Another item is that of bridges and viaducts on the lower division, on which no less than 3,750 lineal feet of such structures will have to be provided, independent of culverts and small bridges. It is essential that the Railway should be kept above flood level, which, in one instance, namely—at the Three-mile Creek, is 25 feet above the present road, so that as at many other points along the division, an unusually large amount of water way must be introduced.

36. The third item referred to is that of sleepers, on the division from Toowoomba to Dalby, of timber suitable for which, there is scarcely any along its entire length or in its neighborhood; sleepers will consequently have to be conveyed and distributed along the line from the Main Range. A similar difficulty, but to a lesser extent, occurs upon the division from Toowoomba to Warwick.

37. In submitting my estimates for the consideration of the Government, I do so with the full conviction that they will be found ample, and I am farther of opinion that they may, in all probability, be somewhat reduced after a careful survey of the line shall have been made, especially at Little Liverpool and Main Ranges. I append in detail, the items at which the estimates upon each division are composed, with the amounts set opposite each.

38. Respecting the time required to complete the several divisions of the line, I am of opinion that, supposing the surveys be commenced at once, it will be possible to open the line from Ipswich to the Little Liverpool Range by the 1st January, 1866; to Toowoomba, 1st January, 1867; Dalby, 1st January, 1868; Warwick, 1st January, 1869.

THE TRAFFIC TO BE CARRIED ON THE RAILWAY.

39. An impression, now happily dying out, for a long time prevailed, that Railways were only required in such countries as had a dense population, and where large manufacturing communities existed, and that Railways only paid good dividends where the goods and passenger traffic were very considerable, independent of other considerations.

40. It is a remarkable fact, however, that in two European countries, in which the Railways pass only through agricultural districts, occupied by a very poor and thinly scattered population, much better dividends are derived from Railways than in rich manufacturing countries, thickly populated, such as England and the New England States of America. The countries to which I refer are Ireland and France.

41. In 1858 the Irish Railways yielded returns averaging £21 per mile per week, and paid dividends ranging from four to eight per cent.; and in France the Railways pay dividends averaging nine per cent. per annum.

42. On the other hand, we find such Railways as the Great Western of England paying one or two per cent.; Eastern Counties, £1 15s.; Great Northern, £2 15s.; and the average dividends paid in all the Railways in Great Britain, a fraction over three per cent.

43. The cause is not attributable to the amount of traffic to be carried, but to the fact that while the Irish lines have been constructed at an average cost per mile of £16,000, the average cost of Railways in Great Britain, and upon which a dividend is payable, has been £34,683 per mile.

44. Seeing that in this country—west of the Main Range—Railways can be constructed at a price per mile not exceeding £6,000; and looking to the existing and prospective traffic, and increase of population, I think it cannot be doubted that Railways will pay very large returns. This question will, however, bear a closer investigation.

45. In considering the money saving to the country which will accrue from the construction of a Railway from Ipswich to Dalby,—say 120 miles,—suppose we take Mr. Buckley's evidence given before the Committee of Assembly upon the "*Tramway Bill*," in July 1861. That gentleman ascertained that the up and down traffic between Ipswich and Toowomba was, at that time, about 4,800 tons per annum.

46. I don't think it will be extravagant to assume that by the time the Railway can be open to Dalby, say the first of January, 1868, the traffic between Ipswich and Dalby will be more than double that amount, or say, in round numbers, 10,000 tons per annum.

47. At the present rates of carriage, the moving of such an amount of traffic will cost £120,000, and the roads, or mud tracks, over which it has to be conveyed being considered, it is not to be supposed that the existing rates will at all decrease.

48. Now, upon the proposed Railway, the charge for moving such an amount of tonnage between Ipswich and Dalby (taking into account the valuable character of the goods and merchandise conveyed), may be put down at eightpence per ton per mile, amounting to, say £40,000 per annum, leaving a saving to the community of £80,000 per annum on account of goods traffic alone, being about *nine per cent.* upon the estimated cost of the line, viz., £897,008.

49. But if, in addition to this, we take into account the saving in time and money in connection with the passenger traffic, as well as the interest of money to be saved, but now sunk, in wool, hides, and tallow, which cannot be brought down, and in supplies and merchandise which cannot be taken up the country for months after they should be forwarded; I believe the result will show as strong a case for the immediate construction of a railway as can be produced in any part of the world.

50. Again, in regard of passenger traffic, an illustration of the effect produced by Railway facilities upon the travelling propensities of a people is afforded by the official returns of the number of persons who travelled by the Railways of the United Kingdom in the year 1862, by which it appears that they were no less than 164,435,678, or about seven times the whole population of Great Britain and Ireland.

51. Now, the travelling propensities of colonists are found to be not less than those of the home population, while the great majority of the former are by reason of being in much more affluent and independent circumstances, much better able to move about than are the latter.

52. I find that the population which inhabits the towns and districts to be affected by a Railway from Ipswich to Dalby was, in 1861, 10,414, omitting Brisbane town and district. Now, by the 1st January, 1868, I think it may safely be assumed, that the number will have reached 20,000, that will be within the influence of the proposed Railway—and in this Colony it will be within the mark, if we calculate that the number of passengers by the Railway will, at all events, bear as great a proportion to the population living within the district to be affected by it, as in England; which would give us 140,000 passengers annually,—say 383 per day.

53. If we suppose that each of these will pass over a distance equal to that of one-third the length of the proposed line—or say 40 miles, and that the average charge will be three pence per mile, the passenger traffic will produce an annual revenue of £70,000.

54. The goods traffic will, as I have before stated, produce a gross yearly income of £40,000, in addition to which there will be the mails and parcels,—say £3,000 per annum; making a total gross revenue (exclusive of fat cattle, horses, &c., &c.) of £113,000 equivalent to, say £18 per mile per week.

55. If the fact is taken into consideration, that in a poor country such as Ireland, having in most districts a thinly-scattered, and nearly everywhere a purely agricultural population, the Railways nevertheless receive £25 per mile per week; I think it will be conceded that the estimate which I have above made, of the probable receipts on the proposed Railway from Ipswich to Dalby, is below what in reality it will be upon the opening of the line in 1868, and very much below what it will be a few years afterwards.

56. With regard to the working expenses of the proposed line, I think it will be safer in forming an estimate thereof, rather to base our calculations upon facts as they exist elsewhere under similar conditions, than to form an estimate based upon figures in detail, which may be open to doubt.

57. If, therefore, we again take the Irish lines as our guide, we find that the average cost of working them is £400 per mile per annum. This includes the repair and maintenance of all the works and rolling stock, the cost of fuel, salaries, wages, &c., &c. This average, however, includes several double lines, and is considerably increased by the wear and tear resulting from running trains at high speed, while it also bears the maintenance of numerous expensive works, which will be excluded from this line.

58. If therefore we deduct the extra expenditure incurred on these accounts, we may take L300 per mile per annum as what the working expenses would be in Ireland, of a line similar to that which I propose for adoption here. For this Colony, however, we must make considerable addition to this sum, by reason of the higher rate of wages which the employées must be paid, as well as on account of difference of climate and cost of material required for repairs. We must therefore calculate on not less than L500 per mile per annum on account of working expenses, which will amount to L60,000 per annum; and this sum being deducted from the gross yearly income, estimated at L113,000, will leave a nett yearly revenue of L53,000, being about *six per cent.* interest upon the assumed capital expenditure of L897,008.

59. This per centage is capable of increase, by charging higher rates for conveyance of goods and passengers than I have put down, viz. ;—8d. per ton for goods, and 3d. per passenger per mile; and the saving of L80,000 per annum to producers and consumers upon the goods traffic alone, which I have already shown, will result from the Railway, will well admit of an increase of the rates of carriage which I have assumed, should it be considered necessary, which I do not think it will be, but, on the contrary, that as the traffic increases the rates of carriage may be from time to time reduced, while still providing for the interest upon the total capital expenditure.

60. Such being the result in respect of the traffic upon the line from Ipswich to Dalby, the average cost of which will be L7,455 per mile, it is to be supposed that a much more favorable return will obtained from the proposed line from Toowoomba to Warwick, which will cost under L6,000 per mile, and will run through a much finer agricultural country.

GENERAL OBSERVATIONS.

61. In respect of Railways, I would here remark upon the habit which many people fall into, of considering a Railway of no advantage to a country unless it pays handsome returns as a commercial enterprise.

62. It will be admitted that there are various public works essentially requisite to be undertaken for the benefit of the community generally, which in new countries are carried out by the Government, because they are not sufficiently remunerative (where the rate of interest upon capital runs so high, as in the Colonies), to induce private individuals or companies to embark in them.

63. I allude to the expenditure upon ordinary roads, bridges, harbor improvements, river navigation, docks, wharves, &c. No one asks whether such works *pay*, because the many advantages incidental to their construction, which the community at large derives from them, render it a matter of small moment whether the actual money receipts collected on account of their use, is a fair amount of interest upon the capital expended in their establishment.

64. I cannot see why a Railway should be subjected to a more direct revenue test, in order to form an estimate of its advantages to a country, than is an ordinary road, a bridge, or a harbor improvement. Nevertheless, I believe the benefits to be derived by the country to be not less in one case than in the other.

65. It has been well said of the Grand Trunk Railway of Canada,—which was constructed in that Colony by English capital (through the medium of a company), costing some ten millions sterling, and which, because injudiciously laid alongside th

finest system of inland navigation in the world, has not yet paid a dividend,—“that, although it was made thirty years too soon for the shareholders, it was not made an hour too soon for the Colony.”

66. I do not know of any country boasting of civilization and progress, where the attempt is made to carry so large a quantity of valuable merchandise for such long distances, without roads of any kind, as in Queensland.

67. I have not yet seen or heard of any country where good means of communication are more required, or where, on the whole, after crossing the Main Range, Railways can be more cheaply constructed than in the southern portion of this Colony.

68. I am further clearly of opinion that the first cost of a good macadamized road, twenty-four feet in width, constructed in the district referred to, together with the annual cost of keeping it in repair, under such a traffic as I have calculated upon the proposed Railway carrying, would considerably exceed the corresponding charges on account of the latter, while the service would not be nearly so satisfactorily performed, or result in such benefits to the community generally.

69. In witnessing the present mode of carrying on the inland traffic of the Colony, the conviction forces itself upon one irresistibly, that the country must be in a most prosperous condition, and that enormous profits must be derived from the up-country traffic, to be able to withstand the extravagant expenditure in time and in money, consequent upon carrying on a trade with such—I had almost said, semi-civilized means of communication.

70. The description of Railway which I propose for your adoption is, because of its cheapness, peculiarly adapted for a country such as Queensland, which has such an immense area of country to be opened up. Where so many hundreds of miles of Railway must, in the course of the next twenty or thirty years be made,—if the Colony is to progress—the consideration becomes a serious one, whether they are to cost six or seven thousand pounds per mile, or sixteen thousand as in Ireland, and there is no doubt that the more cheaply they can be constructed, the sooner can the Colony generally be furnished with Railways.

71. As even with the utmost exertion, it will not be possible to complete a Railway from Ipswich to Dalby before 1868; the question becomes a most serious one, as to how the yearly increasing traffic between the two places, is in the meantime to be carried on.

72. Sectional jealousies—the bane of most Colonies—may for a time retard the construction of Railways here, and the enormous and yearly increasing loss to the country resulting from their postponement, may be ignored; but sooner or later the country must have Railways, and as in the case of Canada, already referred to, it cannot have them (at all events in the district of Darling Downs) an hour too soon.

73. In evidence of the erroneous ideas which many persons even now entertain, regarding the traffic which may be looked for in connection with Railway undertakings, I shall take the case of the Manchester and Liverpool Railway, the half-yearly income expected to be derived from which was estimated by its promoters, as follows:—

Nett income from passengers...	£10,000
Do. goods and cattle	16,250
Do. coals	5,009

Making a total revenue of ... £31,250

To this, the actual result of a half-year's working, in 1845, presents the following remarkable contrast:—

Nett revenue from passengers	£71,169
Do. goods and cattle	57,603
Do. coal...	5,352

Making a total revenue of ... £134,124

The number of passengers to be conveyed daily, was estimated at from 200 to 250. The actual number was upwards of 1,500 daily.

74. In concluding this Report with a quotation from an able article on Railways, which appeared in the *Westminster Review* for October, 1862, I may remark that the time has arrived, the advent of which was prophesied by George Stephenson, "when it is cheaper for a working man to travel on a railway, than to walk on foot."

"75. Sensible persons—so called—may retard, but cannot hinder the commencement of an undertaking in which the human race has an interest, and by which the whole world will be benefited; to complain that such persons exist is equivalent to complaining that in all ages and climes, men occupy high positions and wield large powers who are fainthearted, shortsighted, ignorant, and obstinate."

"76. Wherever Railways are constructed, whether they cross the American Continent and link the Atlantic and Pacific Oceans, or line the banks of the Thames, the Rhine, the Danube, and the Euphrates; traverse the burning plains of Hindostan or the snows of Siberia, the maxim enunciated by Mr. Pease, of Darlington, when Railways were only experiments, on the success of which he had risked his fortune, will equally hold good, and remain unquestionable evidence of his largeness of view and soundness of judgment."

"Let the country but make the railroads, and the railroads will make the country."

I have the honor to be,

Sir,

Your obedient servant,

A. FITZGIBBON, C.E.

APPENDIX TO REPORT.

APPROXIMATE ESTIMATE of 47 Miles of Railway from Ipswich to the Foot of the Incline up the Main Range, omitting the Little Liverpool Range—say Seven Miles in length.

	£	s.	d.
Cube yards clay excavations in cuttings, with average lead of— say ten chains	16,875	0	0
Cube yards rock excavation in cuttings, with average lead of— say ten chains	36,000	0	0
Cube yards excavation to form embankments	20,000	0	0
Cube yards in side cutting, run into embankments	33,300	0	0
Miles, clearing and grubbing	3,200	0	0
Miles, double side drains	2,400	0	0
Lineal yards ditto in cuttings	896	5	0
Miles, double fencing	9,400	0	0
Lineal feet, bridging and viaduct	63,750	0	0
Culverts, 10 feet span	8,400	0	0
Culverts, 6 feet span	6,240	0	0
Road Crossings	1,800	0	0
Miles permanent way	101,623	0	0
47 Miles survey, and engineering superintendence during the construction of the line	18,800	0	0
Contingencies, at the rate of 5 per cent. on foregoing items	15,634	8	0
	£328,818	18	0

Crossing the Little Liverpool Range (including tunnel)—in all,			
say 7 miles in length	...	...	80,000 0 0
15 Miles of Incline up the Main Range	:	...	150,000 0 0
Cost of land, Ipswich to Toowoomba	...	...	4,140 0 0
Station buildings, workshops, engine house, sidings, &c., upon	69 miles...		
	...	...	20,700 0 0
Rolling stock, plant, and machinery for 69 miles...	...	...	34,500 0 0

Total cost of line from Ipswich to Toowoomba—say 69 miles, inclusive of all works, buildings, land, rolling stock, and plant complete £617,658 13 0
Being an average cost of £8,951 per mile.

APPROXIMATE ESTIMATE of Railway, Toowoomba to Dalby—say 50 Miles.

	£	s	d.
Cube yards, excavation in cuttings and to form embankments	52,500	0	0
Miles clearing and grubbing	1,600	0	0
Miles, double fencing	10,000	0	0
Miles, double side drains	1,440	0	0
Lineal yards ditto in cuttings	990	0	0
Bridges and culverts	20,000	0	0
Level crossings	1,600	0	0
Miles permanent way	128,512	0	0
50 Miles survey and engineering superintendence during the construction of the line	17,500	0	0
Contingencies, at the rate of 5 per cent. on foregoing items	11,707	1	0
	£245,849	11	0
Cost of land	1,000	0	0
Station buildings and approaches, sidings, &c.,	12,500	0	0
Rolling stock and plant for 50 miles	20,000	0	0

Total cost of railway, Toowoomba to Dalby, including all works, buildings, land, and rolling stock complete £279,349 11 0
Being an average cost of £5,587 per mile.

APPROXIMATE ESTIMATE of Railway, Toowoomba to Warwick—say 55 Miles in length.

	£	s	d.
Cube yards excavation in cuttings, and to form embankments	72,187	10	0
Miles, clearing and grubbing	2,400	0	0
Miles double drains	2,400	0	0
Lineal yards ditto in cuttings	1,750	0	0
Miles fencing, double line	11,000	0	0
Bridging and culverts	25,000	0	0
Level Crossings	2,000	0	0
55 Miles permanent way	141,363	0	0
Miles survey, setting out line, and engineering superintendence during construction of works	19,250	0	0
Contingencies, at the rate of 5 per cent. on foregoing items	13,867	3	0
	£291,217	13	0
Cost of land	2,500	0	0
Station buildings and approaches, sidings, &c.,	13,750	0	0
Rolling stock and plant for 55 miles of line	22,000	0	0

Total of cost of railway, Toowoomba to Warwick—say 55 miles—including works, lands, buildings, rolling stock, and plant complete £329,467 13 0
Being an average cost of £5,990 per mile.

ABSTRACT OF ESTIMATES.

TOTAL COST OF RAILWAY, INCLUDING WORKS, LAND, BUILDINGS, ROLLING STOCK, AND PLANT
COMPLETE.

	£	s.	d.
69 Miles, Ipswich to Toowoomba	617,658	13	0
50 Miles, Toowoomba to Dalby	279,349	11	0
119 Miles, Ipswich to Dalby	897,008	4	0
55 Miles, Toowoomba to Warwick	329,467	13	0
174 Miles, Ipswich to Dalby and Warwick	£1,226,475	17	0

Being an average cost per mile of £7,049.

A. FITZGIBBON, C.E.

Brisbane, July, 1863.

(N.)

Gold Fields Department,
Secretary's Office, Dunedin, 17th March, 1864.

MEMO—

THE accompanying return of population on the Gold Fields, is forwarded in accordance with the Provincial Secretary's memo.

I have every reason to believe that the Wardens have over-estimated the number, as I find that their returns shew a gradual and constant increase, whereas there can be little doubt but that for some time past the mining population has been slightly on the decrease. The total increase of the general population, as shewn by the Customs Returns for the last six months, is only a little over five thousand, whilst if the Warden's Returns are to be accepted as correct, the population of the Gold Fields alone has received an increase of more than that number in the same period.

I have, therefore, appended a table showing my own estimate of the population on the various fields on 29th February 1864.

VINCENT PYKE,

Secretary.

(O.)

DISTRICTS.	Population as estimated by the Wardens, February 27, 1864.			Total population as estimated by Secretary.
	Miners.	Others.	Total.	
Woolshed	260	40	300	250
Waitahuna	350	135	485	300
Waipori... ..	250	50	300	150
Gabriels (Tuapeka)	1350	900	2200	1600
Mount Bengier (Teviot)	600	250	900	900
Manuherikia	1100	300	1400	1200
Dunstan	1850	400	2200	1500
Arrow	1200	150	1400	1200
Cardrona	300	30	380	380
Queenstown	2450	1100	3500	3500
Upper Shotover	2200	300	2500	2200
Nokomai	—	—	240	200
Nevis... ..	—	—	1500	1500
Switzers	—	—	430	400
Campbells	—	—	550	550
Pomahaka	—	—	170	170
Mount Ida	—	—	2000	1500
Hamiltions	3750	830	4580	4500
Hindon	500	100	600	500
Serpentine	550	109	650	550
			26285	23050

VINCENT PYKE,
Secretary

(P.)

Provincial Engineer's Department, Otago.
Dunedin, March 22, 1864.

SIR,

IN compliance with the request contained in your letter of the 12th inst., I have made a series of calculations in order to ascertain the difference in cost between the respective gauges of 5 ft. 3 in., 4 ft. 8½ in., and 3 ft. 6 in.

From the abstract of the comparative estimates for one mile of single line of Railway it will be seen that the 5 ft. 3 in. gauge costs £246 11s. 10d. per mile more than the 4 ft. 8½ in. gauge, and £545 19s. per mile more than the 3 ft. 6 in. gauge, all these having the same description of permanent way, viz., 35 lbs. rails on cross sleepers.

The difference between the works of construction required for a 5 ft. 3 in. gauge and a 3 ft. 6 in. gauge are so inconsiderable that I should strongly advocate the adoption of the 5 ft. 3 in. There would be no objection to laying down in the first instance a light permanent way, as when the traffic necessitated it could, without any alteration in cutting embankments or bridges, &c., &c., be removed and replaced with heavier rails calculated to carry any amount of weight.

I have no hesitation in saying that if any other gauge than the 5 ft. 3 in. be adopted in this Province it will be found to be a grievous error, and one very difficult to rectify.

Light rails laid down in the first instance would always be valuable for extensions and sidings.

On lines such as that between Dunedin and Port Chalmers it would not be advisable to have to have rails less than 75 lb. weight per lineal yard.

I have the honor to be, &c.,

C. R. SWYER,
Provincial Engineer.

Frederick J. Moss, Esq.

COMPARATIVE ESTIMATES for One Mile of Single Line of Railway, with gradients not steeper than 1 in 50. Rails not exceeding 35lbs. per Lineal Yard on Guages respectively of 5 feet 3 inches, 4 feet 8½ inches, and 3 feet 6 inches, adapted to Engines from 11 to 12 tons.

Item.	Description of Work.	Five Feet Three Inches Guage.				Four Feet Eight-and-a half Inch Guage.				Three Feet Six Inches Guage.						
		Quantity.		Price.		Quantity.		Price.		Quantity.		Price.				
			s.	£	s.	d.		s.	£	s.	d.		s.	£	s.	d.
1	Earthwork ...	21633 cubic yds. at	3	3244	19		20872 cubic yds. at	3	3130	16		20460 cubic yds. at	3	3060		
2	Bridges and Culverts ...			2000					2000					2000		
2	Fencing ...	3520 lineal yds. at	2	352					352					352		
4	Side Drains ...	1760 cubic yds. at	1	88					88					88		
5	Level Crossings and Gates			200					200					200		
6	Ballasting ...	4493 cubic yds. at	6	1347	18		4384 cubic yds. at	6	1315	4		3933 cubic yds. at	6	1179	18	
7	Permanent Way ...			907					906					906		
8	Sleepers ...	1760, at	4	362			1760	3	264			1760, at	2	175		
9	Stations ...			200					200					200		
10	Sidings ...			75					75					75		
11	Rolling Stock ...			500					500					500		
12	Land and Compensation			314					314					314		
13	Supervision ...	5 per cent.		478	19	10			467	5				452	19	10
	Total ...			10058	16	10			9812	5				9512	17	10

(0)
88

(1)—EARTHWORKS.

GAUGE.	BASE OF CUTTING.	AVERAGE QUANTITY OF CUTTING PER MILE.
5 feet 3 inches	21 feet 6 inches	21,633 cubic yards.
4 feet 8½ inches.	20 feet 11 inches.	20,872 cubic yards.
3 feet 6 inches.	19 feet 9 inches.	20,460 cubic yards.

(2)—BRIDGES AND CULVERTS.

Same for all gauges, the difference between 5 feet 3 inches and 3 feet 6 inches, being only 1 foot 9 inches. £2,000 per mile.

(3)—FENCING.

Same for all gauges, 3,520 lineal yards at 2s. £352 per mile.

(4)—SIDE DRAINS.

Same for all gauges, 1760 lineal yards at 1s. £88 per mile.

(5)—LEVEL CROSSINGS AND GATES.

Same for all gauges, £200 per mile.

(6)—BALLASTING.

5ft. 3in. $15\frac{1}{2} \times 9$ — 12 x 2 x 5280 — 4693 — 200 — 4493 cubic yards.
 4ft. 8½in. $14\frac{5}{8} \times 8\frac{5}{8}$ — 11·5 x 2 x 5280 — 4481 — 97 — 4384 cubic yards.
 3ft. 6in. $13\frac{3}{4} \times 7\frac{3}{4}$ — 10·3 x 2 x 5280 — 4009 — 76 — 3933 cubic yards.

(7)—PERMANENT WAY.

The description of permanent way is of the lightest possible character, viz:—
 Single headed rails, with broad bottom flanges 35 lbs. per lineal
 yard, with fish plates—15 x 2 x ½; four bolts, ½ dia., the rails
 screwed down to sleepers, with ½ dia. bolts.



Rails 35lbs. per lineal yard, including:—

Fish plates, bolts, &c., 1760 x 2 x 35—55 tons at £12	660	0	0
Bolts to sleepers 1760 x 4 — 7040 — 2½ tons, at £28	...	70	0
Rail-laying, 1760 lineal yards at 2s.	...	176	0

Total for one mile	£906	0	0
--------------------	-----	-----	-----	------	---	---

Same for all gauges.

(8)—SLEEPERS.

5ft. 3in. 9·0 x 8 x 4 at 4s. each	...	...	...	£352	0	0
4ft. 8½in. 8·0 x 7 x 3½ at 3s. each	...	...	...	264	0	0
3ft. 6in. 7·0 x 6 x 3 at 2s. each	...	...	...	176	0	0

(9)—STATIONS.

£200 per mile.—Same for all gauges.

(10)—SIDINGS.

£75 per mile.—Same for all gauges.

(11)—ROLLING STOCK.

Say £500 per mile.—Same for all gauges.

(12)—LAND AND COMPENSATION.

Say £314 per mile.—Same for all gauges.

(13)—SUPERVISION.

5ft. 13in.—5 per cent. on £9,579 17s. 0d.	...	...	...	£478 19 10
4ft. 8½in.— Do. on £9,345 0s. 0d....	...	...	...	467 5 0
3ft. 6in.— Do. on £9,059 18s. 0d.	...	...	...	452 19 10

(R.)

Marine Engineer's Office,
Dunedin, 22nd March, 1864.

SIR,

I have the honour to forward to you for the consideration of the Road Commissioners a few notes hurriedly thrown together, relating principally to the probable cost in time and money of dredging a deep water channel to Dunedin.

I regret I have no time to go into the question more in detail, but trust that the accompanying memoranda may prove of service.

I have the honour to be, &c.,

JAMES M. BALFOUR,

Marine Engineer.

Fred. J. Moss, Esq.

(S.)

Marine Engineer's Office,
Dunedin, March 21st, 1864.

WHEN requested by the Chairman of the Roads Commission, on December 19th 1863, to express an opinion as to the most suitable means of opening up the communication by land between Dunedin and the agricultural districts, and between Dunedin and the various Goldfields, I considered that the very short time I had been resident in the Province would have rendered it presumptuous on my part to give any advice on a subject of so much importance and, I may add, of so much difficulty, when there were other engineers in the Province who—both from their longer residence and the nature of their training and of their ordinary duties—were so much more fitted to give sound advice on the subjects referred to.

Since that time, however, I have been repeatedly urged, both the Chairman and other members of the Commission, to give a short report on some points which, though not strictly coming within the scope of their appointment, still bear so closely on it as to render it highly desirable to obtain information relative to them.

On these points I now beg to hand you a short report, and I have only to regret that the very imperfect nature of my information, and the want of proper surveys, soundings and borings in Dunedin Harbour, must cause my estimates to be of the roughest description, all necessary measurements being founded on the soundings given in the Admiralty chart of 1850.

1st. While still declining to express any opinion as to the best means of permanently opening up communication with the gold bearing districts of the Interior it may be right in me to point out one route now nearly opened up and which probably by a small outlay might be made much more valuable in an exceedingly short space of time.

Were a regular coastal steam service to Molyneux township established, goods could be carried even at present to the mouth of the Tuapeka by water,—the most natural and generally the cheapest route in a new country,—from Tuapeka there is already a good road to Beaumont Burn and thence to Teviot and the Dunstan which when the Ferries, now under Tender, are completed will I believe prove an excellent winter road. I am at present authorised by the Provincial Government to explore the Molyneux between Tuapeka and Beaumont with a view to the possibility of getting that portion of the river made fit for navigation at a moderate cost; should this prove the case I have no hesitation in expressing my opinion that the route to Dunstan by the Molyneux River will prove, at least for the present, both the best and cheapest for the conveyance of goods.

2nd. It has become a moot point with some whether Port Chalmers should be connected with Dunedin by a *railway* or by a *deep water channel*, and it seems to be considered that were one made the other would be unnecessary.

This view I believe to be erroneous; while there is no part of the Province where a railway would be more beneficial to the public, I consider that the Government of the Province would be neglecting a very plain duty were the work of deepening the channel to Dunedin not also proceeded with.

The towns of Port Chalmers and Dunedin may be compared with Greenock or Port Glasgow and Glasgow, as to position on the harbour and channel between them is much superior to that in the Clyde at the beginning of the present century. Were it difficult or impossible to make Dunedin a Port even for large vessels it might be right to construct only a railway to Port Chalmers and to make that the great Port of the country, but if it be found that a channel for large ships can be easily and comparatively economically made, it would be unjust to Dunedin not to give her a share of the shipping trade.

The natural tendency would then be for the two towns to monopolise different branches of business for which their relative situations render each best suited, and thus each town would be more benefitted than were either to absorb the whole.

As to the possibility of cutting a channel to Dunedin I labour under a very great dearth of information, but shall assume the depths on the Admiralty chart to be correct at the present day, and that the stuff required to be removed is all capable of being lifted by a steam dredge with average facility.

With these hypotheses the channel could be dredged with much greater ease than that of many of the rivers in Great Britain, of which I shall refer to a few.

The Clyde in 1775 had but two feet of water as far down as Kilpatrick, and so hopeless appeared to be its improvement that Smeaton in that year proposed to dam it up at a lower point, and make it a navigable canal with locks and gates. Fortunately his advice was not taken, and about the same time were commenced the improvements which have resulted in making the Clyde one of the finest rivers in Great Britain, and navigable to Glasgow wharves by all but the very largest and most deeply laden merchantmen. This improved state of the river was attained by the same means which would be suitable here, viz., narrowing the channel and dredging.

The dredging however was of a very arduous nature. The whole of the bottom between Erskine Ferry and Newshot Isle a distance of 2,000 yards (about a nautical mile) was filled with large boulders which the dredges could not remove, some of them being upwards of five tons in weight, and the boulders had to be lifted by diving bell after having been uncovered by the dredge. Thus it was only by making the dredge and the diving bell alternate with each other that the present depth of water has been, at a great cost, obtained.

During the works of improvement in the Tay a number of very large boulders had also to be removed, some weighing as much as fifty tons; whilst the present depth of water in the river Ribble was only attained after the excavation of a channel through solid rock 300 yards in length, and in some places 13 feet 6 inches deep, besides dredging about 480,000 tons of gravel and sand, and building 9 miles of low rubble walls for guiding and confining the deep channel.

Comparatively then, the benefits of a deep water communication with the sea may easily be bestowed on Dunedin-

The *cost* of the work is difficult to estimate. One dredger, of the size of the one now being made for this harbor, should raise about 90,000 tons of stuff per annum, or about 60,000 cubic yards on the supposition that she has only 200 working days per annum; and the present price for raising, removing to a distance of $2\frac{1}{2}$ miles, and depositing the dredged stuff at the Yarra River in Victoria, is, I am informed, 2s. per cubic yard. I assume that it would cost 2s. 6d. per cubic yard at Dunedin, though it would probably be dearer at first and cheaper afterwards. I also assume that a channel 150 wide at the bottom, with sides sloping at the rate of 2 to 1, would at first suffice for the traffic, and from these data the following table has been prepared:—

TABLE showing the Expenditure of Time and Money required to form a Deep Water Channel to Dunedin by Dredging.

Depth of Channel at Low Water.	Quantity of Stuff required to be Dredged.	Length of time required to obtain the depth with one Dredge.	Length of Time required with two Dredges.	Cost of making Channel, exclusive of price of Plant.	Cost of Channel, allowing £15,000 for one Dredge and other Plant.	Cost of Channel, allowing £30,000 for two Dredges and other Plant.
Feet.	Cubic Yards.	Years.	Years.	£	£	£
10	301562	5	$2\frac{1}{2}$	32945	47945	62045
12	489080	$7\frac{1}{4}$	$3\frac{1}{2}$	61135	76135	91135
15	832000	$12\frac{1}{2}$	6	104000	119000	134000
18	1424892	21	$10\frac{1}{2}$	178111	193111	208111
20	1725500	$25\frac{1}{2}$	$12\frac{3}{4}$	215312	230312	245312

In the foregoing table no note has been taken of the interest on the prime cost of the plant, as that is expected to be paid partly by the gradually decreasing cost of dredging, and partly by the increased facilities for landing goods at Dunedin even before the dredging works are completed.

One other subject remains to be touched on, viz., the probability of the dredged channel filling up again.

The localities in the old country which most resemble Dunedin Harbor with which I am acquainted, are Loch Gilp, in Argyllshire, and Belfast Lough,—and in each of these localities open dredged channels exist, and are kept open without difficulty and at a moderate expense. Belfast Lough was formerly so bad a navigation that it was at one time proposed to close the entrance to the shallows by an embankment, and to form a navigable canal with gates. This proposition was successfully combated by Walker, the great engineer, who advocated an open cut, and the results have fully proved the wisdom of his advice.

I do not mean to assert that dredging would never be required after the channel was properly opened up, but the *conservation* dredging would be moderate in quantity and reasonable in cost.

I hope the foregoing remarks will be found useful by the Roads Commissioners and have only to regret that pressure of business prevents me from writing them more carefully, and from making the estimates on more certain data.

I am, &c.,

JAMES. M. BALFOUR,

Marine Engineer.

F. J. Moss, Esq.,
Chairman Roads Commission.

P.S.—It may be right to remind the Roads Commissioners that the channel will, in all cases, be about six feet deeper at high water than the depth mentioned in the Table.

Thus a channel 16 feet deep at high water, can be obtained in 5 years' time, with one dredge, or in 2½ years' time with two dredges, at a total cost of L48,000 and L63,000 respectively; or a channel 21 feet deep at high water (and there seems little call for any greater depth), could be obtained in 12½ years at a cost of L119,000, or in about six years at a cost of L134,000, with one and two dredges respectively. The depth of water at the berthage at Dunedin would, in all cases, be made sufficient to allow any vessel which could come up at high water to lie afloat at all times of tide.

J. M. B.

March 22, 1864.

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COUNCIL PAPER.

REPORT OF COMMISSION ON ROADS AND THEIR DEVIATIONS,

(Laid on the Table by the Secretary of Public Works, April 25).

Dunedin, 1st April, 1864.

To his Honor the Superintendent of Otago.

THE Commission on "Roads and their deviations" have applied themselves to the consideration of the various questions which have come before them, and have now the honor to report to your Honor's Government.

GREAT SOUTH ROAD.

That they have prepared a traverse of the Great South Road from its commencement at Dunedin as far as Lovell's Creek, and a map shewing its exact position, and also the roads rendered useless by its construction; and to close and deal with which they have prepared a Bill for submission to the Council at the next Session.

The Commission consider it to be their duty to call your attention to the position of the remaining part of the South Road—from Lovell's Creek to Popotuna.

Commencing from Lovell's Creek, through the North Tuakitoto Land District, they find that the road has been partially made, and is in daily use by the public; but the Department of Public Works has resolved upon a considerable deviation of the line for the purpose of obtaining better gradients, and has authorised a survey of a new line for that purpose. The Commission therefore think it better not to record in the Bill referring to the South Road, that part of it south of Lovell's Creek, until the determination of the Government in reference to the proposed deviation be decided upon.

It is also very desirable that the South Road beyond the Clutha River, and running from the ferry to the outside of the survey in that direction, should be laid off immediately, as the line which must be used is a deviation throughout, not an inch of the original line being available, and the line in use throughout its entire length is on private property. The right to take it is daily lapsing, and the settlers urgently require that it be laid off at once—as they know not where to place their fences or buildings, or to lay out their farms to advantage, and some of them threaten to fence their land as they bought it, and so close the road altogether unless early action be taken.

No difficulty will be found to exist in arranging for the Road with the owners, provided it be done before the road be fenced ; but if arrangement be delayed it will involve both the Government and land owners in expense.

NORTH TAIERI ROAD.

The road from Silver Stream to West Taieri Bridge has been traversed, and a Bill to sanction the Exchange for which agreements have been made will be laid before the Council.

That part of this road line between Dunedin and Silver Stream has not been included in the Bill, because the Road Engineers' Department and the Government contemplate making further deviations in the line between these two points.

KAIKORAI VALLEY.

The Commission will also submit a Bill for recording the deviations in this line, throughout its length, and plans of the parts of the old road intended to be closed.

TOKOMAIRIRO TO TUAPEKA.

A Bill will also be submitted for recording this line as far as it passes through the old survey. It is a deviation through the major part of its length, and the land owners will receive the old roads in exchange.

This Bill will also include the Mount Stuart Branch, along which the heavier portion of the traffic still passes.

GREAT NORTH ROAD.

The Commission will, in the course of a few days, submit their report upon the difficulties connected with the passage of this road through Mr Jones' property at Waikouaiti, and if it be approved by your Honor, will be prepared to submit a Bill to the Council for settling the questions in dispute between that gentleman and the Government.

The Commission will also ask the Council to ratify the arrangements made with Mr John Dickson on this line of Road.

TOKOMAIRIRO COAL ROAD.

The Commission will also be prepared to submit a Bill ratifying the exchanges of road lines between the General Road Board and Messrs J. Gillies, J. L. Gillies, and J. Martin, on this line of road, and also for recording the new road leading from the South Road at Tokomariro to the Table Hill district.

DISTRICT ROADS.

There are, also, district roads at North East Valley, Caversham, and Green Island, and also at Anderson's Pay, which have been closed by the District Road Board. The Commission also propose to deal with as many of these by Bill during the Session of Council as the time will permit of.

CHURCH LAND.

It appears that an agreement entered into on behalf of the Government with the Church Trustees, whereby the Government was to obtain a portion of Section 116, North East Valley, in exchange for two sections in Duncan-street, Dunedin, has not yet been carried out, in consequence of the legal inability of the Trustees to convey.

The Commission have, therefore, requested the Acting Provincial Solicitor to prepare a Bill, in order to enable them to conclude the transaction.

The Commission contemplated the preparation of Bills to authorise the compulsory taking of lands for the purpose of widening or forming roads as follows :--

Parts of Sections 18, 19, 20 and 21, Town District, situate at Caversham, for the purpose of widening the Main South Road.

Parts of Section 116, North East Valley, for the purpose of widening the Main North Road.

Land in Section 8, Waihola, for the purpose of obtaining a Main District Road to the East Clarendon Blocks.

Land in East Taieri, for the purpose of recording two roads, and making the necessary exchanges in connection therewith, from Greytown to Outram and West Taieri.

The plans for the two latter are now ready from Mr. M'Kerrow's Survey in 1861.

But after having prepared to do this, it became apparent to the Commission that it was the opinion of the General Government and of the General Assembly that the necessary power did not exist in the Provincial Councils. This is shewn conclusively by the Assembly having passed the "Provincial Council's Compulsory Land Taking Act," for the purpose of conferring this power on the Provincial Councils. It would, therefore, be useless to pass such Ordinances; and it has been thought better to postpone their introduction until after the assent of Her Majesty to the said Act be made known.

DISTRICT ROADS.

Experience has taught the Commission that the District Road Boards are quite incapable of directing the laying off of new lines or deviations from old lines, so necessary a work in the old Otago Block. In many instances they have applied for and had the services of a Surveyor from the Government, and where the proposed lines have been laid off, it has been found that proprietors will not consent, and the time of the Surveyors has been spent in vain.

A vast amount of work still remains to be done, but to be done well and cheaply it is necessary that it be done under competent supervision, as an instance of the amount, the great valley of the Molyneux may be quoted. That part of it lying south of the River and included in the old survey is the largest and the most valuable agricultural district of the Province. It contains about 70,000 acres, and is cut by 210 miles of roads, of which not more than thirteen miles are available for use; and all the rest, about 197 miles, should be closed and given to the proprietors of the land in exchange for other lines which must be laid off and opened before the great agricultural wealth of the district can be developed. The District Road Boards *cannot* lay off the new lines or close the old. They cannot rate themselves to improve the district because they say the original block lines are utterly useless, and until new lines are substituted for them they cannot spend the money they are willing to raise.

This district is mentioned because of its magnitude and importance, but other districts share, though to a less extent, in the evils resulting from a bad survey, which in defiance of every reason to the contrary laid off its roads in right lines and equi-distances without the slightest reference to the physical features of the country.

The North East Harbor Road Trustees say "There is not a single road line laid down on the selection map practicable for man or beast," and from other districts statements of a similar character have been made.

There are matters connected with the issues of Crown Grants, with claims of persons for compensation, and also with the question of roads to the Peninsula and to the West Taieri, upon which Reports have been from time to time submitted to Your Honor's Government. Copies of these are appended hereto for information and reference.

I have the honor to be,

Your very obedient servant,

JOHN HARDY,

Chairman of the Commission on Roads
and their Deviations.

R E P O R T

OF THE

COMMISSION OF ENQUIRY

INTO THE

CONSTITUTION AND MANAGEMENT

OF THE

DUNEDIN HOSPITAL & LUNATIC ASYLUM,

APPOINTED BY

HIS HONOR THE SUPERINTENDENT,

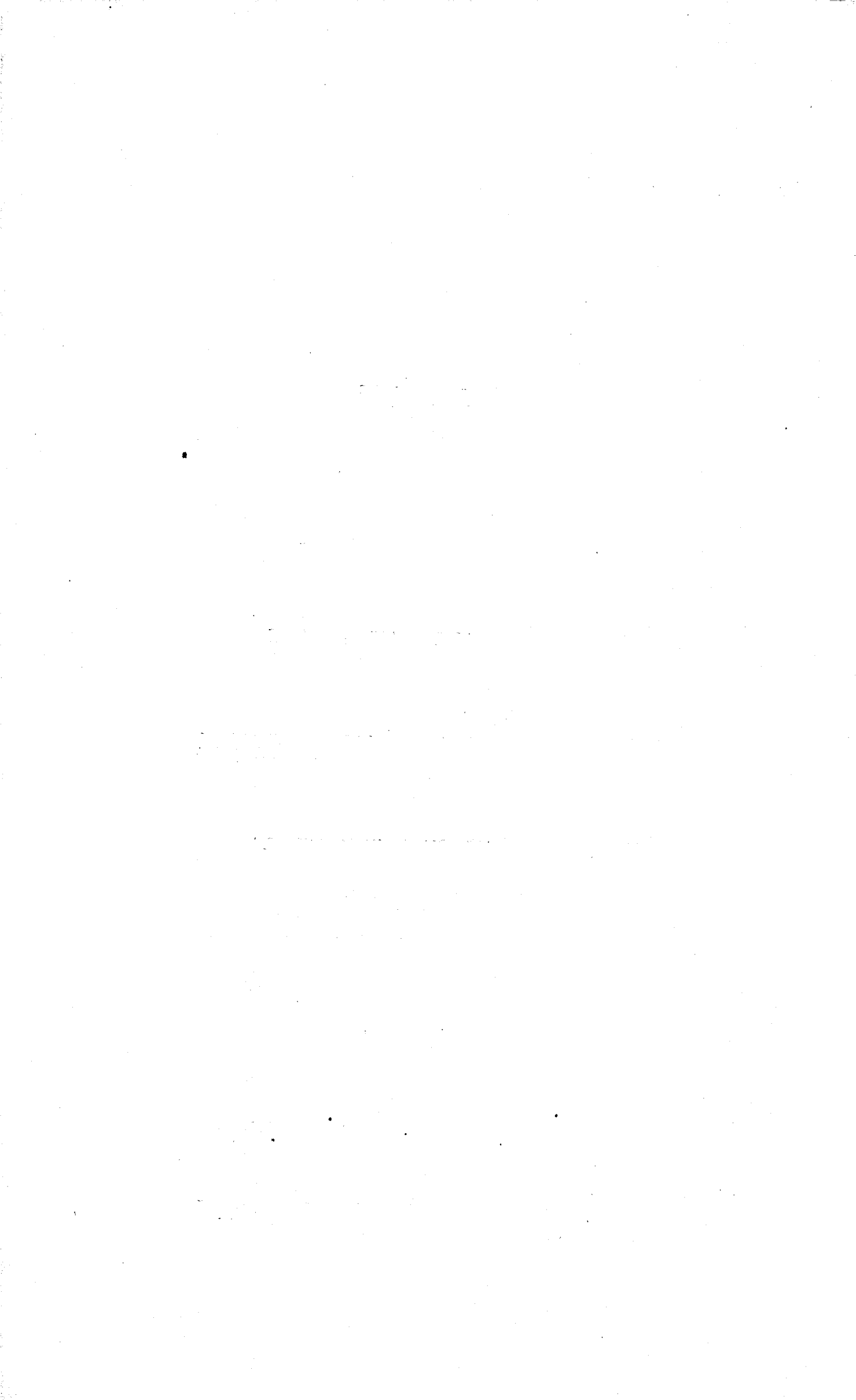
ON THE 23RD DECEMBER, 1863,

In accordance with the Recommendation of a Select Committee of the Provincial
Council, Session XVII.

MEMBERS:

THOMAS DICK, Esq., M.P.C. Chairman.
THOMAS BIRCH, Esq., M.P.C.
W. H. REYNOLDS, Esq., M.H.R., M.P.C.

JULIUS VOGEL, Esq., M.H.R., M.P.C.
THOMAS MORNLAND HOCKER, Esq.
EDWARD WM. ALEXANDER, Esq.



REPORT OF THE COMMISSION OF ENQUIRY INTO THE CONSTITUTION AND MANAGEMENT OF THE DUNEDIN HOSPITAL AND LUNATIC ASYLUM.

The Commission appointed by your Honor to enquire into the management of the Hospital and Lunatic Asylum Dunedin, have the honor to report :—

That at their first meeting they appointed Thomas Dick, Esq., Chairman of the Commission. They have met 24 times, besides visiting the Hospital, Lunatic Asylum, and various places recommended as suitable localities for one or other of these institutions, supposing their present sites to be changed.

Their enquiries have extended over a larger field than that precisely indicated by the terms of the Commission, but they think your Honor will be willing to receive the results of such extended investigations, and have therefore embodied them in the Report. Action taken by the Commission.

The Commission have investigated charges made against a former keeper of the Hospital (who had also charge of the Lunatics) named Robert Thompson Drysdale. As that evidence is given in full in the Appendix to this report it is unnecessary to dwell at any length upon it here. Most of the charges were made by Mr. Thomas Harman to a Committee of the Provincial Council some months ago, and were repeated by him to this Commission.

The Commission, after fully considering all the evidence submitted to them, adopted the following resolution :—

“ That the charges against Mr. Drysdale of ill-treatment of patients, are not proved by corroborative evidence, and that Mr. Drysdale must therefore receive the benefit of the denial he makes to them, and of the other testimony he was able to produce in his favour ; but that the conduct of Mr. Drysdale in assaulting Mr. Harman, a witness against him before the Select Committee of the Provincial Council, which Committee at that very time Mr. Drysdale excused himself from attending on the score of illness, was highly reprehensible.”

As Mr. Drysdale has now left the service of the Government, the Commission have no recommendation to make as to any action being taken on this resolution.

The Commission have also examined into two charges made against Dr. Yates, the Resident Surgeon of the Hospital. The first, was one of improperly refusing admission to a person suffering from illness ; the second, of incivility to Mr. Stephen Hutchison when he called to make enquiries regarding the condition of a patient. The evidence and correspondence relating to these charges appear in the appendix. The following resolutions were adopted in regard to them :—

That this Commission consider the conduct of Dr. Yates reprehensible, in not having examined into the condition of William Helzimer when he was taken to the hospital, and recommend that he be censured for his conduct on that occasion.

The Commission regret to find that an enquiry into this case was not pressed to a conclusion at the time, and would strongly recommend to the Government in all cases in which the conduct of officials of the Hospital is questioned, that enquiries into the allegations, if there appear to be any foundation for them, be made without delay.

That with reference to the charge against Dr. Yates of incivility to Mr. Hutchison, the Commission accept Dr. Yates's assurance that he intended no discourtesy.

- Visit of Inspection to the Hospital. The Commission paid a visit of inspection to the Hospital, and were satisfied on the whole with the state of cleanliness of the various wards. The Hospital consists of a number of wooden buildings, not uniform in regard to size, and entailing, from their scattered situations, extra expense in the management of the Institution. For instance there are four kitchens for the separate buildings, involving a want of economy in the cooking arrangements.
- Description of the buildings. The wards, of which there are fifteen, are much too small for the number of patients they accommodate. By the return, which appears in the appendix, it will be seen there are fifteen wards containing in all one hundred and sixty-six beds. The allowance of air the dimensions of the wards afford varies from 333 cubic feet to 562 per patient, while the Commission are informed that 1000 feet are considered the minimum allowance in well regulated hospitals.
- Drainage. The drainage of the Hospital is most defective. In Moray-place, close by the Hospital fence stagnant water has accumulated till it has become covered with green vegetable matter. The Commission strongly recommend immediate attention to the drainage.
- Night attendance required. The Commission consider there is not a sufficient number of night attendants to meet the wants of the patients who are in a dangerous state, or who are so reduced by illness as to be unable to assist themselves.
- Hair beds and pillows and India rubber sheeting; also baths required. The Commission recommend that instead of straw beds and pillows, hair beds and pillows be procured. They find that straw bedding is not used in other hospitals, and they regard it as unsuitable. They advise, also, that india-rubber sheeting be provided for use when required. They have further to call attention to the want of proper baths.
- Incurable patients. The Commissioners have had their attention directed to the large number of incurable patients remaining in the Hospital for lengthened periods. They think it would be better that these should be removed to some other institution, such as the Benevolent Asylum, as patients after a long stay are liable to infringe the rules of the Hospital; besides which, in retaining cases of this kind, others of a more immediately urgent nature have to be excluded.
- Visits of Inspection. The Commission regret to report that the Visiting Committee stipulated for in the rules of the Hospital, has either ceased to exist or suspended its functions. They recommend that the Government take measures for the frequent periodical inspection of all Hospitals and Lunatic Asylums in the Province.
- Report in cases of death. In cases of death the Commission recommend that so long as the Hospital is under the control of the Government it is advisable that immediately after any death occurring there, the Medical Officer or other person in charge, should forward a report to the Government showing when the patient was admitted, hour of death, cause of death, and such other particulars as may place the Government in full possession of the history of the case. Apart from its other usefulness this course will place the Government in a position to afford that information to the friends of the deceased which they have a right to expect.
- The Hospital, and the Medical Profession. Your Commission desire to draw your Honor's attention to a valuable paper supplied by Dr Cusack of Nelson, which appears in the Appendix, in which he particularly comments upon the advantages which a hospital may be made to afford medical men in advancing their knowledge of their profession.
- Your Commission in a succeeding clause make a recommendation to transfer the management of the Hospital; whether this be complied with or not, they desire to draw the attention of those who retain the management, to the subject on which Dr Cusack's letter treats, viz., the advantages the profession may gain from the large and varied practice of an hospital.
- New Hospital. From what has already been said it will be seen that the Commission deem the present Hospital buildings unsuitable. The rapidly increasing demands on the Hospital during the last three years have necessitated the hurried erection of additions

from time to time without reference to the uniformity of the whole. The scattered nature of the buildings involving increased cost in the management, the insufficient accommodation for present and prospective requirements, the confined dimensions of the wards, which must operate prejudicially in the treatment of patients, and the danger from fire in wooden buildings, increased in the present case as it is by the inflammable nature of stores in the neighbourhood, induce your Commission to strongly recommend the immediate erection of a new stone or brick Hospital. In its construction they advise that those features be adopted which experience has shown to be most suitable in such buildings. They may direct your Honor's attention to many hints on this subject in the Report of Dr. Alexander and the letter of Mr. Clayton published in the Appendix.

Your Commission have devoted much attention to the question of the most suitable site for a new Hospital, and, besides visiting various proposed places, have received a great deal of evidence on the subject in the shape of letters, which will be found in the Appendix. They decided that the Hospital should be conveniently accessible from the centre of the town, to meet the wants of out patients, and to afford the necessary facilities for the admission of cases of accident and serious illness. In other respects, they consider facilities of drainage and healthiness of position the chief requisites. Perhaps the site most suitable in every respect would be that on which the military barracks formerly stood; but the Commission understand that it is precluded from use on account of its being on the Town Belt. Other places suggested had more or less disadvantages, and your Commission finally arrived at the conclusion that it is not advisable to change the present site. Although none of those who have been consulted are satisfied that it answers every requirement, yet no site has been suggested that the Commission can recommend in preference.

In reference to the constitution of the Hospital, the Commission invited the opinions of several medical gentlemen, and draw attention to the reports received in response from Drs. Alexander and Cusack, which appear in the Appendix. Constitution of the Hospital.

The Commissioners were not able to obtain reports from the country Hospitals, with the exception of that of Tuapeka. They were particularly desirous of doing so, as these institutions are managed by private Committees elected by the subscribers, and the funds are supplied partly by private subscriptions and partly by Government, while the Dunedin Hospital is wholly under the management of and at the expense of the Government. They were not able to form any comparative judgment of the relative merits of the two systems from actual experience in the Province, as the Tuapeka Hospital, the only representative of the one system of which they had returns, is not sufficiently extensive to afford the requisite basis for comparison.

As far as they can learn the Commission find that most of the Hospitals in Great Britain and in the British Colonies are public institutions, and only a small proportion under the entire support and control of the Government. Although, then, there are not sufficient data in the Province to decide between the two systems, the Commission, believing that experience in other places is in favor of placing Hospitals in the hands of subscribers, and that this course would ensure a more frequent and efficient supervision than the Government are in a position to exercise, have adopted unanimously the following resolution:—

“That with regard to the constitution of the Hospital, it is the opinion of the Commission that it should not be a Government institution, but one supported by voluntary subscriptions, and under the control of a managing committee elected by the subscribers, but that its funds should be supplemented by a grant from Government.”

Your Commission visited the Lunatic Asylum. They found the wards cleanly, and the attendants apparently attentive to their duties. Although the Asylum was only meant to accommodate twenty-one male patients, there were twenty-five in it at the time of the visit. There is accommodation for fifteen female patients, of whom there were nine at the time of the visit. The dimensions of the wards do not afford an average of 550 cubic feet of air to each patient. The internal arrangements of the Asylum are objectionable. The unfortunate inmates are treated more as prisoners than as patients whom it is desirable to cure. There are no enclosed grounds for exercise, no workshops, no books,—in short, nothing to amuse or occupy the patients. Lunatic Asylum.

Present Lunatic Asylum. The place of exercise for the male lunatics is a paved court, in which they are mixed up indiscriminately, there being no means of classification or separation of the violent from the quiet. A paved court, which was designed for the violent patients, was found unusable on account of its insecurity. Some of the cells used for violent patients your Commission considered objectionable. The visit satisfied the Commission that the accommodation afforded by the Asylum rendered it impossible to give the patients the advantage of that systematized medical treatment which experience has shown to be efficacious elsewhere.

New Lunatic Asylum. Totally condemning the present Asylum on account of its insufficient accommodation, the Commission feel it their duty urgently to recommend the immediate erection of a suitable building. The Commission consider that lunatics should be regarded by the state as objects of tender solicitude, and that no pains or expense should be spared in ameliorating their condition. They wholly condemn their being treated as paupers or prisoners. Hitherto, in Otago, they appear to have been looked upon as a class of incurables, whom it was only necessary to keep from hurting themselves, and doing harm to others. But the evidence before the Commission shows that under proper treatment about sixty per cent. of lunatics may be recovered and restored to the world. The Commission therefore urge upon the Government to cause the new Asylum to be built and fitted up with all those appliances that experience has shown to be beneficial in the treatment of lunatics. Means of exercise, of occupation, and amusement should be provided, as also constant medical supervision.

They would suggest that a Commission of professional men might give useful hints as to the nature and fitting up of the building, but in any case they advise no delay. In the meantime, books, periodicals, musical instruments, and other means of amusement should be provided to the inmates of the present Asylum.

Site of a New Asylum. Your Commission have directed their attention to the selection of a site for the new Asylum, and have come to the conclusion to recommend a piece of ground at Look Out Point, containing an area of $21\frac{1}{2}$ acres, which was reserved for the purpose some years ago, as in every way suitable. It is sufficiently near to town, the situation is elevated, dry and sheltered, the view is cheerful and varied; it is extensive enough to afford not only employment, but walks for the patients; there is a good supply of water, and there is a road to it from Dunedin, made and metalled the whole way.

Patients who can afford to pay. The Commission consider that when a suitable asylum is provided those patients who can afford it should be allowed to pay for the accommodation they receive: but at the same time, recommend that all patients should equally enjoy the advantages of the best treatment the asylum can afford.

Medical charge. The Commission recommend that the patients should be visited daily by the Medical Officer, and when a new asylum is erected they strongly urge the necessity of a resident professional man accustomed to lunacy practice.

Inquests desirable. The Commissioners venture to recommend that it is desirable that Inquests should be held on all deaths occurring in lunatic asylums, as affording a means of detection of any violence or mismanagement.

Diary-book. The Commission recommend that the head attendant should be required to keep a strictly accurate and precise diary. In past times the keeper's diary book seems to have been most imperfectly and irregularly kept.

In conclusion, your Commission recapitulate the recommendations they deem it necessary to make, namely:—

- 1st.—That Dr Yates be censured for his refusal to admit Helzimer to the Hospital.
- 2nd. That immediate inquiry should be made into complaints when there appears a foundation for them.
- 3rd. That the drainage of the Hospital be immediately attended to.
- 4th. That the number of night attendants be increased.

- 5th. That hair beds be substituted for straw, and that india rubber sheeting and proper bath rooms be provided.
- 6th. That incurable patients be removed to another institution.
- 7th. That the Government cause all Hospitals and Lunatic Asylums to be frequently officially inspected.
- 8th. That in cases of death full reports be sent to Government, so long as the Hospital continues a Government institution.
- 9th. That the attention of the management should be directed to the advantages the profession may gain from the large and varied practice of an Hospital.
- 10th. That a new Hospital be erected, constructed after the most approved system.
- 11th. That the present site of the Hospital be retained.
- 12th. That the management of the Hospital be handed over to subscribers. Funds to be supplemented by Government subsidy.
- 13th. That a new Lunatic Asylum be forthwith erected.
- 14th. That lunatics receive the advantage of the most approved treatment, and that amusements be at once provided them.
- 15th. That Look-out Point would be a suitable site for the new Asylum.
- 16th. That lunatic patients who can afford to pay for their accommodation should be allowed to do so ; but that all patients should receive, equally, the best treatment.
- 17th. That the present Asylum should be visited daily by a medical officer, and that in the new Asylum there should be a resident medical man.
- 18th. That inquests should be held on all deaths occurring in the Lunatic Asylum.
- 19th. That the keeper's or head attendant's diary should be kept with strict accuracy and precision.

THOMAS DICK,
Chairman.

Dunedin, April 5, 1864.



MINUTES OF THE COMMISSION.

At a preliminary meeting, held January 4th, 1864 : Present—all the members of the Commission, it was resolved :—

1. That Thomas Dick, Esq., act as Chairman of the Commission.
2. That the Commission meet in the Provincial Secretary's office on Mondays, Wednesdays and Fridays, from 2 p.m. to 4 p.m.
3. To apply to the Government for a Secretary, who should also be a shorthand writer.
4. To call Dr. Hulme, the Provincial Surgeon, as the first witness.

JANUARY 6TH, 1864, COMMISSION MET.

Present—Messrs. Alexander, Hocken, Reynolds, Vogel, and Dick—Chairman, when it was resolved :—

1. To procure the report of the Victorian Commission on the Lunatic Asylum there
2. To meet on Monday next, the 11th January, at 2 o'clock, and call as witnesses Drs. Hulme and Yates, also Mr. Wilson.
3. To accept the services of Mr. A. H. Lakeman as Secretary to the Commission, no application having been received in reply to the advertisement for a shorthand writer.

COMMISSION MET JANUARY 11TH, 1864.

Present—Messrs. E. W. Alexander, W. H. Reynolds, and Thomas Dick (Chairman.)

Dr. HULME, PROVINCIAL SURGEON, examined as to what are the conditions of admission to the Hospital, Dunedin, stated :—

Patients are admitted every day, by an order signed by the Superintendent or any member of the Executive Council. Sick persons from the diggings are admitted at all times without an order. Accidents are also admitted at all times without an order, and urgent cases are admitted at the discretion of the Resident Surgeon night and day. These are greater facilities of admission than are usually in operation in any of the British Hospitals with which I have been acquainted. These rules were in force at the time of the occurrence now being investigated. I recollect a report of Dr. Yates, the Resident Surgeon, refusing to admit a person into the Hospital, who

afterwards died. I did not investigate that case. I merely heard of it as a report. It was partially investigated afterwards by a Committee appointed for the purpose by the Provincial Government. There was some correspondence on the subject between the Provincial Government and myself and Dr. Yates previous to the investigation by the Committee. When the Committee was appointed I made some inquiry, and came to the conclusion that it was a mistake on the part of Dr. Yates with respect to the urgency of the case : Dr. Yates supposing that the patient was in a tent at the time, and under the charge of Dr. Hocken, a medical practitioner in the town. From my inquiries of those who were present, the man's mate, who had applied for his admission, was drunk and abusive at the time. It was a case in which, had I been aware of all the circumstances, I should have instantly admitted the patient without an order. The Resident Surgeon could have done the same, or referred to me if he had any doubt of the propriety of so doing. I would wish to observe that if a patient were refused on Saturday night that is no reason why his friends should not repeat the application on Sunday or Monday. There was no second application made for admission.

RICHARD B. WILSON, examined, stated :—

I had a mate named William Helzimer, for whom I made application for admission into the Hospital on, I think, the 7th March 1863. It was on a Saturday evening about 9 o'clock. The man had been to the Dunstan with me and had come down to town. It was raining, and had been raining heavily during our journey down. After we had been in town a day he began to complain of illness. On the second day I went for Dr Hocken. Dr Hocken said the man had better go to the Hospital—he could do nothing for him where he was. He was in a tent at the back of my house in Stafford Street. I asked Dr Hocken for an order for me to take him down to the Hospital. He gave me one to Dr Yates. I took a conveyance and drove him down to the Hospital and enquired for Dr Yates. A female brought Dr Yates to me in the yard. I told him I had a patient for the Hospital. He asked where I had brought him from. I said Stafford Street. He said I must take him back. I said I had an order from Dr Hocken. Dr Yates said “he did not care.” I then asked him where I was to take the man. He told me to take him away. I then went up the yard, but returned to the Hospital again and enquired a second time for Dr Yates. The female then asked me had I not seen him? I said yes, but I wished to see him again. I then asked him again, telling him the man was dying. He told me to take him away. I asked him where to? I was told “either to the police station or where I liked.” I then drove the man home to my own place. I took him in that night, and the following night. On Monday morning I applied at the Government Offices for an order for admission to the Hospital. I got one on the Monday dinner-time, about one o'clock. The man did not wish to go then after being refused on the Saturday evening. After a while he went. I did not go with him myself, but sent my brother-in-law. The patient did not wish it to be known that he was the man that had been refused on Saturday night. He died on the Thursday morning about four o'clock, in the Hospital. I would have taken him into my own house altogether but it was too small, only 12 feet by 16 feet—with five persons in it at that time. When I tendered the order from Dr Hocken, Dr Yates refused to look at it. The patient was at the gate of the Hospital when I was speaking to Dr Yates. I hired a conveyance for the purpose. He did not assign any reason for refusing the patient. I said I would report him. Dr. Yates was in the yard at the time and the gates were closed—the conveyance being outside. I then wrote a letter to the “Daily Telegraph” newspaper and another to the “Daily Times.”

Questioned by Dr. Alexander—

I told Dr. Yates that I had brought the patient with me, and that he was at the gate at the time. (Witness withdrew.)

DR. YATES examined:—

I recollect the case of William Helzimer, but it is so long since I should prefer answering questions to making any statements, as I might make some inaccuracy in so doing. I was aware that the patient was at the gate when I refused him admission. I refused him because he had no order for admission. A second reason was, that I was told by his mate that Dr. Hocken was attending him, and I did not think it necessary that he should be admitted. A third reason was the conduct of the man his mate. The first thing he did was to swear at the woman at the door, and afterwards

he spoke to me, in what I considered an insulting manner, and I considered I had a perfect right to refuse admission to the patient while Wilson was so behaving. I consider the want of an order an almost insurmountable difficulty, unless in cases of accident, or urgent cases of sickness. Wilson told me it was not an accident, but said the man was sick. I thought the man was merely trying to bounce me by his manner. I did not look at the order for admission. I told Wilson that Dr. Hocken had no right to give an order for admission. When the patient was admitted on Monday I knew him to be the same man who applied before. He did not seem to be seriously ill. He was able to walk. I took him up to an upper room. He walked upstairs. Wilson stated to me that the case was an urgent one. I could have admitted had I thought proper.

Questioned by Mr. Reynolds—

I did not consider it necessary for me to go and see the man, though Wilson said it was an urgent case, and I knew he was at the gate. It would not have been of much use my going to see him while he was in the car. I could not very well judge of a man's condition in that way, whether it was an urgent case or not. I should not consider that the fact of a medical man issuing an order would be any proof of the urgency of the case. I have had cases in which such certificates had been issued, but upon examination, had found that they were not cases requiring admission at all. The discourteous behavior of the man Wilson had somewhat to do with my not going to see the patient at the gate. I do not think Wilson was drunk, but his manner was excited when speaking to me.

In continuation of the same investigation it was resolved to call as witnesses Mr. and Mrs. Drysdale, and Helen Gillon, for the next meeting; also to take the evidence of Dr. Hocken.

JANUARY 13TH, 1864—COMMISSION MET.

Present—Dr. Alexander, Dr. Hocken, and Thos. Dick, Esq.—Chairman.

HELEN GILLON examined:—

I recollect a man coming to the Hospital at the time I was employed as cook there. I am still there in that employ. I do not know his name. He came on Saturday night. He asked for the doctor. Mrs. Dryborough took him to Dr. Yates. The man was angry at not being able to get in at the gate, it being locked at the time. He swore when speaking to me. I could not say whether he was sober or not. It is not my duty to attend to the gate. Mrs. Drysdale kept the key at that time. I could not say whether he was kept long at the gate. [Witness withdrew.]

ROBERT THOMPSON DRYSDALE examined:—

I recollect a man being brought to the Hospital about half-past eight o'clock one Saturday night. I did not see the man. I only heard on my arrival from my last visit to the lunatics a man speaking to Dr. Yates. Dr. Yates was telling the man to take the patient away where he had brought him from. I think the man said Stafford-street. Dr. Yates then refused to take the patient in. The man who brought the patient was rather insolent in tone. That was my impression, at any rate, at the time. The small door was always open, even if the large gate had been locked. The man Wilson would not have required to wait a single minute before getting in at the gate. Dr. Yates afterwards told me that the man had been insolent. I do not think he felt inclined to resent the insolence, if there had been any.

Mrs. DRYSDALE examined:—

My name is Jane Drysdale. I recollect a man coming to me for the key of the gate on Saturday night. It was locked, and I had the key at that time. The small gate was open; that was never locked. I think he brought a dray into the yard, with a patient in it. The patient was taken out again. I think it was I who went in to the doctor to tell him there was a patient waiting for him to see him. Dr. Yates came out to see the man. He asked him if he had an order, and said he could not take anyone in without. I do not recollect seeing the man produce an order. Dr.

Yates was civil to the man. The man said it was hard to take the patient away again, the Government Offices being closed, and the next day being Sunday, so that he could not get an order. Dr. Yates told him to come back on Monday morning. The man said "That wouldn't do," or words to that effect. I do not think Dr. Yates made any reply to this. The man came to me for the key. He was not abusive to me. I told him the gate—the large one—was locked at eight o'clock, but that he could have come in by the smaller one. He said he could not leave his horse, or did not wish to leave it.

By Dr. Hocken—

He said he had been knocking for some time. The man told Dr. Yates the patient was very ill. I did not see any paper, but heard Dr. Yates tell the man to come back on Monday morning.

By Dr. Alexander—

When Dr. Yates was told the patient was very ill, I think he said "he could not help it, he could not take him in without an order." I do not remember whether the man asked Dr. Yates to see his friend in the conveyance. It was dark at the time and I did not see whether it was a cart or a dray. I think Mrs. Dryborough said that the man had been abusive to her when at the house. [Witness withdrew]

Resolved to take Dr. Hocken's evidence to-morrow, the 14th January, 1864.

JANUARY 14TH, 1864—COMMISSION MET.

Present :—Messrs Alexander, Hocken, Reynolds, and Dick—Chairman.

DR. HOCKEN, Examined, stated :—

I remember the circumstances of the case referred to. One wet evening, about seven o'clock, Wilson, the former witness, called upon me and requested me to see his mate. I went and found him lying in a miserable tent, off Stafford-street, merely separated from the ground by a bad mattress or bed; the tent had no flooring, the bed was partly wet with the surface water on the ground. I found him suffering from a severe inflammation of the lungs, and at once stated the impossibility of treating such a patient under such circumstances. I advised Wilson to take him to the Hospital at once, and gave him a certificate stating that his mate's case was a dangerous one, and required immediate admission into the Hospital. About half-past nine or ten o'clock the same night, Wilson returned to me in a most excited state, saying that his mate had been refused admission, notwithstanding that he had used every means to have him examined and admitted. He stated that he had been treated sharply, and that he would write letters detailing the circumstances to both the papers. I then went back and prescribed for the invalid, and got Wilson to take him into his own cottage. I saw the patient the following day, he was then very ill. I then explained to Wilson that my certificate was not an order, but that I considered it should have had the weight of one, and I directed him how to get one on the Monday morning.

By Dr. Alexander—

The man Wilson was in a very excited state, not from drink, but anger at the refusal of his mate at the hospital.

By the Chairman—

I have no reason to suppose that he had been drinking. I did not see any evidence of drink about him, it appeared to be the effect of anger.

Mr. Thomas Birch, one of the Commission, here entered and took his seat.

DR. HOCKEN, in reply to Mr. Reynolds :—

On Sunday morning when I saw the patient he had been removed back to his tent from Wilson's house; Wilson's wife being ill at the time, and the house being quite too small to accommodate him, in fact only two little rooms.

By Mr. Birch—

I did not see him walk. A man in his state might totter, but not walk with ease.

Resolved to forward the whole of the present evidence to Dr. Yates, offering him the opportunity of replying to the same by writing, or a personal appearance before the Commission on Monday next the 18th January, 1864.

Resolved to take the case of alleged ill treatment of lunatics in the hospital by R. T. Drysdale, the next in order, and to desire the attendance of Mr. R. T. Drysdale and Mr. Thomas Harman, to give evidence in this case on Monday next, at 2 p.m.

MONDAY, JANUARY 18, 1864—COMMISSION MET.

Present—Messrs. Hocken, Birch, W. H. Reynolds, and T. Dick—(Chairman).

A letter received from Dr. Yates, in reply to the case of William Helzimer, was read by the Chairman. Dr. Alexander entered the room very shortly after the reading of this letter, and took his seat in the Commission.

It being requisite that the Chairman should leave the room at this juncture, Dr. Hocken was requested to act as Chairman, *pro tem.*, when it was resolved—“That a copy of Dr. Yates’s letter be sent to Dr. Hulme for any remarks the Provincial Surgeon may think fit to make thereon.”

The Chairman having returned, the Commission proceeded to take the evidence of Mr. T. Harman respecting the alleged case of cruelty to a lunatic by Mr. R. T. Drysdale, (lately in charge at the Hospital, but who had resigned his service).

THOMAS HARMAN, examined, stated :—

That before giving his evidence he must request that all evidence given by one party or the other, should be upon *oath*, as the witnesses that he would require to call are now servants in the Hospital, and therefore under Drs. Hulme and Yates. He conceived that would be the only way to get at the whole truth, and that he must, with all due respect to the Commission, decline otherwise to give any evidence.

Resolved by the Commission—That this course could not be adopted.

Witness then stated : It was, I think about the middle of December, 1862, that my attention was called to anything improper in the treatment of the lunatics. That was in the case of a man called “Geordie.” He was taken by Mr. Drysdale and locked in the dead house. I frequently attended in the morning to see him washed. I have seen Mr. Drysdale take a mop and a bucket of water, and mop him down. I have also seen him take a bucket of cold water and throw over him, afterwards, to “rinse him down,” as I call it. That was a common occurrence. It was done every morning. I believe. It was done at least a score of times when I saw it. I have seen another lunatic, named Tommy, be ordered by Mr. Drysdale to take the patient’s dirty clothes to the pump, and scrub them with a broom. I have seen Geordie’s canvas bottomed stretcher scrubbed with a broom and a bucket of water, and taken in with the water dripping out of it for the patient to lie on, without mattress or bedding. About the middle of January Mr. Drysdale boarded the window up. I frequently used to look in before that to see the patient. The boards were not close, but nearly up to the top of the window ; the glass was all broken. I used to go occasionally and look in afterwards. I have seen the same treatment—the mopping and washing him down—while he was handcuffed to the stretcher. I have seen him standing naked, with his hands handcuffed to a staple or to the top of the stretcher, I do not know which. I think he was kept in the dead house about a month, until there was a paragraph in the *Times* paper about the treatment of one of the lunatic patients. It was signed “A late patient of the Hospital,” but I had the credit with Mr. Drysdale of putting it in myself. I did not write it, nor ever authorized it. I never wrote a letter to the paper in my life. I was out from the Hospital yard from the 12th February to the

17th March, so cannot tell what took place there then. I was at the new Lunatic Asylum. After the paragraph was put in the paper, Mr. Drysdale took Geordie out of the dead house, and exercised him for an hour or couple of hours in the forenoon, and the same in the afternoon. Then he was returned into the dead house, and kept as before, after a few days had passed. When I returned into the hospital again on the 17th of March, I saw the same treatment towards the patient Geordie—that is, the washing and not being dried. It was frequently, in fact every time that I paid a visit to see him. On the 7th of April I saw Mr. Drysdale take Geordie in his tea, about four o'clock in the afternoon. He unlocked the door, and put the pannikin in, and a tin plate with some bread on it. He did not go in himself. Geordie had his hands locked behind him—his hands fastened behind him and with hobbles on his feet. Mr. Drysdale left the tea for him to get it the best way he could. I saw Geordie, after Mr. Drysdale had left, walk round the room to see, as I suppose, how he could get at it; I saw him lie down, and take hold of the pannikin with his teeth, and he dropped it again; whether with the heat of the tin or not, I could not say. On the 11th of April I saw Mr. Drysdale taking some medicine and sticking-plaster into the dead-house. I saw him put the sticking-plaster round the wrists of Geordie, where the handcuffs had galled them, and give him this medicine. Mr. Drysdale told me that Geordie was bad with dysentery. I think that is nearly the last of Geordie. He died soon after. I wish also to state something with respect to the dirty habits of Geordie. He was very dirty in his habits, but had no chance to be otherwise, as he was always kept locked up. I mean handcuffed and hobbled round the ankles, with a short chain between each leg, about nine inches long. He could walk with it on. I have seen him go to the closet when he was out in the yard like any other man. He used sometimes to amuse himself wheeling stuff from the excavations going on at the time. Mr. Drysdale said when a remark was made as to some skin being torn on Geordie's face, "Oh! Tommy did that when he was mopping him down; the nail of the mop must have scratched him." That remark was made when Geordie was taken out for his airing. I have nothing more to say in that case. The room I call a dead-house was used as a dead house. It was a decent room but a very airy one. A corpse has been taken into this room when Geordie was there. He was afterwards removed into another room. He was a very violent patient.

ROBERT THOMPSON DRYSDALE Examined :—

Geordie was kept in the dead house, but he was never there when a corpse was brought in. He was always removed before placing a corpse there. It was Dr. Hulme's instructions to put him in this cell. He was put there because he was so noisy and violent and dirty. He was mopped down, but Mr Harman's statement with regard to this is utterly false. In regard to the rinsing and slushing with cold water on him, it was not done every morning, but only now and then. He was always dried properly.

T. HARMAN stated in reply to a question by Dr. Alexander :—

I consider that washing was necessary to keep him clean, but not mopping him down. In answer to a question by Dr. Hocken. He was naked at the time of washing, but only then. It was a cotton mop I believe. It was a regular ship's mop.

R. T. DRYSDALE, stated :—

It was a soft Berlin wool mop made for the purpose by myself. We made our own mops. The cold water was for washing down the floor after washing down Geordie.

T. HARMAN, stated :—

It was cold water. I have seen it got from the well. I have seen the floor washed and Geordie washed. It was cold water that was used for the patient.

R. T. DRYSDALE, stated :—

The statement about the scrubbing the clothes at the pump is all wrong; there was a washing woman there who washed the clothes. They were always dry when put on the patient.

T. HARMAN, Re-examined by the Commissioner, stated :—

I have seen wet clothes taken off the fence and put on Geordie. I have seen dry clothes put on him. "Tommy" used to scrub the clothes and put them on the fence. If the weather was fine, the clothes were dry. The clothes were washed and put on the fence, and hung there all night, and in the morning were put on him wet or dry, if his others were soiled.

R. T. DRYSDALE, stated :—

That is quite wrong—I will ask him was it a mop or a broom that the stretcher was cleaned with.

T. HARMAN, stated :—

I could not say whether it was a mop or a broom that the stretcher was cleaned with.

R. T. DRYSDALE, stated :—

The stretcher was perfectly dry always, if one was wet, we took another. We had plenty of them. I changed them myself. It was a mop that the stretcher was cleaned with.

R. T. DRYSDALE in reply to T. Harman :—

We had only one stretcher in use in the dead-house, the others were in the operating room next door. When the stretcher was wet, a dry one was put in.

By the Chairman—

He slept in the stretcher without mattress, but he had plenty of clothing over him and under him—blankets—plenty of them, and a pillow for his head. I boarded the window up to keep the place warmer. We did not wish to glaze it, as it would have been broken again, and there would not have been ventilation enough. It is not true that he was handcuffed to the bed while he was washed. He was merely standing, but not fastened in any way. He did not try to run away from the washing. He was washed in the dead house. He was neither handcuffed to a staple nor to the stretcher. It was not the paragraph in the *Times* that induced me to take Geordie out into the yard. He was taken out for exercise both before and after that. He was judiciously treated both before and after Mr. Harman was employed at the Hospital I never handcuffed Geordie, or any other patient with his hands behind his back ; I would look upon that as a cruelty indeed ; nor did I ever hobble him and handcuff him at the same time, and all the time that he was kept in that cell he was very seldom under restraint of any kind. That patient was particularly under the care and eye of every one, and anything inhumane in the treatment of him would have been seen by many. I am not aware that any one else handcuffed or hobbled Geordie. No one could have done so without my knowledge. There was a young man who had occasional charge of Geordie during my absence, but he could not have done so without my knowledge. I deny the statement as to the pannikin of tea being left while the patient was handcuffed in any way. In regard to Mr Harman's statement of an occurrence said to have been on the 11th April, I have no recollection of seeing Mr Harman about the place at that time or about that time, nor should I address him so familiarly as he states. I never put any sticking plaster on the patient so long as he was under my care. Geordie's wrists were a little rough : they were so before I had charge of him. He had been under restraint before, but not so much after I had him. He used to be hobbled and handcuffed before, but I took the handcuffs off him and left only the hobbles on him. There were occasionally days when he was very violent, in which he was handcuffed. He was very dirty—but it was only when he was very violent that he was confined in the cell, and he found his way to the convenience like other people at other times. He used sometimes to wheel stuff as stated. We were all glad to get him employed, as it amused and occupied his mind. I never made the remark about mopping him down. Tommy never did mop him down. He merely held his hands sometimes while I washed him if he was very violent, that is. The cell I refer to is sometimes called the dead-house. It is constantly used as a cell for violent patients. People who want to make the worst of it call it the dead-house.

T. HARMAN was then further examined as to the case of a Mrs. Barchan who was also known as "the Captain's Wife," and stated—It was in the beginning of the month February, 1863. I was going through the passage past the window of her room and heard a moaning noise. The blind was down. I looked in at the right hand corner of the window; I saw her lying on a stretcher with a gag in her mouth. I believe it was one of the canvas beds, as I could only see her head. It was about three o'clock in the afternoon. I saw the flies all settling about her face, and close to her eyes. Mr. Drysdale came through the passage just as I was looking in at the window. I walked away up amongst the men. The next day Mr. Drysdale came up to me, and called me out from the men, and said he could "lay me on to a good thing." I asked him what it was? He said Dr. Burns had got a lot of wood come in, and if I would let four or five men go over and stack it for him, he (Mr. Drysdale) said he could get the money, and I might make a pound by it. He asked me whether I was inclined to let them go. I told him I had no objection, after five o'clock. He asked me whether I could not let them go then. I said "Certainly not, and I don't thank you for proposing such a thing." I thought he was trying to entrap me by asking me to do it.

R. T. DRYSALE, examined by the Chairman, stated :—

In reference to gagging Mrs. Barchan, I never did gag her. I hurriedly took a piece of wood, one night when she was very violent, and showed it to her, and threatened to gag her with it. I said "Now, Mrs Barchan, if you are not quiet I shall use this," showing her the piece of wood. This was after ten o'clock at night, so that Harman had no chance of seeing anything of the kind at three o'clock in the afternoon. In reference to employing men to stack or cut wood for Dr. Burns, the facts are these :—Andrew Barnard's wife was a lunatic in the Hospital. Dr. Burns came to me and asked me to "send him Andrew Barnard." He confined me to that man, and that only. The Doctor's object I believe was to give the man a little employment, as he was at a considerable expense in consequence of his wife's affliction. I immediately ran across to where the men were working, about twenty yards from my door, and delivered the message to Andrew Barnard. It was about three o'clock in the afternoon. Mr. Harman was standing close by at the time. I spoke to Mr. Harman, but did not ask him for the men. I did not offer to "lay him on to a good thing." I distinctly deny that statement :—

By Dr. Alexander—

The "captain's wife" could not have been gagged without my knowledge. She was never gagged by me.

T. HARMAN further examined :—

In the beginning of the month of April, 1863, I saw Mr. Drysdale take Tommy and lock him in the dead-house with Geordie, for refusing to work. After Tommy was in, he (Tommy) commenced kicking at the door. Mr. Drysdale ordered one of the warders, named Campbell, to get the handcuffs and handcuff him. Tommy cried "that he would be a good boy, and work" if they would let him come out. That was about half-past nine in the morning. They kept him there till dinner time, twelve o'clock. On the 21st May, 1863, about a quarter-past eight in the morning, I was going down, I heard Tommy crying out "that he would not work," from his sleeping ward in front of the hospital. As soon as I got in sight of the door I saw Tommy trying to get past Mr. Drysdale at the door. I saw Mr. Drysdale with a broom in his hand, raised with both his hands I mean. He struck Tommy over the head with it. I cannot say whether with the head or handle of the broom, but the stick broke, and the head of the broom flew some distance, about eight yards, Tommy ran out round the building, and up to the straw-house, and staid there about an hour crying. I went up to him, and spoke to him, and found him in tears. Mr. Drysdale picked the head of the broom and came up and spoke to me. He said, "Tommy was very refractory this morning." I said, "Yon have a very curious way of treating him." There is a witness named James Black that saw this occurrence, and can corroborate this statement.

By Mr. Birch—

I have seen Tommy cry at other times. He will cry for a very little. I have seen him cry at merely being threatened. I took a note of anything that I saw in my time-book after the proposal about the wood.

R. T. DRYSDALE Re-Examined :—

I have no recollection of ever locking up Tommy in the dead house. I may have done so ; nor have I ever at any time handcuffed or hobbled him. Tommy was never forced to work—it was always of his own accord. With reference to the occurrence of the 21st May as stated by the last witness, Drysdale stated—It is about 8 or 9 yards from the surgery door to the male ward. Tommy was very violent and noisy, and breaking the door by slamming it to and fro. He broke it off its hinges that morning. I had a broom in my hand at the time, and Tommy had his chamber utensil in his hand to defend himself, or to strike me rather. He ran up upon his bed and stood in the back corner of his bed. I then rushed the pot out of his hand with the head of the broom. The chamber fell upon the bed. I threw down the broom upon the floor and took hold of Tommy's jacket with my hand and put him upon his bed. My foot resting on the broom handle broke it. I kicked the head of the broom out of the room accidentally. Tommy was still on the bed when I did so. Tommy may have got away after I left the room. I saw Mr Harman after I came out. He was in the entrance between the old and new building and could not have seen me at the time he states. It was perfectly impossible. [Witness withdrew.]

JANUARY 21st, 1864—COMMISSION MET.

Present—Messrs. Alexander, Hocken, H. W. Reynolds, and Thomas Dick (Chairman).

MR. DRYSDALE, who was in attendance as a Witness, stated :

In reference to the case of Tommy Noble's being struck by me, I wish to state that Dr. Hulme twice examined Tommy Noble, and on each occasion the patient had denied being struck. This I heard from Dr. Hulme himself.

MR. HARMAN Stated :

On the 19th September, 1863, I was carrying on some excavating at the Lunatic Asylum under Government. About four o'clock in the afternoon, Mr. Thomson, one of the keepers, called me for assistance to help to secure a patient of the name of Jenkins that had barricaded the door of the stone cell. I attended with him, as did also another man named Cook, and broke the door open. We found Jenkins barricaded in the water-closet in the back yard. I helped to secure him, and put him in irons. Mr. Thomson said that Mr. Drysdale, and Mr. Ford the other keeper, were drunk, and incapable of lending any assistance. After we had secured Jenkins, Ford came into the yard, and he was very much the worse for drink. I also saw Mr. Drysdale as he was going into his own room in the passage, and he appeared to be in the same state. On the following Monday, the 21st September, I was passing the window outside the Asylum. Mr. Thompson called to me to speak to me. Mr. Drysdale came along at the same time, the worse for drink, and ordered me away. Mr. Thompson told him that he (Mr. Thompson) had called me, and asked him by what authority he could do such a thing. He said, "by his own." About an hour after (4 o'clock p.m.) I had occasion to borrow a saw from Mr. Thompson to saw some timber, and as I was returning it to him, Mr. Drysdale and his wife came past the window. Mr. Drysdale said "You seem to have a deal of business there." I told him I was returning a saw that I had borrowed. He said, "Leave the premises this instant, you infernal villain, or I'll make you." I told him I should not. He made towards me with two sticks, one in each hand. His wife tried to prevent him, but he knocked his wife down, and passing her, struck me over the shoulders three or four blows. I closed with him and threw him on his back and held him. He called to Ford for assistance. Ford came out. He was very drunk. I did not give up hold till Thompson and the other warders came out and took charge of him (Drysdale). The next morning, about half-past ten o'clock I was on the road to take out a summons for assault. Mrs. Drysdale overtook me at the Octagon, and begged of me not to summons him as she was going to Port Chalmers to take a passage to go home to Scotland with him. She said "it would do him a great deal of injury and me no good." Through her begging so hard I gave her my word not to do so. While we were talking, Dr. Hulme came down the road. We met him. Mrs. Drysdale told Dr. Hulme about the assault. Dr. Hulme said he little thought that Mr. Drysdale would get a drinking just at the time he was called upon to defend himself, or words to that effect. Mrs. Drysdale then went away. I told Dr. Hulme the intention I had when I came

down, and that as Mrs Drysdale had been begging hard I had let Mr Drysdale off. Mr Ford and Mr Thompson both begged me that day not to take any notice of it. About three weeks afterwards Mr Thompson came to me and wished me to go down and summons Mr Drysdale for the previous assault and said things were going on very indifferently inside the Lunatic Asylum. I told him I had given my word not to do so, and besides it was gone too long.

MR. DRYSDALE in reply :—

In regard to the securing Mr. Jenkins I have no knowledge of the occurrence, and with regard to the charge of drunkenness, I may state that I detest the practice and deny the charge. On the 21st, in the forenoon there seemed to be a very unnecessary correspondence between Mr Harman and Mr. Thomson, one of the attendants. I saw Mr. Harman speaking in at one of the windows to Mr. Thomson—a practice which Dr. Hulme had given me instructions to put down and prohibit on all occasions. Mr. Harman being transgressing this law, I asked him to desist, and leave the window. Instead of going away peaceably he gave me insolent language. I said nothing more at the time. He left the window and went away. In the afternoon, about four o'clock, as my wife and I were coming into the Asylum grounds, Mr. Harman was again engaged in this unlawful practice. Just before taking the landing steps of the main door, I stood there and called out to Mr. Harman, and reminded him that he was again transgressing the law with impunity. He then gave me a great deal of insolent language, left the window, and came furiously towards me, which appeared to me as if he intended a personal attack. I raised my stick, and said that I would come on, and my wife put up her hand, and caught the stick. He then closed upon me, and in the struggle my wife fell, whilst he got above me, bruising me with his knee, and holding me by the neck. I called to Thomson and Ford for assistance, and both came out, and took him from me. I believe there was something said about a summons, but do not know anything of it to my own knowledge. I did not understand what Mr Harman said on the occasion, for he speaks very thick at times, and very specially on this occasion.

MRS. BARCHAN examined, stated :—

I was a patient in the Hospital and Lunatic Asylum. I have been treated badly by some of the attendants there, but not so very badly by Mr. Drysdale. He once put a gag in my mouth to frighten me, but he shortly took it out again. It was some time in the evening ; it was after dark. I don't remember Mr. Drysdale ever treating me badly at any other time. Mrs. Buchan, the nurse, has treated me unkindly. She has boxed my ears often ; slapped my face and blackened my eyes very often. I could not say whether Mr. Drysdale knew of this. I don't think the Doctor or Mr. Drysdale knew of it, as Mr. Drysdale was not in the room for weeks together. I knew my eyes were blackened because I saw them in the glass in another room when I was getting better. The first nurse I had tied something tight round my arm that hurt me very much. There is a mark there now. [Witness showed a mark like a scar round her wrist.] I never saw any other patient gagged in the Hospital. I never saw the gag till Mrs Buchan brought it to frighten me. It did frighten me very much. I did not even know what a gag was till then. I never saw it before or after. Mrs Buchan was holding the gag on one side of my mouth and Mr Drysdale on the other, and when I cried and said I would be quiet they took it away.

ANDREW BARNARD, examined, stated :—

With reference to the charge as to the firewood made against Mr. Drysdale by Harman, Mr. Drysdale came to me and asked me if I would go and lay up some wood for Dr. Burns. I think it was at dinner time, I am not exactly sure. I was to do it after five o'clock. That was what Mr. Drysdale said. I did not hear him say anything about it to Mr. Harman. Mr. Harman was not beside us at the time. Mr. Harman never said anything to me about it. I do not know where Mr Harman was at the time, but he was out of hearing. Mr. Drysdale told me that Dr. Burns had sent him to me. I am certain he said I was to go after five o'clock.

THOMAS THOMPSON, examined :—

I was never with Mr. Drysdale in the Hospital in connection with the patients. I have only seen him in his house. I have never seen Mr. Drysdale drunk. I have

seen him take a glass in his own house. I have been with Mr. Drysdale in the new Lunatic Asylum, but Mr. Drysdale at this time had nothing to do with the patients. I had the charge of all the patients. At one time a patient named Jenkins broke out of the Asylum, and was away two days. When he came back, Mr. Ford, one of the attendants, was out of the house. I do not know where, and when Mr. Ford came back I did not think him in a fit state to assist me if the patient was violent. He was not drunk, but worse for liquor. I came down to tell Dr. Hulme that I should require another man, and Dr. Hulme was not in; but there was a young man named Cook that I knew, whom I took in, on my own responsibility, to help me. Mr. Strode had sent up word by the sergeant that came with Jenkins, that if I had not sufficient men to keep him safely I was to apply to Dr. Hulme, and I could get more. I locked Jenkins, before I came down, in one of the solitary cells. Mr. Ford came in afterwards when he was locked up. I told Ford, before I went, where I was going, and that he was to look after Jenkins. I showed him the cell he was in. When I came back Jenkins had burst the door, and barricaded the outside door with the one he had taken from the cell. Cook and I went over when this had taken place, and Ford was not to be seen. I called in Mr. Harman, because I knew that Jenkins had something to strike us with in the cell. Mr. Drysdale was not well at this time. I had not seen him for a week before. Mrs. Drysdale told me he was ill with piles. I said to Mr. Harman when I went out, "Ford is not fit for duty." I never said to Mr. Harman that Mr. Drysdale was the worse for liquor. I was in the dining room with the patients when Harman borrowed a saw of me. I gave it to him out of the window. I did not call to Harman, but he asked me for it. Mr. Drysdale came out and quarrelled with him for speaking to me. He (Mr. Drysdale) was not very well at the time, but I could not say whether it was in consequence of drink. I asked Mr. Drysdale what authority he had to quarrel me for speaking to Harman at the window. He said it was his own authority. Harman brought back the saw in about an hour, when Mr. Drysdale was coming in at the front door. Harman went towards the front door, and Cook was in the dining room. Cook called me to "come and see the fight." I said "No! I had better not see it." When I passed to the front door to put the saw away, I saw Mr. Drysdale on the ground, and Harman holding him down. I know nothing about the cause of the quarrel. Mr. Drysdale was very agitated at the time. I could not say whether from drink or other excitement. I have never seen Mr. Drysdale drunk. After Jenkins had broken away, Dr. Hulme gave Drysdale orders to look after the patients in the Lunatic Asylum. I do not recollect hearing Mr. Drysdale calling to Harman to leave the window on the second occasion. It might have been the case, but I do not recollect his doing so.

The Chairman read a letter to the Commission which he had received from Dr. Hulme, in reply to a letter from Dr. Yates, the Resident Surgeon as to the admission of sick persons to the Hospital and pointing out that the words "from the diggings" had been omitted in the copy of the evidence transmitted which entirely altered the meaning of the sentence referred to.

A letter was also read by the Chairman from Stephen Hutchison, Esq., Civil Engineer, stating that he believed he was in possession of information which should be at the service of the Commission, whereupon it was resolved to call upon Mr. Hutchison for his evidence on Wednesday, 29th instant, at two o'clock p.m., and to desire the attendance of the witnesses Cook and Henessy on Monday next. The Commission then adjourned till Monday, 25th January, 1864.

MONDAY, JANUARY 25th, 1864—COMMISSION MET.

Present—Messrs. W. H. Reynolds, W. M. Hocken, and T. Dick—Chairman.

ALEXANDER REYNOLDS, Examined

I have seen the patient Geordie hobbled when he has been in the yard. I have never seen him treated badly. I know nothing of the treatment of Mrs. Barchan. I know very little of Mr. Drysdale's treatment of the lunatics, as they were in a different part of the building from where I was.

JOHN COOK, Examined.

I am a Warder in the Lunatic Asylum. On the 19th September Mr. Thompson called on me to come up and give him some assistance. When I came up I found Jenkins, a patient, had broken out of his cell. I helped Mr. Thompson to secure him.

Mr. Thompson got a person of the name of Harman to help us to do so. When I came up Ford (the attendant) was not there. I did not see anything of Mr. Drysdale either. I recollect an occurrence on the 21st September. It was on a Monday. On that day Mr. and Mrs. Drysdale were returning from a walk, and Mr. Drysdale saw Harman returning and saw that he had borrowed of Mr. Thompson. Mr. Drysdale had two sticks in his hand and Mrs. Drysdale tried to keep back Mr. Drysdale from Harman. Mr. Drysdale knocked Mrs. Drysdale over to get at Harman, and then he struck Harman three or four times with the sticks, one in each hand. Mr. Harman threw him on the ground and Ford and Thompson came out and raised the two of them. Mr. Drysdale was not the worse of liquor to my thinking. I do not know why he struck Harman. Mr. Drysdale struck the first blow, and three or four afterwards I have never seen Mr. Drysdale the worse for liquor. He was head attendant, I believe, at the Lunatic Asylum. I think he was so in December last. He was store-keeper, but I do not know that he had any charge over the patients there.

Questioned by Mr. Drysdale:—

You came towards Harman. The struggle was just at the front door. I saw you strike him with the sticks.

R. T. DRYSDALE stated in explanation.—I did not go to Harman, but he came rushing to me. I did not strike him. The stick was raised, but my wife prevented it. I regret that I intended to strike him, but I had had great provocation.

JOHN COOK, in reply to R. T. Drysdale.—I have only seen Harman once since about the Asylum. Thompson was in the dining room when I received the saw. I was also in the dining room.

WILLIAM HENNESSY examined:—

I am a warder in the Asylum. I have been there about eighteen months. I knew a patient in the Hospital named Geordie. He was a lunatic, and was kept in the dead house for a part of the time he was there. I had no charge of him, but my ward is close to the dead house, so that I could look down upon it. I saw Geordie every day. He was in such a bad state that it was impossible to go near him for the smell. He was at this time quite helpless, and could not go to the convenience. He was suffering I think from dysentery. He was so weak, that when he was put into the privy one day he fell down after he had been there about two minutes. I consider Mr. Drysdale was very attentive to him. I do not think he treated him roughly. I know of no such case. I know one case where it was said that Mr. Drysdale had pushed him—but that was in consequence of the patient's refusing to move. He would stand sometimes for an hour in one place, and then it was necessary to push him to move him at all. I have never seen Mr. Drysdale treat any patient roughly. I was under the impression that he was quite another kind of man—that he was always kind to the patients.

DUNCAN M'FARLANE examined:—

I was working at the Hospital. I saw nothing particular in the conduct of the Hospital. I knew a patient named "Geordie" who was there. He used to be ill treated some times by Tommy, another lunatic there. Tommy used to take a pail of water and a mop and scrub him down with it in the cold mornings. The water was taken from the pump. I could not say whether any warm water was added. It was in the month of March. Warm water might have been added without my knowing it. I saw no one overlooking Tommy at the time. Mr. Drysdale was not present. The mop appeared to be made of cuttings of colored cloth, such as horse rugs are made of. I once saw a patient girl Katie playing with a man who was a visitor. She was taking off his hat through the gratings of the window, and rolling up his shirt sleeves merely. There was no one overlooking her then. Geordie generally wore a blue pilot jacket and moleskin trousers. I never saw the patient being dressed. I never saw him with wet clothes on him. I never saw Mr. Drysdale ill-use any of the patients. I was generally at work. [Witness withdrew.]

It was then resolved to call upon Mr. Carter, Mrs. Bernard, Mrs. Robinson, and Mr. John Fox for their evidence on Wednesday and Thursday.

JANUARY 27TH, 1864—COMMISSION MET.

Present—Messrs. W. H. Reynolds, W. M. Hocken, and Thomas Dick (Chairman.)

Mr. Birch entered shortly after the Commission met.

MRS. ROBINSON examined :—

I am a washerwoman, and wash the clothes for the Hospital. I recollect a patient named Geordie. I had his clothes to wash. I had his clothes to wash every day, I should think, and sometimes more than once a day. I am sure I had them more than once a day towards the end of his life. Tommy Noble often brought them to me ; either he or Mr. Drysdale brought them. Tommy never washed them to my knowledge since I went there. When the clothes were washed they were sent back to Mr. Drysdale. They were always as dry as I could get them. There was no fire to dry them that I could have access to. Geordie had more than one change ; how many more I could not say. They were left with me to dry, if it was weather that would dry them ; and, if not, they got them as they were. They often could not wait till they were dry. The clothes have been left out all night, when I thought they would dry better that way. There was no place to dry them in the wash-house, but only outside. I washed the whole of the clothes for the Hospital. I don't know whether they dried the clothes after they left me. I suppose they would do so. I was never near the place where Geordie was confined. I only saw him in the yard. I was the washerwoman all the time he was there (in the Hospital).

MR. DRYSDALE stated :—

With regard to the clothes, if they were a little damp they were taken to the kitchen-fire and properly dried ; with regard to the body-clothes, we did not require to do that, as we had a large stock of them — but shirts we did occasionally.

HENRY CARTER examined, stated :—

That he objected to giving further evidence, as he had already given evidence before a Select Committee on the subject, and that he could see no object to be gained by repeating it—but that he adhered to what he had stated before the Select Committee of the Provincial Council. That he had received injury in consequence of giving his evidence before. That he had applied for an appointment in the service, and though the next subordinate in the employ, and also recommended by the Provincial Engineer, he had not been chosen, but a person who was keeping a bookseller's shop in the Octagon was. That this was the reason, viz., his giving this evidence ; he had been informed by some official in the Government service ; and that he wished further that his correspondence on the subject should be brought before the Commission, as also the correspondence of Dr. Hulme on the same subject.

The Chairman then read the correspondence to the Commission, after which the Chairman proceeded to examine the witness, who stated :—I am the foreman of the works under the Provincial Engineer. I do not know what date the letter bore that I wrote to the "Daily Telegraph" on this subject. I was employed at the Hospital for some general repairs, and cutting ventilation holes under the old portion of the Hospital. Dr. Yates had complained of the smell and we were cutting holes to let it out, so that it should not pass through the rooms. We found the smell much more offensive at one part of the building, where a girl named Katie was confined as a lunatic patient. It appeared to arise from soil in the room where she was confined. I made enquiry, and was informed that she was in the habit of doing all that was required in the ordinary course of nature in that corner. The whole of the glass was out of the window of that room, and I fixed an inverted "bonnet" or cover in front of it, so that no person could look in, the top being left open to the action of wind or rain. I have seen the patient I refer to. Sometimes she was nearly naked, or with merely a petticoat tied round her waist. I made enquiry as to the reason why she was kept in that condition, and was informed she was in the habit of tearing her clothes. I have repeatedly seen her in the condition I have stated. I was informed by Mr. Drysdale that she was in the habit of tearing her clothes when new ones were given to her. There was no fireplace in the room and the time she was confined there was in the winter months—during the most inclement season. There was no convenience left in the room for her to comply with the calls of nature. I made inquiry as to this and was informed by the nurse that it was dangerous for her to have any such thing in the room. I also knew of the case of a man named, I think, Collingwood. I was informed he was a paralysed lunatic. He was placed in the dead house for about three weeks (as near as I can recollect) previous to his death. He was in bed the

whole of the time. The dead house is a wooden building, isolated from the rest of the buildings and without a fireplace. The only person I ever saw with the patient was Mr. Drysdale, and he went into the room only to give him his food. The rest of the time he was left to himself. I believe he died alone. I know nothing of the character of Mrs. Buchan, who was at one time a nurse in the hospital. I could not say whether there was any other place in the hospital in which to put these people. I know of no other particular case of cruelty to the patients, except the leaving them thus alone when they were helpless.

Questioned by the Chairman :—

I did not see the soil in the room, but was told by the nurse, Mrs Buchan, that what I have stated was the case. The men refused to work at the place on account of the smell. I can produce them.

MR DRYSDALE stated that the whole of the patients were allowed conveniences, and that if the patient had not one it was the fault of the nurse, who had full charge of the female patients. The lunatic patients are now all allowed the use of utensils. Katie was a violent patient at times, but never so violent as to be deprived of the use of such. I have seen her throw it out of the window and also sometimes the contents. The utensil was always replaced. She was never allowed to be naked for any length of time. If she tore her clothes they were replaced by others. She wore a canvas duck jacket for a considerable length of time. She used to sleep on a mattress. She had a stretcher for a while—when she got more cleanly in her habits, she got a mattress. I deny that I informed Mr. Carter that she was in the habit of tearing her clothes. I could have no reason for not telling Mr Carter so, as the clothes were torn as I have said before. Collingwood was a patient from up country. He was found in the open country in a very bad condition, with the skin of his back all broken out with eruptions, and in that state he was brought to the Hospital, and put in one of the ordinary wards. He became so noisy that the other patients could not tolerate him, and was removed to the cell—I do not call it a dead house, though it was used as such sometimes. The doctors visited that patient every day, and he was well attended to, with a night watchman as well as myself attending on him. I saw him die, myself, at eight o'clock of the morning of the day of his death. I was not very long with him before he died, but the night watchman was with him frequently during the night.

HENRY CARTER then stated.—About six to eight weeks ago I went up to the Lunatic Asylum to inspect some work, along with Mr. Stone, the blacksmith. It was the repairs to some of the cells. I found one of the cells fastened, and not knowing there was any one inside, I turned the plate of the eye-hole and looked in. I saw one of the patients, a young girl apparently 18 to 20 years of age. She was huddled up, sitting upon a stretcher, and perfectly naked. I afterwards saw Mr. Drysdale. I asked him why she was naked, and he said he supposed they were about to dress her. About a quarter of an hour afterwards I was passing the cell, and I saw a woman taking in clothing, apparently for that purpose. I have been several times up to the Asylum, and notwithstanding Mr. Drysdale's assertion as to the supply of utensils, I have on more than one occasion seen the filth upon the floor of the cells that I alluded to. There were no clothes on the bed—it was a stretcher—nor were there any clothes in the room. That was her sleeping cell. The inference would be, that the blankets would have been there if she had been usually supplied with them. It was a stone cell, lined with wood, with an asphalt floor. I cannot tell how long she had been sitting there.

MR. DRYSDALE, re-examined, stated with regard to this case :—I recollect the case. It was between eight and nine o'clock, I think, in the morning. Mr. Carter told me of the girl sitting in that state and I directly sent one of the attendants to his wife, who was the nurse, to remind her of it, and I found that the patient was in the hands of the attendant for the purpose of being cleaned. There was nothing wrong. I found, in the matter. The bed clothes must have been in the corner where Mr. Carter could not see them. She was a dirty patient and her clothes had been removed in consequence.

MR. CARTER stated :—The bedclothes, if they had been in the room, could have been seen from the eye-hole. I was struck with the appearance of the girl in that state, and distinctly looked to see if there were any clothes in the room. If the members of the Commission will examine the cells of the Lunatic Asylum they will be able to ascertain the fact in this case.

Mr. Carter, on being asked by the Chairman "if he had anything further to communicate or any suggestion to make with regard to the management of the Hospital or the Lunatic Asylum," called the attention of the Commission to the state of the drainage connected with the Hospital, the drains being untrapped, and very offensive; the cesspools also being numerous and continually stopped. He begged also to suggest to the Commission that on the occasion of any death in the Lunatic Asylum, an inquest be held, as was the custom in Victoria.

JANUARY 28TH, 1864—COMMISSION MET

Present—Messrs. T. M. Hocken, W. H. Reynolds, and Thomas Dick (Chairman), Mr. Thomas Birch entering shortly afterwards.

MR. BERNARD, examined.

I was in the Hospital, in the Lunatic part, as a patient. I recollect pretty distinctly what occurred while I was there. I had different nurses while I was there; Mrs. Drysdale at different times. My first nurse was named Henrietta, I think; the next was Mrs. Buchan. I went in, the day before or after Christmas day, and I came out about last August. I was in nearly eight months. I had always good treatment there, no one ill-used me. Mrs. Drysdale was over Mrs. Buchan, and overlooked her, and kept things right. Mr. Drysdale had very little to do with me. I saw very little of him. He was never rough to me. I had more to do with Mrs. Drysdale than with him. I never saw any other patients ill-used in the Asylum.

STEPHEN HUTCHISON, Esq., Civil Engineer, examined, stated.

The object of the note I wrote to the Commission, was to bring under their notice the treatment of a man named Alexander Lawson, who met with a severe accident, while in the employ of the Gas Company. After this man was admitted into the Hospital, I went to make enquiry as to the extent of the injuries he had received; and I was informed, that the man could not live beyond six o'clock, and that it was utterly useless to touch him. Dr. Hulme, Dr. Burns, and the House Surgeon were present at the time. I think it was Dr. Hulme gave me that answer in consequence of an observation made by Dr. Burns to Dr. Hulme. I remonstrated, urging that "while there was life there was hope," and whether it was not better under the circumstances to set his broken bones. I got no satisfaction; they said they would do what they thought was best. On the following day the man was living, and if anything improving, and on calling at the house-surgeon's room to ascertain whether the extent of injuries received by the man had been ascertained, and if so, remedied, the house-surgeon said "He knew nothing about it," slammed the door in my face, and it was a near chance I did not have my fingers cut off by the slamming of the door. I instantly went up to Dr. Hulme's house, complained of the treatment I had received personally, and that although there was a regulation requiring the nature of the disease, or injury suffered by patients, should be put over the heads of the patients, this had not been done in Lawson's case, and I could get no information as to the injuries the man had received. Dr. Hulme regretted the treatment I had received from the House Surgeon, and said "it was not the first case of the kind that had come under his notice." He then said that the House Surgeon had a great deal to do, and he did not see his way clear how to remedy the continual recurrence of such scenes between the House Surgeon and people. He said that the Government paid the surgeons so badly that he could not get another man to fill his place. I wish also to call attention to the Hospital accommodation in this particular instance. The man had his head all lacerated, as also the back of his neck, and was otherwise frightfully injured. He was placed on a tick apparently filled with straw. I could not see the material, but I felt it, and it appeared to be straw, and the pillow the same. The ends of the material appeared sticking out stiffly, though covered by the ticking. When I went on the Sunday to see the man, he was gasping for breath, and the ward was filled with men snoring; visitors I should imagine. The man is now out of the Hospital, and a cripple for life. I may mention that the card which I complain of as not being at first put up, was put up a few days afterwards when I visited the patient. I called every day for at least ten or twelve days, and sometimes twice a day, and nothing was done to him during that period towards setting any bones that might have been broken, and I was subsequently told that there were no bones broken. I have been told by the patient himself that there were bones broken, and that Dr. Hardy had told him so in consultation with Dr. Wilson. [Witness withdrew.]

JOHN FOX examined :—

The especial case to which I had occasion to call the attention of the Commission, is one in which R. T. Drysdale struck a lunatic patient named Patrick Ryan, while the patient was handcuffed, and with his hands belted down to his side. He then asked for the key of No. 2 handcuffs in order to set Patrick Ryan free, that he might fight with him. Attendant Cook said "No! he would do nothing of the sort," and then attendant Cook had to keep all knives and other weapons offensive or defensive out of Drysdale's way, as he (Drysdale) was determined to have somebody's life. Drysdale was at this time labouring under an attack of delirium tremens. (Witness here stated, "I was at the time head-keeper," and then desired it to be erased.) I handed in a report of this occurrence, and Mr. Drysdale was suspended by Dr. Hulme. Mr. Drysdale was sent down to the Hospital after this to take Smith's place. I was head-keeper all the time I was at the Lunatic Asylum. I was about three weeks there. I left because I was reported under the influence of liquor. I believe the charge was correct. I did not see Mr. Drysdale strike Patrick Ryan. I know nothing of any pages being torn out of my report-book. I have seen many cases of delirium tremens, and know it was delirium tremens that Drysdale was suffering from. The witness here went on with a number of statements, embracing a deal of irrelevant matter on groundless assertion, whereupon, after being checked by the Commissioners, it was resolved by the Commission, "That the evidence of this witness, from the recklessness of his statements, and his prevarications, is not worthy of credence; and that he be desired to withdraw." Witness was accordingly told to withdraw by the Chairman.

MONDAY, FEBRUARY 8TH, 1864—COMMISSION MET.

Present—Messrs. Alexander, Thomas Birch, and Thomas Dick (Chairman).

DR. HULME, PROVINCIAL SURGEON, examined, stated with respect to Lawson's case :—

I deny ever having stated that the man Lawson "would not live till after six o'clock." I stated that he was so seriously injured that we had very little hope of his recovery—that the upper part of his chest was crushed in. Nothing was said by Mr. Hutchison about "setting his bones" to me on that occasion. I was called in to see the man by Dr. Burns, under whose care he was placed; and the question was not then as to setting his bones—that was a very secondary matter—the question was, what we should do to save the man's life. I recommended Dr. Burns not to move him for the purpose of making a very minute examination, as he was not in a fit state to undergo it; I stated it would be very injurious to attempt to put on any bandages at that time. I could easily see that his collar bone was broken, and also one of his ribs. There was great effusion in his neck on the right side, and there was also an escape of air from his lungs into the cellular tissue, and he was spitting blood, showing that his lung had been wounded by a broken rib. No medical man, under the circumstances, would have stated that no bones were broken. I produce the entry in the Hospital book—"October 9th, 1863, Alexander Lawson, fractured ribs and clavicle." This was entered by Dr. Yates. As far as I can recollect, I met Mr. Hutchison a day or two after the accident. I have no recollection of seeing him at my own house. He asked me how it was that this man's bones had not been set, and I told him it would have been an improper proceeding, and I attempted to explain to him why such would be the case. He then stated he had been at the Hospital to make enquiries, and that Dr. Yates had treated him very rudely. I never told Mr. Hutchison "that the Government paid the surgeons so badly that I could not get another man to fill the place." A day or two after this, Mr. Hutchison came into my private room at the Hospital (Mr. Burns being with me at the time), and enquired how it was that the man's bones had not been set? I told him that we did everything that we thought necessary. I asked him if he thought we should be visiting this patient seven or eight times a day, and omit to do what we thought would be highly necessary. He said he did not make any complaint, but only came to enquire. Lawson was not specially under my care. I saw him only when he was very dangerously ill, and he ceased to be that, after a few days were over.

By Dr. Alexander,—

The Hospital beds are of straw, with pillows of chaff. We have also mattresses stuffed with horse-hair, but they are for special cases. Some of the patients smoke in the wards; they will do it. I do not see them smoking, but I daresay they do when I am gone. I am not aware that there is any regulation against smoking, among the Rules of the Hospital.

DR. YATES, Resident Surgeon, examined, stated, :—

With reference to the slamming of the door in Mr. Hutchison's face, I deny the circumstance altogether. It is not true. I will state what actually happened. Mr. Hutchison came to the room while I was at dinner, and he asked me if the man's bones (or his arm) had been set? I said no, it had not. That was all I said. I shut the door afterwards; but that was because he had nothing more to say to me. I cannot say whether he had gone at the time. He might have been there at the time, but his fingers were in no danger, as I did not shut the door with that violence as would endanger them. The beds and pillows at the Hospital are all of straw, with the exception of those for accidents, fractures of the limbs, &c. The patients smoke habitually in the wards. They are allowed to do so. There is no prohibition. It is the case in all wards except the fever ward. If we thought it was injurious in any case, we should not allow it. I am not aware that it would be injurious to the man Lawson. He never complained of it at any rate. A straw bed was quite as good as another in his case. The other beds are generally used for fractured legs. [Witness withdrew.]

ALEXANDER LAWSON, examined.

I was hurt by a cart on the 9th October, 1863, and was taken to the Hospital in the forenoon, between 11 and 12 o'clock. I was insensible when taken to the Hospital, but when I came to myself I found myself lying upon a coarse bed and pillow, and having a large wound at the back of my head and shoulder, I found it very painful. The bed on which I was lying was much torn, and about a fortnight after I went in, when the assistant took the straw out of the tick, I saw him take out a stick about nine (9) inches long and two (2) in circumference from among the straw. I complained to the doctors several times. I was taken in on Friday morning, and they did nothing for me till the Saturday afternoon. Up to that time they had given me nothing but brandy and water at intervals. They then began to poultice my chest. A few days afterwards I complained very much of my arm, and Dr. Burns told me that "there was nothing wrong with it, that it only required time." Sometimes I did not see a doctor for two days. Dr. Burns and Dr. Yates used to attend on the ward. I do not think Dr. Yates spoke to me more than three times during the whole time I was in the Hospital. Dr. Burns was absent twice or three times during the three weeks that I was there for two days at a time. All the assistance I had in the night was a visit twice or three times from a man with one arm. I was delirious, and if my wife had not been there I should have died. I was getting up out of the bed at night and she prevented me. The patients used to smoke while I was there, but I do not think it did any one any injury—there was plenty of air in the Hospital. Dr. Burns saw a pipe lying in the window-shelf once, and he found fault with its being there. I went under the care of Dr. Hocken after I left the Hospital, and he stated to me that my collar bone had never been set and was overlapping, as did Drs. Hardy and Wilson, who both agreed that there was a small fracture of the shoulder bone. Dr. Hocken said I had been "very much neglected," and Drs. Hardy and Wilson that I had been "shamefully neglected" there, in the Hospital.

By Dr. Alexander—

I found the beds and pillow very uncomfortable. They caused me great pain, from their hardness, with the wounds I had. I required attendance in the night. I could not do without a person always beside me. If my wife had not been there I should have fallen out of my bed two or three times. Dr. Burns told me before leaving the Hospital that there was nothing the matter with my arm. It has been very painful since, both day and night. It is quite useless to me.

By Mr. Birch—

I was delirious occasionally at night time during the first week of my being in the Hospital. It was after that that I noticed the doctors not being there. I was not dismissed as cured from the Hospital.

By the Chair—

I left of my own accord as soon as I could. Another reason of my leaving was that I was not satisfied about the treatment of my arm. I was told by Dr. Burns that it would only require time. I had arrowroot in the morning, beef tea at dinner time, and arrowroot at night—supplied by the Hospital—but that was not sufficient. I had food sent me by friends, but without the knowledge of the authorities, so far as I am aware. (Witness withdrew.)

MONDAY, FEBRUARY 15TH, 1864—COMMISSION MET.

Present—Messrs. W. H. Reynolds, Thomas Birch, Julius Vogel, Edward William Alexander, and Thomas Dick (Chairman).

The Chairman read a letter from Dr. Nelson, declining to offer any suggestions upon the formation or conduct of Hospitals and Lunatic Asylums, in reply to a letter despatched in accordance with the resolution of the Commission.

It was after considerable discussion resolved—That the Commission consider the conduct of Dr. Yates reprehensible in not having examined into the condition of William Helzimer when he was taken to the Hospital, and recommends that he be censured for his conduct on that occasion.

Mr. Birch being the only dissentient to the above.

Resolved—That the Commission regret to find that an enquiry into this case was not pressed to a conclusion at the time, and would strongly recommend to the Government, in all cases in which the conduct of officials of the Hospital is questioned, that enquiries into the allegations (if there appears to be any foundation for them) be made without delay.

Resolved—That the charges against Mr. Drysdale of ill-treatment of patients are not proved by corroborative evidence, and that Mr. Drysdale must, therefore, receive the benefit of the denial he makes of them, and of the other testimony he was able to produce in his favor; but that the conduct of Mr. Drysdale in assaulting Mr. Harman, a witness against him before the Select Committee of the Provincial Council, which Committee at that very time Mr. Drysdale excused himself from attending on the score of illness, was highly reprehensible.

The Commission then resolved to visit and inspect the Hospital on Thursday, the 18th instant.

MONDAY, FEBRUARY 22ND, 1864, COMMISSION MET.

Present—Messrs. W. H. Reynolds, J. Vogel, T. Birch, E. W. Alexander, and T. Dick (Chairman).

The minutes of the last meeting (having been read, it was resolved that it be entered on the minutes that the Commission in pursuance of their resolution on the 15th inst., visited the Hospital on the 18th. Present—Messrs. T. Dick, W. H. Reynolds, T. Birch, E. W. Alexander and T. M. Hocken.

Resolved that each member of the Commission be supplied with a copy of the returns from the Dunedin and Country Hospitals, as also the various medical reports written for by the Commission when furnished.

Resolved that Dr. Hulme be written to, enclosing that portion of Harman's evidence relative to an alleged assault; desiring him to inform the Commission if it be correctly stated there, that he knew of such an assault, and if so, why he did not feel himself called upon to report it to the Government.

Resolved with reference to the charge against Dr. Yates of incivility to Mr. Hutchison, the Commission accept Dr. Yates' assurance that he intended no discourtesy.

WEDNESDAY, FEBRUARY 24TH, 1864—COMMISSION MET.

Present—Messrs. W. H. Reynolds, J. Vogel, E. W. Alexander, Thomas Dick (Chairman).

The minutes of the last meeting being read, as also a letter from Dr. Hulme to the Chairman, it was resolved that the Commission desire further information of Dr. Hulme relative to the fact that Drysdale at the time he committed the assault upon Harman was excused by Dr. Hulme from attending upon a Select Committee of the Provincial Council on the score of illness; and that the fact of the assault does not appear to have been mentioned to the Committee of the Provincial Council by Dr. Hulme, and that he be written to accordingly.

MONDAY, FEBRUARY 29TH, 1864—COMMISSION MET.

Present—Messrs E. W. Alexander, T. Birch, and T. Dick, Chairman.

The Chairman having read a letter from Dr Hulme replying to the questions of the Commission, suggested by the resolution of the last meeting, it was resolved—

That the explanation afforded by Dr Hulme in the matter of the assault upon Harman is considered satisfactory by the Commission.

The Chairman read a letter from Dr Alexander covering a report upon Hospitals and Lunatic Asylums, with special reference to the Dunedin Hospital and Lunatic Asylum.

Resolved—“That the returns received hitherto relative to the statistics of the country hospitals being incomplete, the Commission apply to the Secretaries for the fuller information previously desired.”

WEDNESDAY, MARCH 2ND, 1864—COMMISSION MET.

Present—Messrs. T. M. Hocken, T. Birch, E. W. Alexander, W. H. Reynolds, and Thos. Dick—Chairman. Resolved—

To request the attendance of the Provincial Engineer to give evidence as to the qualities desirable in any building intended as an Hospital, and to desire him to bring the competitive designs submitted to the Select Committee of the Provincial Council for the purpose on Monday, 7th inst.

MONDAY, 7TH MARCH, 1864—COMMISSION MET.

Present—Messrs. J. Vogel, T. Birch, E. W. Alexander, W. H. Reynolds, T. M. Hocken, and T. Dick—Chairman.

Resolved—That having inspected the position of the Government Reserve at Look-out Point, near Caversham, this Commission consider that that Reserve is in every way suitable as a site for a Lunatic Asylum.

MONDAY, MARCH 14TH, 1864—COMMISSION MET.

Present—Messrs. Reynolds, Alexander, Birch, and T. Dick—Chairman.

The Chairman read a letter from Dr. Eccles relative to the request of the Commission to him to furnish suggestions as to the formation and conduct of Hospitals and Lunatic Asylums; also a letter from the Provincial Treasurer promising further returns from the country hospitals. It was then resolved:—

That the members of the Commission visit certain proposed sites for the purpose of inspecting and reporting on their respective capabilities for a Hospital for Dunedin.

That W. H. Clayton, Esq., Architect, be written to, requesting him to favor the Commission with certain information with reference to the qualities desirable in a building intended as a Hospital, and also, any suggestions with regard to the site for the same in Dunedin, that his professional experience may dictate.

That Drs. Hulme and Burns be requested to forward at once any report that they may have prepared for the Commission, as early as possible.

WEDNESDAY, MARCH 16TH, 1864, COMMISSION MET.

Present—Messrs. Reynolds, Vogel, Alexander, and T. Dick, Chairman.

The Chairman, after the reading of the minutes of last meeting, proceeded to read a letter from W. H. Clayton, Esq., in reply to the resolution of the Commission on the previous meeting, after which it was, after some discussion, resolved,—

That in the opinion of this Commission it is desirable that the site for a hospital for Dunedin should be within the limits of the city, in preference to being beyond them.

Mr. Vogel gave notice that he would move the following resolution at the next meeting of the Commission—

That it is desirable that inquests should be held on all deaths occurring in any Hospital or Lunatic Asylum.

Mr. Dick gave notice that he would move—

That, with regard to the constitution of the Hospital, it is the opinion of the Commission that it should not be a Government institution, but supported by voluntary subscriptions, and under the control of a managing Committee elected by the subscribers; but that its funds should be supplemented by a grant from Government. That notice of the above be forwarded to each member for the next meeting of the Commission.

MONDAY, MARCH 21st, 1864—COMMISSION MET.

Present—Messrs. Reynolds, Vogel, Alexander, Birch, and Dick (Chairman).

The minutes of the last meeting having been read, and the Chairman having read a letter from Dr. Burns relative to the report desired of him—

Mr. Vogel moved the resolution standing in his name in so far as regards Lunatic Asylums only, which was eventually carried as follows:—

That it is desirable that inquests should be held on all deaths occurring in any Lunatic Asylum.

Upon motion of Mr. Reynolds it was resolved,—

That so long as the Hospital is under the control of the Government it is advisable that immediately after any death occurring there, the medical officer, or other person in charge, forward a report to the Government, showing when the patient was admitted, hour of death, cause of death, and such other particulars as may place the Government in full possession of the history of the case.

Upon motion of Dr. Alexander—That the Government be recommended to take measures for the periodical inspection of all Hospitals and Lunatic Asylums.

It was afterwards resolved,—

That the Commission having examined the question of a suitable site for a Hospital for Dunedin, are of opinion that it is not advisable to change the present site.

Dr. Alexander dissenting for the reasons given in his report.

That, with regard to the constitution of the Hospital, it is the opinion of the Commission that it should not be a Government institution, but one supported by voluntary subscriptions, and under the control of a managing Committee elected by the subscribers; but that its funds should be supplemented by a grant from Government.

Carried unanimously.

MONDAY, APRIL 4th—COMMISSION MET.

Present—Messrs. Alexander, Vogel, Reynolds, Birch, and Dick (Chairman).

The following resolution was proposed by Mr. Vogel, and supported by Mr. Reynolds, but negatived by the remaining members of the Commission, namely—

That, so far as the discipline of the institution will permit, it is desirable that medical men unconnected with it should have reasonable facilities for visiting it.

CORRESPONDENCE.

(Letter No. 1.)

Commission on Hospital and Lunatic Asylum,
Provincial Secretary's Office,

Dunedin, 15th January, 1864.

SIR,—

IN accordance with a resolution of the Commission appointed for enquiry into the constitution and management of the Hospital and Lunatic Asylum, Dunedin; I have the honor to forward you copy of the evidence taken in the case of William Helzimer, who was refused admittance into the Hospital without an order; that you may have an opportunity of replying thereto, either in writing, or by personal appearance before the Commission, on Monday next, the 18th inst., at 2 o'clock in the afternoon.

I have, &c., &c.,

(Signed,)

THOMAS DICK,
Chairman of Commission.

W. A. Yates, Esq., M.D.,
Resident Surgeon,
Dunedin Hospital.

(Letter No. 2.)

Dunedin Hospital, January 18, 1864.

SIR,—

IHAVE the honor to acknowledge the receipt of your letter of the 15th instant, enclosing copy of evidence in the case of William Helzimer.

I wish merely to explain what appears a contradiction. Dr. Hulme has stated in his evidence that "Sick persons are admitted at all times without an order;" and yet in this case a man seriously ill was denied admittance, chiefly because he had no order of admittance.

My understanding of the Hospital Rules was, that persons living in Dunedin, having time and opportunity to do so, should apply for admission into the Hospital in the proper way, and if they did not do so, that they ought not to be admitted. And my recollection of the affair is, that Mr. Wilson informed me that his friend had been living in a tent in Stafford-street, and that he had been attended by Dr. Hocken; and I inferred from what he said, that he might well have got an order for his friend's admission in a proper way, and brought him at a seasonable time; and when I refused to admit his friend, that he tried by importunity and insolent language to compel me to admit him at once whether I would or no. Afterwards I understood from Dr. Hulme that I was in error in attaching so much importance to an order for admission; and that any man brought to the Hospital seriously ill should always be admitted at once. And such has been my practice ever since.

I have the honor to be,

Sir,

Your obedient servant,

(Signed)

W. A. YATES,
Resident Surgeon.

The Chairman of the Commission &c., &c.

(Letter No. 3.)

Commission on Hospital and Lunatic Asylum,
 Provincial Secretary's Office,
 Dunedin, January 19th, 1864.

SIR,

IN accordance with a resolution of the Commission appointed to inquire into the constitution and management of the Hospital and Lunatic Asylum, Dunedin, I have the honor to forward copy of a letter from the Resident Surgeon, received by the Chairman of the Commission in reply to the evidence in the case of William Helzimer, for any remarks thereon you may be desirous of making.

I have, &c.,

(Signed,)

THOMAS DICK,

Chairman of Commission.

Edward Hulme, Esq., M.D.,
 Provincial Surgeon, Dunedin.

(Letter No 4.)

Offices Rattray Street,
 Dunedin, January 20th, 1864.

SIR,

BELIEVING that I am possessed of information that should be at the service of the above-named Commission, I can only say I shall be happy to appear before the Commission-if it should appear to the members thereof desirable.

I am, &c.,

(Signed,)

STEPHEN HUTCHISON.

Thomas Dick, Esq.,
 Chairman of the Commission as to Management
 of the Dunedin Hospital

(Letter No. 5.)

Duncan Street, 22nd January 1864.

HONORABLE SIR,

MAY I implore of you in the name of suffering humanity, and for the information of the Government, to be heard and summoned on the investigation now pending relative to the management of the Lunatic Asylum.

My name has been tendered to the Government for summoning, and my evidence is of vital importance to the well-being of the Institution.

Remaining, &c., &c.,

(Signed)

JOHN FOX.

The Chairman of Commission &c., &c.,

(Letter No. 6.)

Dunedin Hospital, January 21st, 1864.

SIR,—

IN reference to the copy of my evidence before the Commission of Enquiry, I have the honor to inform you that there is an important omission in it; I stated that sick persons *coming from the diggings* were admitted at all times without an order.

I have, &c.,

(Signed)

EDWD. HULME, M.D.,

Provincial Surgeon.

The Chairman of Commission on Hospital Enquiry.

(Letter No. 7.)

Dunedin Hospital, February 10th, 1864.

SIR,—

I HAVE the honor to inform you that Stewart the Wardsman, who attended Lawson, is in a position to correct some of the statements of Lawson, and give other information. Dr. Yates can also prove that he had other remedies applied besides the brandy, to get him out of his collapse. But if he had not, it cannot be a subject for complaint, if a man sinking from the effects of an injury, is sustained by a stimulant, even if that should be brandy.

I have the honor &c., &c.,

(Signed,)

EDWARD HULME, M.D.

Provincial Surgeon.

The Chairman of the Commission, &c., &c.

*(Letter No. 8.)*Commission of Enquiry on Hositpal and Lunatic Asylum.
Dunedin, 11th February, 1864.

SIR,—

I HAVE the honor to submit for the information of the Government, the following Resolutions of the Commission of Enquiry into the constitution and management of the Dunedin Hospital and Lunatic Asylum.

1st. That the Chairman be requested to obtain from the Government for the information of the Commission, evidence with regard to the Country Hospitals of Otago, embracing returns of patients in-door and out-door, treated, cured, discharged, and who have died; the expenses of management, &c., and any other collateral information with which the Secretaries of the said Hospitals can oblige the Government.

2nd. That the Chairman be requested to procure the following returns relative to the Dunedin Hospital, namely, the—

- | | |
|--|-------------|
| 1. Present number of patients | } with sex. |
| 2. Usual number of ditto | |
| 3. What number of incurable, permanent, and insane patients are now in Hospital. | |
| 4. What number of the present patients have been in Hospital more than three months. | |
| 5. Number of attendants upon the sick. | |
| 6. Number of night attendants. | |
| 7. Average daily number of out patients. | |

Your procuring me the foregoing information, together with the average approximate daily cost of each Establishment, will be esteemed a favor.

I have, &c., &c.,

(Signed,)

THOMAS DICK,

Chairman of Commission.

The Provincial Secretary,
Dunedin.*(Letter No. 9.)*

(Copy of Circular Letter to various Gentlemen of the Medical profession.)

Commission of Enquiry, &c., &c.,
Provincial Secretary's Office,
Dunedin, 12th February, 1864.

SIR,

A COMMISSION appointed by His Honor the Superintendent, at the recommendation of the Provincial Council, to inquire into the constitution and management of the Hospital and Lunatic Asylum, Dunedin, resolved to make enquiries of certain gentlemen of the medical profession; and your name being one of those

suggested, I have the honor to request that you will be so good as to favor the Commission with any suggestions that your experience may lead you to think desirable in the formation and conduct of such establishments.

The Commission considering it of the utmost importance to obtain the opinion of gentlemen practically acquainted with the subject, make that their apology for troubling you in this matter; and trust that you will be able to find time to communicate with them on the subject.

I have, &c.,

(Signed)

THOMAS DICK,

Chairman of Commission.

Samuel Cusack, Esq., M.D.,
Nelson, N.Z.

(Sent also to Drs. Hulme, Eccles, Alexander, Burns, Hocken, and Nelson, in the Province of Otago.)

(*Letter No. 10.*)

Dunedin, March 8th, 1864.

DEAR SIR,

THE enclosed—written in pencil the day after receiving your letter of the 12th February—got into my drawer, and amongst a press of work has remained there, till, looking for another letter, I found it to-day.

I know not whether the Commission has closed its labors; if not, though late, it will show I did not mean to be so dilatory.

I am, &c., &c.,

(Signed)

ALFRED ECCLES.

Thomas Dick, Esq.

(*Enclosure alluded to in previous Letter.—No. 11.*)

Dunedin, February 13, 1864.

SIR,

I HAVE the honor to acknowledge the receipt of your letter of the 12th instant, acquainting me that a Commission appointed by His Honor the Superintendent, at the recommendation of the Provincial Council, to enquire into the constitution and management of the Hospital and Lunatic Asylum, Dunedin, have resolved to make enquiries of certain members of my profession, and requesting me to make any suggestions to the Commissioners I may deem desirable in the formation and conduct of such establishments.

In reply, I regret that I am unable usefully to comply with the request the Commissioners do me the honor to make.

If I am asked to make suggestions on the constitution and management of the *Dunedin Hospital and Lunatic Asylum*, I feel I must decline on the grounds, first—that I am utterly unacquainted with their constitution or management, never having been in the wards of either institution; and, secondly—because were this not so, I could not take part in a proceeding which, however remotely, might bear the appearance of placing my professional brethren on the Government staff on their trial.

I can hardly suppose that the Commissioners are desirous of receiving essays on the formation and management of public hospitals and lunatic asylums. Such documents to be at all useful must be very voluminous; and, before they could be written, it would be requisite to furnish the essayists with something like an estimate of the number of beds required in each institution, and whether it is contemplated the medical and surgical staff should be paid, the rate of wages for nurses, attendants, &c., &c., in the colony, the sites and sums likely to be available for buildings, recreation ground, garden, farm, &c.

If the Commissioners desire useful information from medical men other than those on the Government staff, I would venture to suggest that their best course would be to

request the staff to call a meeting of those whose opinions are sought, to consult with them, and report to the Commission. This would avoid any appearance of slight to the staff, and afford all the information Commissioners can desire.

I have, &c., &c.,

(Signed)

ALFRED ECCLES,
Fellow of the Royal College of
Surgeons, England.

Thomas Dick, Esq.,
Chairman of Commission, &c., &c.

(Letter No. 12.)

Willow Bank,
Dunedin, 15th February 1864.

SIR,

I HAVE the honor to acknowledge the receipt of your letter dated the 12th February 1864, requesting, (on the part of a Commission appointed by the Superintendent, &c., "to enquire into the constitution and management of the Hospital and Lunatic Asylum, Dunedin) any suggestions that my experience may lead me to think desirable in the formation and conduct of such establishments.

That experience leads me distinctly to decline giving any opinion whatever.

I regret that the Commission should be ignorant, that to make any suggestions, or give any public opinion on the subject, would be a breach of courtesy to my professional brethren.

I have, &c., &c.,

(Signed)

HENRY NELSON, M.D., &c.

Thomas Dick, Esq.,
Chairman of Commission.

(Letter No. 13.)

Dunedin Hospital, February 20th, 1864.

SIR,

I HAVE the honor to forward, for the information of the Hospital Enquiry Commissioners, replies to the questions submitted to me on the 13th instant, viz. :—
1st. Present number of patients in Hospital—male, 135 ; female, 20. 155 in all.
2nd. Average number the last six months—male, 126 ; female, 20. 146 in all.
3rd. Present number of incurable patients, 51 ; do. chronic do., 29 ; do. permanent do., 1. Lunatics—incurable, 4 ; curable, 1.
4th. Number of patients who have been more than three months in Hospital, 50.
5th. Number of day attendants—8 male, 2 female ; total, 10. Cooks, 5.
6th. Night do.—1 male, 1 female ; 2.
7th. Average daily number of out-patients, 16. Average daily cost of each patient, 2s. 4½d., viz.—rations, 1s. 1¼d. ; washing, 1½d. ; ward and medical attendance, 1s. ; drugs, 1½d.—2s. 4½d.

(Signed)

EDWARD HULME,
Provincial Surgeon.

Thomas Dick, Esq.,
Chairman of Commission, &c., &c.

(Letter No. 14.)

Commission of Enquiry upon the Hospital and Lunatic Asylum.

Dunedin, 23rd February, 1864.

SIR,

IN accordance with a resolution of the Commission of Enquiry on the Hospital and Lunatic Asylum, Dunedin, I have the honor to forward you the enclosed extract from the evidence of Thomas Harman, detailing an alleged assault upon him by Mr. R. T. Drysdale, late an attendant at the Dunedin Hospital ; and to request that you would be good enough to inform the Commission if the statement made that you were informed of the assault in question, is correct ; and if so, why you did not feel yourself called upon to report the circumstance to the Government.

I have, &c., &c.,

(Signed)

THOMAS DICK,
Chairman of Commission.

Edward Hulme, Esq., M.D.
Provincial Surgeon, Dunedin Hospital.

(Letter No. 15.)

Dunedin Hospital,
February 24th, 1864.

SIR,—

I HAVE the honor to acknowledge the receipt of a letter requesting information as to my knowledge as to an assault upon Mr Harman by Mr. Drysdale. In reply, I may state, I was aware of the assault as reported to me. I regarded it as a trumpery affair, with which the Government had nothing to do, it being a case for the Magistrate's Court, if of sufficient importance. Mr. Harman's account of me in this portion of his evidence is incorrect, except in so far as it affects my knowledge of the assault.

I have, &c., &c.,

(Signed)

EDWARD HULME,
Provincial Surgeon.Thomas Dick, Esq.,
Chairman of Commission, &c., &c.,

(Letter No. 16.)

Dunedin Hospital, February 29th, 1864.

SIR,—

IN reply to your letter of enquiry dated February 25th, 1864, I have the honor to inform you that it is not a fact, "That Mr. Drysdale was, at the time of committing the assault upon Harman, excused by me from attending upon a Select Committee of the Provincial Council, on the score of illness;" inasmuch as Mr. Drysdale had appeared before the committee, when he was allowed the option of attending or not; the latter was chosen by him with the understanding that he should be furnished with a copy of the evidence of Harman and the nurse when it was completed. It was shortly after being furnished with a copy of the evidence, and under the excitement produced by its perusal, that accidentally meeting with Harman, he committed the assault alluded to. Mr. Drysdale at this time, had not been called upon to give his evidence, neither had he any reason to avoid appearing before the committee, nor did he require an excuse, as it was open to him at any time when he felt ill, to refuse attending. The fact of his committing an assault, is no proof that he was in a fit state to appear and give evidence. On one occasion he appeared, but there was no sitting of the committee, on another occasion of presenting himself, he was informed that no further evidence would be taken, as the investigation was postponed.

In the interval of Mr. Drysdale's first and last appearance to give evidence, he was required by the Committee, when (unknown to Mr. Drysdale) I gave a written statement, that at that time he was too ill to appear.

As the Select Committee was appointed to investigate certain alleged charges of cruelty on the lunatic patients at the Hospital, it is not likely that I mentioned the fact of an assault having been committed by Drysdale, as it was not a subject for them to deal with; and I feel I am pointing to an insinuation when I state that I had no desire to screen Mr. Drysdale. My Asylum report-book is open to all visitors, wherein will be found written—"Sept. 21st. Visited the Asylum this night at half-past eight, in consequence of a report that Mr. Drysdale had assaulted Harman, foreman of works, &c., &c."

I have the honor to be,

Sir,

Your obedient servant,

(Signed) EDWARD HULME,
Provincial Surgeon.Thomas Dick, Esq., Provincial Secretary,
Chairman of Commission on Hospital and Lunatic Asylum.

(Letter No. 17.)

Dunedin Hospital, March 3rd, 1864.

SIR,

I HAVE the honor to inform you that the number of lunatic patients in the Asylum is 34—(26 males and 8 females); in the Hospital 4 males; and in the Gaol 3 males; being a total of 41; also, 1 criminal who is a lunatic in Gaol; 2 insane who have not been informed against, in Hospital.

I have the honor to be, &c., &c.,

(Signed) EDWARD HULME, M.D.
Provincial Surgeon.

The Provincial Secretary.

*(Letter No. 18.)*Provincial Treasury,
Dunedin 9th March 1864.

SIR,

I HAVE the honor to inform you that in consequence of Dr Pelly, the Resident Surgeon of Wakatipu district Hospital, not furnishing the Committee of that Institution with a proper statement of the Hospital affairs for the months of November and December, they, the Committee, are unable to supply me with a complete return, but I am promised a statement from the Secretary previous to the 24th, together with an annual report up to that date.

I shall have one also from the Secretary of the Clyde Hospital by that time.

I have, &c., &c.,

(Signed) JOHN GILLIES.
Provincial Treasurer.

The Secretary
of the Hospital Commission.*Letter No. 19.*Belgrave Chambers,
Princes-street, 16th March, 1864.

SIR,—

I IN reply to yours of yesterday relative to Hospitals and Lunatic Asylums, I will take your questions seriatim, and offer a few suggestions which may be useful to the Commission of Enquiry; as they are obtained from the latest investigations on the subject, and from my own experience of Public Buildings of this description in England and the Colonies.

1st. Is the present site of the Dunedin Hospital in your opinion, a desirable one, or not?

The present site is not in any way desirable or suitable for a Hospital, because it is not sufficiently elevated to allow of good drainage, and a proper supply of pure air. It is in too close proximity to the noisy traffic of George-street, and is a very expensive site for the erection of a building best adapted to such a purpose; the wards of which should be kept up to, and above the level of the Octagon, which would entail the expense of an extensive basement story, and although this basement might be converted into warehouses or cellars, as was done at the new Bristol Hospital, the noise and bustle consequent thereon would be very objectionable, if not injurious to the proper and efficient treatment of the sick.

2nd. If not, will you indicate to the Commission a site or sites that you consider suitable?

A portion of the Town Belt, between the military barracks and the Robin Hood Hotel, presents some features desirable to be obtained in the selection of such a site, but I am informed is not available.

The best site, however, with which I am acquainted (and which I have visited since the receipt of your letter), is a part of Dr. Purdie's property, between George-street and Constitution Hill, and I am of opinion that few situations round Dunedin present equal advantages, for the following reasons:—The site is comparatively level,

the area as ample as is necessary, the position elevated, and the aspect cheerful, which is greatly improved by its natural features, and the picturesque trees and shrubs growing most luxuriantly on the ground; the soil, also, being of an absorbent nature, renders this site especially suited for the purpose.

3rd. What are the conditions that you would consider specially requisite in a building for such a purpose?"

The following conditions are essentially requisite :—

A Hospital should be built on a site where it is not likely to have the air shut out by the erection of buildings, and where the population is not likely to be dense around it.

The site should admit of future additions, and be sufficiently large to prevent other buildings being erected within such a distance as shall interfere with a free circulation of air, and with quiet.

Preference should be given to a porous self-draining subsoil.

Free circulation of air under the ward floors, and as few closed angles as possible.

The wards should never exceed two flats in height.

The kitchens and offices should never be placed under the wards.

The best number of beds in a ward, for economy of construction in the first instance, and working afterwards, is 30.

The best form of ward is that with windows on each side, and one window to every two beds, in the proportion of 1 to 2 of wall space.

The width of wards should be from 24 to 30 feet, and heated with open fire-places.

Each bed should have from 1500 to 2000 cubic feet of air, although the official plan for military hospitals in the British army provides for 1200 cubic feet in temperate and 1500 in tropical climates. The most celebrated hospital in Europe, the Lariboisière, allows 1760 cubic feet to each patient.

The walls and floors of wards should be built of non-absorbent material.

Staircases must be of stone.

Hot and cold water should be laid on over the whole building.

All drains and sewers should be outside, and on no account to pass under the building.

If possible, recreation ground, well drained, with sheltered seats for convalescent patients, should be provided, and a covered verandah to wards or elsewhere, as a promenade in wet weather.

4th. What will be the approximate respective cost of such a building fitted to contain one hundred and fifty beds, in wood, brick and stone?

The approximate respective cost of a building for one hundred and fifty beds, in wood, brick and stone, would involve more time to arrive at, than I have at command at present, but I take it, that wood could not for a moment be entertained as a fitting material for the construction of an Hospital, and I am in a position to state that in consequence of the discovery of a valuable stone for building purposes at Waikouaiti, equal, if not superior, to the Tasmanian stone, the cost of building in that material will be greatly reduced as compared with brick work at the prices we have hitherto paid. I may, however, inform you that in England the average cost of Hospitals complete, including furnishing, is about £100 per patient.

The Bristol Hospital for one hundred and seventy in-patients, and, including 82,000 cubic feet of warehouses, cost £14,959, but the amount of air allowed to each patient is only 1,090 cubic feet.

The number you specify as required to be provided for, is inconvenient for architectural arrangement, and to provide a building specially for that number, would be more expensive per head, than if advantage be taken of the numbers best suited to the most economical plans, which would be 128 or 188, the lesser having the advantage over the greater number in as much as two ranges of wards would only be required in the one, and three in the other case, and a building could be more uniformly arranged with two than with three ward wings.

5th. What will be the best arrangement as regards size and position of wards and offices?

The best form of Hospital is that of the Lariboisière, but the plan is more suited to a building on a large scale.

For a limited number the offices should be in the centre building, and the wards in two wings at right angles. Another good arrangement is to place the wards on both sides ; either of these plans cannot be improved upon for, say, 130 patients.

6th. What number of cubic feet of air do you consider requisite for each patient ?

The amount of air necessary for each patient is from 1500 to 2000 feet cubic, as stated in my reply to your third question.

Should the Commission wish for further information on the subject, I shall be happy to afford them any I possess.

On another occasion I shall be glad to give the Commission information on Lunatic Asylums, having been engaged in erecting the Surrey Lunatic Asylum at Wandsworth ; and as I have made these descriptions of buildings a study, am possessed of information as to all the recent improvements.

I have &c., &c.,

W. H. CLAYTON,

Architect.

(Letter No. 20.)

Dunedin Hospital, March 17th, 1864.

SIR,

IN reply to your letter of the 14th instant, in which, as Chairman of the Commission for enquiring into the constitution and management of the Dunedin Hospital, you request me to favor the Commission with any suggestions I may have to make as to the formation and conduct of such establishments, I beg to state that I consider the subject too extensive to be confined within the compass of a letter, but that, at the same time, I shall be happy to give the fullest replies to any questions referring to points on which the Commission may be desirous of receiving information.

I have, &c., &c.,

(Signed)

ROBERT BURNS, M.R.C.S.

Thomas Dick, Esq.,
Chairman of Commission.

(Letter No. 21.)

Provincial Engineer's Department,

Dunedin, March 18th, 1864.

SIR,—

IAM in receipt of your letter of the 17th instant, calling my attention to yours of the 11th. In reply I have the honor to inform you that the subject of yours of the 11th instant has occupied my attention, but there are various points (especially regarding the proposed site) which cannot be answered hurriedly. I hope in the course of a day or two to forward the answers to your queries.

I have, &c., &c.,

(Signed,)

C. R. SWYER,

Provincial Engineer.

Thomas Dick, Esq.,
Chairman of Commission on Hospital and Lunatic Asylum.

(Letter No. 22.)

Commission of Enquiry on Hospital and Lunatic Asylum,

Dunedin, 17th March, 1864.

SIR,—

IN accordance with a resolution of the Commission of Enquiry on the Hospital and Lunatic Asylum I have the honor to submit the following queries to you, relative to the site for a Hospital at Dunedin :—

- 1st. What conditions do you consider specially requisite in such a site ?
- 2nd. Do you consider the present site a desirable one or not ?
- 3rd. If not, will you indicate to the Commission a site or sites that, in your opinion, will be suitable for the purpose ?

I may mention that it has been objected to the present site —

- 1st. That it is not sufficiently elevated to allow of good air and drainage.
- 2nd. That it is in too close proximity to the noisy traffic of George street.
- 3rd. That it is a very expensive site for the erection of such a building as would be most suitable for the purposes of a Hospital.

Will you be good enough to favor the Commission with your opinion on the above objections as early as possible ?

I have, &c., &c.,

(Signed)

THOMAS DICK,

Chairman of Commission.

Sent to Edward Hulme, Esq., M.D., and Robert Burns, Esq., M.R.C.S.,
Dunedin Hospital.

(Letter No. 23.)

Dunedin Hospital, March 18th, 1864.

SIR,

I HAVE the honor to reply to the queries contained in your communication of date 17th, March, 1864.

1st. Site for Hospital should be moderately elevated above the sea, in an open space, of easy access, and moderate distance from the centre of the city.

2nd. The present site is good in many respects, but the sections next George-street being in the hands of private persons and built on, is injurious, and renders the present site undesirable for an Hospital on an extensive scale.

3rd. For a large and permanent Hospital building, any site I should select would be objected to as being a part of the Town Belt ; there are objections to this ground, inasmuch as at present it appears too distant from the centre, and too elevated for convenience in transporting injured patients, and the attendance of the out-patients.

Regarding the objections referred to :—

1. I consider the present site sufficiently elevated for good drainage, as it is 40 feet above, and not far from the sea, which gives an ample fall for sewerage ; but the air is likely to be contaminated by reason of the objection in my answer to Query No. 2.

2. This objection I consider to be a good one.

3. The present site being near to quarries and timber yards, would be less expensive to build on than a more distant and elevated site, which would require very considerable excavation for the wings of the Hospital, if any site were selected within the Town Belt. I consider the present site too valuable, although not too expensive.

I have, &c., &c.,

EDWARD HULME, M.D.,

Provincial Surgeon.

Thomas Dick, Esq.,

Chairman of the Hospital Commission.

(Letter No. 24.)

Dunedin Hospital,

March 1st, 1864.

SIR,—

I HAVE the honor to reply to your letter of the 17th instant, wherein you submit certain queries for me to answer, respecting a site for an Hospital for Dunedin.

1st. As to the conditions specially requisite as regards site. These are in my opinion, *a*—a sufficient elevation to secure thorough drainage, *b*—isolation from surrounding buildings to admit fresh air, and *c*—central situation.

2nd. As to the desirableness of the present site. I think it very suitable, inasmuch as it combines all the previous conditions, and I cannot indicate to the Commission another site which would be superior to the present one.

With regard to the objections that have been brought against the present site, I consider that an elevation of nearly forty feet above the sea ought to secure thorough drainage, and there is free circulation of air around. With regard to the second objection, it does not appear to me to have much force. The Hospital can be built a little back from George-street, and the traffic in that part of the town is not particularly noisy. All the principal hospitals in our large towns at home are in neighbourhoods where the traffic is much more extensive. A more valid objection lies in the proximity to the Hospital of a number of wooden tenements, which, in the event of fire, would endanger the safety of the Hospital buildings.

The third objection, which refers to the expensive character of the site, I do not consider myself qualified to deal with.

I have, &c., &c.,

(Signed,)

ROBERT BURNS, M.R.C.S.

Assistant Surgeon,

Dunedin Hospital.

Thomas Dick, Esq.,

Chairman of the Dunedin Hospital Commission.

(Letter No. 25.)

Provincial Treasury,
Dunedin, 21st March, 1864.

SIR,—

I HAVE the honor to forward herewith, return of patients from the Provincial Surgeon to the end of February 1864.

I have, &c., &c.,

(Signed,)

JOHN L. GILLIES,

Provincial Treasurer.

The Chairman of the Hospital Commission.

(Letter No. 26.)

Dunedin, March 19th, 1864.

SIR,

I HAVE the honor to submit the following replies to the queries contained in your letter of the 11th instant.

1st. Is the present site of the Dunedin Hospital in your opinion a desirable one or not?

Answer: I do not consider the present site in any way suitable for an Hospital—the ground is too closely surrounded, and it is too low.

2nd. If not, will you indicate to the Commissioners what you consider the most suitable site for the purpose?

Answer: In compliance with your request, I have endeavoured to ascertain what portions of ground in Dunedin, it is probable might be obtained, and under what conditions. The accompanying plan indicates the several pieces of ground I have visited, but without troubling you with a report on each Block, I would state that No. 3, colored yellow (a Block bounded by Elm Row, Rattray Street, and Brown Street), possesses so many advantages, that it is unnecessary to discuss the remainder. Judging from the value of land in this neighbourhood, I should estimate the probable cost of the purchase of this Block would be £15,000. I have no certain data upon which to form my estimate, but I know it can be obtained, and probably for a less sum than I have named. Altogether, I do not think a more suitable site could possibly be found. It is surrounded on all sides by main streets; it is central and

elevated ; the area is three-quarters of an acre larger than the present hospital reserve, and it is probable that the present hospital site would realise more than the cost of the site I am recommending. If the Commission require any further particulars, they may be obtained from A. G. M'Combe, Esq., who is agent for the proprietor.

3rd. Will you state, approximately, the relative cost of buildings in brick, stone, or wood, for an hospital to contain 150 beds?

Answer : £10,260 in wood ; £13,420 in brick ; £20,820 in stone.

4th. On what principles do you consider that such an hospital should be constructed as regards the size and arrangement of the wards and offices ?

Answer : The building should be so designed as to allow of the freest and most uninterrupted circulation of air around every part of it-

The wards should be insulated as much as possible, and should be designed so as to afford about 1000 cubic feet of space to each patient.

Each ward should have independent means of ventilation.

It is not advisable that the wards should be larger than 56 by 22 and 15 feet high, which would accommodate 18 patients.

The first prize design for an hospital, as far as regards plan, and general arrangement, is, I consider, well suited to the requirements of this city.

I have, &c., &c.,

(Signed)

C. R. SWYER,
Provincial Engineer.

Thomas Dick, Esq.,
Chairman of Commission on Hospital and
Lunatic Asylum, &c., &c.

(Letter No. 27.)

Dunedin Hospital, March 21, 1864.

SIR,—

I HAVE the honor to apologise for the delay in answering your communication of February 12, 1864 ; the subject being so comprehensive that I have not found time to write on it. It would require that I should touch on the following subjects:—

1. Statutes ; 2. do. relating to Chaplain ; 3. do. do. Recommendation of Patients ; 4. Admission and Discharge of Patients ; 5. In-Patients ; 6. Out-Patients ; 7. Treasurer ; 8. Physicians ; 9. Surgeons ; 10. House of Resident Surgeon ; 11. Pupils of Physicians and Surgeons ; 12. do. of Resident Surgeon ; 13. Chaplain ; 14. Ministers not of the Church of England ; 15. Secretary ; 16. Matron ; 17. Surveyor ; 18. Auditor ; 19. House visitors ; 20. Visitors of Nurses and Servants ; 21. Brewer ; 22. Baker ; 23. Messenger, Porter and Assistant Porter ; 24. Dispenser ; 25. Diet Table ; 26. Table for Chairman at a General Court ; 27. do. do. at a Weekly Board ; 28. do. at Visitation of Nurses and Servants ; 29. Right of Voting ; 30. Right of Speaker ; 31. Exclusion of parties interested ; 32. Proxies ; 33. Adjournment of Meetings ; 34. Elections.

Observations on these several subjects would form a volume, and then would only partially apply to the Dunedin Hospital, which, being a Government Hospital, is managed by the head of the department and subordinate officers. In these Colonial Hospitals I consider it desirable there should be a House Committee, which would prevent vindictive accusations on the part of discharged patients and their aggrieved friends. I would call the attention of the Commission to the fact that there is in this Hospital no Gatekeeper, or efficient surrounding fence, without which a Gatekeeper would be useless. It would also be desirable to have a Matron, now that we have so many female patients, but there is at present no apartment for her. Moreover, there is urgent need of a kitchen sufficiently large for the cooking for 250 patients.

I have made a calculation of the yearly expenses of this Hospital, which amounts to £7,779. The expenses for one year of the Melbourne Hospital was £17,262. Calculating the number of their beds at 350, which I believe is the correct number, and the average number of our patients at 150, which is one and a third less, our expenses would amount to £18,151 - which is at a less rate, considering the greater price of provisions and furnishing in Dunedin than in Melbourne.

I have, &c., &c.,

EDWARD HULME, M.D.,
Provincial Surgeon.

The Chairman of the Hospital Commission.

OBSERVATIONS ON HOSPITALS AND LUNATIC ASYLUMS,

With reference to the

DUNEDIN HOSPITAL AND ASYLUM,

By E. W. ALEXANDER,

Licentiate of the Royal College of Physicians, Member of the Royal College of Surgeons, late Surgeon in her Majesty's Civil Service, &c., &c.

Hospitals in England.

Hospitals in England are entirely public charities, receiving no aid from the State. Most of the old hospitals possess endowments (one dating from the 12th century), and in some cases these are very rich. The newer institutions, however, rely almost exclusively on public support, in the form of subscriptions and donations.

Management.

These hospitals are usually managed by a Committee from the subscribers, and in some cases in addition by representatives from, or the heads of, public bodies connected with the hospital, or civic functionaries. This Committee appoints the officers and undertakes the general supervision of the institution.

Secretary.

The Secretary is invariably a paid officer. A large measure of the financial success of the hospital depends on his zeal and activity in getting subscriptions and donations, and otherwise furthering the interests of the institution.

Treasurer.

The treasurer, except in old and richly-endowed hospitals, is one of the Committee—the office being honorary.

Admission of Patients.

Admission of Patients is thus regulated. Subscribers or donors to a certain amount are entitled to recommend patients by letter, the medical officers deciding whether the case need be kept in. It is also usual for the medical officers to have the power of selecting cases from the out-patients. Cases of emergency are taken in by the resident medical officer at once.

Hospitals in India and the Colonies.

In India, some hospitals have been founded and endowed by wealthy individuals, —generally they are state institutions, and the officers are appointed and paid by the government. In some colonies the hospitals are supported partly by the government and partly by voluntary public aid. In others, especially the crown colonies, they are exclusively government institutions; the inmates, where they are capable of doing so, paying for their maintenance.

Seamen's Hospitals.

In most colonial and some foreign seaports, a charge is made for the treatment of seamen, or a deposit is taken on this account. In one or two colonies, and in some ports of the Mediterranean, seamen's hospitals are supported by a tonnage due on the shipping; no charge being then made to the patients.

French Hospitals.

In France the hospitals form part of a State Department for the relief the poor. The organisation of this department is very complete. The medical part is divided into hospitals, and a medical staff for visiting the poor at their houses. In Paris the hospitals are divided as follows :—

1st, General; 2nd, Children's; 3rd, Lying-in; 4th, for Skin Diseases; 5th, Venereal; 6th, Incurable; 7th, Convalescent. The convalescent hospitals are in the environs, they receive patients requiring change of air from the the other hospitals.

There is a resident non-medical directory in each hospital, and a central directory common to all. The great advantage of this plan is, that the hospitals and all the other benevolent institutions, are combined—they work together, and are under one system of inspection. As they are all State institutions, the officers are appointed and paid by the Government.

In these hospitals, in addition to the labouring classes, who are treated gratuitously, there are a certain number of private wards into which patients of a higher class are taken. They pay for the expense of their treatment, get rather better food and have separate rooms. This plan is found to be of great service in enabling those whose means cannot command all the advantages of a hospital, and yet are above the laboring class, to have the benefit of hospital treatment, and of the first medical and surgical skill. The want of some similar arrangement is often felt in English hospitals, which being purely charitable institutions, are only intended for the poor.

Site of a Hospital.

It is essential for the utility of a hospital that it should be placed in an accessible part of the town, and it is most desirable at the same time that it should be in good air. In addition to these points, in the selection of a site, the choice should be given to a somewhat elevated and dry locality: one possessing facilities for water supply, surface and underground drainage, with sufficient space for the buildings to stand by themselves, and to give exercising ground for the sick. All discussions relative to placing hospitals out of towns have resulted in the conclusion that such a plan would in a large measure impair their utility.

Present Site.

I do not consider that the present site of the Dunedin Hospital fulfils the most important of these conditions. The locality is not sufficiently elevated; the drainage is faulty, and thus dangerous; the air from the vicinity of other undrained buildings cannot be so pure as it is desirable to have it; and from the proximity of the large wooden building to the houses of George-street, there is danger from fire.

Drainage.

In establishing the drainage of the selected site, it would be advisable to adopt a plan for deodorizing the sewerage, so as to prevent the drainage being a source of annoyance and danger to those residing near. Methods employed under similar circumstances in England succeed perfectly.

Best Site.

The most suitable site in this town for a hospital is the ground on which the late military barracks were placed, now used for emigrants. It combines every requisite of a good site for a hospital, including water supply.

Present Buildings.

I look on the buildings forming the present hospital as very faulty. They have the defect of being scattered without arrangement, and so not being under observation. Some of the wards are small, close rooms; others larger, are also deficient in ventilation; and the best of them, where the ventilation is good, are wanting in space, being too small in all their dimensions. The proximity of the kitchens to some of the wards must heat the air in them to an unpleasant degree; and the absence of fireplaces in some wards is a drawback to their comfort, and deprives them of an efficient means of ventilation.

Stone or Brick Buildings.

In designing a hospital preference must be given to a building of brick or stone. The advantages of such structures are,—the permanent character of the building; prevention of risk from fire; massing of the wards and offices, thus giving greater facility of working; diminution of sound; and equalization of temperature.

Cubic Space in Wards of Brick or Stone Buildings.

In the wards of a hospital constructed of brick or stone the cubic space of air per bed should be not less than one thousand feet. I believe that the importance of fresh air round a patient, and free ventilation, is not so generally appreciated as it ought to be. It can scarcely be over-estimated.

Importance of Ventilation.

The most skilful medical or surgical treatment is often neutralized by the want of pure air. By crowding patients, and deficient ventilation, the air in a ward sometimes becomes so poisoned as to generate infectious diseases of a most dangerous character. It is well known to medical men engaged in hospital practice that the rest and good air of a well-ventilated ward are in some cases sufficient of themselves for the recovery of a patient.

A few facts will illustrate these assertions.

Irish Famine Fever.

During the famine fever in Ireland, the mortality in the cases treated in the open air, under hedges, was small compared with that of similar cases treated in hospitals and work-houses.

Crimean War—Balaclava—Scutari Hospital.

In the Crimean war the mortality in the wooden huts of the Castle Hospital, above Balaclava, holding from 15 to 30 patients each, was three per cent. of the cases treated; while in the crowded and low-lying hospital of Scutari, the mortality was 42 per cent! The mortality of London hospitals being from seven to ten per cent.

Peninsular Army.

In the large, over-crowded, and ill-ventilated hospitals of the Peninsular Army, the mortality was so great that they were closed, and the sick distributed in separate buildings.

Small-pox Patients.

It has been ascertained that small-pox patients treated in the open air, under sheds, have the best chance of recovery.

Edinburgh.

In the Royal Infirmary of Edinburgh, some few years since, hospital gangrene was of common occurrence in the surgical wards.

London.

The year before last the same disease occurred in several of the London hospitals, the best-ventilated hospitals escaping the infection.

Paris—Hotel Dieu.

In that great hospital, the Hôtel Dieu, situated in the heart of Paris and on the Seine, it is a matter of notoriety that important surgical operations often result in death, from the impurity of the air of the hospital. I was also personally told this by one of the surgeons of that hospital. So unhealthy is the hospital in question, that it has been decided to demolish it, and construct a better building in another part of Paris.

Lariboisière.

In Lariboisière Hospital, with which I am well acquainted, a carefully constructed building on high ground, with numerous sanitary improvements, (1760 cubic feet of air being allowed to each bed) there is no unusual mortality from operations.

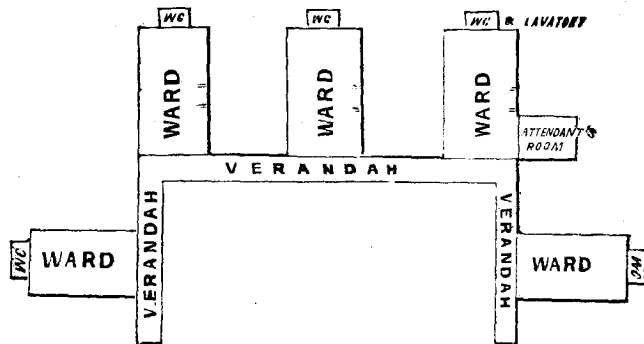
Hospital Diseases.

So disastrous are some of the hospital diseases, that wards and whole buildings have to be closed for thorough cleansing, at times. I am aware of a small hospital in London, which was recently entirely closed for two months from this cause.

Wooden Buildings.

Should the cost of a stone or brick building prove an objection, an extremely efficient hospital might readily be constructed of wood in the following manner; most of the observations being equally applicable to brick or stone buildings.

I may premise that hospital wards should be of sufficient size to contain the number of beds to which one nurse can attend; and that they should have windows on both sides. I would construct for these wards, buildings of two stories, of a size to contain two wards, one above and one below. These buildings should be placed so as to form three sides of a square, with an open space between each building, the whole being connected in front by a verandah to both stories, so as to give facility of communication, and afford a place for air and exercise to the patients. Each ward should have connected with it an attendant's room, a lavatory, and a water closet. This arrangement of the wards is similar to that of one of the most recent and best of the Parisian hospitals,—L'hôpital de Lariboisière. It is a plan suited to wooden buildings which it is desirable to detach as much as possible.



Each ward to contain fifteen beds, this being about the number one nurse can attend to in a well arranged hospital.

In calculating dimensions for fifteen beds, the estimate should be made for sixteen; the space of one bed being occupied by the fireplace.

Each bed should not be less than four feet from the next, and the end beds the same distance from the wall, thus:—

Eight beds, three feet broad, occupy	...	...	...	24 feet.
Nine interspaces, each four feet	...	...	...	36 „
Length of Ward	...	...	...	60 feet.

In measuring the breadth, the ends of the beds should be six or seven feet apart, to allow a free passage, and room for a table in the middle, thus—

Length of beds, 6 feet 6 inches	...	...	...	13 feet.
Interspace	...	...	...	7 „
Breadth of Ward	...	...	...	20 feet.

Cubic Contents

The height should be such as to allow each patient 800 cubic feet of air. In the most recently constructed Hospital in London—King's College—with which I am well acquainted, the space allowed per bed is 1000, and in some cases 1400 cubic feet. In the plan for the new country hospital at Winchester of 112 beds, 1560 feet per bed are allowed in the large wards, and more in the small. Without good ventilation, 800 feet is the amount required for a healthy individual, and below 500 is injurious. For the sick a larger volume is necessary. These figures contrast strikingly with the measurements in the wards of the present Hospital; some of which have about 550 feet per bed, others 420, the lowest being 333. Although with free currents of air, ventilation can be kept up, yet there must be times when these wards are more or less closed; and then the point must soon be reached at which the air becomes injurious; indeed the construction of some of the wards does not admit of proper ventilation. Placing the Hospital in a good atmosphere, and with the freer ventilation of wooden buildings, 800 feet would probably be sufficient.

Material for Lining Wards.

The material with which wards are lined is of considerable importance; anything to which dirt or gases can adhere, is more or less prejudicial. All rough surfaces are of this nature. The best material is a polished surface that can be readily cleansed,

without its absorbing moisture. Polished cements fulfil these conditions; they can be washed and cleaned with ease. The next best material is good lime-wash, to which a very smooth surface should be given; this can readily be replaced. The wards should, of course, be previously plastered. I do not consider paper on plaster, and still less paper on calico, as at all advisable to be used. It collects dirt, offers surface and material to which gases adhere, and cannot be cleansed.

Windows.

The windows should be small, and open laterally on hinges between each bed. A current of air is thus secured, without its coming direct on a bed, and the plan has the merit of simplicity.

Buildings of this kind, containing thirty beds, would cost, I imagine, about £700 each. In this way 150 patients would be accommodated for £3,500. The residences, kitchen, bath-rooms, laundry, and offices should be placed so as not to interfere with the view from the wards.

Furniture of a Ward.

The furniture of a ward should consist of bedsteads of iron, beds of horsehair or flax fibre, a locker beside each bed, a table in the middle of the ward, a press with shelves above for utensils, bed linen, &c., and some chairs. I consider having good beds and pillows as an important matter, both in the treatment and for the comfort of the patient. Beds of straw are often found to be harsh and uncomfortable by those who are using them; they give rise to dust, and in some severe diseases, such as fever and paralysis, in which the skin becomes insensible, they often cause large bed sores. I have myself formerly witnessed this result from their use. I am not aware of any hospital where they are used at present; hair beds are the most common, and these are exclusively used in the army hospitals. Any fouling of the beds is easily prevented by the use of india-rubber sheeting. Straw, if used at all, should be simply in a palliasso under the other bed. A couple of water-beds are a useful addition to the resources of a hospital.

I noticed in the present hospital the absence of a room for out-patients, and of bath-rooms. Baths are necessary adjuncts to a hospital, they should be made easily accessible from the wards.

Wards for Prostitutes.

In a town like Dunedin where there are so large a number of prostitutes, it is desirable to give them facilities for being cured of venereal diseases; for this purpose a separate ward is necessary, and they should not in any way mix with the other female patients. At their own homes, they become centres of infection, and to prevent their spreading disease, require to be treated in hospitals. I consider it most important in a new country to endeavour to diminish, if not to obliterate such a disease, which, becoming hereditary, causes the production of imperfect, puny, and unhealthy offspring, besides being of itself, often a disease of much severity.

Class of Cases Usually in Hospitals.

In hospitals generally none but cases of importance are taken in; and cases which can receive no further benefit from hospital treatment, are disposed of by being sent to their friends, or to some institution. Except in special cases, three months is the outside period for which a patient is retained. One third of the patients now in hospital, have been there over three months, and the proportion given as incurable, permanent, and insane, exceeds this number.

Present number of patients	...	...	155
In over three months	...	...	50
Incurable	...	51	
Permanent	...	1	
Insane	...	5	Total 57

Disposal of Patients when Incurable.

I would suggest that if possible the incurable, and slight cases with destitution, not needing hospital treatment, be provided for in some institution whose object is the relief of the destitute and infirm. The tendency of keeping such cases in the wards of a hospital, is to impair its efficiency. A hospital being a specialized institution, its arrangement and management are more costly than those of a benevolent

asylum. In a hospital these cases occupy beds, and frequently the space and air necessary to others; they take the time of expensive attendants, and from a long residence, they are disposed to infringe regulations and discipline. Should circumstances not admit of such a change, I would recommend that while retained in the hospital they should occupy special buildings, be on a different footing, and be made as much as possible to attend to themselves.

Staff.

The following is the staff I should consider requisite for a hospital of one hundred and fifty beds:—Three visiting medical officers; one resident do. do.; one dispenser; one steward; one chaplain; one matron; ten nurses; five night nurses; two cooks; one scullion; one gate porter; two general porters; one barber, (visits daily to see if he be required.)

Where male attendants are employed, and there are few female patients, the matron would probably not be required.

It may be as well to observe that in making a report, as requested by the Commission, I have confined myself chiefly to medical considerations. There are other important points, especially whether a hospital should be a government institution, or dependent to a great extent on voluntary aid. Provided that a hospital be efficient, it seems to me quite immaterial upon what foundation it rests; and its constitution in this respect, must depend so much on the circumstances and state of society at the time, that the Commission will not require medical evidence to guide them.

Lunatic Asylum.—Site.

The most suitable situation for an Asylum for the insane is near, but out of, the town. It should be placed in a large space of ground, so that gardening and dairy farming on a small scale, may be carried on.

General Treatment.

The method of treating the insane, by a combination of occupation and amusement, is so generally adopted as not to need special reference. In constructing an asylum means would naturally be provided for the employment of the patients, in the trades or occupations to which they had been accustomed, and suitable amusements would be furnished.

Present Asylum.

Regular religious services by a clergyman are found of value in the treatment of the insane. The present building can scarcely be called an asylum, in the sense of its being a place where the insane can be treated with advantage.

The necessity for further accommodation is obvious. The male side of the present building being full, having indeed more than it was constructed to contain; while there are five in the Hospital and three in the Gaol—both unsuitable places for insane people.

In the construction of an asylum outside the town, a building should be planned for the probable number now in the Province; making any additions with the increase of the population. In England, I believe, the proportion to the population is two in one thousand.* On this datum the probable number of insane in the Province would be from one hundred to one hundred and twenty. This proportion, however, represents all the deviations from sound mind, including imbeciles, and in many the deviations would be slight, not resulting in their being placed in an asylum. Again, some of the conditions producing impaired intellect do not exist here; such as inherited syphilis, opium-taking, and marriages of consanguinity. I think, considering the diminishing circumstances, the number to be provided for would be found to be between 50 and 80.

Provision for a higher Class of Patients.

Another point which seems to me worthy of consideration— is, that, at present, provision is only made for one class. It must be remembered that the only place in which insanity can be successfully treated, is in an asylum, and that however large the means of a patient may be, or whatever position he may occupy; unless he can be received into a well regulated asylum his chance of restoration is small. It would

* Or more exactly one in six hundred—(E. W. A.)

then be advisable, in forming an asylum, to provide for this contingency, and take measures for the reception of those whose means would allow them to defray any cost of treatment. To mix indiscriminately, men or women holding good positions, with the insane poor, would be revolting to the feelings of the friends, and detrimental to the recovery of the former class.

I may remark, that in planning a building, the experience of those attendants who have been in good asylums, in England or Scotland, would be of value.

Dunedin, 24th February, 1864.

SIR,

IN reply to your letter of the 12th instant, requesting me to furnish the Hospital Commission with suggestions for the formation and management of hospitals and asylums, I have much pleasure in now forwarding for the use of the Commission a report, the result of my experience of such institutions.

I have the honor to be,

Sir,

Your obedient servant,

(Signed) E. W. ALEXANDER.

Thomas Dick, Esq.,
Chairman of the Hospital Commission,
Dunedin.

DR. CUSACK'S REPLY TO THE COMMISSION

UPON

HOSPITALS AND LUNATIC ASYLUMS.

Nelson, New Zealand, March 10th, 1864.

SIR,

IN reply to your letter of the 12th ult., I have drawn up the annexed memorandum on Colonial Hospitals and Asylums.

Your letter does not specify any point on which you desire special information, but the subject on which a medical man is most competent to offer suggestions, is that which refers to the respective obligations of the profession and the public. I have, therefore, devoted the greater part of the memorandum to it. As an impartial stranger, living far enough away from you to be utterly disinterested, whose advice has been sought, I have felt it my duty to indicate to the Commission how—by liberality and consideration for the feelings of their medical men, and by encouraging the pursuit of medicine as a science rather than a trade they may secure for themselves and their fellow-citizens, as well as the inmates of their Hospital, the services of as good practitioners as Europe can produce. As a former Hospital Surgeon, and Lecturer on Anatomy and Surgery to the students of our profession, and now a fellow-colonist enjoying a large share of public confidence in his own Province, I have felt called upon to indicate to those of my professional brethren who may be appointed to these posts, how—if the Commission is in a position to afford them the facilities for professional improvement I have pointed out, and which a Hospital providing for a population such as that of Otago offers—they on their part (for we are all students as well as practitioners to the end of our days) will have the same advantages as the majority of English Hospital Physicians and Surgeons, and if they avail themselves of them, need be behind none in professional acquirements.

I hope this memorandum will convey some of the information you desire, and I shall be happy to answer any further questions.

I have, &c., &c.,

Your obedient servant,

S. A. CUSACK, M.B., London, F.R.C.S.I.

Formerly Lecturer on Anatomy and Surgery to Stevens' Hospital, Dublin.

Thomas Dick, Esq., Provincial Secretary, Otago,
(Chairman of Commission.)

MEMORANDUM ON THE CONSTITUTION AND MANAGEMENT OF
COLONIAL HOSPITALS AND LUNATIC ASYLUMS.*Hospital.*

In dealing with this question the following points present themselves for consideration: 1st, site; 2nd, support; 3rd, control; 4th, relation to (A) patients, (B) the public, (C) the medical profession.

Selection of site will probably have already been made; if there be a choice, it should be near the manufacturing and shipping districts, to diminish the distance over which accidents may require to be carried; for this end a general hospital may be in the centre of a town, and if it have well-ventilated wards, providing not less than 1,500 cubic feet of air for each bed, the segregation of fever cases is unnecessary, the continued fevers of this country, being scarcely, if at all, contagious (true typhus not having been seen in this hemisphere).

In old states, hospitals are mostly supported by private charity, or by property derived from the suppression of monasteries, and bequests, which, in the lapse of time have become valuable; and this provision meets the wants of the working classes in such countries, whose wages, when in health, are but sufficient to provide for existing wants, without making any reserve for sickness.

In these countries no such funds exist, and it is doubtful whether private charity can be enlisted on behalf of laborers and artisans earning from 8s. to 15s. a day; the state would probably have to provide for such of them as require hospital treatment.

Control.

In England the old foundations are governed by a corporation, which represents the original trust; the new ones, by a committee elected by subscribers. The management of any hospital, must be to some extent, under the control of the source from which it derives its revenue; if that source be the state, the Executive would probably delegate its authority to a committee of citizens free from political bias, containing men of a benevolent disposition, men of business habits, representatives of the Government, and of the medical profession.

Relation to Patients.

Habits of economy and self-reliance should be encouraged among the working classes; and the supervision of benefit societies by the state, is, in every sense, an act of political economy; but there will always be cases of emergency, unexpected destitution, strangers, those able to sign a guarantee of future payment of expenses, but, in immediate necessity; and patients whose disease or injury requires that higher degree of skill and experience which every medical man of average ability acquires by attachment to a hospital.

Relation to the Public.

That superior skill which is provided gratuitously for the working classes, will be available for payment to the affluent, who, as well as the needy, are liable to disease of an obscure nature; requiring for its diagnosis, that tact and experience which practice only confers. Any member of the community may require the extraction of a stone from the bladder, or a cataract from the eye, or the deligation of an important artery. It is, therefore, the interest of the public, which looks to Hospital Physicians and Surgeons for these, to take care that the appointments are given to the best men procurable. Men of the highest attainments do not, as a rule, come out to the Colonies; but the experience of a Colonial Hospital should make men of industry, and anything above the average in ability, accomplished Physicians and Surgeons.

Relation to the Profession.

Hospital appointments are valued by medical men, either for the salary attached to them, or for the honor and experience which they confer. In England the medical staff are seldom directly paid, but their collateral payment from apprentices, dressers, and pupils, is often considerable. In this country these sources of payment do not exist, and the Hospitals deriving support from the State have no claim for gratuitous medical services, as compared with private charitable institutions, in which gratuitous medical attendance is generally fully accorded by the profession. If, however, a Resident Surgeon or Apothecary be provided—to attend to details, and so lighten the duties of the visiting medical men—their payment need only be nominal; that is, nominal as compared with the service which an accomplished Physician or Surgeon in this capacity renders. Whatever be the emolument, Colonial Hospitals should be objects of honorable ambition in the profession, if the governors invite competition for them, enquire well into the merits and qualifications of candidates, and confer them without regard to private or political ends or interest; and it should be the aim of those appointed, by reading the medical literature of the day, by studying pathology and anatomy as opportunity offers, by keeping a careful record of the history and treatment of cases, for the purpose of acquiring habits of exact thought and observation, to avail themselves to the fullest extent of the opportunities placed within reach. At the present day, when for £20 per annum any colonial practitioner may have a library such as was not available to any London Physician or Surgeon a generation back, by availing himself in the manner indicated above, of the experience acquired by the care of 40 and 50 hospital patients, he may make himself the equal of any London Hospital physician or surgeon.

In medicine, as in other matters, the division of labor is good, and in sufficiently large communities, the private consulting practice divides itself into medicine, surgery and obstetrics, the ordinary family practice remaining, however, in the hands of general practitioners. Until a colony or city is sufficiently populous to afford occupation to practitioners in each separate department in private, the medical staff of the Hospital, should be like the surgeons in Her Majesty's Army, general practitioners; but as soon as is practicable, the division of the Hospital duties among physicians and surgeons will elevate the standard of professional acquirements out of doors as well as in the Hospital. The distinction between medical and surgical cases is, to some extent, artificial, and in English Hospitals about one-third of the beds are allotted to the former, and two thirds to the latter cases; the charge of the out patients, regulation of diet, compounding of medicine, and attending to accidents in the absence of the Visiting Officer, being the duty of the Resident Surgeon or Apothecary.

Lunatic Asylum.

The question of the establishment of a General Asylum was, a few years ago, under the consideration of the Legislature. Unfortunately a political element was introduced, and terminated the matter. In the management of these establishments, doubtless, centralization and economy go together, but against this must be set down, the cost and trouble of removing lunatics from, and convalescents to their homes, and the facility of being visited by their friends in local Asylums. Lunatic Asylums should be as much like private houses as possible, the appearance of restraint and coercion being sedulously avoided. Medical men who have had much to do with lunatics, know that little can be done by medicine for their cure, much by cheerful rooms and quarters, absence of unnecessary restraint, and the substitution of healthy and moderate employment of mind and body, for care and business. Common sense and good temper are the chief qualifications needed in the manager of such an asylum. If on a small scale, and space be available, it might be attached to the Hospital, and under the care of the same medical staff and apothecary. If on a large scale, better gardens and grounds could be procured at a short distance from town, but the service of a competent medical superintendent must be obtained and secured by a liberal salary.

(Signed) S. A. CUSACK.

R E P O R T
OF THE
WYE HOUSE LUNATIC ASYLUM,
Brixton, Derbyshire, for the Year 1863.

BY THOMAS DICKSON, RESIDENT PHYSICIAN.

SINCE the opening of this Institution, in June, 1862, thirty-four patients have been admitted; of this number eighteen have been discharged, leaving at this date seventeen patients resident.

This statement does not, however, convey an adequate idea of the curative results obtained; an analysis of the condition of the thirty-four patients admitted, shows that eleven of them when admitted were in such an advanced state of disease as to afford little hope of their recovery; while the remaining twenty-three having been admitted within twelve months from the commencement of the attack, it is out of this class only that the cures have been effected, and the results show the recoveries to be 60·20 per cent. on the number of those admitted; or deducting those remaining and still under treatment 85·10 per cent.

These figures add additional testimony to the fact that insanity is as curable as any other disease, if subjected to proper treatment in its earlier stages.

DUNEDIN HOSPITAL.

*Report by the Provincial Surgeon to His Honor the Superintendent, from
October 1st, 1862, to September 30th, 1863.*

Diseases.	Total in Hospital on 30th Sept., 1862.	Admitted Since.	Total.	Discharged.					Total.	Total Remaining in the Book.
				Cured.	Received Benefit.	Not Benefitted.	For Misconduct.	Died.		
Fevers - Typhoid ...	6	90	96	70	...	...	...	11	81	15
Inflammatory Diseases ...	25	303	328	228	35	4	1	20	288	40
Affections of the Head ...	...	11	11	1	3	...	...	2	6	5
Disorders of the Nerves ...	5	42	47	36	4	2	2	3	47	...
Disorders incidental to females ...	...	4	4	1	1	...	1	...	3	1
Dropsy ...	...	2	2	1	...	...	...	...	1	1
Disorders of the Bowels ...	10	58	68	49	5	...	1	3	58	10
Diseases of Children ...	...	...	...	...	...	...	...	...	...	...
Diseases of the Heart ...	...	38	38	2	14	...	...	13	29	9
Consumption... ...	2	45	47	...	26	1	...	14	41	6
Scrofula ...	1	2	3	1	...	...	...	...	1	2
Diseases of the Skin ...	1	67	68	54	...	...	1	...	55	13
Surgical Cases ...	24	195	219	149	33	4	4	1	191	28
Accidents ...	12	140	152	126	5	1	...	3	135	17
Lying-in Hospital ...	...	11	11	8	...	...	...	...	8	3
Lunacy ...	12	25	37	15	13	3	...	3	34	3
Grand Total ...	98	1033	1131	741	135	15	10	73	978	153

(Signed,)

EDWARD HULME,

Provincial Surgeon.

DUNEDIN HOSPITAL.

Dimensions of Wards, Cubical Contents, and Space Allotted to each Patient.

Length of Ward.		Breadth of Ward.		Height of Ward.		Contents of Wards.	Number of Beds.	Space allowed each patient.	No. of Ward.	
ft.	in.	ft.	in.	ft.	in.						cubic feet	cubic feet
28	2	12	2	9	9	3339 · 55	7	477 · 07	1	Centre Wooden Building.
19	9	12	0	9	6	2251 · 05	4	562 · 87	2	Lunatic Male Ward.
16	0	13	2	8	7	1808	5	361 · 6	3	Lunatic Female Ward.
18	7	12	0	9	8	2155	5	431 · 0	4	Sick Ward for Females.
31	7	19	10	11	6	7203 · 58	13	554 · 12	5	Stone Building, Male Ward.
39	6	17	3	8	6	5798 · 05	16	362 · 4	6	Front Wooden Building.
39	6	17	3	9	6	6480	16	405 · 7	7	Male Ward.
39	0	19	0	9	0	6669	17	333 · 47	8	Back Wooden Building.
39	0	19	0	9	0	6669	16	416 · 5	9	Do. do.
25	7½	20	6	9	9	5121 · 75	12	426 · 81	10	Ground Floor, three story wood building, Male Wards.
25	7½	20	6	9	9	5121 · 75	12	426 · 81	11	Do. do.
25	7½	20	6	9	10	5165 · 05	11	469 · 06	12	First Floor.
25	7½	20	6	9	10	5165 · 05	11	469 · 06	13	Do. do.
25	7½	20	6	8	10	4640	11	421 · 72	14	Second Floor.
25	7½	20	6	8	10	4640	10	464	15	Do. do.

TEMPORARY LUNATIC ASYLUM.

Dimensions of Dormitories, Day Rooms, Cubical Contents, and Space Allotted to each Patient.

Length.	Breadth.	Height.	Contents.	No. of Beds.	Space Allotted to each Patient.	
feet	feet	ft. in.	cubic feet			
9	7	9 0	567	1	567	Dormitory.
21	17	11 6	4105 · 5	8	513 · 18	Do.
8	6	11 6	552 · 00	1	552	Do.
17	15	11 6	2932 · 05	6	488 · 75	Do.
17	15	11 6	2932 · 05	...	...	Day Room.
19	14	11 6	3059	...	...	Do.

RETURNS FROM TUAPEKA HOSPITAL.

I, ALEXANDER STEWART, do solemnly and sincerely declare that the annexed returns marked A B C D E and F, each bearing my signature, are true and faithful returns connected with the Tuapeka Goldfields' Hospital, from the 1st of January, 1863, to the 31st of December, 1863, both inclusive, and I make this solemn declaration conscientiously believing the same to be true.

(Signed)

ALEX. STEWART, M.D.,
Resident Surgeon.

Declared before me this 26th Feb., 1864.

(Signed)

EDW. CROKER, R.M.

RETURN A.

General medical report for the year 1863, for the subscribers of the Tuapeka Goldfields' Hospital

Number of patients in Hospital on the 1st January, 1863,...	17
Number admitted during the year ...	188
	205
Number of patients discharged cured during the year	163
" " " relieved ...	12
" " " who died ...	10
" " " for misconduct ...	2
	187
Number of patients remaining in Hospital on the 1st January, 1864, ...	18

Table showing the districts in which those admitted were residing previous to their admission into Hospital :—

Wetherstone's Gully ..	42
Gabriel's and Munro's ..	27
Tuapeka and its flat ...	27
Waitahuna ...	21
Mount Benger and other up-country districts	60
Others direct from Victoria, &c., &c., ...	11
	188

(Signed)

ALEX. STEWART,
Resident Surgeon.

RETURN B.

Table classifying the patients according to their ages :—

From the age of 15 to 25 ...	27
" " 25 to 35 ...	99
" " 35 to 45 ...	46
" " 45 to 70 ...	16
	188

Table showing the nationalities of the patients :—

Natives of Ireland ...	74
" England ...	45
" Scotland ...	37
" European Continent ...	16
" Wales ...	7
" America ...	4
" Australian Colonies ...	3
" Shetland ..	2
	188

Number of patients admitted since May 1st, 1863, ...	134
Number of paying patients since May 1st 1863, ...	44
Average amount received from each ...	£3 17s 10½d
Number of paying patients who have paid during the whole time they were in Hospital ...	33
Average time of each patient in hospital ...	30 days
„ cost of each for bare diet and medical comforts ...	2s. 1d.
„ cost of each per annum ...	£3 2s. 6d.

(Signed)

ALEX. STEWART,
Resident Surgeon.

RETURN C.

Number of patients admitted on subscribers' recommendations since 1st May ...	124
Number admitted by Resident Surgeon ...	10

RETURN D.

Return D, which is a medical catalogue specifying the nature of the diseases treated, and a table showing the number of accidents (in all 25), and their nature, admitted since 1st January, 1863, are here omitted, by direction of the Chairman, as not bearing on the subject.

RETURN E.

Showing the number of Employes and rate of Salaries from the 1st of May, 1863, to the 31st of December, 1863.

Alexander Stewart, Surgeon, at £350 per annum, with board and lodging.

Charles Lindsay and wife, Steward and Matron, at £150 per annum, with board and lodging.

—————, Cook, at £100 per annum, with board and lodging.

(Signed)

ALEX. STEWART,
Resident Surgeon.

RETURN F.

Table showing the Ages of Patients who died in the Hospital during the year 1863

From the age of 15 to 25 ...	1
„ „ 25 to 35 ...	4
„ „ 35 to 45 ...	3
„ „ 45 to 70 ...	2
Total ...	10

(Signed)

ALEX. STEWART,
Resident Surgeon.

I N D E X .

— 0 —

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COUNCIL PAPER.

SESSION XVIII., 1864.

MR. SWYER'S REPORT ON THE PORT CHALMERS RAILWAY.

Provincial Engineer's Department, Otago,
Dunedin, 12th May, 1864.

Frederick J. Moss, Esq.,
Chairman of the Commission on Roads and their Construction.

SIR,—

I have the honor to forward herewith plans, sections, and estimates for a line of railway between Dunedin and Port Chalmers.

In my letter of the 7th March last, I stated that having made a careful eye survey of the coast line between Dunedin and Port Chalmers, I had been inclined to alter the line originally laid down in red on the plan submitted on the 1st March last, and to substitute a line colored blue. I also stated that my next step would be to take an accurate section over the blue line.

I have now to place before you the results of further surveys, sections and soundings.

The longitudinal section gives an unusually easy line as regards gradients—the greater portion being perfectly level. Out of the total length of 8 miles 9 chains, 60 chains are on a gradient of 1 in 100. The remaining 7 miles 29 chains are level.

The direction of the line is guided by the inequalities of the coast line—advantage being taken of the numerous small promontories to obtain material to form the embankments across the corresponding small bays.

By reference to item No. 3, page 5, it will be seen that I have estimated the quantity of earthwork to form the railway, entirely from the embankments required. My reasons for adopting this somewhat unusual course are—that the embankments comprise a fixed and known quantity, and the cuttings, from the peculiar nature of the ground, can be made to afford either more or less material as may be found requisite to form the embankments. On the section the depths of the cuttings are shown to be in some cases as much as 73 feet. A deviation of a few feet would reduce the depth of cutting from 73 feet to 40 feet or 20 feet; in fact, whatever is wanted. I may further remark that the nature of the material in the cuttings is such, that the sides will in many places stand perpendicularly, affording, as well as the material for the banks, pitching and ballast, &c. It will be seen, therefore, that the quantity of earthwork necessary to form the embankments is a fixed quantity, and consequently so far rules the estimate. The total quantity of earthwork in the embankments is 535,505 cube yards, which, at 2s shillings per yard, amounts to the sum of £53,550, 10s. The slopes of the embankments exposed to the action of the waves, it is proposed to cover with 12-inch bluestone pitching. The pitching is carried up to the level of the rails, and thus confines the ballast, and prevents it from being washed by the spray. A section of the embankment, showing the slopes, pitching, and ballasting, &c., is shown by fig. 7 on the plan. The quantity of pitching required to protect the face of the embankments will be 75,574 superficial yards, which, at 4s. per superficial yard, equals £15,114 16s.

Wherever an embankment crosses a bay of considerable extent, one or more openings are left, in order that the tide may ebb and flow as usual, and thus preserve any advantages which may be derived from a water frontage, and avoid the necessity for culverts to carry off inland drainage, which would be found necessary if the embankments were carried across the bays without leaving openings. In most cases, 7 openings of 10 feet each will be sufficient—vide figs. 9, 10, and 11 on the plan. At the crossing of the larger bays, as Pilichet and Sawyer's Bays, openings of 200 feet are provided for. The timber bridging or gearing is all of the same character, and composed of timber which is readily found along, or near, to the line of railway.

The total quantity is 545 lineal yards, amounting, at £28 6s. per yard to £15,423 10s.

The fencing proposed for the line is the ordinary fence—viz., manuka posts, and four goa poles. For the greater portion of the line, it will only be necessary to fence the upper side of the cuttings. The embankments being in the water will not require fencing. The total amount of fencing requisite will be about 5000 lineal yards, at 2s. per yard, equal £500.

The side drains mentioned in the estimate at item No. 7, page 7, are catch-water drains cut on the upper side of the cuttings, in order to intercept the flow of the surface water and prevent it running into the cuttings. The cost of these drains is estimated at £250.

At several points along the line it will be found necessary to introduce level crossings and gates. There are one or two fixed points which will certainly require level crossings, and I contemplate others, which I do not think it would be prudent to indicate at present. Six crossings have been assumed in the estimate, which, at £200 each, equal £1200. A plan and elevation of a level crossing and gates is shewn by figs. 12 and 13 on the plan.

In many places, especially where level crossings are constructed, the continuation of the surface drainage will render essential the use of earthenware pipes. 1000 lineal feet have been estimated for, at a cost of £300.

The works, comprising the substructure of the railway, have so far been estimated for a double line of railway. I do not think it would be advisable in the first instance to ballast the line or lay down the permanent rails for more than a single line, excepting at the several stations, and on the pier at Port Chalmers. A single line would admit easily of six trains being run each way in 12 hours, and it is probable that for some time such a number of trains would be sufficient. At any rate, the cutting, embanking, and bridging, having already been constructed for a double line, the addition of the second line of rails, and the necessary ballasting, could be accomplished in a few days at the extra cost of £29,599.

The ballast for the line can be procured from the various cuttings. One foot below the sleepers to be composed of 2½-inch broken metal, upon which the sleepers and rails, &c., are laid, the whole being then boxed or filled in with gravel, or fine clean quarry refuse. The quantity of ballast requisite for a single line would be 28,160 cube yards, which, at 4s. 6d. per cube yard, amounts to £6336. The quantity required for a double line is 55,146 c. yards, or £12,407, 14s.

It is perhaps needless for me to state that very much of the economy of working a line of railway depends upon the nature of the ballast. If this item be neglected, the best permanent way deteriorates in a very short time; on the contrary, a very inferior description of permanent way will answer satisfactorily for a long period, with a thoroughly good and well-drained foundation.

The description of permanent way proposed, is that known as the double-headed 75 lbs. per lineal yard rail, fixed in cast-iron chairs, fish-jointed, and the chairs secured to cross sleepers. This permanent way has been found after long experience to be the best and cheapest. The sleepers could be obtained along the line of railway. A cross section, plan, and elevation of a single line of rails, showing formation, ballasting, sleepers, chairs, and rails will be found on a large scale at the left hand side of the plan. The estimated cost of a single line according to the foregoing description is £22,117, 6s. 8d.; of a double line £44,234, 13s. 4d.

As will be seen from the plan, the line of railway crosses the entrance of Sawyer's Bay. This direction was found to be the shortest, and the water of less depth than further in the bay. After crossing the bay, the line skirts the eastern shore of the Peninsula, until it arrives at the terminus. From this point it is proposed to commence the deep water jetty in connection with the railway. The soundings shown on the plan are taken from the Admiralty Chart, and are consequently assumed to be correct, and it will be seen that the point at which it is proposed to commence the jetty, is the only one where deep water (viz., 22 feet at low water) can be obtained within a reasonable distance. At 270 feet from high water mark, a depth of 22 feet of water is found, and thence in a northerly direction a comparatively regular depth is obtained. A jetty, therefore, may be constructed in this direction without any limit, excepting the requirements of the Port. In order to arrive at the same depth of water from the end of George Street, Port Chalmers, a jetty, 1650 feet in length would have to be constructed, and the direction of such a jetty would not be advantageous for the berthing of large vessels.

For the present, I have assumed that a pier 600 feet in length and 73 feet wide would be sufficient. The pier would be provided with four lines of rails, viz., two for the up and down, or through lines, and two for loading and discharging goods, on either side of the pier. Two platforms, each 150 feet long and 12 feet wide, to be constructed for the accommodation of such passengers who, arriving by steamer or ship, wish to pass at once to Dunedin, or from Dunedin at once to their respective vessels. A space of 150 feet at the end to be appropriated for the convenience of passengers and their luggage, &c. On this space it is also proposed to erect a building, the lower portion of which would be occupied by a booking office, and waiting rooms, &c.; the second floor as a look-out station for the jetty keeper and the police, the upper portion to have a powerful light, clock, and bell. The end of the pier to be finished with a bold flight of steps to accommodate boats at all stages of the tides. My estimate in detail for the whole of the works, as above described, will be found under item 12, page 8 in the estimates attached, amounting to £21,425 7s. 1d.

I would take this opportunity of stating that, supposing a pier to be made as I have described, there could not possibly be a finer site for the construction of a Patent Graving Dock than on the western side of the railway pier. Large vessels could be brought alongside the pier, discharged, and placed immediately on the pontoons—a means of access being provided from the railway pier to the platform around the hydrostatic lifts. A number of vessels might be thus accommodated, the shallowing water from the pier westward offering every facility for the location of ships on the pontoons after leaving the lifts.

The system of Graving Docks proposed to be adopted, is known as Clark's Patent, and it is chiefly through my acquaintance with Mr. Morel, a pupil of Mr. Clark, that I have been put in possession of the latest improvements in this beautiful contrivance. Mr. Morel is at present Chief Assistant Engineer in the Road Engineer's Department, and I would recommend that the Commissioners examine Mr. Morel personally on this subject, which, without doubt, is one of the most vital consequence to the interests of the Port. With a thoroughly good deep water jetty, and a Patent Graving Dock, Port Chalmers could never be surpassed as a commercial harbor.

The stations on this line would, I imagine, for some time be limited to three, viz., at Dunedin, at about 2 miles 40 chains, and at Port Chalmers. The station at Dunedin would be formed on a part of the reclaimed ground, and a portion tinted red on the plan shews the site in my opinion the best adapted for the Dunedin Terminus of the Port Chalmers Railway, and also for a general central terminus. The terminus at Port Chalmers would be at or near the commencement of the jetty. The passenger platforms already described in connection with the jetty being intended merely to offer facilities for sea going passengers.

Although there is little, if any, land at present available at Port Chalmers for station purposes, still there will be no difficulty in reclaiming any quantity that may be desired; and if it should be found that the commencement of the pier is inconveniently distant from the more business part of the town, it would be a very simple matter to run a short branch along the shore to any point required. By reference to item 13, page 9, it will be seen that the cost of the various buildings and appliances for the Dunedin station amounts to £7092. A similar sum would be required for Port Chalmers, and for the intermediate station £1919, making a total of £16,103 for stations.

The rolling stock comprised in item 14, page 10, is, I consider, the smallest that could with safety be calculated upon. It must be borne in mind that an average of one third of the rolling stock is undergoing repairs to a greater or less extent, so that only two-thirds of the stock enumerated, should be calculated upon as being in running order. The sum of £14,620 would be required for this item.

This, with the exception of land and compensation, which I am not in a position to estimate, makes the total cost (including supervision) of the railway between Dunedin and Port Chalmers as follows:—

- 1st. For a double line of railway throughout, including pier, £204,886. Vide Abstract page 4.
- 2nd. For a double line of works, and single line of rails, excepting at the stations, and at the pier at Port Chalmers, £175,287. Vide Abstract page 5.

It has been thought probable that were a road constructed alongside the Railway, between the north side of Pelichet Bay and the South side of Sawyer's Bay, the traffic on the line would be materially increased, and that land owners having thus afforded to them an easy means of access to the station, would be induced to treat on much more favourable terms, respecting the land required for the railway. Fig. 8 on the plan shows how a roadway, 20 feet in width, might be made alongside the line. The total length would be 5 miles 22 chains, and the cost £21,054 12s.

There is no doubt that at some future time such a road will be indispensable, but it is questionable if so large a sum would be profitably spent at present.

The quantity of Land required for the railway, in this distance, viz., 5 miles 22 chains, could not exceed 30 acres. Allowing £50 an acre as an outside valuation, the total would be £1500, as against £21,054 12s. for a roadway. The particulars of the Estimate for the Road will be found at page 10.

In concluding this report I may remark that although every care has been taken to make this preliminary survey as reliable as possible, there yet remains a great deal to be done before a contract could be entered into for the carrying out of the works in the usual manner. The line would have to be accurately re-surveyed, and a book of reference prepared; the centre line truly staked out; a working longitudinal section taken, with cross sections at every 100 feet along the line; working drawings of the bridges, viaducts, pier, and stations, and specifications for the whole of the works prepared. There are however contracting firms who would undertake to carry out the works to a satisfactory completion, without further data than I now furnish.

I have the honor to be,

Sir,

Your obedient Servant,

C. R. SWYER, C. E.

Provincial Engineer.

DUNEDIN AND PORT CHALMERS RAILWAY.

Total length from south side of Stuart-street, Dunedin, to end of pier Port Chalmers, 8 miles 9 chains 2 yards.

Estimate for Double Line.

No.		£	s.	d.
3.	Earthwork in embankments 535,505 c. yds. at 2s	53,550	10	0
4.	12" Pitching to sea face of do., 75,574 s. yds. at 4s	15,114	16	0
5.	Timber bridging in do., 545 l. yds. at £28 6s... ..	15,423	10	0
6.	Fencing, say 5000 l. yds. at 2s... ..	500	0	0
7.	Side drains, say 5000 l. yds. at 1s.	250	0	0
8.	Level crossings and gates, say 6, each £200	1,200	0	0
9.	Earthenware pipes, say 1000 l. feet at 6s	300	0	0

No.		£	s.	d.
10.	Ballasting, 55,146 c. yds. at 4s 6d	12,407	14	0
11.	Permanent Way, 14,080 l. yds. at £3 2s 10d....	44,234	13	4
12.	Pier at Port Chalmers	21,425	7	1
13.	Stations	16,103	0	0
14.	Rolling stock	14,620	0	0
		<u>£195,129</u>	<u>10</u>	<u>5</u>
	Supervision, 5 per cent., say	9,756	9	7
	Total	£204,886	0	0

(2.)

DUNEDIN AND PORT CHALMERS RAILWAY.

Total length from south side of Stuart-street, Dunedin, to end of Pier, Port Chalmers ;
8 miles 9 chains 2 yards.

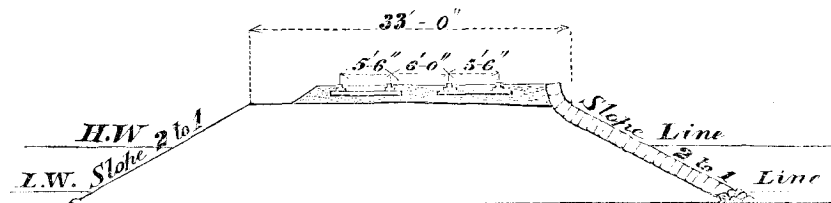
Estimate for Double Line of Works, and Single Line of Permanent Way, excepting
at Stations, and on the Pier at Port Chalmers.

No.		£	s.	d.
3.	Earthwork in embankments, 535,505 c. yds. at 2s	53,550	10	0
4.	12" Pitching to sea face of do., 75,574 s. yds. at 4s	15,114	16	0
5.	Timber bridging in do., 545 l. yds. at £28 6s.	15,423	10	0
6.	Fencing, say 5,000 l. yds. at 2s	500	0	0
7.	Side drains, say 5000 l. yds at 1s.	250	0	0
8.	Level crossings and gates, say 6 each at £200	1,200	0	0
9.	Earthenware pipes, say 1000 l. feet at 6s	300	0	0
10.	Ballasting, single line, 28,160 c. yards at 4s 6d.	6,336	0	0
11.	Permanent Way, do. do. 14,080 l. yds. at £1 11s 5d ..	22,117	6	8
12.	Pier at Port Chalmers	21,425	7	1
13.	Stations... ..	16,103	0	0
14.	Rolling Stock	14,620	0	0
		<u>£166,940</u>	<u>9</u>	<u>9</u>
	Supervision, 5 per cent., say	8,346	10	3
	Total	£175,287	0	0

(3.)

ABSTRACT OF EARTHWORKS IN EMBANKMENTS.

Top width of bank 33 feet, slopes 2 to 1, pitching to sea face 12 inches deep.



Bank No.		Cube Yards.
1	68813	
2	30765	''
3	3999	''
4	34629	''
5	4028	''
6	153	''
7	7146	''
8	7111	''
9	1522	''

Bank No.	10	1678	Cubic Yards,
"	11	41596	"
"	12	37924	"
"	13	40914	"
"	14	10188	"
"	15	2331	"
"	16	16899	"
"	17	7051	"
"	18	26083	"
"	19	30514	"
"	20	66666	"
"	21	35990	"
"	22	55660	"
"	23	3837	"

535,505 cube yards at 2s £53,550 10s.

(4.)

ABSTRACT OF PITCHING TO SLOPES OF EMBANKMENTS.

Bank No.	1	12246	Square Yards.
"	2	4239	"
"	3	669	"
"	4	5856	"
"	5	1192	"
"	6	72	"
"	7	1139	"
"	8	979	"
"	9	337	"
"	10	310	"
"	11	4583	"
"	12	4438	"
"	13	4718	"
"	14	1586	"
"	15	509	"
"	16	1992	"
"	17	1785	"
"	18	3809	"
"	19	4351	"
"	20	8663	"
"	21	4902	"
"	22	5739	"
"	23	1460	"

75,574 square yards, at 4s., £15,114 16s. 0d

(5.)

ABSTRACT OF TIMBER GEARINGS IN BANKS.

Detailed quantities of Material in one Bay of 10 feet from centre to centre, taken at 15 feet to Ground.

Piles, including charring and driving, 132 l. ft. at 4s	26	8	0
Timber in beams walings, braces, &c. 154 c. ft. at 3s 6d	26	19	0
Do. in 3" planking, 2 layers 150 c. ft. at 3s 6d	26	5	0
Wrought iron 320 lbs. at 7d	9	6	8
Tarring 2 coats 215 s. yds. at 6d	5	7	6

£94 6 2

£94 $\frac{6}{31}$ 2 = say £28 6s 0d. per lineal yard.

In Bank No.		m.	chs.	lks.		
	1	at	0	5	50	17 $\frac{1}{6}$ lineal yds.
"	1	"	0	67	50	67 $\frac{1}{6}$ "
"	2	"	1	23	0	23 $\frac{5}{6}$ "
"	4	"	1	68	50	20 $\frac{1}{2}$ "
"	5	"	2	31	50	37 $\frac{1}{6}$ "
"	11	"	3	37	50	23 $\frac{5}{6}$ "
"	12	"	3	72	0	23 $\frac{5}{6}$ "
"	13	"	4	38	0	27 $\frac{1}{6}$ "
"	17	"	5	22	50	20 $\frac{1}{2}$ "
"	18	"	5	39	0	23 $\frac{5}{6}$ "
"	19	"	5	74	50	23 $\frac{5}{6}$ "
"	20	"	6	34	30	67 $\frac{1}{6}$ "
"	20	"	6	68	50	67 $\frac{1}{6}$ "
"	21	"	7	10	10	50 $\frac{1}{2}$ "
"	22	"	7	56	0	50 $\frac{1}{2}$ "

Say 545 lineal yds, at £28 6s, £15,423 10

(6.)

Fencing.

Four rails split fence, one side of cuttings only. Posts to be of split Manuka, or Black Pine, 9 ft. apart, 4 ft. 6 in. above the ground; each panel to have 4 rails of Goa, Red Pine, or Birch, say 5000 lineal yards at 2s £500 0 0

(7.)

Side Drains.

One side of Cuttings only, as per sketch, say 500 lineal yards at 1s £250 0 0

(8.)

Level Crossings and Gates.

It is presumed that six sets of Level Crossings and Gates will be required, but it would not be judicious at present to fix their positions.

Six at £200 £1200 0 0

(9.)

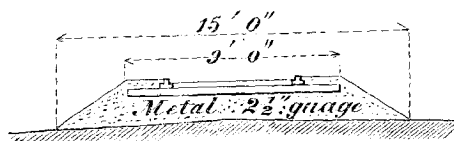
Earthenware Pipes.

Drains will in various cases be required, as under level crossings, &c. &c., to connect the water tables of the formation of the railway. 1000 lineal feet is the least quantity that can be calculated upon.

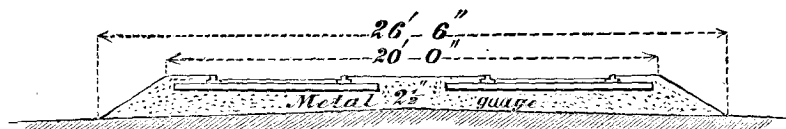
1000 lineal feet at 6s £300 0 0

(10.)

Ballasting.



Single Line.



Double Line.

One foot of 2 $\frac{1}{2}$ -inch broken metal, upon which the sleepers are placed and which are then boxed in with gravel.

For a double line, 55,146 c. yards at 4s 6d £12,407 14 0

For a single line, 28,160 c. yards at 4s 6d 6,336 0 0

(11.)

PERMANENT WAY.

For the Main Line it is proposed to use double headed rails, 75 lbs. per lineal yard, fish jointed, with plates 18 inches by 3 inches by $\frac{3}{4}$ of an inch, and wrought iron bolts $\frac{3}{4}$ of an inch or $\frac{7}{8}$ of an inch in diameter, oval holes in plates, cast iron chairs 35 lbs. each, fastened with compressed oak keys and trenails.

For the Pier at Port Chalmers, single headed rails, 75 lbs. per yard, with broad flange, instead of chairs, secured to planking with compressed oak trenails.

Rails, 75 lbs. per lineal yard, including fish joints, bolts, &c., 1760 x 2 x 75, say 118 tons, at £12	£1,416	0	0
Chairs, 35 lbs. each, 55 tons, at £9 10s.	522	10	0
Keys, 3520, each 2½d,	29	6	8
Trenails, 7040, each 1d.	44	0	0
Rail laying, 1760 lineal yards, at 2s. 6c.	220	0	0
Sleepers, 9'0" x 10" x 5", 1,760, each 5s. 6d.	528	0	0
Per Mile Forward	£2,759	16	8
£2,759 16s. 8d. x 2 = £5,519 13s. 4d. per mile for a double line.			
£ ^{2,759 16s. 8d.} _{1,760} = say £1 11s. 5d. per lineal yard, single line.			
£3 2s. 10d. " double line.			
Eight Miles permanent way, double line, at £3 2s. 10d. per yard	£44,234	13	4
" " single line at £1 11s. 5d. "	22,117	6	8

(12.)

PIER AT PORT CHALMERS.

600 feet long, 73' 0" wide, 14 piles and 2 fender piles in the width. The length divided into bays of 10 feet each, main beams 12' x 12", intermediate do. 12' x 6"
Provided with 4 lines of rails, 2 passenger platforms 50 yards long and 12' 0" wide, and deck house, comprising booking office, waiting rooms, &c., &c.

Detailed quantities in one bay of Pier.

Piles, including charring and driving, 600 lineal feet at 4s	120	0	0
Timber in beams, walings, braces, &c., 436 cubic feet at 3s 6d.	76	6	0
Do. in 3" planking, 2 layers, 365 cubic feet at 3s 6d	63	17	6
Wrought iron in bolts, &c., 1155 lbs at 7d	33	13	9
Tarring, 2 coats, 496 sq. yards at 6d	12	8	0
Tarring and sanding, 81 square yards at 1s	4	1	0
	£310	6	3

£310 6s 3d } = say 8s 6d per superficial foot.
say £93 1s 9d per lineal yard.

Detailed Quantities in Passenger Platform, one yard forward

Sawn timber framed, 4½ cubic feet, at 4s. 6d.	£1	0	0
" in joists, 6 x 2, 3½ cubic feet, at 4s.	0	12	6
in 3 inch planking, 9½ cubic feet, at 4s.	1	18	0
Matched and beaded boarding, 1½ inch, 19½ square feet, at 7¼d	0	11	9¼
Dressed timber in handrail, 1½ cubic feet, at 6s.	0	9	0
Painting, 3 coats, 8½ square yards, at 1s. 6d.	0	12	9
	£5	4	3¼

TOTAL ESTIMATE FOR PIER.

200 lineal yards, including piling, beams, walings, planking, &c., at £93 ls. 9d.	£18,617	19	0
100 lineal yards of passenger platforms, at £5 4s. 3¼d.	521	7	1
Deck house, including booking offices, waiting rooms, &c., &c.	816	0	0
Permanent way, 4 lines, = 600 lineal yards, at 19s. 2d.	575	0	0
Through crossings, 66 × 4, = 264 lineal yards, at 15s. 5d.	335	10	0
4 points, switches, and crossings, at £18	72	0	0
4 turntables, at £77	308	0	0
6 buffers, at £30	180	0	0
	£21,425	7	1

(13.)

STATIONS.

Terminus.

	£	s.	d.
Booking office, waiting rooms, porters' rooms, station master's, &c., say	1000	0	0
Passenger platforms, 300 lineal feet, 12ft wide, 3600 sq. ft. at 1s 6d	270	0	0
Covering over platforms and 2 lines of railway 200 ft. × 50 ft., 10,000 sq. ft. at 1s 6d	750	0	0
Carriage sheds, 102 feet × 24 feet, 2448 sq. ft. at 5s... ..	612	0	0
Engine sheds, 60 ft. × 24 ft., 1440 sq. ft. at 5s	360	0	0
Goods warehouses 60 ft. × 30 (2), 3600 sq. ft. at 10s... ..	1800	0	0
Sidings and through lines, 500 lineal yards at £1 11s 5d, say	786	0	0
Points, switches and crossings, complete, 4 at £12 + 50 per cent.	72	0	0
Turntable for engine and tender, 1 at £194 + 17 per cent.	227	0	0
12 ft. do. for ordinary carriages, 2 at £66 + 17 per cent.	154	0	0
Water tank 25 × 25 × 4 ft. 6 in., 1 at £95 + 50 per cent.	143	0	0
Water crane, 1 at £56 + 17 per cent.	66	0	0
10 ton weighing machine, 1 at... ..	180	0	0
10 ton fixed crane, 1 at £194 + 17 per cent.	227	0	0
5 ton travelling crane, 1 at £207 + 17 per cent.	250	0	0
Semaphore signal and lanterns, 1 at	75	0	0
Buffers, 4 at £30	120	0	0
	£7,092	0	0

Station at about 2 Miles 40 Chains.

Booking office, waiting rooms, porters' room, station master's, &c., say	700	0	0
Passenger platform, 300 ft. × 12 ft., 3600 sq. ft. at 1s 6d	270	0	0
Covering over platforms, 300 ft. × 12 ft., 3600 sq. ft. at 1s 6d	270	0	0
Sidings and through crossings, 300 lineal yards at £1 11s 5d	472	0	0
Points, switches and crossings	72	0	0
Semaphore signal and lanterns, 1 at	75	0	0
Buffers, 2 at £30	60	0	0
	£1919	0	0

Station at Port Chalmers.

Same as Dunedin	£7,092	0	0
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SUMMARY OF STATIONS.

1. Dunedin	7,092	0	0
2. Intermediate	1,919	0	0
3. Port Chalmers	7,092	0	0
	£16,103	0	0

(14.)

ROLLING STOCK.

3 Locomotives at £2000	...	...	...	...	...	6000	0	0
4 First Class Carriages, at L400	...	...	...	...	...	1600	0	0
8 Second Class Do. at L300	...	...	...	...	...	2400	0	0
2 Composite Do. at L350	...	...	...	...	...	700	0	0
10 Goods Waggons at L60	...	...	...	...	...	600	0	0
2 Horse Boxes, at L150	...	...	...	...	...	300	0	0
2 Carriage Trucks, at L120	...	...	...	...	...	240	0	0
2 Break and Guard Vans, at L200	...	...	...	...	...	400	0	0
14 Sheep Trucks, at L90	...	...	...	...	...	1260	0	0
14 Cattle do., at £80	...	...	...	...	...	1120	0	0
						L14,620	0	0

(15.)

Estimate of cost of Works in order to construct Carriage Road alongside Railway,
between 1 mile and 6 miles 22 chains = 5 miles 22 chains.

Fencing, 14,442 l. yds. at 2s	...	...	...	...	...	1442	4	0
Earthwork, 151,423 c. yds. at 2s	...	...	...	...	...	15142	6	0
Timber Bridging, 224 l. yds. at L14 3s	...	...	...	...	...	3169	12	0
12" Pitching, 700 s. yds. at 4s	...	...	...	...	...	140	0	0
Dry Walling, 2321 c. yds. at 10s	...	...	...	...	...	1160	0	0
						£21,054	12	0

$\frac{£21,054\ 12\ 0}{5\ m.\ 22\ ch.} = L49, 17s. 10d. \text{ per chain.}$

C. R. SWYER, C. E.

Provincial Engineer.

May 12, 1864.