

Moirell

PROVINCE OF CANTERBURY,

NEW ZEALAND.

JOURNAL OF PROCEEDINGS

OF THE

PROVINCIAL COUNCIL.

SESSION XXIII.-1865.

MAY 30th to JUNE 7th.

CHRISTCHURCH:

PRINTED UNDER THE AUTHORITY OF THE PROVINCIAL GOVERNMENT OF THE PROVINCE OF CANTERBURY,
AT THE PRESS OFFICE, CASHEL-STREET,
BY JAMES EDWARD FITZGERALD, OFFICIAL PRINTER FOR THE TIME BEING TO THE SAID GOVERNMENT.



CANTERBURY PROVINCIAL COUNCIL.

SESSION XXIII.

LIST OF MEMBERS.

Hawkes, James George	-	-	-	-	-	} City of Christchurch.
Ollivier, John	-	-	-	-	-	
Westenra, Captain Richard	-	-	-	-	-	
Turnbull, James Somerville	-	-	-	-	-	
Aynsley, Hugh Percy Murray	-	-	-	-	-	} Town of Lyttelton.
Buckley, George	-	-	-	-	-	
Hargreaves, Edward Allen	-	-	-	-	-	
Peacock, John Thomas	-	-	-	-	-	
Wilson, William	-	-	-	-	-	Town of Kaiapoi.
Beswick, Joseph	-	-	-	-	-	} Mandeville District.
Rickman, Robert	-	-	-	-	-	
Birch, Josiah	-	-	-	-	-	Rangiora District.
Cowlshaw, William Patten*	-	-	-	-	-	} Avon District.
Duncan, Thomas Smith	-	-	-	-	-	
Shand, John	-	-	-	-	-	
Templer, Edward Merson	-	-	-	-	-	
Aikman, John Campbell	-	-	-	-	-	} Heathcote District.
Moorhouse, William Sefton	-	-	-	-	-	
Rolleston, William†	-	-	-	-	-	
Clark, Charles	-	-	-	-	-	} Lincoln District.
Tosswill, William Browning	-	-	-	-	-	
Fyfe, John George	-	-	-	-	-	} Port Victoria District.
Hornbrook, Alfred	-	-	-	-	-	
Rowe, Richard	-	-	-	-	-	Town of Akaroa.
Tancred, Henry John‡	-	-	-	-	-	Wainui District.
Stoddart, Mark Pringle	-	-	-	-	-	Bays District.
White, Thomas Woollaston	-	-	-	-	-	Oxford District.
Lance, Henry Porcher	-	-	-	-	-	} Sefton District.
Maude, Thomas William	-	-	-	-	-	
Stewart, Francis Edward	-	-	-	-	-	Rakaia District.
Wilson, James Cracroft, C.B.	-	-	-	-	-	Ashburton District.
Cox, Alfred	-	-	-	-	-	Geraldine District.
Wilkin, Robert	-	-	-	-	-	Waitangi District.
Hall, John§	-	-	-	-	-	Mount Cook District.
Simms, William Henry	-	-	-	-	-	Town of Timaru.

* Provincial Solicitor.

† Provincial Secretary.

‡ Member of the Executive Council.

§ Secretary of Public Works.

LIST OF SELECT COMMITTEES

APPOINTED

DURING SESSION XXIII,

1865.

PRINTING COMMITTEE:—

Messrs. Turnbull, Maude, Tosswill, Rolleston, Hall.

LIBRARY COMMITTEE:—

Messrs. Maude, Westenra, Cracroft Wilson, Rolleston.

INDEX TO JOURNAL.

	PAGE.
ADDRESS of His Honor the Superintendent on Opening the 23rd Session of the Provincial Council	1
AUDITOR, Report of, received and read	6
BILL, Christchurch City Council Ordinance Amendment	5, 6, 7, 12
COMMITTEES, SELECT—	
Printing	5
Library	6, 7
COMMITTEE OF SUPPLY	5, 6, 7, 12, 13
MEMBERS, Notification of the Election of	1
MEMBERS, Leave of Absence Granted to	5, 6
MESSAGES from His Honor the Superintendent—	
1. Confirming the Election of John Ollivier, Esq., to be Speaker	1
2. Proroguing the Council	13
MOTIONS AND RESOLUTIONS—	
Branch Land Offices, for the Establishment of	13
Crown Lands, for Returns relating to	6
Halswell River, to be declared under the “ Water Cress Ordinance, 1864 ”	6
Little River Tramway, for Returns relating to	7
Nelson, Sergeant, that His Honor the Superintendent be respectfully requested to direct that the subject of the Petition of, be inquired into	13
Southern Railway, payment for, how to be made	5
Superintendent of Provinces, the Election of	13
Townships—Hokitika, Bruce Bay, Waimea, to be laid out for sale	6
Township Reserve—Bealey and Waimakariri Junction, to be sold by auction	13
Vote of Indemnity granted to His Honor the Superintendent for period subsequent to June 30, next	7
Waste Lands, Appropriation of, for Payment for Works	12
West Coast, Indemnity for the Maintenance of an Overland Mail to	5
West Coast, Indemnity for the Formation of a Road to	6
West Coast Gold-fields, Indemnity Granted for the Administration of	12
West Coast Telegraph, Indemnity Granted for the Establishment of	13
PAPERS AND RETURNS laid upon the Table—	
1. Copy of Contract for the Construction of the Great Southern Railway	3
2. Report upon the Otira Gorge, by Edward Dobson, C.E.	”
3. Report from Mr. George Dobson, respecting the Exploration of the Route to the West Coast <i>via</i> the Waimakariri	”
4. Correspondence and Reports upon the West Coast Road, between the Waitohi and the Hurunui Saddle	”
5. Instructions and Reports from Mr. Walter Blake respecting the West Coast Road	”
6. Reports from Mr. Thornton respecting the West Coast Road.	”

	PAGE.
7. Reports from Messrs. Harman and Browning on the Passes to the West Coast at the Head Waters of the Rakaia and the Waimakariri	3
8. Report upon the Geological Formation of the West Coast, by Dr. Haast, Provincial Geologist	"
9. Correspondence respecting the Survey of the Railway Reserve between Timaru and the Waitangi	"
10. Correspondence respecting the Advance of £5000 for obtaining a Supply of Building Stone at a reduced price	"
11. Correspondence between the Provincial Government and Mr. Balfour, Marine Engineer, Otago, on the subject of the Construction of a Breakwater or Jetty, Timaru Roadstead	"
12. Reports from Dr. Haast and Mr. Doyne, C.E., respecting Supply of Water for Timaru	"
13. Correspondence on the subject of the Establishment of a Toll Bar on the North Road, Avon district	"
14. Correspondence on the subject of the Amesbury Road	"
15. Correspondence respecting the Purchase of Christchurch Town Section No. 729, as a Site for Custom House and Post Office	"
16. Correspondence from His Honor the Superintendent to Henry Selfe Selfe, English Agent for Canterbury, from 15th October, 1864, to 15th May, 1865	"
17. Correspondence from Henry Selfe Selfe to His Honor the Superintendent, from 27th August, 1864, to 27th March, 1865	"
18. Correspondence from the Provincial Secretary to John Marshman, Immigration Agent for Canterbury, from 15th September, 1864, to 15th May, 1865	"
19. Correspondence from John Marshman to the Provincial Secretary, from 25th August, 1864, to 27th March, 1865	4
20. Gazettes, containing Acts and Appointments by His Honor the Superintendent under the Gold-fields Act, 1862	"
21. Report on the Survey from the East and West Coast <i>via</i> Weka Pass, Hurunui, and Teremakau, by Mr. John Rochfort	"
22. Copy of Circular Letters to various Road Boards	"
23. Letter of Instructions to G. S. Sale, Commissioner on the Canterbury Gold-fields	"
24. Copy of Resolutions of Public Meeting at Timaru and Arowhenua, and Correspondence relative to the Appropriation of 25 per cent. of Land Sales and Pasturage Rents to Road Boards	"
25. Offer of 26 vols. of <i>Spectator</i> , London newspaper, for the Library of the Provincial Council, by the Trustees of the Estate of Edward Jerningham Wakefield, Esq.	7
26. Copy of Report of the Port Officer upon the Rivers and Harbors of the West Coast	"
27. General Report from the Provincial Secretary upon the West Coast of the Province	"
28. Reserves to be confirmed by the Provincial Council	"
29. Correspondence in reference to the Kaiapoi Court House	"
30. Report of E. Dobson, C.E., on the progress of the Lyttelton and Christchurch Railway Tunnel Works	"
Speaker of the Provincial Council, Election of	1
Speaker of the Provincial Council, Vote of thanks to Charles Bowen, Esq., the late	4
PETITION, John Nelson	12, 13
REPLY to the Opening Address of His Honor the Superintendent	4
RESERVES confirmed	8

Schedule of Papers laid upon the Table of the Council—

Building Stone—

Correspondence respecting the Advance of £5000 for obtaining a Supply of Building Stone at a reduced price.

Geological Survey—

Report upon the Geological Formation of the West Coast by Dr. Haast, Provincial Geologist.

Gold Fields—

Gazettes, containing Acts and Appointments by his Honor the Superintendent under the "Gold-fields Act, 1862."

Letter of Instructions to G. S. Sale, Commissioner on the Canterbury Gold-field.

Immigration—

Correspondence from the Provincial Secretary to John Marshman, Immigration Agent for Canterbury, from 15th September, 1864, to 15th May, 1865.

Correspondence from John Marshman to the Provincial Secretary, from 25th August, 1864, to 27th March, 1865.

Kaiapoi Court House—

Correspondence in reference to the Kaiapoi Court House.

Library, Council—

Offer of 26 vols. of *Spectator*, London newspaper, for the Library of the Provincial Council, by the Trustees of the Estate of Edward Jerningham Wakefield, Esq.

Railway, Lyttelton and Christchurch—

Report of E. Dobson, C.E., on the Progress of the Lyttelton and Christchurch Railway Tunnel Works.

Railway, Southern—

Copy of Contract for the Construction of the Great Southern Railway.

Correspondence respecting the Survey of the Railway Reserve between Timaru and the Waitangi.

Reserves—

Reserves to be confirmed by the Provincial Council.

Road, Amesbury—

Correspondence on the subject of the Amesbury Road.

Road Boards—

Copy of Circular Letters to various Road Boards.

Copy of Resolutions of Public Meeting at Timaru and Arowhenua, and Correspondence relating to the Appropriation of 25 per cent. of Land Sales and Pasturage Rents to Road Boards.

Selfe, Henry Selfe—

Correspondence from His Honor the Superintendent to Henry Selfe Selfe, English Agent for Canterbury, from 15th October, 1864, to 15th May, 1865.

Correspondence from Henry Selfe Selfe, to his Honor the Superintendent, from 27th August, 1864, to 27th March, 1865.

Site for Custom House, &c.—

Correspondence respecting the Purchase of Christchurch Town Section No. 729, as a Site for Custom House and Post Office.

Timaru—

Correspondence between the Provincial Government and Mr. Balfour, Marine Engineer, Otago, on the subject of the Construction of a Breakwater or Jetty, Timaru Roadstead.

Reports from Dr. Haast and Mr. Doyne, C.E., respecting Supply of Water for Timaru.

Copy of Resolutions of Public Meeting at Timaru and Arowhenua, and Correspondence relative to the Appropriation of 25 per cent. of Land Sales and Pasturage Rents to Road Boards.

Toll Bars—

Correspondence on the subject of the Establishment of a Toll Bar on the North Road, Avon District

West Coast—

- Report upon the Otira Gorge, by Edward Dobson, C.E.
 Report from Mr. George Dobson, respecting the Exploration of the Route to the West Coast *via* the Waimakariri.
 Correspondence and Reports upon the West Coast Road, between the Waitohi and the Hurunui Saddle.
 Instructions and Reports from Mr. Walter Blake respecting the West Coast Road.
 Reports from Mr. Thornton respecting the West Coast Road.
 Reports from Messrs. Harman and Browning on the Passes to the West Coast at the Head Waters of the Rakaia and the Waimakariri.
 Report upon the Geological Formation of the West Coast, by Dr. Haast, Provincial Geologist.
 Report on the Survey from the East and West Coast *via* Weka Pass, Hurunui, and Teremakau, by Mr. John Rochfort.
 Copy of Report of the Port Officer upon the Rivers and Harbours of the West Coast.
 General Report from the Provincial Secretary upon the West Coast of the Province.

Papers laid upon the Table of the Council and ordered to be
 Printed.

	PAGE.
Contract for the Construction of the Great Southern Railway	1
Report on the Progress of the Tunnel Works, Lyttelton and Christchurch Railway ...	7
Report on the Geological Exploration of the West Coast	13
Letter of Instructions to G. S. Sale, Esq., Commissioner, Gold-fields	23
Report of the Port Officer on the Rivers and Harbours of the West Coast, Canterbury	27
General Report of the Provincial Secretary on the West Coast, Canterbury ...	35
Report on the Practicability of Constructing a Road through the Otira Gorge, by Edward Dobson, C.E.	41
Copies of Circular Letters to various Road Boards	65
Correspondence between the Provincial Government and I. M. Balfour, Marine Engi- neer, Otago, on the Construction of a Breakwater or Jetty, Timaru Roadstead ...	71
Resolutions of Public Meetings at Timaru and Arowhenua, and Correspondence rela- tive to the Appropriation of 25 per cent. of Land Sales and Pasturage Rents to Road Boards	77
Reports from Dr. Haast and W. T. Doyne, C.E., respecting a supply of Water for Timaru	81
Correspondence respecting the Advance of £5000 for obtaining a supply of Building Stone at a reduced price	93
Reserves to be confirmed by the Provincial Council	101
Extracts from Correspondence—H. Selfe, Esq., to his Honor the Superintendent, 25th August, 1864, to 27th March, 1865	109
His Honor the Superintendent to H. Selfe, Esq.	121
Provincial Secretary to J. Marshman, Esq., Immigration Agent	125
J. Marshman, Esq., to the Provincial Secretary	131

JOURNAL OF PROCEEDINGS
OF THE
PROVINCIAL COUNCIL.

PROVINCE OF CANTERBURY, NEW ZEALAND.

SESSION XXIII.

TUESDAY, 30th MAY, 1865.

The Council met pursuant to Proclamation of His Honor the Superintendent, bearing date 9th May, 1865.

Members present—All, except Messrs. Birch, Cox, Fyfe, Hawkes, Lance, Rickman, Rolleston, Shand, Wilkin, Stoddart, White.

The Chaplain read Prayers.

Members Elected.—The Clerk acted as temporary Chairman, and notified to the Council that the following gentlemen had been duly elected to serve as Members of the Provincial Council for the several Districts:—

Robert Wilkin, Esq., for the Waitangi District.

Honorable John Hall, for the Mount Cook District.

William Patten Cowlishaw, Esq., for the Avon District.

Francis Edward Stewart, Esq., for the Rakaia District.

Edward Allen Hargreaves, Esq., for the Town of Lyttelton District.

Mr. Speaker.—Motion was granted that John Ollivier, Esq., be elected Speaker of the Provincial Council.

The Speaker took the Chair.

The Honorable John Tancred and William Wilson, Esq., were appointed a deputation to announce to the Superintendent the election of the Speaker. Those gentlemen returned bearing the following message:—

Message.—“The Superintendent has much pleasure in confirming the appointment of John Ollivier, Esq., as Speaker of the Provincial Council.

“S. BEALEY,

“Superintendent.”

His Honor's Address.—The Superintendent entered the Council Chamber and delivered the following Address:—

“MR. SPEAKER AND GENTLEMEN OF THE PROVINCIAL COUNCIL,—

“When I last prorogued this Council I intended to call you together for the purpose of the ordinary annual Session before the expiration of the present financial year. The meeting of the General Assembly, which it was then anticipated would have been held early in the present year, has however not yet taken place, and the measures which may be expected to be proposed to that body in reference to the financial position of Provincial Governments throughout the Colony, and to other matters seriously affecting this Province, are yet unsettled. As your proceedings with regard to these important questions must depend to a great extent on the action of the General Assembly during the forthcoming Session, I have thought it expedient to defer your ordinary meeting until that Session shall have been held. I trust you will agree in that decision.

“The business to be now submitted to you will therefore be confined to asking for authority for the expenditure necessary to carry on the public service of the Province during a limited period after the expiration of the present financial year, and to one or two other questions of pressing importance.

“Among the latter I would especially mention the subject of railway communication. It is with much satisfaction I have to inform you that I have concluded a Contract with Messrs G. Holmes and Co. for the construction of a Railway from Christchurch to the north bank of the Rakaia river. The recent financial depression in the Colony generally, and the difficulty which, owing to various circumstances, has been experienced in negotiating Provincial Debentures in the London market, have rendered some delay in the commencement of this important work unavoidable; and have also made it expedient to introduce some special provisions for which your sanction will be asked with regard to the payments to be made to the Contractors. I trust that the stimulus which will be afforded to the prosperity of the Province by the undertaking so important a means of developing its resources, and the greater favor with which the debentures of this Province appear to be now regarded in the English market, will enable me to take steps at an early date for carrying out the contemplated line of railway communication to the northern part of the Province.

“Since your last meeting a valuable and extensive gold-field has been discovered on the West Coast, and a large mining population is now congregated in that part of the Province. In anticipation of this event I had made preliminary arrangements, which enabled me, as soon as the importance of the discovery was ascertained, to take the steps required by the emergency for the maintenance of order and a proper regulation of mining pursuits, as well as for providing improved means of communication between those districts and the eastern portion of the Province. I commissioned the Provincial Secretary to proceed to Hokitika with authority to organise the machinery for the government of the gold-fields, and with instructions to furnish me with detailed and authentic information as to their condition and requirements. In pursuance of the information thus obtained I have thought it desirable to appoint a Commissioner for the Gold-fields, who acts as the representative of the Provincial Government, has the general control of its several departments, and is invested with sufficient authority to deal with all cases requiring prompt action on the part of the Government. This arrangement has been found to work very beneficially.

“With a view of remedying the difficulty of communicating by land between the eastern and western parts of the Province, I took immediate steps for ascertaining the route best adapted for the formation of a road. The result of these enquiries is embodied in various papers which will be laid before you. Among them is a comprehensive and valuable Report from Mr. Dobson, the Engineer to the Lyttelton and Christchurch Railway, which leaves, I think, no room for doubt as to the route on which it is most desirable that any considerable expenditure should take place. As soon as this question was determined, strong road parties were engaged to improve the existing road by way of Porter’s Pass to the Upper Waimakariri, and to open the communication between that locality and the West Coast itself. A good dray road now exists for two-thirds of the distance between Christchurch and the gold-fields, and along the remainder of the line a bridle-road is in process of formation, which, although delayed considerably by unfavorable weather, will be completed in a few weeks, and may, if it be deemed expedient, be converted into a dray-road at a moderate cost.

“Information very recently received leads me to hope that it may be found practicable to open by way of the Rakaia a second line of communication with Hokitika, which during a greater part of the year will be available as a horse-track, and for the driving of stock. Further explorations are now being made with a view of determining this question. In the meantime the road by the Waimakariri is so far advanced that I have taken steps for obtaining the immediate establishment of an

overland mail, and I have pressed on the General Government the necessity which appears to me to exist for the extension of telegraphic communication to the West Coast at the earliest possible period.

“The expenditure necessary for the objects above alluded to cannot fail under existing circumstances to be felt as a heavy charge on the revenues of the Province, but they are objects calculated to exercise so important an influence on its prosperity and trade, and are so necessary for the efficient administration of its Government, that I have no doubt you will approve the steps which in the emergency I have thought it advisable to take.

“The subjects to which your attention will thus be called, though few in number, are of more than usual importance, and will, I doubt not, receive at your hands the grave consideration which their character demands.

“I now declare this Council opened for the despatch of business.

“S. BEALEY,
“Superintendent.”

His Honor the Superintendent left the Council Chamber.

Papers.—The following papers were laid upon the table:—

- 1, Copy of Contract for the Construction of the Great Southern Railway.
- 2, Report upon the Otira Gorge, by Edward Dobson, C.E.
- 3, Report from Mr. George Dobson, respecting the Exploration of the Route to the West Coast *via* the Waimakariri.
- 4, Correspondence and Reports upon the West Coast Road, between the Waitohi and the Hurunui Saddle.
- 5, Instructions and Reports from Mr. Walter Blake respecting the West Coast Road.
- 6, Reports from Mr. Thornton respecting the West Coast Road.
- 7, Reports from Messrs. Harman and Browning on the Passes to the West Coast at the Head Waters of the Rakaia and the Waimakariri.
- 8, Report upon the Geological Formation of the West Coast, by Dr. Haast, Provincial Geologist.
- 9, Correspondence respecting the Survey of the Railway Reserve between Timaru and the Waitangi.
- 10, Correspondence respecting the Advance of £5000 for obtaining a Supply of Building Stone at a reduced price.
- 11, Correspondence between the Provincial Government and Mr. Balfour, Marine Engineer, Otago, on the subject of the Construction of a Breakwater or Jetty, Timaru Roadstead.
- 12, Reports from Dr. Haast and Mr. Doyne, C.E., respecting Supply of Water for Timaru.
- 13, Correspondence on the subject of the Establishment of a Toll Bar on the North Road, Avon district.
- 14, Correspondence on the subject of the Amesbury Road.
- 15, Correspondence respecting the Purchase of Christchurch Town Section No. 729, as a Site for Custom House and Post Office.
- 16, Correspondence from His Honor the Superintendent to Henry Selfe Selfe, English Agent for Canterbury, from 15th October, 1864, to 15th May, 1865.
- 17, Correspondence from Henry, Selfe Selfe, to His Honor the Superintendent, from 27th August, 1864, to 27th March, 1865.
- 18, Correspondence from the Provincial Secretary to John Marshman, Immigration Agent for Canterbury, from 15th September, 1864, to 15th May, 1865.

19, Correspondence from John Marshman, to the Provincial Secretary, from 25th August, 1864, to 27th March, 1865.

20, Gazettes, containing Acts and Appointments by His Honor the Superintendent under the Gold-fields Act, 1862.

Notices of Motion were given.

The Council adjourned at 3 p.m., until Thursday next.

THURSDAY, 1ST JUNE, 1865.

The Council met pursuant to adjournment.

Members present—All, except Messrs. Beswick, Duncan, Fyfe, Lance, Shand, Simms, Stoddart, White.

The Speaker in the chair.

Papers.—The following Papers were laid upon the table.

21. Report on the Survey from the East and West Coast *via* Weka Pass, Hurunui, and Teremakau, by Mr. John Rochfort.

22, Copy of Circular Letters to various Road Boards.

23, Letter of Instructions by G. S. Sale, Commissioner on the Canterbury Gold-fields.

24, Copy of Resolutions of Public Meeting at Timaru and Arowhenua, and Correspondence relative to the Appropriation of 25 per cent. of Land Sales and Pasturage Rents to Road Boards.

Vote of Thanks to Mr. Charles Bowen.—Motion was granted:—

1. "That this Council desires to express its regret that the departure from the Province of the late Speaker, Mr. Charles Bowen, should have deprived the Council of his valuable services, and desires to put on record its appreciation of the uniform courtesy, impartiality, and attention to the duties of the office, for which that gentleman has for a long course of years been distinguished."

2. That the above Resolution be entered upon the Minutes of the Council, and that Mr. Speaker be requested to forward a copy thereof to Mr. Charles Bowen."

Reply to His Honor's Address.—The Council in Committee for the consideration of a Reply to the Opening Address of His Honor the Superintendent.

Mr. Maude in the chair.

The following Reply passed as proposed:—

"The Council thank your Honor for the Address with which you have opened their Session.

"Under the circumstances stated by your Honor they agree in the expediency of deferring the Ordinary Annual Session of the Council until after the meeting of the General Assembly.

"They learn with satisfaction that it has been found practicable to undertake a portion of the important works of internal communication, which have already received the sanction of the Council. They will give to the Contract, entered into with Messrs. Holmes and Co., their early and serious consideration. They agree in the hope expressed by your Honor that it may be found practicable at an early date to proceed with the contemplated Railway to the Northern part of the Province.

"The Council concur in the importance attached by your Honor to the discovery of the large and important Gold-field which is now developed on the West Coast, and they will confirm such arrangements as may be necessary for the due administration of the Government in that part of the Province and the proper regulation of mining pursuits.

“The Council appreciate the importance of increased land communication between the Eastern and Western portions of the Province, and they are gratified to learn that this desirable end is likely to be attained within a very short period. They agree in the expediency of such further explorations as appear likely to provide additional lines of communication with the Gold-fields. They recognise that these valuable objects cannot be secured without the expenditure of sums of money which must constitute a serious charge on the Provincial Revenues.

“The Council will give to the various matters to which their attention will be called their attentive and careful consideration.

The Speaker in the chair.

The Reply was reported and adopted. Mr. Speaker, Messrs. Cowlshaw and Hargreaves were appointed a deputation to convey the reply to His Honor the Superintendent.

Leave of Absence.—Leave of absence was granted to Mr. Hawkes for the remainder of the session.

Select Committee.—A Select Committee was appointed to select the papers laid upon the table which it may be desirable to print: the Committee to consist of Dr. Turnbull, Messrs. Maude, Tosswill, the Provincial Secretary, and the Secretary of Public Works.

West Coast Mail.—The Council in Committee of Supply. Mr. Maude in the chair.

Resolution passed as proposed:—

“That this Council will indemnify His Honor the Superintendent in the disbursement of any sum or sums of money which it may be necessary to incur in the maintenance of an Overland Mail from Christchurch to the West Canterbury Gold Field, for a period of six months.”

The Speaker in the chair.

The Resolution was reported and adopted.

Southern Railway.—The Council in Committee of Supply. Mr. Maude in the chair.

Resolution was proposed:—

“That this Council having had before it the Contract entered into by His Honor the Superintendent with Messrs. G. Holmes and Co., for the construction of a Railway from Christchurch to the Rakaia River, authorises His Honor to make payments to Messrs. G. Holmes and Co., in Waste Lands of the Crown, and in Debentures issuable under the Canterbury Loan Ordinance, 1862, in the manner provided in the said Contract, if the financial position of the Province should render such mode of payment necessary.”

Amendment was negatived upon division, “That the words ‘in Waste Lands of the Crown, and’ be omitted.”

Ayes, 7: Messrs. Buckley, Clark, Peacock, Rowe, Stewart, Westenra, Wilkin.

Noes, 18: Messrs. Aikman, Aynsley, Birch, Cowlshaw, Cox, Hall, Hargreaves, Hornbrook, Moorhouse, Ollivier, Rickman, Rolleston, Tancred, Templar, Tosswill, Turnbull, Cracroft Wilson, William Wilson.

The Resolution passed as proposed.

The Speaker in the chair.

The Resolution was reported and adopted.

Christchurch City Council Ordinance Amendment Bill.—Leave was granted to bring in a Bill to amend the “Christchurch City Council Ordinance.” The Bill was read a first time and ordered to be printed.

The Council adjourned at 10 p.m. until Friday next.

FRIDAY, 2ND JUNE, 1865.

The Council met pursuant to adjournment.

Members present—Messrs. Cowlshaw, Cox, Hall, Hargreaves, Hornbrook, Maude, Ollivier, Rickman, Rolleston, Rowe, Stewart, Tancred, Westenra, Wilkin, Cracroft Wilson, William Wilson.

The Speaker in the chair.

Crown Lands.—Motion was granted “For a return of the acreage of Crown Lands otherwise alienated than by sale since the last session of the Council.”

River Halswell.—Motion was granted “That the River Halswell be declared a river under the Watercress Ordinance of 1864, and that His Honor the Superintendent be solicited to issue the necessary proclamation in the Provincial Government Gazette.”

Auditor's Report.—The Auditor's Report was received, read, and ordered to be printed.

Library Committee.—A Library Committee was appointed to consist of Mr. Speaker, Messrs. Maude, Westenra, Cracroft Wilson, and the Provincial Secretary.

Hokitika, Waimea, and Bruce's Bay Townships.—Motion was granted:—

1. “That in the opinion of this Council it is advisable that Townships should be laid out for sale at the Hokitika, the Waimea, and Bruce's Bay.

2. “That the Townships should be laid out in sections, averaging a quarter of an acre each, at an upset price at the rate of £48 an acre, except in cases where the ground has already been laid out in the form of business sites, in which cases the sections should average from one sixteenth to one quarter of an acre.”

Leave of Absence.—Leave of Absence for one week was granted to Mr. Beswick.

The Council in Committee of Supply, Mr. Maude in the chair.

West Coast Road.—Motion was granted:—

“That this Council will indemnify His Honor the Superintendent in the expenditure of any sum or sums of money, not exceeding the sum of £20,000, which His Honor may deem it necessary to incur in the formation of a road to the West Coast.”

The Speaker in the chair.

Christchurch City Council Ordinance Amendment Bill.—The resolution was reported and adopted.

The “Christchurch City Council Ordinance Amendment Bill,” was read a second time.

Standing Orders Nos. 113, 114, 115, 116, 119, 120 were suspended with a view to passing the Bill through its stages.

The Council in committee on that Bill.

Mr. Maude in the chair.

Clause 1 was postponed; clauses 2, 3, 4, passed as printed; clause 5 as amended, the words “not exceeding” being struck out and the word “of” inserted, an amendment having been negatived upon division that the words “if leased for a period not exceeding seven years” be struck out.

Ayes 4: Messrs. Stewart, Westenra, Cracroft Wilson, William Wilson.

Noes 8: Messrs. Cowlshaw, Cox, Hall, Hargreaves, Ollivier, Rolleston, Rowe, Wilkin.

Clause 6 passed as printed; clause 7 as amended, the words “*ex officio*” being struck out and the words “upon such notice to the occupier as the Council may order,” being inserted.

Clauses 8, 19, and clause 1 passed as printed.

The Preamble and Title passed.

The Speaker in the chair.

The Chairman reported the Bill as amended.

Papers.—The following Papers were laid upon the table :—

25, Offer of 26 vols. of *Spectator*, London newspaper, for the Library of the Provincial Council, by the Trustees of the Estate of Edward Jerningham Wakefield, Esq.

26, Copy of Report of the Port Officer upon the Rivers and Harbours of the West Coast.

27, General Report from the Provincial Secretary upon the West Coast of the Province.

The Council adjourned until Tuesday next.

TUESDAY, 6TH JUNE, 1865.

The Council met at 3 p.m. pursuant to adjournment.

Members present :—All, except Messrs. Beswick, Duncan, Hawkes, Hornbrook, Lance, Rickman, Shand, Simms.

The Speaker in the chair.

Library Committee.—The Report of the Library Committee was brought up, read, and received.

Papers.—The following Papers were laid upon the table :—

28, Reserves to be confirmed by the Provincial Council.

29, Correspondence in reference to the Kaiapoi Court House.

30, Report of E. Dobson, C.E., on the progress of the Lyttelton and Christchurch Railway Tunnel Works.

Vote of Supply.—The Council in Committee of Supply.

Mr. Maude in the chair.

Motion was proposed :—

“That whereas it may be desirable that the next ordinary Annual Session of this Council should not be held before the expiration of the present financial year, and it is therefore expedient to provide for the payment of the various salaries, charges, and expenses which it may be necessary to incur for the maintenance of the Public Service of the Province subsequently to the 30th day of June next: Be it resolved—that this Council will indemnify His Honor the Superintendent in the disbursement of any sums or sums of money out of the Ordinary and Territorial Revenues of the Province which His Honor may deem it necessary to incur in providing for the like salaries, charges, and expenses as are mentioned in the Appropriation Ordinance, 1864, and in the case of salaries and allowances at rates not exceeding those provided in such Ordinance.

Amendment was proposed “That all the words after the word ‘the’ in the second line be expunged.”

The Amendment was withdrawn by consent. The Resolution passed as proposed.

The Speaker in the Chair.

The Resolution was reported and adopted.

Little River Tramway.—Motion was granted :—

“That there be laid upon the table of the Council an account showing the several sums disbursed in favor of the Proprietor of the Little River Tramway, also showing what payments have been made by him to the Provincial Treasury, either by way of repayment of principal or payment of interest, and what repayments, if any, have been made in kind.”

Christchurch City Council Ordinance Amendment Bill.—The “Christchurch City Council Ordinance Amendment Bill” was read a third time and passed.

Reserves.—The Council in Committee for the consideration of the Reserves to be confirmed.

Mr. Maude in the chair.

Reserves.—The following Reserves were proposed and confirmed; Mr. Williams attending and giving evidence :

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
368	A. R. P. 5 0 0 more or less	Situate in the Waimate township, commencing at the intersection of the road running along the north-eastern boundary of the aforesaid township, by the north-western side of the road, forming the south-eastern boundary of section 2513, following north-westerly along the first-mentioned road, a distance of ten chains, and running back south-westerly a distance of five chains, in a rectangular block ...	For police purposes.
369	... ..	All that piece or parcel of land in the Christchurch district, three chains wide, extending from the road, on the north-west side of section 1765, to the road along the south-eastern bank of the Waimakariri as marked on the plans, Nos. 1 and 3, dated respectively 30th August, and 13th September, 1864, signed by the Chairman of the Railway and Bridge Commission	For Railway purposes.
370	... ..	All that piece or parcel of land in the Mandeville district, three chains wide, extending from the north-west boundary of section 4295, to the south-western boundary of section 317, as marked on plan No. 3 of the Railway and Bridge Commission, dated 13th September, 1864, subject to sections 5736 and 6676	For railway purposes.
371	... ..	All that piece or parcel of land in the Mandeville district, three chains wide, extending from the northern boundary of section 437 to the southern boundary of section 6692, as marked on plan No. 3, of the Railway and Bridge Commission, dated 13th September, 1864	For railway from Christchurch to the Hurunui.
372	32 0 0 more or less	Situate in the Lincoln district, bounded on the northward by section 6343, on the eastward by section 4659, on the westward by the road west of the first-mentioned section, and on the southward by the Ellesmere Junction road ...	For a gravel pit.
373	11 1 0	In the Christchurch district, bounded on the north-westward by the railway reserve, on the south-west by section 7416, and on the south-east by the South road	For the purposes of a railway station.
374	3 2 0 more or less	Situate on the north bank of the river Teramakau, on the West Coast of the province of Canterbury, bounded on the north-east by native reserve No. 27, for a distance of four chains twenty-two links, on the south-east by the northern bank of the river Teramakau before mentioned, and on the south-west and north-west by the sandy beach	For the uses of the Provincial Government and other public purposes.
375	40 0 0 more or less	Situate on the south bank of the river Teramakau, on the West Coast of the Province of Canterbury, being bounded on the south by native reserve No. 26, on the north-west by the sandy beach, and on the east, north-east, and south-east by the Ohinekata lagoon	For the uses of the Provincial Government and for other public purposes.

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
376	A. R. P. 11 0 0	Situate in the Ashley district, commencing at a point on the Upper Sefton road, the same being the south-eastern corner of section 2940, following north-easterly along the said road to the road and railway reserve, following north-easterly along that reserve to a point being one chain from the southern boundary of section 6116, thence southerly following a line parallel with the boundary first described to the north-eastern boundary of the before-mentioned section 2940, and from thence returning along that boundary to the commencing point	For Provincial Government purposes.
378	320 0 0 more or less	Situate on the north bank of the Waimakariri, having frontage of about one mile seventy-two chains to the said river, and extending back northerly a distance on the average of forty chains, exclusive of the river-bed of the Bealy	For Provincial Government purposes.
379	320 0 0 more or less	Situate on run 333, opposite to the ford, having frontage of eighty chains to the southern bank of the Waimakariri, and extending back southerly a distance, on the average, of forty chains	For Provincial Government purposes.
380	91 0 0 more or less	Situate in the Mandeville district, commencing at the northernmost corner of section 5635, thence following in a line north-westerly in continuation of the south-western boundary of that section to the northern bank of the river Eyre, following north-easterly along that bank to the south-eastern corner of section 6090, thence northerly along the eastern boundary thereof a distance of eight chains eighty links to a road following the said road in a south-easterly direction to the reserve for the Eyre main drain, following westerly and south-easterly along the northern and western boundaries thereof to the north-west corner of section 6482, following southerly along the western boundary of that section to section 3685, thence south-westerly following the north-western boundary of said section 3685 to the flood-line of the river Eyre, being the north-eastern boundary of section 5707, following north-westerly along the said flood-line to where it is intersected by the north-western side of the road forming the north-western boundary of the last mentioned section, thence south-westerly along that road to the north-eastern boundary of the above mentioned section 5635, and from thence returning along that boundary to the commencing point. ...	For drainage and other purposes of public utility.
381	75 0 0 more or less	Situate in the Ellesmere district, commencing at a point on the high bank of the old river bed forming the south-western boundary of section 7270, the same being seventy-five links west of the southernmost corner of that section, thence following a line bearing south 22° west (mag.) a distance of twenty-six chains seventy-five links, thence at a right angle north-westerly a distance of forty chains, thence again at a right angle north-easterly to the high bank before mentioned, and from thence returning along the same to the commencing point, exclusive of reserve No. 315, and also tramway reserves Nos. 297 and 203. ...	For the purposes of the construction of a tramway.
385	100 0 0 more or less	Bounded on the northward by section No. 7125, on the westward by the tramway reserve, on the southward by the low-water line of Lake Forsyth, and on the eastward by the low-water line before mentioned, and the river Kakerikawai.	For native and other purposes of the Provincial Government.

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
387	A. R. P. 320 0 0 more or less	Commencing at Lake Pearson, and extending southerly along the road towards Porter's pass, a distance of about eighty chains, and extending back westward of the road a distance on the average of forty chains.	For the purposes of a township.
388	8 0 35 more or less	Situate in the Lincoln district, commencing at a point on the road to the Selwyn, the same being the southernmost corner of section 4257, following south-westerly along the said road a distance of eight chains, thence north-westerly at a right angle following the north-eastern boundary of section 6662 a distance of twenty chains fifty-five links to the south-western boundary of the before-mentioned section 4257, and from thence returning along that boundary to the commencing point.	For a gravel pit.

RESERVES for SCHOOLS and other PUBLIC PURPOSES within Towns.

In the township of Waimate, sections Nos. 94, 95, 96, 97, 98, 99, 100, 101, 102, 117.	For educational purposes.
And Sections Nos. 134, 135, 159, 160, 161, 186, 187, 188, 271, 272, 273, 274, and 310.	For Provincial Government purposes.

89	50 0 0 more or less	Commencing at a point on the northern bank of the river Kowai, where it is crossed by the eastern side of the North road, following along the said road, in a northerly and north-easterly direction, a distance altogether of nineteen chains ten links; thence following a line in an easterly direction, at an angle of 121° with the said road, a distance of eighteen chains, forty-four links, to a point on the high bank or terrace, the same being twelve chains north-east of trigonometrical pole 8; following the said high bank to its south-eastern extremity, and a line in the same general direction, a distance of six chains seventy links to the northern bank of the river before mentioned, and returning along the said bank to the commencing point.	For the purposes of a ferry.
116	2 0 0 more or less	Commencing at the junction of the Red House road, with the road leading to the Dissenters' cemetery, following north-westerly along the latter road to the south-eastern boundary of the before-mentioned cemetery; thence following along the south-eastern boundary thereof, and a line in continuation of the same, a distance of five chains seventy links; thence in a south-easterly direction, at an angle of 82°, a distance of four chains seventy links to the first-mentioned road, and from thence returning along that road to the commencing point.	For a cemetery.
162	10 0 0 more or less	Commencing at the intersection of the Oxford and Rangiora road with the road west of section No. 2071, following along the latter road, in a southerly direction, a distance of ten chains ten links; thence, at a right angle easterly, a distance of ten chains, thence again at a right angle northerly a distance of about nine chains seventy links to the road first-mentioned, and from thence returning along that road to the commencing point.	For a cemetery.

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
163	A. R. P. 10 0 0 more or less	Commencing at a point on the northern boundary of the town of Sefton, eighteen chains fifty-one links from the north-eastern corner thereof, following along the said boundary in a westerly direction a distance of ten chains, and running back northerly in a rectangular block a distance of ten chains.	For a cemetery.
202	10 0 0 more or less	Commencing at a point on the Springs' Road, the same being the southernmost corner of section 3643, following south-westerly along the said road a distance of thirteen chains fifty links, thence at a right angle north-westerly a distance of seven chains forty links, thence again at a right angle north-easterly a distance of thirteen chains fifty links to the south-western boundary of the before-mentioned section 3643, and from thence returning along that boundary a distance of seven chains forty links to the commencing point, being bounded on the north-west and south-west by section 3835.	For a gravel pit.
253	28 0 0 more or less	Situate in the Ashley district, bounded on the north-west by the main line of road between Marshman's road and the Upper Sefton road, on the north-east by a road south-west of and adjoining section 2779, on the south-west by section 3796, and on the south-east by section 3865.	For a gravel pit.
254	13 0 0 more or less	Situate in the Ashley district, west of the terrace, and between sections 2083 and 2726, adjoining reserve No. 201, in red.	For a gravel pit.
255	20 0 0 more or less	Situate in the Ashley district, bounded on the north-west by road through Marshman's land, on the north-east by another road forming the north-eastern boundary of the same, and extending southerly between said roads from their junction, so as to include the above quantity.	For a gravel pit.
256	25 0 0 more or less	Situate in the Ashley district, bounded on the north-west by road and railway reserve, on the south-east by the Rangiora and Sefton roads, and on the north-east by section 2545....	For a gravel pit.
257	20 0 0 more or less	Situate in the Ashley district, commencing at a point on the northern bank of Stony Creek, where it is crossed by Marshman's road, thence north-easterly along the said road a distance of about eight chains, thence north-westerly at a right angle a distance of twenty chains, thence again at a right angle south-westerly to the before mentioned creek, and returning south-easterly along the said creek to the commencing point.	For a gravel pit.
258	20 0 0 more or less	Situate in the Ashley district, commencing at a point on the northern bank of Stony Creek, where it is crossed by the line of road between Marshman's road and the Upper Sefton road, thence north-easterly along the said road a distance of about nine chains eighty links, thence north-westerly at a right angle a distance of about seventeen chains, thence south-westerly at a right angle to the before mentioned creek, and returning north-easterly and south-easterly along the said creek to the commencing point.	For a gravel pit.
259	20 0 0 more or less	Situate in the Ashley district, commencing at a point on the south-eastern side on the Rangiora and Sefton road, opposite the third mile peg, thence north-easterly along the said road a distance of twenty chains, and running back south-easterly in a rectangular block a distance of ten chains.	For a gravel pit.

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
105	A. B. P. 1 0 0 more or less	Situate in the town of Timaru, being town sections Nos. 121, 122, 127, and 128, having a frontage of two chains to the Beach road, and extending back south-westerly five chains in a rectangular block.	For Provincial Government purposes.

RESERVES for SCHOOLS and other PUBLIC PURPOSES within Towns.

	In the town of Ashburton, sections Nos. 160, 161, 162, and 163.	For school purposes.
	In the town of Ashburton, sections Nos. 343, 344, 345, 346, 355, and 356.	For public purposes.
	In the township of Wai Rewa, sections Nos. 14, 15, 16, 17, and 18.	For school purposes.
	In the township of Wai Rewa, sections Nos. 4, 5, 21, 47, 59, 60, 81, 82, 83, 83a, 84, 85, 100, 101, 119, 146, 147, 155, 156, 171, 172, 187, 188, and 189.	For the uses of the Provincial Government.
	In the town of Geraldine, section No. 50.	For public purposes.

The Speaker in the chair:

The Reserves were reported and adopted.

The Council adjourned at 11 p.m. until Wednesday next.

WEDNESDAY, 7TH JUNE, 1865.

The Council met pursuant to adjournment.

Members present:—All, except Messrs. Beswick, Birch, Duncan, Fyfe, Hawkes, Hornbrook, Shand, Simms, Tancred, White.

The Speaker in the chair.

Christchurch City Council Ordinance Amendment Bill.—The Speaker notified to the Council the assent of His Honor the Superintendent to the Christchurch City Council Ordinance Amendment Bill.

Petition.—A petition from John Nelson, late Sergeant of Police, was presented, read, and received.

Waste Lands.—Motion was proposed:—

“That His Honor the Superintendent be authorised to appropriate 1500 acres of waste land in part payment of works, the prosecution of which has already been authorised by the Provincial Council.”

Amendment was negatived that the words “14,000” be read for “1500.”

The original motion passed as proposed.

The Council in Committee of Supply.

Mr. Maude in the chair.

West Coast Gold Fields.—Motion was granted:—

“That this Council will indemnify His Honor the Superintendent in the disbursement of any sum or sums of money, not exceeding £10,000, which His Honor may deem it necessary to expend in the administration of the West Coast Gold-fields previous to the next Session of the Provincial Council.”

The Speaker in the chair.

The Resolution was reported and adopted.

The Council in Committee of Supply.

Mr. Maude in the chair.

Telegraph, West Coast.—Motion was granted :—

“That this Council will indemnify his Honor the Superintendent in the payment of any sum or sums of money not exceeding in the whole the sum of £5000, which His Honor may deem it expedient to incur in the establishment of telegraphic communication to the West Coast.”

The Speaker in the chair.

Branch Land Offices.—Motion was granted :—

“That His Honor the Superintendent be respectfully requested to take the necessary steps for obtaining such an amendment of the Waste Lands Regulations of this Province as will enable the Provincial Government to establish Branch Land Offices on the West Coast and in Timaru.”

Township Reserve.—Motion was granted :—

“That the size of the Town Sections in the Township Reserve at the junction of the Bealey and Waimakariri should be one quarter of an acre, and that the same be sold by auction at an upset price of £48 per acre.”

Superintendents of Provinces.—Motion was proposed :—

“That, in the opinion of this Council, it would be inexpedient to alter the Constitution so as to provide the Superintendents of Provinces shall be appointed otherwise than by the present system of election by the people.”

Amendment was negatived :—

“That in the opinion of this Council it is desirable that Superintendents of Provinces should be elected by Provincial Councils, but without holding a seat in the said Councils.”

The original motion passed as proposed upon division.

Ayes 12: Messrs. Aikman, Aynsley, Clark, Hargreaves, Maude, Moorhouse, Peacock, Rowe, Stoddart, Templar, Wilkin, William Wilson.

Noes 4: Messrs. Hall, Lance, Rolleston, Turnbull.

Sergeant Nelson.—Motion was granted :

“That a respectful address be presented to His Honor the Superintendent, praying that he will direct enquiry to be made into the causes which have led to the removal of Sergeant Nelson from the police force; and if necessary that His Honor will direct such compensation to be paid to him as the circumstances of the case may justify.”

Message.—The following Message from His Honor the Superintendent was received and read :—

“MR. SPEAKER AND GENTLEMEN OF THE PROVINCIAL COUNCIL,—

“I have declared my assent on behalf of His Excellency the Governor to the Christchurch City Council Ordinance Amendment Ordinance, 1865.

“In closing this Session I have to thank you for the readiness with which you have voted the necessary funds for the improvement of the several means of communication with the West Coast, as also for the authority which has been given for the Expenditure which it may be necessary to incur in carrying on the public service of the province for a limited period after the expiration of the present financial year.

“It is a source of satisfaction to me that the arrangement which I have entered into for the construction of a portion of the Great Southern Railway has met with your ready approval.

“I will take the necessary steps for obtaining such an amendment of the Waste Lands Regulations as will afford additional facilities for the sale of Waste Lands at Timaru and on the West Coast.

“The business of the Session being now concluded I have to thank you for the expedition and general unanimity of your proceedings.

“I now declare this Council prorogued.

“S. BEALEY,
“Superintendent.

“7th June, 1865.”

CONTRACT

FOR

THE CONSTRUCTION

OF THE

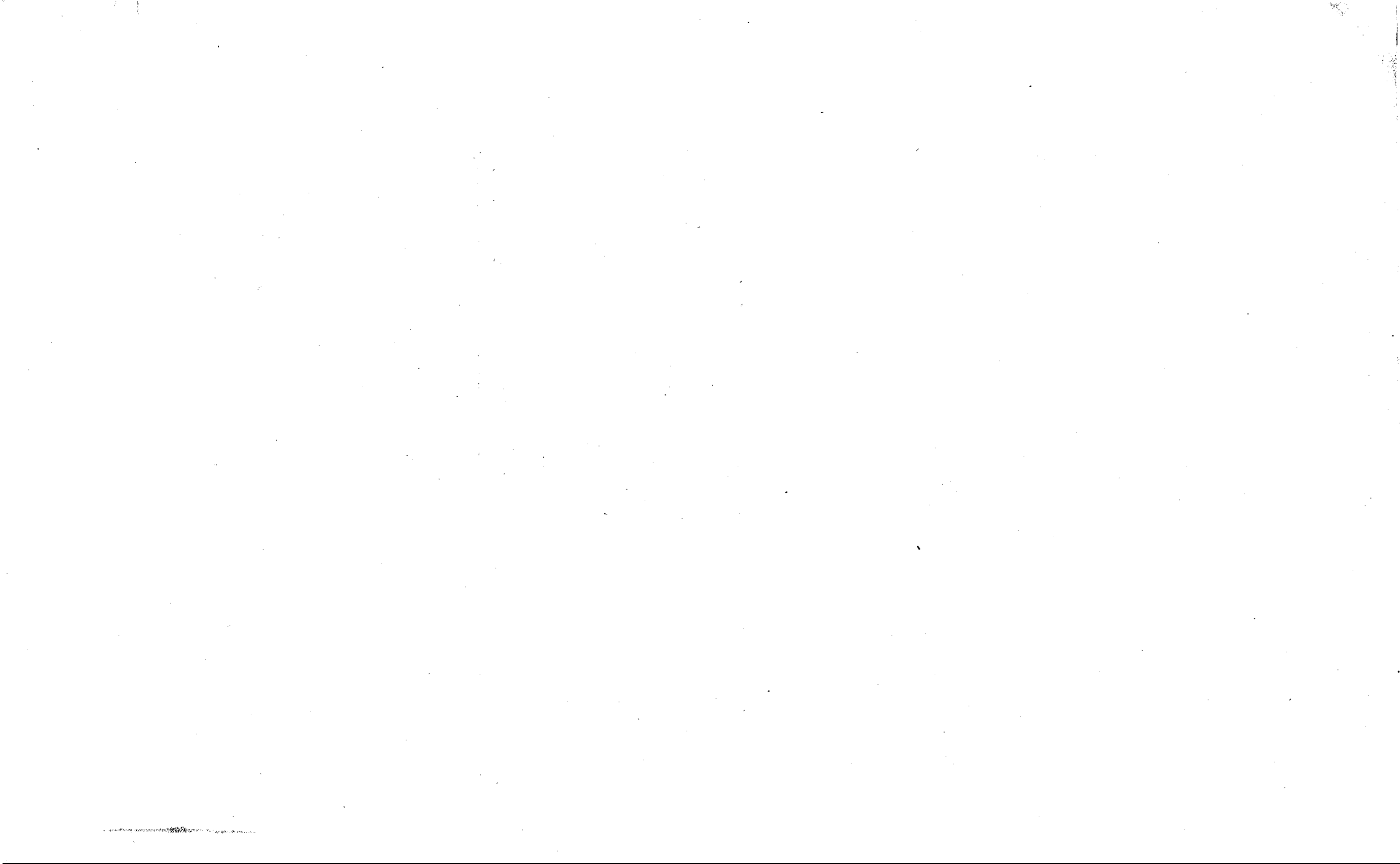
GREAT SOUTHERN RAILWAY

FROM

CHRISTCHURCH

TO THE

NORTH BANK OF THE RAKAIA.



ARTICLES OF AGREEMENT

MADE and entered into this Twenty-ninth day of May One thousand eight hundred and sixty-five between SAMUEL BEALEY of Christchurch Esquire Superintendent of the Province of Canterbury New Zealand of the one part and GEORGE HOLMES and EDWARD RICHARDSON carrying on business as Railway Contractors under the name and style of "GEORGE HOLMES & Co." in the said Province of Canterbury and hereinafter called the Contractors of the other part.

First.—The Contractors agree to construct a line of Railway from a point situated on the eastern boundary of Colombo Street in the City of Christchurch in the Province aforesaid where it bounds the western end of the land reserved for the Christchurch Station of the Lyttelton and Christchurch Railway marked A on a certain General Plan prepared by W. T. Doyne of Christchurch aforesaid Civil Engineer of the said line of Railway to a point on the northern bank of the River Rakaia in the Province aforesaid marked B on the said general Plan being a total distance of thirty-three and a-half miles or thereabouts including sidings in accordance with the Section Plans and Specifications prepared by the said W. T. Doyne as Engineer of the said line of Railway subject to certain modifications hereinafter mentioned.

Second.—The Contractors agree to construct the first section from Christchurch of thirteen miles in length in twelve months and the remainder to the said north bank of the Rakaia in two years from the day of departure from Lyttelton in the Province aforesaid of the first English mail after the execution of this Contract at and for the total sum of Two Hundred and One Thousand Pounds sterling.

Third.—The Contractors agree to execute the whole of the Works named in the said Specifications and shown in the Drawings prepared by the said W. T. Doyne in accordance with the said Specifications and subject to certain General Conditions drawn up by the said W. T. Doyne and annexed to these presents with certain modifications as aforesaid and to furnish and supply the following Rolling stock that is to say two Locomotive Engines similar in all respects to those now at work on the said Lyttelton and Christchurch Railway seven Passenger Carriages of mixed classes to be specified by the said W. T. Doyne or the Engineer of the said line of Railway for the time being and fifteen Goods Wagons.

Fourth.—The Contractors agree if required by the Government to work each section of the said line of Railway for traffic for six months after the completion of the same and to supply all necessary station arrangements to enable the traffic for that period to be conveniently conducted and to run not less than two passenger trains each way per diem at such hours as the Government of the said Province may from time to time approve and at a rate not exceeding Sixpence per mile for each Passenger and to carry all Goods that the convenience of the public may require at a rate not exceeding Two Shillings and Sixpence per ton per mile forty cubic feet being considered a ton of measurement goods and to receive and take the said Tolls in consideration of the working expenses.

Fifth.—And the said Samuel Bealey for himself and his successors agrees to make payments to the Contractors monthly on the certificate of the said W. T. Doyne or the Engineer of the said line for the time being estimated from a schedule of prices to be agreed upon between the Engineer of the said line for the time being and the said Contractors on the basis of the said sum of Two Hundred and One Thousand Pounds sterling in the following manner namely one-half in cash one-fourth in waste lands estimated at the rate of Two Pounds per acre and one-fourth in Provincial Debentures estimated at Ninety Pounds in respect of One Hundred Pounds of nominal value and bearing interest at the rate of Six Pounds per centum per annum provided always and it is hereby agreed that the Government for the time being of the said Province shall have power to buy back and redeem the said Debentures at the said price of Ninety per centum from time to time within twelve months from the issue of the same and the said Contractors shall at any time within twelve months as aforesaid upon payment of the value of such Debentures at the price aforesaid produce and hand over the said Debentures to the said Government the said monthly payments shall include the value of all works executed and all materials delivered for foreign materials the first payment to be made on account when delivered into depôt at Christchurch aforesaid and the second payment when laid in the work and for local materials the first payment to be made on delivery at the spot where they are to be used and the second payment when laid in the finished work.

Sixth.—In lieu of Clause Twenty-five of the General Conditions annexed to the Specifications aforesaid the following shall be substituted The Government may retain in their possession the whole of the Debentures coming due under the above-named conditions of payment until the completion of the Contract but shall pay to the Contractors the interest on the same as it from time to time becomes due.

Seventh.—The following modifications in the Clauses of the said General Conditions shall be made In Clause Six for the word "Engineer" shall be substituted the words "Arbitration in the usual manner" In Clause Twelve for the words "if the Government in its discretion shall think fit" shall be substituted the words "if it shall so be settled by arbitration" In Clause Twenty-three for the words "the Provincial Engineer for the time being" shall be substituted the words "arbitration in the usual way" Notwithstanding anything to the contrary in Clause Twenty-six no payment after a certificate for the amount has been given as aforesaid shall be withheld or delayed a total period of one calendar month and in case payment shall not be paid within that period damages for such delay shall be assessed by arbitration in the usual manner.

Eighth.—To Clause Fifty-three of the Specification the following proviso shall be added Provided always that in the use of the line by the Government for such purposes the Contractors shall not be subjected to any inconvenience that may interfere with the progress of the works In Clause Two the words "with the exception" to "permanent way" shall be expunged.

Ninth.—Clause Sixteen of the General Specification shall be expunged and the following substituted "The Contractors shall supply all the materials of every description for the permanent way including all the rails fish-plates bolts and screws" Clause Eighteen of the General Specification shall be expunged.

Tenth.—And it is hereby further agreed by and between the said parties hereto that the provision hereinbefore contained for the payment of a portion of the said sum of Two Hundred and One Thousand Pounds in waste lands shall be subject to the approval of the Provincial Council provided always that in the event of the said Provincial Council not approving of the said payment in waste lands as aforesaid the said Contractors shall receive the said portion from time to time in cash but the Contractors agree in the meantime to proceed with the construction of a portion of the line extending from the said terminus in Christchurch to a convenient and suitable point in the neighborhood of the George and Dragon Inn being about six miles in length the payments for which shall be made in accordance with a schedule of prices agreed upon between the said Superintendent and the Contractors.

Eleventh.—In the event of payment not being made as aforesaid in Debentures or in event of such Debentures being redeemed as above provided other security to the satisfaction of the Government shall be furnished by the said Contractors.

Twelfth.—The Contractors hereby agree not to demand during the first six months after the commencement of the said Works more than One Thousand Pounds in cash in each month such commencement to be determined by a certificate signed by the said W. T. Doyne or the Engineer of the line for the time being.

Thirteenth.—It is hereby further agreed by and between the said parties hereto that in case the financial position of the Province should at any time be such as in the opinion of the Government to require a modification in the terms of this Agreement the said Samuel Bealey and his successors shall have the power of extending the said term of two years to any period not exceeding in the whole four years from the commencement of the Works as aforesaid or to stop the Works completely at any stage provided that the Contractors shall be paid in full for all Works actually executed and for all materials ordered prepared or contracted for with the sanction of the Engineer for the time being on delivery to the Government and the Contractors hereby waive all claim for damage on account of such extension of the time or stoppage of the Works as aforesaid and after such stoppage of the Works in case the Superintendent of the said Province for the time being shall think it desirable within the said period of four years to resume the Works the said Samuel Bealey for himself and his successors hereby agrees to give such further execution of the Works to the Contractors on the same terms as are herein expressed and the Contractors hereby agree to undertake such execution provided that the estimated period for the completion of such Works so stopped and resumed shall not exceed the said period of four years commencing as aforesaid.

Fourteenth.—And in case the said period of two years shall be extended as aforesaid the said Samuel Bealey for himself and his successors hereby agrees to pay to the said Contractors at the end of two years commencing as aforesaid Fifty per cent. of the Debentures held as security as hereinbefore provided and the remaining Fifty per cent. on the completion of the Works should such completion take place before the end of the third year but should the Works not be completed at the end of the third year then Twenty-five per cent. shall be paid at the end of the third year and the remaining Twenty-five per cent. on the completion of the Works.

Fifteenth.—And it is hereby agreed by the said Contractors that the Rolling-stock and Iron-work for the Permanent Way to be provided by the said Contractors under this Agreement shall be manufactured and the Contract for them let in such a manner as the Engineer for the time being may approve and that such Rolling-stock and Permanent Way shall be subject to such system of inspection and such reasonable tests at their own costs and charges both at the place of manufacture and after arrival in Christchurch the said Engineer for the time being shall direct and in case any of the said Rolling-stock and Iron Work shall be in the opinion of the said Engineer for the time being defective the said Contractors shall supply fresh materials to the satisfaction of the said Engineer.

Sixteenth.—And it is hereby lastly agreed and declared by and between the parties hereto that in case any dispute or question shall arise with respect to any matter or thing concerning or relating to the execution of the Works connected with the construction of the said line of Railway or with respect to the interpretation of the clauses of these Presents or of the said General Conditions and Specification such dispute or question shall be referred to and be decided by two indifferent persons one to be named by the said Samuel Bealey or his successors and the other by the Contractors and in case of difference between them then by any third person to be by the said two persons named and the opinion of such two persons or of such third person or of any two of them shall be binding and conclusive upon the Superintendent of the Province aforesaid for the time being and upon the said Contractors and by them submitted to accordingly without further controversy and which said submission shall be by mutual bonds and such other reciprocal stipulations as are usual and proper in such cases provided always and it is hereby expressly declared that nothing in this Clause shall in any way invalidate any stipulations contained in the said General Conditions and Stipulations as modified by the Clauses to that effect in these Presents.

In Witness whereof the said parties to these Presents have hereunto set their hands the day and year aforesaid.

(Signed) GEORGE HOLMES.
EDWARD RICHARDSON.

L. S.

(Signed) S. BEALEY, Superintendent.
A. BLAKISTON, Keeper of Public Records.

Signed by the said Samuel Bealey and Sealed with the Seal of the Province of Canterbury by the Keeper of the Public Records and signed by the said George Holmes and Edward Richardson the words "if required by the Government" having been previously interlined between the eighteenth and nineteenth lines of the first page hereof and the words "with the sanction of the Engineer for the time being" having been previously interlined between the nineteenth and twentieth lines of the second page and the words "with the sanction of the Engineer for the time being" at the twenty-first and twenty-second lines of the second page having been struck out—in the presence of

(Signed) JOHN HALL,
Secretary for Public Works, Christchurch.

LYTTELTON AND CHRISTCHURCH RAILWAY.

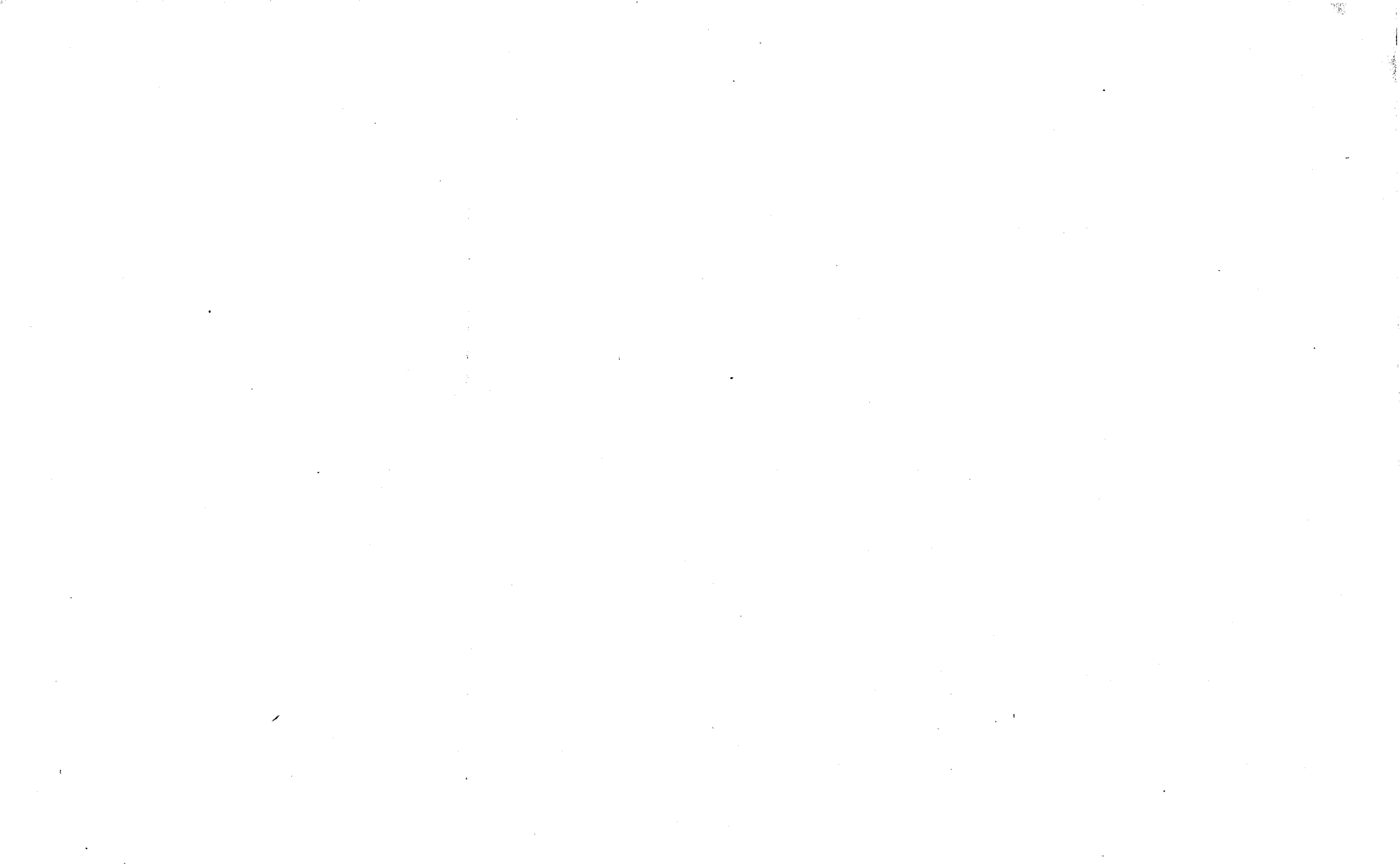
R E P O R T

OF

MR. E. DOBSON

ON THE

PROGRESS OF THE TUNNEL WORKS.



LYTTELTON AND CHRISTCHURCH RAILWAY.

Railway Offices, Heathcote Valley,

June 1, 1865.

TO THE SECRETARY FOR PUBLIC WORKS.

SIR,

I have the honor to forward you returns of the progress made with the tunnel works, and of the amount expended on the works during the present financial year. The excavation of the tunnel has proceeded satisfactorily, although the work has been much delayed by the hardness of the rock at both ends, and by the amount of water encountered at the Heathcote end. The distance remaining to be driven is now only 821 yards, and the drainage and ventilation are all that could be wished.

The amount expended upon the works from July 1st to May 31st has been £59,667 3s. 6d., out of a vote of £61,965, leaving an unexpended balance of 2297 16s. 6d.

The amount still unpaid upon contract is in round numbers £68,700, to which must be added the sum of £8000, advanced to the Contractors under the terms of the contract for plant, and which has to be deducted from the final payment on the conclusion of the works. With the exception of the tunnel, little remains to be done to complete the contract.

At the end of the financial year I shall have the honor to forward you a detailed account of the whole of the expenditure upon the works of the Lyttelton and Christchurch Railway, in continuation of the amount already furnished, which is made up to August 31, 1864.

I have the honor to be, Sir,

Your obedient servant,

(Signed) E. DOBSON,

Engineer of Lyttelton and Christchurch Railway.

RETURN OF PROGRESS MADE AT THE LYTTELTON TUNNEL

FROM MAY 1ST TO 31ST, 1865.

Amount driven to April 30.		Amount driven to May 31.		Monthly progress.	
Ch.	Ft.	Ch.	Ft.	Ch.	Ft.
Heathcote ... 47	2	47	53	0	51
Port ... 43	7	43	58	0	51
-----	-----	-----	-----	-----	-----
90	9	91	45	1	36
Total length of Tunnel				2838 yards.	
Total driven to May 1				2017 „	
Remainder to be driven... .. .				821 yards.	

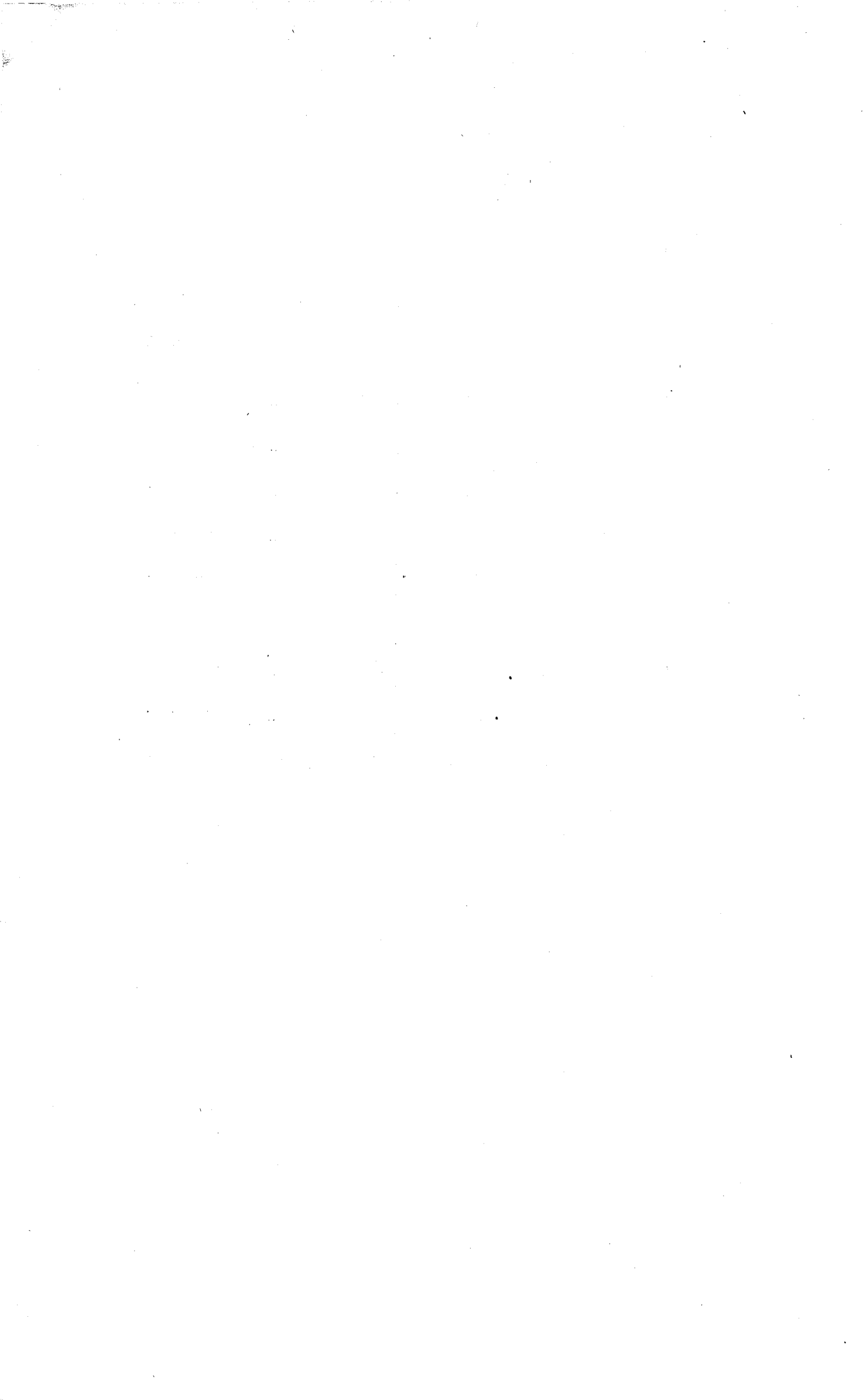
10

June 1, 1865.

(Signed.) E. DOBSON,
Engineer of Lyttelton and Christchurch Railway.

LYTTELTON AND CHRISTCHURCH RAILWAY.

No. of Voucher.	Name of Payee.	Date of Service.	Particulars.	
				£ s. d. 44292 18 2
20	Dobson and others ...	Feb. 1 to 28	Salaries	110 8 4
21	Holmes and Co. ...	" "	Works	1893 12 0
22	Dobson and others ...	March 1 to 31	Salaries, &c. ...	132 18 4
23	Holmes and Co. ...	" "	Works	4000 0 0
24	Dobson and others ...	April 1 to 30	Salaries	110 8 4
25	Holmes and Co. ...	" "	Works	6000 0 0
26	Holmes and Co. ...	May 1 to 31	Works	3000 0 0
27	Dobson and others ...	" "	Salaries	110 8 4
28	Dobson	Oct 3, 1864, to May 31, 1865	Office Expenses, Stationery, &c.	16 10 0
				£59667 3 6



R E P O R T S

ON THE

GEOLOGICAL EXPLORATION

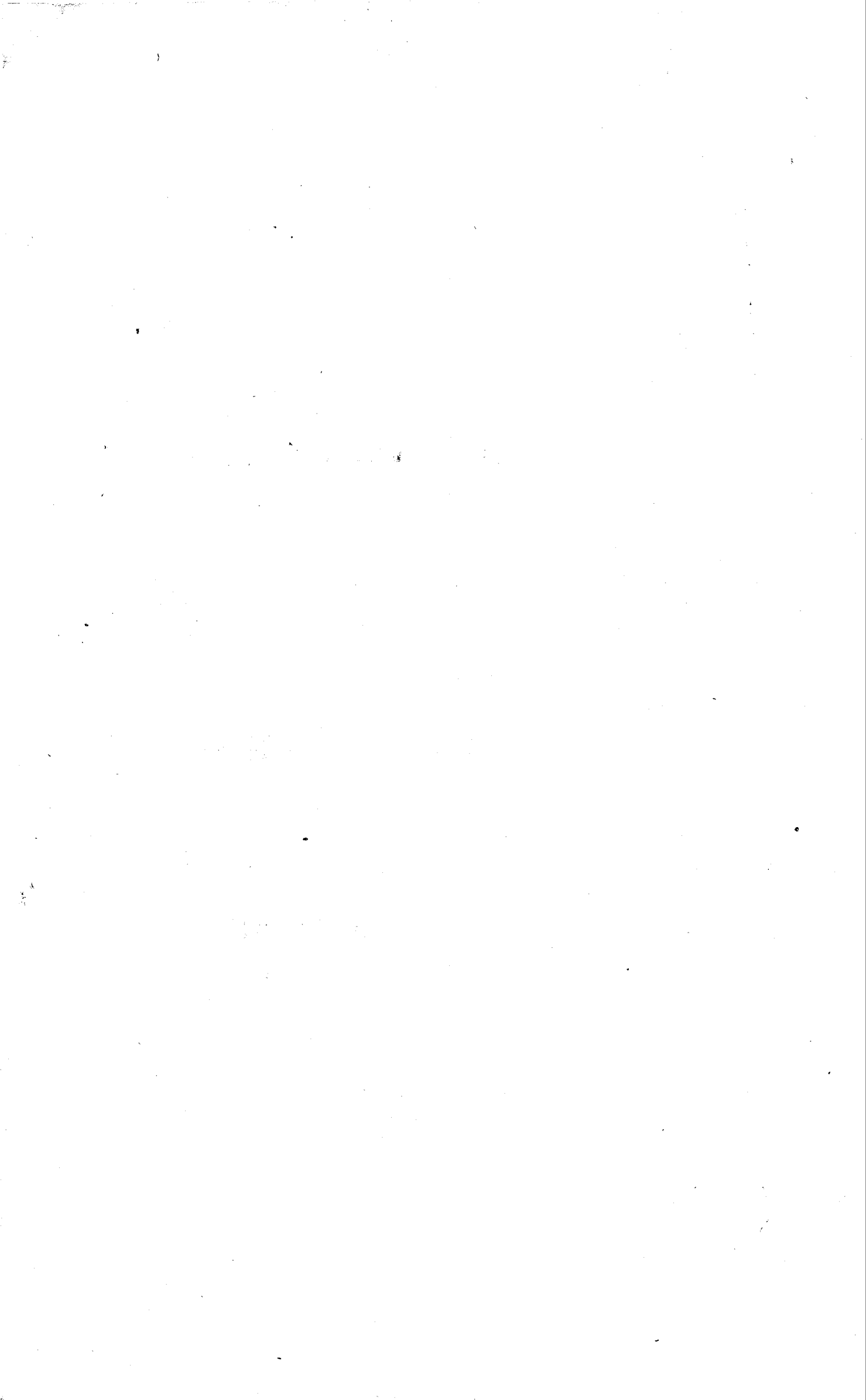
OF

T H E W E S T C O A S T,

BY

DR. JULIUS HAAST, F.G.S., F.L.S., ETC.,

PROVINCIAL GEOLOGIST.



REPORTS, &c.

TO THE SECRETARY FOR PUBLIC WORKS, CHRISTCHURCH.

Lake Sumner, April 6th 1865.

SIR,—I have the honour to communicate to you, for the information of His Honor the Superintendent, that I arrived here last night, after having, to complete my section from the East to the West Coast, first examined the country near the river Waipara for about twenty miles from its mouth.

The palæozoic rocks of sedimentary nature begin only near the Waitohi Gorge, and consist of the Mount Torlesse series, continuing without interruption in huge foldings to Lake Sumner.

From an examination of the older alluvium, which contains specimens of rocks, derived from the very central chain in this neighbourhood, it is evident that they are identical with those examined by me near the sources of the rivers traversing the Canterbury Plains, and in consequence *no auriferous* rocks are existing on this side of the Teramakau Saddle, so that there is not the slightest chance that here in the most northern part of the province, a gold-field will ever be discovered; a conclusion to which I came already two years ago, after having examined some of our more southerly rivers, being at the same time acquainted with the country north of the Teramakau Saddle. As this fact is of considerable importance to the province, I think it right to make you at once acquainted with it. The bridge as far as here is, considering the nature of the country, judiciously laid out, and no difficulties present themselves to travellers; but I think that in some parts between the Waitohi Gorge and the Hurunui, some few culverts have still to be constructed, because if a continuance of wet weather should set in, some few localities would offer serious obstacles to be passed by loaded horses. I shall start to-morrow morning for the saddle and hope soon to be able to address you from the West Coast.

I have the honor to be, Sir,

Your obedient servant,

JULIUS HAAST,

Provincial Geologist.

TO THE SECRETARY FOR PUBLIC WORKS, CHRISTCHURCH.

Government Camp, Hokitika, 22nd April, 1865.

SIR,—I have the honor to communicate to you, for the information of His Honor the Superintendent, that I arrived here yesterday, and, before proceeding with the examination of the gold-fields in this neighbourhood, I beg to offer you in the following notes some observations on the country traversed by me since I had the pleasure of writing to you from Lake Sumner.

According to the physical structure of the country above and below the Alpine Lakes in the Province of Canterbury, owing their existence to glacier action, formerly of more formidable dimensions, the valley above Lake Sumner assumes all the characteristics of a true shingle valley. It is from one to two miles broad, showing remains of former morainal accumulations and rocks rounded by the action of ice (*roches moutonnées*.)

A complicated system of Lakes is here met with, showing well the repeated advance and retreat of the huge pleistocene glaciers, the following altitudes of which I calculated from observations made with two aneroid barometers and a boiling water apparatus. The corresponding observations were made by John Rochfort, Esq., mining surveyor in Hokitika, which enabled me to calculate them with some degree of accuracy.

Lake Sumner	...	...	1802 feet.
Lake Taylor	...	...	2022 „
Lake Catherine	...	...	1809 „

The geological formation continues to be of the same character as below the lakes; sedimentary rocks of a late silurian age as described previously in my former reports, and of which by far the greater part of the eastern side of the central chain in this province is composed, exhibiting everywhere their huge foldings.

I met with dioritic sandstones, clay slates, indurated shales, compact conglomerates, &c. Some of the slates become more and more silicious as we approach the saddle; in other localities trappan rocks of a diabasic nature become interstratified between those of purely mechanical origin. Some of them show an amygdaloidal structure, whilst others are identical with the Devonian Schaalstones of Germany.

This large formation is sometimes overlaid unconformably by younger sedimentary rocks, and judging from the lithological character, are of our carboniferous age, whilst at some few spots rocks of a more metamorphic character seem to crop out below them, as shown by some specimens collected by me in a deep ravine.

Three miles from the saddle, the valley of the Hurunui contracts, the river assumes more the nature of a mountain torrent, and an easy ascent of about 600 feet brings us to the summit of the pass, which is, according to my calculations, 3242 feet above the level of the sea.

I may here observe the strike of the strata is generally from south-west to north-east, the dip at a very high angle alternating between south-east and north-west in its general directions, and a vertical, or nearly vertical position of the beds not being unfrequent.

The bridle track, which hitherto had been very fair, begins on the western side of the dividing saddle to descend very rapidly, and has, through the enormous and continuous traffic become almost impassible; blocks of rocks, boulders, roots, and remains of dead trees, intermingled with a knee-deep semi-liquid mire, forming here the travelling ground between the two coasts of the province.

The fall, as before said, is on the western side of the saddle very rapid, as shewn by the mountain torrents, which come down the steep sides in a succession of small cascades and rapids, so that after two and a half miles, a descent of more than 1300 feet has already been effected. Unfortunately the weather, which hitherto had been so favorable, began to change, and from the saddle to the junction of the Greenstone Creek with the Teramakau, a succession of wet weather was experienced, which delayed my progress considerably.

After four miles the valley of the Teramakau River assumes also the character of a shingle valley, over which the river winds often in several branches with a diminished fall. The rocks continue still to be identical with those on the eastern side of the central chain, and only after having descended that river about six miles, the older series, which form the central peaks of the Southern Alps, make their appearance, consisting of silicious and true clayslates of different colours as well as of light coloured fine grained gneissic schists being characteristic to that formation. They are followed by metamorphic rocks of a more typical structure, four to five miles east of the broad valley, which leads to Lake Brunner and which belong to the auriferous series. Thus we observe that the geognostic axis of the central chain continues from the main sources of the River Waimakariri in the same north-east direction across the valley of the Teramakau towards the Spencer Mountains in the Nelson Province, without following the watershed of the two rivers, running east and west.

At the same time it is evident that as the central chain trends from near the sources of the Otira River, a tributary of the Teramakau, in the east north-east line towards the sources of the Hurunui, the Teramakau must receive a much larger amount of water than the Hurunui, at the same time all the northerly branches of the Waimakariri bring down the waters opposite the upper course of the Teramakau, which in its turn is enlarged by the numerous water courses of the same chain, running along it to the saddle. This accounts, in consequence, very easily for the greater amount of water in the river running west in comparison of that flowing east.

By entering the opening between the ranges leading to Lake Brunner, the observer is struck by the clearly indicated fact that the Teramakau, in geologically recent times, instead of pursuing its course to the West Coast in an almost westerly course, coming here in contact with granites and metamorphic rocks of a more compact nature than those formerly observed, turned suddenly towards the north, and whilst one branch took its course by Lake Poerua (about 345 above the sea level), the more important one fell into Lake Brunner (227 feet), and discharged itself as the outlet of this lake into the sea more towards the north, and, as I suspect, between the mouths of the Grey and Teramakau rivers, somewhere near the entrance of the River Paroa, into the ocean. The gorge of the Grey across the coal measures not yet being formed, that river had also to find its exit into the sea more towards south. As I have not yet examined that part of the country, I can of course not speak confidently; but, judging from the physical features of of the River Grey as above the gorge, such a conclusion would not be too hazardous.

The watershed between the Teramakau and the two lakes is exceedingly low, and, if I can trust to some observations here made, some 10 or 15 feet of unusual rise of the Teramakau would bring its flood-waters again towards Lake Brunner and its smaller neighbour.

But I may mention that these channels are of far older date than the formation of the alluvial beds, which at present form the surface of the valley, and that we have to go as far back as to the pleistocene epoch, when huge glaciers enlarged the existing valleys, or ploughed in some instances new ones with their icy masses in the plateau-like mountain chains that covered the surface of the country.

It is here that the *first* fluvial deposits are met with, which have, as one of their constituents, gold among their debris.

As the road by the lake promised to afford me more information than that by the river to the mouth of the Greenstone Creek, I sent my horses down the river to that locality, and walked by the track cut along Lake Brunner to the Greenstone Gold-fields. Lake Brunner offers some striking features generally not observed in our other alpine lakes; its southern banks are formed by granitic and metamorphic rocks, of which a bluish massive silicious schist is predominant. The contact of the granite, which in many instances invades in small ramifying veins those metamorphic strata, can be studied easily all along the track, which by extensive use is now in such a frightful state that it is almost impossible to conceive its condition, and is unfit either for men or animals to travel upon.

After a few miles the road leaves the lake, and rounding the north-western spurs of the Hohonu range, enters upon a table land of considerable extent, through which innumerable creeks run in deep gullies with often perpendicular banks on both sides. An examination of the banks of these watercourses revealed at once their peculiar character, and showed distinctly why the raising of gold in considerable quantities, and over a great extent of country, may confidently be expected between Lake Brunner and the Teramakau.

Whilst, as shown, for instance, in the Big Hohonu and the Greenstone Creeks, the beds of these present watercourses consist mostly of large well-rounded boulders of granites and metamorphic rocks in close vicinity to the former, as well as the low terraces near them, which stretch to the high perpendicular cliffs by which these creeks are confined, I observed that the contents of the older alluvial formation consisted of subangular river shingle, mostly small and of an arenaceous nature, dioritic sandstones, pebble-beds, Graywacke, &c., occasionally with small granitic shingle between them, such as are contained in a large river-bed coming from the central chain, which small tributaries joined from the more westerly ranges. It is evident that in such a river-bed as that of the present Teramakau the more argillaceous schists containing gold in the laminae and veins of quartz would soon be destroyed, depositing it among those large fluvial beds often of a thickness of more than 100 feet. It thus became evident that a river-bed of a late tertiary age had here run along the Hohonu range, being bounded in a westerly direction by low tertiary ranges, and that as by subsequent changes in the physical geography of that part of the Island these pleistocene fluvial deposits had become denuded, the gold contained amongst them had been re-deposited more condensely in the newer watercourses amongst the boulders, gravel and sand, which form their beds, as well as in the low terraces only a few feet above the present level of these streams, by which they are bounded. Some of them are more than a quarter of a mile broad, and offer, as the creeks on this plateau are very numerous, ample room for a large mining population.

The thin, scaly nature of the gold here extracted, demonstrates at once that it has been subjected to continuous action of running water for a considerable distance.

The enclosed geological section across the Greenstone Creek, six miles above its junction, will convincingly show that the power of the river has served already in a great measure to sluice the former deposits so thoroughly where they were removed, that the remaining portion became fit for the extraction of the precious metal.

It is true that no great finds will be made in this part of our gold-fields, because the gold is distributed in small scaly flakes nearly evenly through the whole washdirt, but just that peculiar character insures the certainty of obtaining a fair amount of gold wherever the character of the country induces the miner to sluice or flume. It is, to use a miner's phrase, only a poor man's field, which to the steady miner, gives a fair remuneration for his labours, but I may add, that considering the frightful state of the road and the present exorbitant price of provisions, brought by those so called tracks to the diggings, the profits of the diggers become in most instances very small, and although the greater part of the present population seems to struggle manfully against all these disadvantages, many have left that part of the country in disgust, which otherwise would have offered them for a long period the means of a sure and independent living.

This older alluvium reposes upon clay marls, belonging to our younger tertiary series, stretching with little interruption to the mouth of the Teramakau, and as in many cases it will have been denuded and the gold contained in it redeposited in payable quantities in the water courses by which it is everywhere traversed, we may confidently expect that other localities, which will offer ample room for our mining population, will be discovered. I may here mention that the present workings are confined to the Greenstone Creek proper, and some smaller tributaries, but I obtained some prospects in the Big Hohounu Creek, which induce me to believe that this river also will eventually, when properly examined, become a mining locality. In every case should even this river not prove rich enough, the country about the Greenstone Creek proper will offer room enough for several thousand diggers.

In a few days I shall start to visit the gold-fields situated near the Hokitika, and ascend this river as far as to obtain a good section and afterwards examine the rivers Arahura and Waimea, after which I shall have the pleasure to submit to your perusal another report, which I hope will be favorable to the future prospects of our West Coast.

I have the honor to be, Sir,

Your most obedient servant,

JULIUS HAAST,

Provincial Geologist.

TO THE SECRETARY FOR PUBLIC WORKS, CHRISTCHURCH.

Mouth of Teramakau,

May 4th, 1865.

SIR,—A heavy fresh in the River Hokitika prevented me in carrying out my original intention to ascend that river, and therefore I started on the 26th of April to visit the Gold-fields north of the Hokitika instead. Being here detained by heavy rain I take this opportunity to lay before you, for the information of His Honor the Superintendent, the results of this examination. As this part of the province includes the most important portion of the gold-fields at present actively worked, a short description of the physical features will not be superfluous, the more so as the character and the nature of these gold-fields can only be understood when the changes in the physical geography of this part of New Zealand have been taken into account.

In my last report I stated that south of Lake Brunner, and on the western bank of the Big Hohounu and Greenstone Rivers, a large granitic zone stretches to the Teramakau, forming, where the former trends towards South, a gorge through which that river forces itself. With this zone are associated metamorphic rocks of various character, partly auriferous, but I may point out once more that the greater part of the auriferous rocks lies east of this granitic axis, forming bold foldings. The same plutonic rocks are again met with in the River Arahura about 20 miles from its mouth, stretching as it seems in an almost continuous line towards south.

West of this granitic zone large alluvial fanlike deposits are situated inclining towards the sea and having covered during their formation the highest points of the low tertiary ranges which, from the Grey River run southwards along the coast, stretching six or eight miles inland. This alluvium consists of the debris of the dividing range and its western continuation, brought down by the rivers Teramakau, Arahura, Hokitika, &c., which here have formed a fan, very much resembling the Canterbury Plains, with which we are so well acquainted.

The lithological character of the boulders, of which this alluvium consists, gives us at once an insight into the nature of the beds from which they are derived. There are dioritic sandstones, graywacke, conglomerate and breccia, clay—graywacke—and silicious slates, dioritic and diabasic rocks associated with them and all found near the summits of the Southern Alps, together with the fine grained, light-colored gneissic schists, characteristic to them. But by far the greater part consists of metamorphic and plutonic rocks too numerous to mention, but clearly indicating that the longest course of the rivers went through rocks of that description, but also that the greatest denudation has taken place amongst them. It would be easy to collect within a few yards in these river beds, many varieties of granite, syenite, pegmatite, gneiss, mica, chloritic and talcose schists, dioritic porphyries, trap rocks, and a great diversity of slates, all derived from the ranges west of the central chain, and of which several are highly auriferous.

It is evident that under these circumstances the boulders, gravel, and sand, by which, as before mentioned those alluvial deposits are mostly composed, must contain a great deal of gold, but which, nevertheless, would not be worth being extracted, had not nature herself, by the subsequent changes in the configuration of the country, concentrated the precious metal in numerous localities by sluicing the original accumulations on such a gigantic scale as can only be effected by natural physical forces. This plateau, besides being intersected by those large rivers, is nearly separated from the higher mountains forming the outrunning spurs of the Southern Alps by streams running either north to the Teramakau, or south to the Arahaura rivers. The consequence is, that for a long period it has remained almost intact, till smaller watercourses, derived from the surface drainage, began to form channels, of which the two principal ones are the main branches of the Kopitea and of the Waimea, which both take their source on that plateau itself, having the character of a swampy plain covered with manuka scrub and other vegetation peculiar to moist localities. I have already stated that the older alluvium covered the highest young tertiary ranges which are of an altitude of 800 to 1000 feet, reposing unconformably upon older tertiary strata near the Grey. Of this fact I met numerous instances during my various journeys across these gold-fields, where sharp razor back ridges have been formed, still having a distinct capping of sub-angular boulders of older rocks on their summit. Following down the main sources of both rivers from the plateau, we soon arrive at that barrier, consisting of young tertiary strata, through which the waters have cut their way, showing by the terraces, that the process of denudation has been a very gradual one or been accelerated or retarded according to the physical changes in operation.

As in many localities no denudation has taken place on the upper part of the plateau, the sluggish watercourses meandering through swampy or boggy ground, no gold is to be expected there, and only descending for a few miles, where the alluvial capping has been extensively removed and the gold contained in it has become concentrated in the present watercourses or in the terraces, formed by previous channels, gold in payable quantities is to be expected. But by far the richest creeks are those which take their rise in the claymarl hills themselves. Those creeks which have a moderate fall with an appropriate breadth are those which yield the richest harvest to the miner. Owing to the favorable nature of the bottom, the greater part of the gold has been retained in them, and even the terraces yield a large quantity. Thus, for instance, the creeks taking their rise in these clay marl hills, as Fox Rush, Greek Gully, Nos. 1 and 2, falling into the Arahura, the southern and northern branch of the Waimea, the Maori and German gullies, forming tributaries of the Kopitea, have proved to be very rich, giving a fair remuneration to the mining population. But also the terraces on both sides, which owing to their peculiar nature, present generally some difficulties in obtaining water, so that the miner is often obliged to wait for rainy weather (for which generally he has not long to wait) before he can strip his ground, are extensively worked with advantage, and will be still more lucrative when some new appliances are introduced, so that an ample supply of water can be brought to his assistance.

It is true that the terraces are more or less patchy, but their fall being less than that of the present water channel, the gold is heavier, and many claims were pointed out to me which are considered to be extremely rich.

The gold in all these creeks, like that in the Greenstone, is of the same fine scaly nature, which, considering the deposits from which it is derived, having travelled so far in a former large river, is easily accounted for. When the gullies are short and steep the force of the water has been so great as to sweep away the larger quantity of the gold, passing through the natural sluice, and I may only, as an example, instance Caleghan's Gully, falling into the Kopitea, in which the yield of gold in comparison to other neighboring creeks has been insignificant. In that creek only very large boulders are generally found, between which the gold has been retained, whilst the terraces above, descending with less slopes, are giving a far better yield and much heavier gold than the bed of that gully itself.

As soon as the rivers lose their gorge-like character, approaching the sea, the extraction of gold begins to be not so remunerative as in their upper course, which is easily understood, if we consider the breadth of the river bed, and of the terraces bounding it; the gold becomes finer and lighter, and although everywhere prospectors, to use a mining expression, obtain the colour, its working is no longer payable. This is the reason why the Kopitea, flowing in a broad valley, has hitherto not given satisfactory results, but nevertheless I have no doubt that some of the lower terraces in that river will yield ultimately a fair remuneration to the miner.

In many other localities, where the lower terraces are too poor to be worked with advantage, smaller creeks, traversing them, having again concentrated the gold contained in the alluvium by which they were

formed, occupy a population of several hundred miners. Such gullies are found for instance in the Waimea about four to five miles from the sea.

It is evident that a range which has furnished the material for such enormous auriferous accumulations must, since the formation of that gigantic fan, and even at present the denudation going on uninterruptedly set free large quantities of gold.

Thus we may fairly expect that above the gorges of the rivers Hokitika, Arahaura, &c., new gold-fields will be discovered where the precious metal not having been subjected so much to the action of running water will be of a coarser and more nuggetty nature, and in fact the gold obtained in the rivers south of the Hokitika, where the ranges approach nearer to the coast is of that character, and may be considered as another proof that such a theory is more than a mere supposition.

Therefore we can anticipate that the gold-fields will eventually reach not only along the coast for a long distance, but also far back towards the central range behind the granitic axis, and that rich finds will reward the enterprise of our hardy mining population when it has once fairly penetrated into the interior. The circumstance that our present gold-fields are what is technically termed "poor man's diggings," carries with it the internal evidence that they will be of a more permanent nature than many other mining districts in New Zealand, because the gold being deposited, as it were, almost equally everywhere a great deal of country besides the terraces will be found, which may be considered to be more than only payable, the more so when roads of a more passable character will reduce the cost of carrying provisions inland. There is no doubt that the Western Ranges still continue to furnish auriferous alluvium which, besides other evidence, we may conclude from the important fact, that for 12 to 15 miles and even higher up the shingle reaches of the River Arahaura are worked, giving, in many instances, a good remuneration to the miners. Thus a comparison with the banks of the River Molyneux is obvious, and I should not be at all surprised, when the former river is very low during the winter months, if more extensive operations on its banks would generally yield still more satisfactory results.

In summing up the evidence obtained during this journey, in which I have visited all the principal diggings, crossing several times over the claymarl ranges, and following some of the principal valleys from their very source to their junction, experiencing all that time a continuance of very rainy weather, I may state as my conviction, that these diggings for several years to come will afford for a limited number of miners (several thousands) ample and advantageous occupation. It is true that many of the principal gullies will soon be worked out, but the terraces remain, which, when once extensive races will be brought into operation to work them hydraulically, will yield satisfactory results, and many leads will be discovered in those terraces at present unknown.

Owing to the dense character of the forest vegetation, and the absence of roads, many gullies are, without doubt, still in existence which hitherto have escaped the exertions of the mining population to find new ground. Besides one and the principal consideration has not been lost sight of, namely, as soon as passable roads will exist, present ones being only channels of semi-liquid mire, intermingled with roots of trees, provisions will become much cheaper, and in consequence a great deal of auriferous ground, which hitherto has been reported not payable owing to the high prices of provisions, will become remunerative as soon as good and substantial roads reduce them to a reasonable standard. With one word, the future of the West Coast Gold-fields depends in a great degree on the nature of the roads the Provincial Government thinks fit to have constructed. Great are the exertions of the miners, those pioneers of civilization, who struggle manfully against all the disadvantages which the nature of this coast, its climate and vegetation, has placed in their way, so that every well-wisher will join me in urging upon you to assist them as much as it is in your power to change a wilderness into a flourishing country, which in many other respects possesses so many advantages, that the Province of Canterbury will one day be proud of its western portion.

My object being simply to give you a general outline of the character and the future prospects of these gold-fields, I can, of course, not enter into a more detailed description, which I have to leave for future reports.

TO THE SECRETARY FOR PUBLIC WORKS, CHRISTCHURCH.

Hokitika, May 10, 1865.

SIR,—I have the honor to inform you that I returned last night to this town, after having visited the country north of the River Teramakau and ascended the River Grey as far as the coal measures.

My favourable opinion has only been strengthened by this new visit of that most important coal-field, and I traced for a considerable distance the main seam on the Canterbury side of that river till it rises to an altitude of about 50 feet above the level of the water, thus insuring ample room and good success to any company which would undertake to open coal-pits in that region.

I have to refer you to my Report, addressed five years ago to the Provincial Government of Nelson, in which I have given all the necessary details about these coal measures, to which I have nothing more to add. The low country between Lake Brunner, the Teramakau and Grey Rivers, and the sea coast, is of the same description as that south of the first-mentioned river, and although comparatively few miners are working at the Paroa Creek and some few other isolated localities, there is no doubt that ultimately more payable ground will be found in that quarter, which has hitherto not been so actively prospected as the country more to the south.

In returning to the Hokitika, I observed several parties being actively at work paddocking at high-water mark, and cradling the wash-dirt of a thickness of 18 inches to two feet on the sea-beach. If such claims should prove to be remunerative, it would be impossible to foresee the extent to which such operations could be carried on; but till at present I was unable to obtain the necessary information as to whether the result can be considered satisfactory or not.

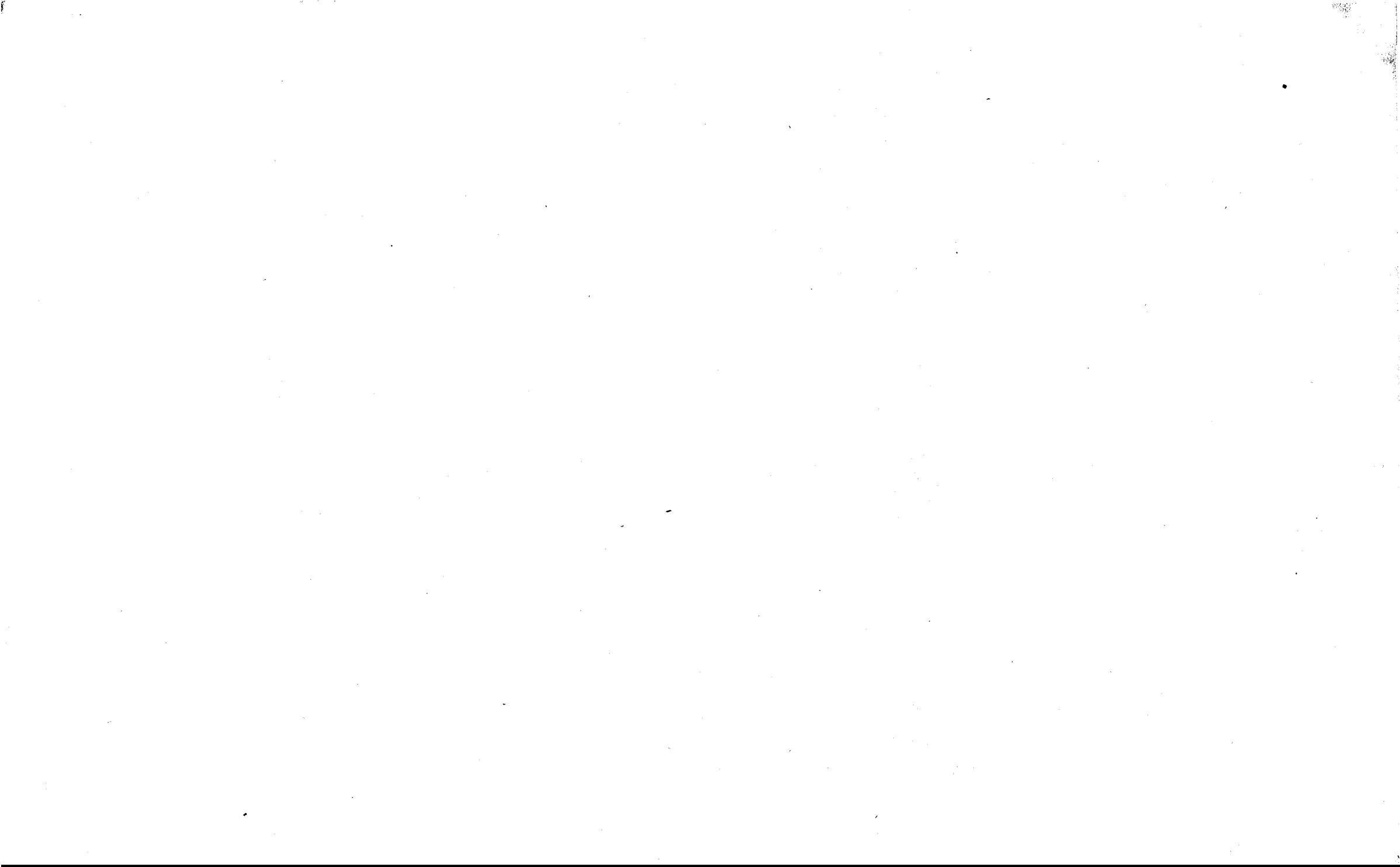
As soon as my preparations are finished, I shall start in a few days towards the head waters of the Hokitika, and I hope to be able after my return to give you some favourable accounts of that interesting region.

I have the honor to be, Sir,

Your most obedient Servant,

JULIUS HAAST,

Provincial Geologist.



LETTER OF INSTRUCTIONS

TO

G. S. SALE, ESQ.,

COMMISSIONER

ON THE WEST CANTERBURY GOLD FIELDS.

THE UNIVERSITY OF CHICAGO

INSTRUCTIONS, &c.

TO G. S. SALE, ESQ., COMMISSIONER ON THE WEST CANTERBURY GOLD FIELDS.

Provincial Secretary's Office,
Christchurch, 31st March, 1865.

SIR,—I am directed by His Honor the Superintendent to inform you that it has been considered necessary to provide for the exercise of the authority of the Provincial Government at the West Canterbury Gold Fields, by the appointment of a Commissioner, to whom large discretion and authority shall be entrusted; and that, in accordance with the verbal intimation already made to you, his Honor has been pleased to confer this appointment on you.

In the unavoidable absence of precise information in regard to the circumstances of the Gold Fields, his Honor thinks it undesirable to do more than state what your duties as Commissioner will be, leaving it to Mr. Rolleston to give you on the spot more precise and definite orders, both as to the nature and extent of your duties and the locality in which they shall be exercised. Your position as Commissioner will make you the representative of the Provincial Government on the West Coast, and in that capacity all Departments of that Government there will be instructed to report to and take instructions from you. In the event of your finding it necessary to appoint additional Officers without delay, you will do so at such rates of remuneration as you deem expedient; you are also authorised to suspend from duty, until the decision of his Honor can be obtained, any Officer of the Government who may be guilty of misconduct or neglect of duty; any subordinate servants, as messengers, boatmen, &c., you are at liberty to appoint and remove at your own discretion. You are also authorised to incur, to an extent which will be fixed by Mr. Rolleston, expenditure on account of the Provincial Government in the erection of buildings, the construction and repair of roads, and the maintenance of ferries, and on other public works. In all these cases you will of course report your proceedings to the Provincial Government by the earliest available opportunity. As above stated, you will receive on the above, and probably other subjects, full and precise instructions from Mr. Rolleston.

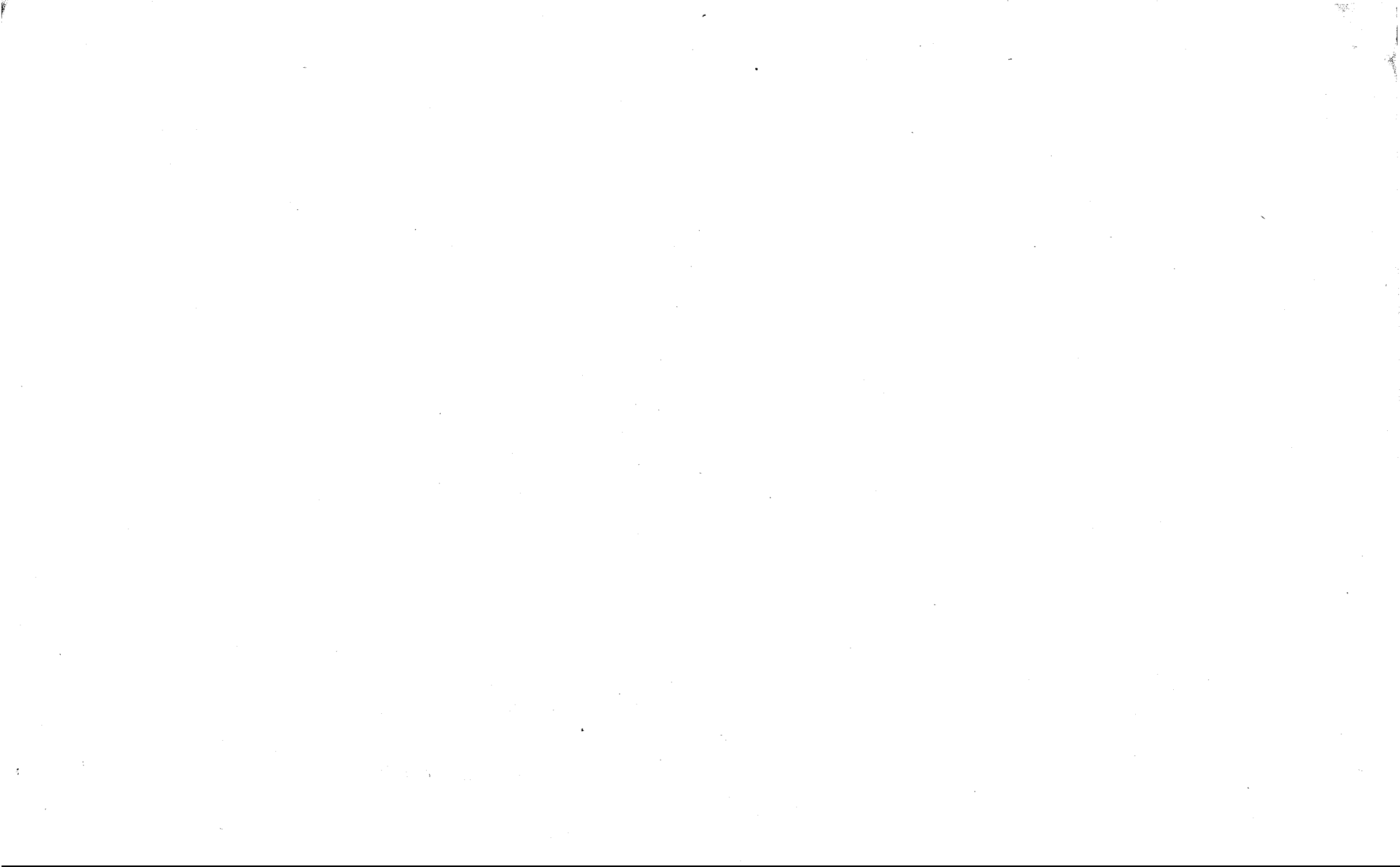
I am further directed to state that his Honor has appointed you Sub-Treasurer at Hokitika, and Warden for the Gold Fields, and has recommended to the General Government to appoint you a Resident Magistrate.

Whether you will be able to undertake any, if so what extent of duties as Warden and Resident Magistrate, his Honor leaves Mr. Rolleston to decide.

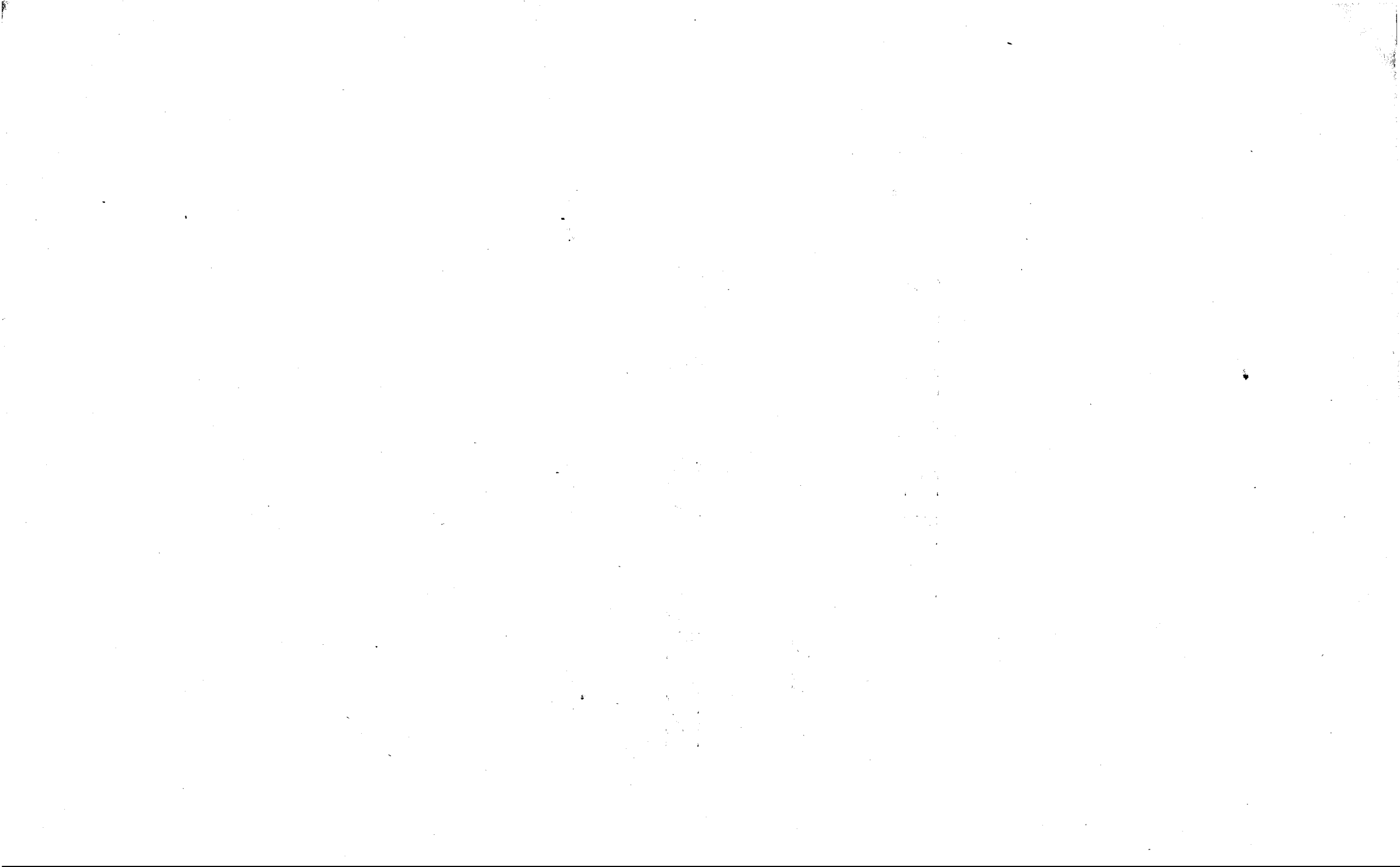
The remuneration to be attached to your Offices will be a salary of £500 per annum, together with reimbursement of all expenses incurred by you for horse keep and travelling expenses.

In conclusion, the Superintendent desires me to assure you, that while he looks upon the duties to devolve upon the Commissioner for the Gold Fields as of a most important character, he relies with confidence upon the judgment and zeal which you will bring to the discharge of them; and he appreciates very highly the public spirit which induces you to undertake the Office under existing circumstances.

I have the honor to be,
Sir,
Your obedient servant,
JOHN HALL,
In the absence of the Provincial Secretary.



R E P O R T S
OF
T H E P O R T O F F I C E R
ON THE
R I V E R S A N D H A R B O U R S
OF THE
W E S T C O A S T O F C A N T E R B U R Y .



REPORTS, &c.

TO THE PROVINCIAL SECRETARY, CHRISTCHURCH.

Hokitika, April 5th, 1865.

SIR,—I have the honor to report upon the information I have gathered, both from personal observation and the local experiences of persons qualified to give an opinion upon the nature of this Bar Harbour, as well as upon the steps I have taken for facilitating its entrance as much as possible.

The River Hokitika is situated on the West Coast of the Province of Canterbury, in latitude, by observation, 42 deg. 41 min. 30 sec. S., longitude by chronometer 170 deg. 59 min. 15 sec. E., and is navigable for vessels of a light draft of water for the distance of $1\frac{1}{2}$ miles from its entrance. There is good anchorage from two to three miles off its mouth in from eight to ten fathoms, dark sand and good holding ground. Should vessels, intending to take the bar, have to anchor to await daylight or high water, they should bring up a little to the southward of the port, for whereas there is usually a southerly current in the offing a very strong northerly set will often be found within the break on the bar.

A constant heavy westerly swell rolls in on this portion of the coast, and although the prevailing gales blow from the N.W., S.W., and S.E. enabling vessels to lay well off shore and obtain an offing, the masters of vessels should not neglect watching the weather carefully, and in the event of its threatening put to sea in good time. The heaviest break of the sea is immediately outside the bar in two fathoms water. The bar itself is constantly shifting in direction and varying in depth. After a heavy fresh the river runs straight out to sea, and during the interval of moderate and fine weather the sea piles up either the northern or southern spit, and makes a series of middle banks, forming one, two, or three channels, as the case may be, averaging only a depth of from 12 to 18 inches at low water.

It is high water, full and change, at Hokitika Bar, 9 hours 39 minutes, and the mean rise and fall of tide averages from $8\frac{1}{2}$ to 9 feet; but this is of course greatly affected by the amount of fresh in the river.

Having thus briefly described the main features of the Hokitika, I will proceed to report upon its capabilities as a port, and the steps I have taken to render its entrance as safe as possible. No vessel over a draft of eight feet should ever be sent to Hokitika, and it is still more suitable for small steamers and sailing craft drawing from 4 to $6\frac{1}{2}$ feet when loaded; the latter should not attempt the bar without a commanding breeze, for the sea runs very irregularly in the break and often throws a vessel athwart the channel, when if there be not wind sufficient for her to recover her steerage way quickly, she is liable to be swept by the northerly current on the north spot.

The sea does not roll in on the beach in the vicinity of Hokitika in regular lines of breakers, but in one confused mass of broken water and blind rollers, and it is madness for vessels outside to attempt to communicate with the shore by means of boats, either by crossing the bar or endeavoring to effect a landing on the beach. Several lives have already been sacrificed, and many more will be if this practice is persisted in. Being fully convinced that boat communication between the shore and the shipping was impracticable, I proceeded to erect a signal mast and semaphore on either spit at the entrance of the river, so that one or the other will always face the best channel for the time being, on which the following signals are shown:—

No. 1. Ball and red flag at the mast head—high water, take the bar.

2. Ball and blue flag, half-mast—half flood; wait for tide. When the bar may safely be attempted at half-tide, whether flood or ebb, the red flag will be at the mast-head over the ball denoting the state of tide.

3. Ball on the lower mast cap and white flag—ebb tide; bar dangerous.

4. No signal—do not attempt the bar.
5. A red painted arm, pointed to the right hand, entering from the seaward—more to the south.
6. The other arm pointed to the left hand, entering from the seaward—more to the north.
7. The arms up and down with the mast—as you go.

When more than one vessel is crossing the bar the foremost vessel will be piloted in, the others following in her wake.

On a movable pole in front of the signal mast, the two in one showing the fairway will be hoisted (if necessary) the set of the current on the bar thus:—

A red and white pendant, to the northward.

A square yellow flag, to the southward; while on the flagstaff not in use for the piloting signals at high water, the depth in feet on the bar will be denoted by *Maryatt's* code.

A red light is hoisted on the signal mast on the south spit each night, visible from three to four miles.

A house for the accommodation of the signal man and his mate, together with a boat shed, has been erected on the southern entrance of the river. I have the honor to enclose you a copy of their instructions, as also a diagram of the above signals, which I have forwarded to the several Collectors of Customs throughout New Zealand, as well as to the editors of newspapers in the Australian Colonies.

A life buoy is supplied and hangs ready for use on each signal mast.

Opinions have been expressed as to the advisableness of forming a surf-boat establishment as at Taranaki. I will report more fully on this matter when I have visited other parts of the coast; for in the immediate neighborhood of the Hokitika there are two features which quite preclude the possibility of such an undertaking being successful—the one I have already referred to, namely, the want of regularity with which the sea rolls in on the beach.

At Taranaki, Timaru, and Oamaru, the sea rolls in with a regular line of breakers from two to three deep, while at Hokitika, on a fair average fine day, I have counted six series of high curling rollers, followed by others the instant they had broken, almost at right angles running parallel to the line of beach.

Again, another objection that presents itself is, that the shingle beach (to use a sailor's phraseology) is all alive; not like that of Timaru, working constantly to the north; but it is light sandy stuff of no consistency, and in which no anchor will hold; and I am of the opinion that, whereas, as I have before stated, there is good holding ground two to three miles to the westward, with a sandy bottom, yet within a mile of the shore no surf-buoy moorings would hold, but would come home with the first strain on the surf-line, without which it would be impossible to work boats, even if the former and more serious obstacle did not exist.

Another popular cry is for a life-boat to be stationed at Hokitika. So, before closing my Report, I would explain why I do not see the utility of the Government providing one. This portion of the Province, from its position in connection with the direction of the prevalent gales, would hardly ever be a lee shore; it being a straight coast line and bold-to, vessels cannot become embayed. Small craft, on failing to cross the Bar, may be stranded; but any such vessel must necessarily be of such a light draft of water that the shipwrecked seamen have only to wait until low water to walk ashore dry-shod; and the vessel herself being always hurled within the outside break, even before she takes the ground, she would be preserved from any chance of breaking up within the tide.

Those whom the life-boat would be expected to save, are men who will venture to cross and re-cross the Bar. It is well known that a suitable place must be selected even to launch a life-boat successfully (no matter what extraordinary adventures she may go through when afloat), and there is no such place in the vicinity of Hokitika, unless she be kept within the river, in which case I maintain long before her trained crew (and a life-boat is useless without) could be mustered, and the boat conveyed to the scene of accident, the lives so recklessly risked would be sacrificed. The plan of the river, showing the soundings, I will forward when completed; but I would add for your guidance that I found an average depth along the northern bank of the river for three-quarters of a mile further up than the present township, of four to four and a-half feet at low water, with a soft, muddy bottom, on which vessels may ground without injury; there are, however, several snags which must be removed.

I have the honor to be, Sir,

Your obedient servant,

FREDERICK D. GIBSON,
Port Officer.

TO G. S. SALE, Esq., COMMISSIONER, HOKITIKA.

Hokitika, April 29, 1865.

SIR,—I have the honor to report that in accordance with my instructions, conveyed by letter from the Provincial Secretary, I proceeded to the River Grey on the 7th instant, and on my arrival there, having communicated with Mr. John Revell, in charge of the depôt, commenced to remove the Government buildings from their original site, and, after rafting them down the lagoon, completed their re-erection on the Police Reserve at Blake Town on the evening of Friday, April the 13th.

Having availed myself of all the information obtainable, and after a careful inspection of the entrance of the river, I felt convinced that the North Spit, situated in the Nelson Province, was the most suitable position for the erection of a flagstaff; I, therefore, selected that site, and the tidal signals were exhibited for the first time on the 21st instant.

The mast is so constructed as to face both channels, having two sets of cross-trees placed at right angles, each furnished with semaphoric arms, thus obviating the necessity of erecting a second mast on the south bank or Canterbury side of the river, which is very low, and over which the sea sometimes washes.

The River Grey is situated in latitude 42 deg. 23 min. S., longitude 171 deg. 11 min. E. The bar at its entrance, like those of all the rivers on the West Coast, is constantly shifting; and after a heavy fresh, when the channel breaks straight out in a westerly direction, it is perfectly safe and easy of access for small vessels drawing from eight to nine feet, whereas, in the absence of any fresh in the river, the channel makes either to the north or the south, but usually in the former direction, running for a short distance nearly parallel with the coast line, and at such times the entrance of the Grey is far more dangerous than that of the Hokitika, because vessels crossing the bar take the sea abeam when in the heaviest break, and unless under command of very small helm, stand in danger of becoming stranded on the beach before they are in a position to keep away for the entrance of the river, which of itself, although of a great depth of water, is very narrow.

It is high water full and change at 10 hours 15 minutes, but the highest tides often occur the day following.

I have carefully sounded the river as far as navigable for vessels, or a distance of rather more than a mile from its mouth, and the least water I obtained was three and a-half to four feet at dead low water, while at the same time of tide I found from 15 to 18 feet both at the entrance and abreast the Government Coal Wharf.

I have placed a buoy, painted red, on the only dangerous snag lying in the fairway, abreast the Maori Pah, and I have appointed Mr. James Stalker to be signal man, subject to the approval of his Honor the Superintendent.

I have the honor to enclose to you a copy of the instructions I gave to him.

Before leaving the Grey, I assisted Mr. Revell in enclosing Messrs. Whitcombe and Townsend's graves with the railings forwarded by the Government for that purpose.

Having completed my instructions, I proceeded by land to the Teramakau, both for the purpose of examining the entrance of that river, as well as enabling me to report more fully on the suitability of the coast line between the Grey and Hokitika for surf-boat communication.

This river, which is situated 10 miles to the southward of the Grey, empties itself into the sea at the present time by two channels, the one running northwards, which is nearly dry at low water, and the other in a south-westerly direction, in which I found five to six feet.

The entrance is not so confined as that of the Grey, nor yet is it equal to the Hokitika, but small vessels drawing from four to five feet water could cross its bar without incurring a greater risk than they would at either of the other rivers. The only obstacle to the navigation of this river is a dangerous snag on the northern side of the south-west channel, in the break on the bar, which I think it is possible to remove without very much difficulty. It is high water, full and change at 9 hours 55 minutes; mean rise and fall, nine feet.

I have carefully studied the coast line from the Grey to the Hokitika, and I have examined the proposed boat landing, situated about one and a-half miles to the northward of the river Arahaura, and I am of opinion that though the place indicated is without a doubt the *best* adapted for the boat communication, yet I cannot recommend the establishment of a surf-boat service; I believe it would entail great loss of life and property, and in the end prove a signal failure.

The objections against this means of communication are as follows:—

- 1st. The irregularity of the line of surf, and the great distance the broken water extends to seaward.
- 2nd. The non-consistency of the shingle outside of the break, which renders it incapable of holding any surf moorings.
- 3rd. The highest rollers break outside in from one and a-half to two fathoms water, a long distance from the beach, and nearly always present such a volume of water as to preclude the possibility of hauling any boat through it to gain an offing.

It is my belief that a boulder bank exists extending the whole distance from the Grey to the Hokitika, running parallel with the beach at a distance of from five to six hundred yards to seaward; that it is on this the heaviest of the break takes place; through this the freshes down the rivers burst, forming the channels over the bars; and I cannot help thinking that this portion of the coast is extending to the westward, being gradually formed by the sea through a series of lagoons. The whole coast immediately above high-water mark tends to confirm this opinion, not less so the low-water line to the north of the Arahaura, where the sea has nearly completed its work in forming a new lagoon.

I have the honor to be, Sir,

Your obedient Servant,

FREDERICK D. GIBSON,
Port Officer.

TO G. S. SALE, ESQ., COMMISSIONER, HOKITIKA.

Hokitika, May 9th, 1865.

I have the honor to submit to you my Report on the coast between the Hokitika and Mahitahi Rivers, which I have visited in company with Mr. John Rochfort for the purpose of examining, from seaward, the bars of the various rivers with a view of finding another port.

On Saturday evening, the Bruce under command of Captain Malcolm, shaped a course at dusk, and proceeded under easy steam for Okarita. The wind was south-west, with drizzling rain, and a long rolling swell (barometer 29.000).

At daylight on Sunday, 7th, finding ourselves off the Waiau, or five miles to the south of the Okarita, we steamed back to it.

The weather on our arrival there was very hazy, and the swell rapidly increasing; broke frequently in nine fathoms with great irregularity off the entrance, indicating a foul rocky bottom. The bar appeared one mass of broken water, showing no channel.

Mr. Rochfort, informing me of a sheltered bay situated midway between our position and Jackson's Bay, into which a small river named Mahitahi empties itself, consulting with him, I determined to examine it, the more so as I wished to give time for the sea to go down, so that I might further examine the Okarita on my return.

Steaming close along the shore at half-speed, at two p.m. we ran out of a heavy swell into fine smooth water. Cautiously sounding till close in under the south head, we dropped our anchor at three fathoms at dead low water; the bottom was hard speckled sand, and apparently good holding ground.

I consider this bay a much better harbour than either Timaru, Oamaru, or Moeraki, because it is protected from everything except a northerly wind, which seldom blows here with any violence, and on necessity a sailing vessel could put to sea without any difficulty; besides which I feel sure vessels could generally discharge their cargo in their own boats, so little surf is there on the beach; and were there a short inexpensive jetty constructed in the south corner on the sand, even in a northerly breeze I hardly think cargo boat communication would be intercepted; and further, it will, I am sure, prove a great acquisition to the larger description of vessels seeking shelter from a southerly breeze, being the only protected anchorage between Wanganui Inlet and Jackson's Bay, which latter place it closely resembles. The southern headland is a bold rocky promontory stretching out a mile and a half in a north-west direction, and forming the shelter. On this we landed, stepping from the boat on a rock, and re-embarking at dark dry shod. I have named the bay "Bruce Bay," because that vessel was the first to anchor there.

The weather looking fine, and the water-glass smooth, we weighed anchor at 8.30 a.m. the following day; but no sooner did we leave Bruce Bay than we fell into a heavier swell than yesterday; our hopes of entering any of the smaller bar rivers fell very considerably; nevertheless we determined on examining them as closely as safety would permit.

We coasted along the shore, which is all of a similar character, between Bruce Bay and Hokitika, being in diggers' *parlance* "made terraces," thickly timbered, the coast line, with a few exceptions at the headlands being sandy beach.

At Waikukupa, a small creek abreast of Mount Cook, I observed the cutter "Trader" safely riding inside. You may recollect she left here some time ago with a party of prospectors, having the intention of entering the Wanganui. Five tents were pitched near her. We were prevented from holding communication by the heavy surf.

Mr. Rochfort tells me this creek is not deeper at low water than your ankles; so I pass on to the Okarita. It was now perfectly clear, and we stood in as far as it was safe, and obtained a good view of the entrance, which I found much more confined and intricate than had been represented, and very much inferior to the Hokitika.

Hohuhamaru, which is on the southern side of the Okarita, is a high rocky headland, from which a rocky bottom evidently stretches out to the north-west, causing an irregular, heavy cross swell, frequently breaking, which would preclude vessels from anchoring outside.

The north side is a low sandy bank covered with coarse grass and flax, extending some five miles north, and enclosing a lagoon of considerable size. The resident Natives told Mr. Rochfort that, in their remembrance, the entrance has been completely closed up, so that they could walk across dry footed, being in this respect similar to Lake Ellesmere.

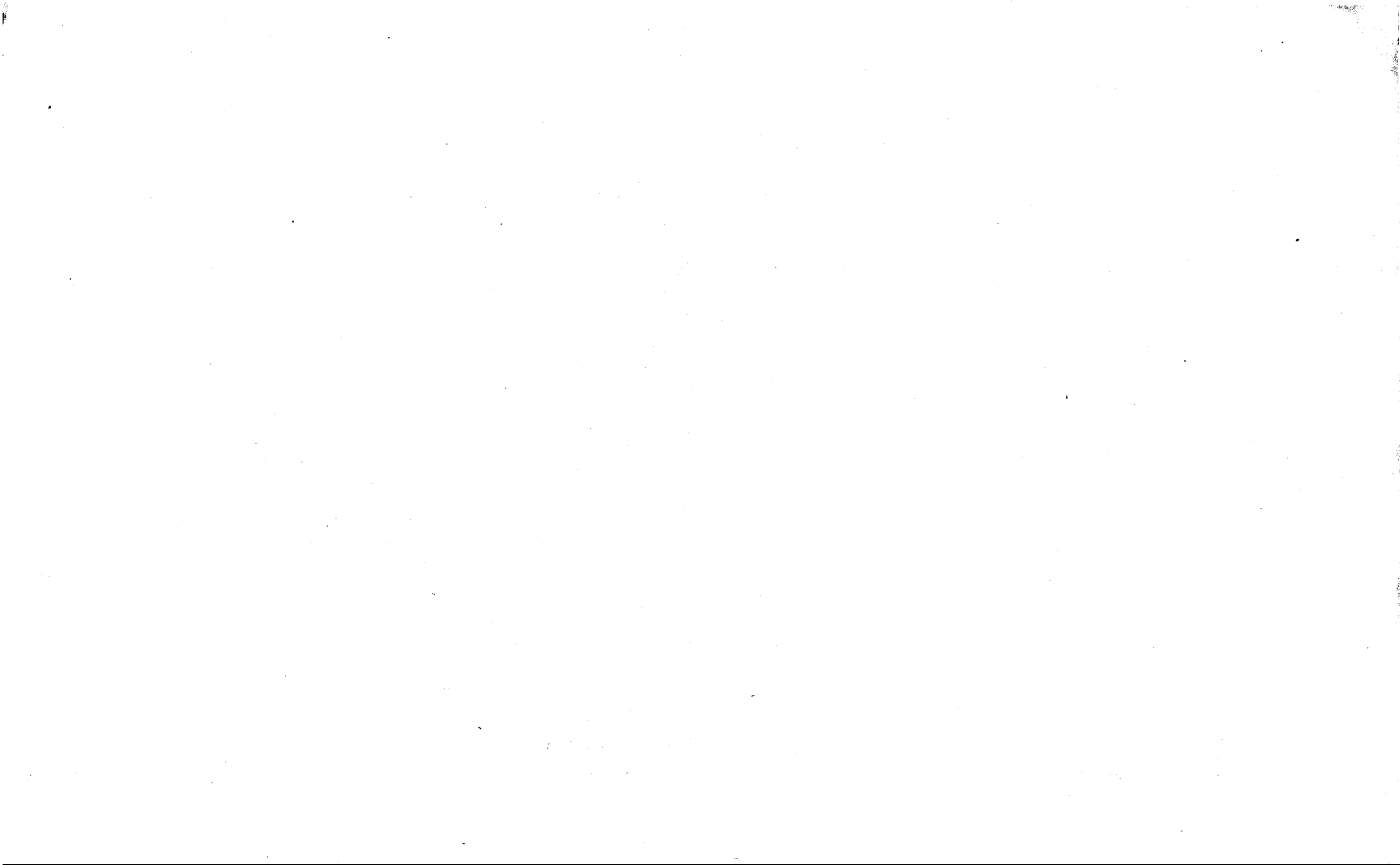
The wind and sea increasing, and seeing no prospect of being able to enter in our limited time, I next visited in turn the Wataroa and Wanganui Rivers, standing in as before to the edge of the breakers. As both the entrances were narrow and more exposed to the south-west or prevailing swell, I did not consider them worthy of further notice, as they could only be entered by a very small class of craft, and that in chosen weather; so, thinking it unadvisable to lose more time, we steamed on for the Hokitika.

Bruce Bay is situated in latitude 43 deg. 36 min. S. (roughly), and Mount Cook bears N. 71 deg. E. magnetic. It is the bay shewn on the Admiralty Charts lying between Makauritio and Porauragerangi Points.

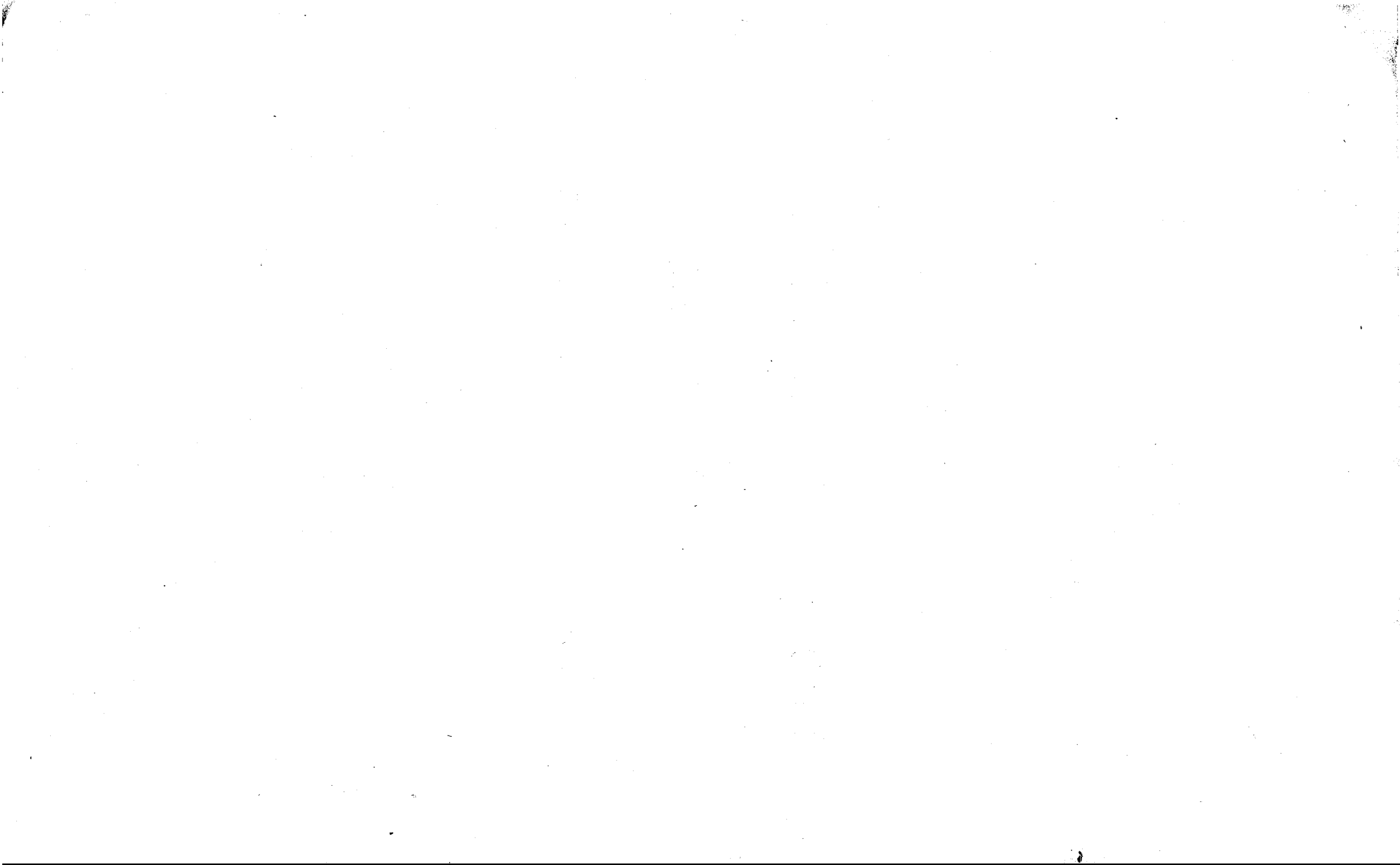
Mr. Rochfort informed me that a bridle road, taking advantage of all the sand beaches, can be made at a trifling expense.

In conclusion, I would mention having seen a camp about three miles north of Waiau, the encampment before mentioned with the "Trader" at Waikukupa, and some six or seven men travelling south between Wanganui and Abut Head; we also saw smoke at Kaurangarua, eleven miles north of Bruce Bay, supposed to be Natives of the locality; and at the Mahitahi communicated with the Natives Tokoko and wife, belonging to Wakatipu, who said they had not been visited by any European since Mr. Rochfort was here last year, so that the diggers have not yet got so far down.

FREDK. D. GIBSON,
Port Officer.



GENERAL REPORT
OF THE
PROVINCIAL SECRETARY
ON THE
WEST COAST
OF THE
PROVINCE OF CANTERBURY.



REPORT.

TO HIS HONOR THE SUPERINTENDENT.

Provincial Secretary's Office,

Christchurch, 19th April, 1865.

SIR,—In previous letters I have informed the Government of the steps taken by me in various matters connected with the administration of affairs on the West Coast.

I have now the honor to submit the following General Report for your Honor's consideration :—

Your Honor is aware that the General Government sent an Officer to the West Coast to report to them upon all matters requiring their attention. Steps have been subsequently taken for the organization of the Customs' Department, and the Post Office.

The export duty on gold is now collected at Hokitika, and the port will in all probability be shortly declared a warehousing port.

The Provincial Government of Nelson have consented to receive prisoners committed for trial into the gaol, and also to admit patients into the hospital at Nelson, the Canterbury Government paying for their maintenance till such time as arrangements are made to provide for cases of sickness at Hokitika. I may state that I am of opinion that no time should be lost in making such provision on the spot in anticipation of the cold weather setting in, when dysentery, already prevalent, will probably increase.

The gaol accommodation at Nelson is of so limited a character that further provision will have to be made for the reception of prisoners. The necessary expenditure incident upon their removal, and the conveyance of witnesses to distant ports, is a subject requiring immediate attention.

The West Coast of Canterbury has been so fully described in the public journals, that it requires no description from me. It will suffice to state that it is generally of a low undulating character for an average of 10 miles back from the sea shore, and that the land, when cleared of the bush, with which it is for the most part densely covered, would be well adapted for the purposes of permanent settlement. The country in the Nelson Province, north of the Grey, is of a more precipitous nature, and contrasts very unfavorably in this respect with the West Coast of Canterbury. The same remark applies, as I am informed, to the West Coast of the Otago Province, which is said to contain but little land available for cultivation. In the Canterbury Province, on the other hand, there is a wide extent of land well suited for agriculture, and a considerable portion of it will no doubt shortly be brought into cultivation for the production of food for horses and cattle, if not for the growth of grain for the support of the digging population.

The climate, though evidently very moist, is of a milder character than that of the East Coast. This is evidenced by the growth of the taro and other plants, indicative of a warmer temperature.

The population at the time I left Hokitika amounted to, as far as I could judge, from 7000 to 8000, of which about 4000 were distributed over a tract of country of which the Waimea township is the centre, comprising what are called the Three-mile, the Six-mile, and the Arahaura diggings. There was a population of upwards of 250 on the Greenstone diggings, which are likely again to rise in importance; the gold here is of a coarser and more nuggetty character than elsewhere on the coast. The population in the town would amount to about 2000, and the remainder were distributed in small numbers over the country where gold has been found. A number of flat-bottomed boats were being built on the Hokitika, and several parties had taken supplies for some weeks, and were thoroughly prospecting the country up the river. The number of departures has been for some time past equal to, if not greater than that of the arrivals, though the number of *bonâ fide* diggers has undergone little alteration.

There is every reason to believe that the diggings will be of a permanent character, and that they will lead eventually to the settlement of a district of considerable commercial importance. At the same time I cannot but express my opinion that the field of gold up to the present time has not been such as to warrant the expectations which have been formed of the richness of the field; and the difficulty of inland communication, and the price of provisions, is such as to render the sudden influx of a large

population likely to be attended with very serious results. At the present time there are large numbers out of employment in the town of Hokitika, who have not the means to leave the place; should the number be increased, great distress would be the result. I received as many as sixty tenders for a piece of work put in hand at a few hours' notice. I mention these facts because I do not think it is generally understood what the consequences would be if wet weather came on while a large unemployed population remained in a place from which there is no ready means of exit.

I enclose a copy of the Port Officer's Report upon the harbour at Hokitika, in which he gives a full statement of the steps taken to facilitate the navigation, and gives some valuable information on the character of the coast generally, so far as he has seen it. He has proceeded by my direction to the Grey, where he has instructions to erect similar signal staffs to those put up at Hokitika, if he finds that such will be suitable to that harbour. The Nelson Government have proposed to bear a proportion of the expense of their construction and maintenance.

I may mention that a considerable quantity of coal is now being raised on the Nelson side of the Grey. The quality of this coal, which exists on both sides of the river, is spoken very highly of by all acquainted with it. It will probably become more extensively sought after, and compete with coal raised elsewhere which is more ready of access. At present it is brought seven miles down the Grey in a boat carrying from 12 to 14 tons, and is delivered at 30s. per ton. A larger boat is being built at Nelson to carry upwards of 60 tons; but the draft of water must be very light in any boats that are used, in consequence of the shallows in the river. Flat-bottomed boats, such as those used on the Waikato, would be, I am advised, well suited for the purpose. The seam is more than 16 feet in thickness, and is now worked without any necessity for props to a distance of 111 feet into the bank of the river. The seam appears equally good on the Canterbury side, though, perhaps, there would be rather more difficulties to contend with in working it.

Captain Gibson will return by land to Hokitika, and examine the bar of the Teramakau River on his way. I propose that he should then visit the rivers to the south of the Hokitika, to ascertain their capabilities for the accommodation of shipping.

The majority of buildings which compose the township, as it stands at present, are upon a sandspit, which may be seriously affected by high tides and heavy freshes in the river. Mr. Rochfort is engaged in laying out streets in a safer position. The bush has been cleared to a width of two chains for a distance of seventeen chains higher up along the river, and business sites have been taken up the whole distance. It will be necessary immediately to take some steps to secure the banks of the river from being worn away by vessels mooring alongside. The outlay on this work would be considerable, but if the present sea traffic continues, it will be indispensable. It must be remembered that although it is probable that a better harbour may be found at a considerable distance down the coast, Hokitika, from its central position, and from the extent of low country surrounding it, will always remain the port of a considerable district.

The buildings that have been erected for Government purposes at Hokitika, up to the present time, are a Court-house, and building for the police. The Court-house is a building 30 feet by 15, containing three rooms. It is built of timber, with a verandah, and is floored throughout, and is roofed with corrugated iron, at a cost of about £150, including tables, forms, &c. One room is at present occupied by the Surveyor, and another by the Customs' Officer. The third is the Warden's Court. It will be necessary to erect another building for the Customs and Post Office very shortly.

The Police buildings, besides accommodation for members of the force, comprise a stable with room for the necessary number of horses. A Warden's Court, Lock-up, and Police buildings, of a less substantial character, have been erected at the Waimea.

The escort horses have by my orders been sent back to Christchurch. I enclose a copy of the Report of the Commissioner of Police upon the overland route by the Teramakau saddle, and also of a memorandum signed by the agents of the three banks at Hokitika, in which they state their conviction that "an escort direct to Christchurch is not wanted, and that even should such escort be established they would not be willing to incur the risk and delay attending the transmission of treasure overland." The agents of the banks applied to me for an escort to be established from the Waimea to the Hokitika. I declined for several reasons to recommend the Government to establish a mounted escort for this short distance, but two armed policemen will convey the gold to port once a week.

The road to the Waimea was a narrow track some nine miles in length, which, from the large number of pack horses employed upon it, had become almost impassible. I consented, on behalf of the Govern-

ment, to bear half the expense of making a better and shorter track to the beach, and tenders were called for when I left to carry this out without delay. The cheapening of provisions by facilitating communication will enable a much larger number of diggers to employ themselves in digging with advantage. While flour is £140 a ton, ground that would otherwise pay for working cannot be worked. In answer to applications made upon the subject of making roads and tracks, I have replied that wherever gold is found in sufficiently remunerative quantities, the Government will assist in making tracks for the conveyance of provisions to the diggers; but I declined to commence a system of road-making for the sole purpose of giving employment till the character of the country proposed to be opened was ascertained. The results of the system adopted in Marlborough are a salutary warning in this respect.

The buildings which formed the Government Depot at the Grey, I have ordered to be moved to the site of the present township for the purposes of the Police and Customs. While at the Grey, I gave orders for a fence to be erected round the graves of Messrs. Whitcombe and Townsend, and that of Peter Mitchelmore.

Mr. Sale arrived at Hokitika on the 7th instant, with your Honor's instructions to act as Commissioner on the West Coast on behalf of the Canterbury Government. I handed over to him all papers connected with matters which I had in hand while on the spot, and gave him such instructions for his future guidance as seemed to me to be necessary, leaving him at the same time a wide discretion to act as circumstances arise. He will take every opportunity of making himself acquainted, by personal inspection, with all parts of the gold-fields, making Hokitika his head quarters. He will give instructions to the officers in charge of the several departments in all matters in which they require direction, and they have been given clearly to understand the position and authority which your Honor has conferred upon him. A credit has been established at the bank in his name within the limit prescribed by the Government.

Besides taking the general control of expenditure, and acting for the Government in matters of administration, he will undertake the duties of Resident Magistrate and Warden for a district of which Hokitika will be the centre, but the exact limits of which I have left for the present undetermined. Mr. Revell will take charge of the district lying between the Grey and the Waimea, comprising the greater part of the gold diggings as they now exist. He will live at the Waimea township, and will make it his business to visit the outlying centres of population as often as possible, for the purposes of collecting the revenue and determining cases which may be brought before him in his capacity of Warden or Magistrate. The country, as it becomes further developed, will divide itself naturally into districts, the management of which will readily be arranged by reference to the Government Commissioner. The revenue collected up to the date of my leaving amounted to about £3500, exclusive of the gold duty.

I cannot conclude this Report without recording, for your Honor's information, the high opinion I entertain of the unremitting zeal and energy with which the officers in charge of the several departments have devoted themselves, under considerable difficulties, to carrying out the wishes of the Government.

I have the honor to be, Sir,

Your most obedient Servant,

W. ROLLESTON,

Provincial Secretary.

R E P O R T

UPON THE

PRACTICABILITY OF CONSTRUCTING A ROAD THROUGH

T H E O T I R A G O R G E,

BY

EDWARD DOBSON, ESQ., C.E.

1911

1911

LIST OF ILLUSTRATIONS.

MISCELLANEOUS DIAGRAMS.

Fig.

1. Diagram illustrating the folding of the strata at the Head of the Waimakariri Valley.
2. Sketch Plan shewing the manner in which the Bealey and other Rivers run alternately on the lines of strike and cross jointing.
- 3 & 4. Plan and Section illustrating the system to be adopted in Constructing a Road through the Gorge of the Otira.

MAPS.

5. Map illustrating the general structure of the dividing range, and shewing the routes from the Canterbury Plains to the Western Gold-fields. Scale, 10 miles to the inch.
6. Sketch Map shewing the positions and heights of the passes between the Valleys of the Waimakariri and the Taramakau.

SECTIONS.

Horizontal scale, 1 mile to the inch; vertical scale, 500 feet to the inch.

7. Sketch Section of the Taramakau and Hurunui Valleys, compiled from observations by Mr. John Rochfort.
8. " " Worsley's Pass.
9. " " Walker's Pass.
10. " " Arthur's Pass.
11. " " Upper Valley of the Waimakariri.
12. " " Along the dividing range from Harman's Pass to the Hurunui Saddle, shewing the relative heights of the passes.
13. " " Haast's Pass at the head of Lake Wanaka, compiled from Dr. Haast's published Reports.

VIEWS.

N.B.—The altitudes are figured in feet above the sea level.

14. WHITCOMBE'S PASS.—View of the head of the Hokitika Valley, copied from a sketch by Mr. R. Sherrin.
15. HURUNUI VALLEY.—View of the main Gorge of the Hurunui, 12 miles above the Waitohi Gorge
16. " " View of the upper Valley of the Hurunui above Lake Sumner.
17. " " View of the Hurunui Saddle.
18. WALKER'S PASS.—View of the River Hawdon, looking down stream.
19. " " View of Walker's Pass, looking up the Valley of the Hawdon.
20. " " View of the Gorge of the Otihake, looking up stream.
21. " " Diagram shewing the stratification of the Otihake Gorge.
22. " " Gorge of the Otihake, looking down stream.
23. " " Sectional Diagram of the Otihake Gorge, looking down stream.
24. " " Otihake Valley below the main gorge, looking up stream.
25. " " Otihake Valley below the main gorge, looking towards the Taramakau, shewing the position of the southernmost Pass between the Poulter and the Otihake Valleys.

FIG.

26. **WAIMAKARIRI VALLEY.**—Junction of White River with Waimakariri.
27. " " Upper flat on the Waimakariri, looking on the right to the central chain at the head of the main valley.
28. " " Browning's Pass, from the level of the river.
29. " " Browning's Pass, from a point above the waterfall.
30. " " Sectional Diagram of Browning's Pass.
31. " " Head of the principal northerly source of the Waimakariri.
32. " " Junction with Crow River.
33. **ARTHUR'S PASS.**—View of the forks of the Bealey looking north.
34. " " Head of the Bealey looking up to the pass.
35. " " Gorge of the Bealey looking up stream.
36. " " Design No. 1 for bridge over the Gorge of the Bealey.
37. " " Design No. 2 " " "
38. " " View of the valley on the north side of the summit, looking south.
39. " " View from the banks of the lake, looking towards the Teremakau.
40. " " View of the Upper Otira Gorge, looking up stream.

INDEX.

REPORT—	PARAGRAPH.
Instructions to Survey the Otira Gorge	1
Result of Survey	2
Commencement of works at Arthur's Pass	3
Division of Contract... ..	4, 5
Arrangements made with Mr. Thornton	6
Particulars of Contract let to Mr. J. Smith	7-15
Particulars of work done by Mr. Smith previous to the letting of the Contract for the track through Arthur's Pass	16-18
Works to be done between Grassmere and the Bealey River	19
Works to be done in the Lower Otira Gorge	20-22
Work to be done in the Otira Valley below the Gorge	23, 24
Continuation of the road to the Coast	25
Description of the West Coast Passes	26
Strike of beds	27, 32
Sytem of joints	33
Configuration of the ravines	34, 35
System of road construction to be adopted in the gorges	36, 37
Radiating system of valleys	38, 39
Haast's Pass	40, 41
No pass to be found between Haast's Pass and the head of the Rakaia	42
Rakaia Passes	43
Whitcombe's Pass	44
No westerly passes leading from the Waimakariri	45
Browning's Pass	46
Passes between the Waimakariri and Taramakau... ..	47
Goats' Pass at too high an elevation	48
Arthur's Pass and the Hurunui Saddle the only practicable passes	49
Description of Arthur's Pass... ..	50-55
Estimate for Dray Road through Arthur's Pass	56, 57
Distances from Christchurch and Timaru to the Taramakau, by the Waimakariri route... ..	58, 59
Comparison with the Hurunui route	60
Estimate of Works required on the Hurunui route	61
Distances by the Hurunui route	62
Part of the Hurunui road in the Nelson Province	63
Suggestion for connecting the Nelson track through the Waiiau and Ahaura with the Hurunui Plains and the Taramakau Valley	64
Sections of the Passes	65
Journal of Exploration	66
Concluding remarks... ..	67
APPENDIX A.—Correspondence.	
" B.—Detailed Statement of Cost of Repairs on the Porter's Pass Road.	
" C.—Journal of Proceedings.	
" D.—Table of Altitudes.	
" E.—Contract for Bridle Path.	

R E P O R T.

Railway Offices, Heathcote Valley,
May 15, 1865.

TO THE SECRETARY FOR PUBLIC WORKS.

SIR,—I have the honor to report the result of the Survey of the dividing range between the headwaters of the Hurunui and Waimakariri rivers, undertaken in accordance with your Instructions ³³⁷/_{14³65} and also to inform you of the steps which I have taken under these Instructions for the construction of a bridle road through the Gorge of the Otira.

1. For the better understanding of my Report, it may be well to refer to the nature of my Instructions both written and verbal. (See Appendix A.)

They were in substance as follows:—

- 1st. To report on the practicability and cost of forming a bridle track through the Otira Gorge.
- 2nd. To examine and report upon any other pass which Mr. George Dobson (then engaged on an exploration of the dividing range) might consider superior to that by the Otira Gorge.
- 3rd. To select the best line of dray road through the dividing range, and to let a Contract for the formation of a Bridle Track on the selected line to Mr. John Smith, the Contractor for the Craigieburn and Lochinvar Roads.
- 4th. Pending the preparation of the Contract for the Bridle Road, to employ the working parties to be sent up by Mr. Smith upon the improvement of the Porter's Pass and Craigieburn Road, and to value the work so done on its completion.

In accordance with these instructions I left Christchurch, March 15, and was occupied until April 4 inclusive, in the examination of the dividing range.

2. The result of this examination may be thus concisely stated:—

- 1st. That the pass known as Arthur's Pass, by the Valleys of the Bealey and the Otira, is the only pass leading out of the Waimakariri over which a dray road could be taken to the West Coast.
- 2nd. That the cost of making a dray road through Arthur's Pass, although very considerable, would be less than half the amount that would be required to make an equally good road to the same point on the Taramakau by way of the Hurunui Valley.
- 3rd. That a good bridle track might be formed in six weeks' time over Arthur's Pass, which would be passable at all times of the year, except during heavy freshes.
- 4th. That a comparatively trifling amount of work would suffice to make a dray track from the end of Lake Pearson (where the present road turns eastward towards Lochinvar) as far as the foot of Arthur's Pass, a distance of ninety-three (93) miles from Christchurch and eleven (11) miles from the junction of the Otira with the Taramakau, whilst on the Hurunui route the dray track only extends to the Waitohi Gorge, a distance of fifty-eight (58) miles from Christchurch, leaving a length of sixty-one (61) miles of road to be made to reach the same point, the total saving of distance by the former route being fifteen (15) miles.

3. Having arrived at the foregoing conclusions, I at once commenced setting out the line of bridle track over Arthur's Pass, with a strong survey party furnished by Mr. Smith. At the same time I directed the Contractor to form a road through the upper part of the Valley of the Bealey, and to make some cuttings at Goldney's Saddle, between Grassmere and the fords of the Waimakariri, for the purpose of opening up a dray track to the pass at the earliest possible moment.

4. It was my intention to have made but one Contract for the whole work of the bridle track through Arthur's Pass, a distance of five and a-half ($5\frac{1}{2}$) miles; but on the 18th of April I received dispatches informing me that Mr. Thornton was on his way to take charge of the works, with two large parties of men under the direction of Mr. W. White and Mr. E. Wright, who were prepared to take contracts under Mr. Thornton's direction.

5. I, therefore, divided the work at Arthur's Pass, putting the length from the head of the Bealey to the head of the lower Gorge of the Otira into Mr. Smith's hands, and leaving the work in the lower Gorge of the Otira to be set out by Mr. Thornton and let to one of the other Contractors.

6. On the 22nd of April Mr. Thornton arrived at the Bealey, and I then arranged with him that Mr. Smith should hand over the work remaining to be done between the summit of Porter's Pass and the Bealey to Messrs. White and Wright, and concentrate his whole staff of men upon his work in Arthur's Pass. This arrangement was carried into effect on the 27th of April.

7. I returned to Christchurch on the 25th April, leaving Mr. Thornton in charge of the works, after having let a Contract to Mr. Smith for the whole of the work required for the construction of a bridle track from the end of the new dray track to the head of the lower Otira Gorge.

8. This Contract, a copy of which is attached to this report (Appendix E), is based on fixed prices per chain for the bush clearing, draining, side cutting, and metalling, whilst the gullet cuttings are left to be measured and valued on their completion, it being impossible to ascertain beforehand the nature of the rock to be cut through.

9. The total estimated amount of the Contract is as under :—

M. Ch.		South side of Summit.		£ s. d.		
Length ... 1 67	}	Work at fixed prices	£668 15 0			
		„ to be measured and valued	1300 0 0			
			<hr/>	1968	15	0
		North side of Summit.				
Length ... 2 23	}	Work at fixed prices	£796 0 0			
		„ to be measured and valued	500 0 0			
			<hr/>	1296	0	0
Total length...4 m. 10 ch.		Total estimated cost...		£3264	15	0

10. The whole of the track, where it runs through bush or scrub, is to be cleared ten (10) feet wide; the swamps are to be drained and metalled six (6) feet wide, and the side cuttings formed and metalled six (6) feet wide on the solid. The gullet cuttings are to be ten (10) feet wide in the floor, the material from the cuttings to be used in metalling the track on each side to distances not exceeding three (3) chains average lead.

11. With some trifling exceptions, the bridle track is to be formed on the line of the permanent dray road from the head of the Bealey to the head of the Upper Otira Gorge. From this point to the head of the Lower Otira Gorge, a distance of about half a mile by the permanent line, the bridle track turns with a sharp rise to the eastward, and, after skirting the cliffs which bound the upper gorge, turns again in a westerly direction and descends to the level of the river at the head of the lower gorge by a winding route along a leading spur; the distance by the bridle track being seventy-five (75) chains. Although this portion of the line is not suited for a cart road, on account of the steepness of the gradients and the unavoidable sharp turns, it would be quite practicable to make use of it for light dray traffic if it were made twelve (12) feet wide and the gradient eased by zig-zags for a distance of about eighteen (18) chains, through which I have not thought it necessary to do more than clear the timber, the ground being sound and free from the boulders and fallen timber with which the greater part of the track is at present encumbered.

12. On this line of bridle track the Bealey River will be forded three (3) times. The first ford is in the gorge, at the site of the proposed cart bridge. The descent to this ford is by rock side-cuttings four feet wide, and a foot bridge has been thrown over the stream immediately above the ford. The two (2) other fords are near the summit of the pass, where the Bealey is an insignificant stream.

13. The main stream of the Otira is not crossed above the head of the lower gorge, and the only other stream crossed to the north of the summit is a tributary of the Otira, which is seldom more than ankle deep except immediately after heavy rains.

14. By the terms of the Contract the track is to be made passable for driving stock by the end of May, and the whole of the work is to be finished by the 14th of July.

15. An inspection of the section of Arthur's Pass (Fig. 10), and of the plan attached to the Contract (Appendix E), will give a clear idea of the character and extent of the work included in the above Contract.

16. The staff of men and horses employed by Mr. Smith, preparatory to the letting of the Contract, viz., from March 17th to April 27th (both inclusive), was as under, viz. :—

1st week,	29 men,	6 packhorses,	1 two-horse dray.
2nd "	48 "	6 "	1 "
3rd "	55 "	6 "	1 "
4th "	85 "	6 "	1 "
5th "	97 "	8 "	1 "
6th "	119 "	8 "	1 "

17. The cost and description of the work done during this period was as follows, viz. :—

Repairs and improvements on the Porter's Pass Road, between the Kowai and Grassmere (as per detailed account, Appendix B).	...	...	...	...	£843	0	0
Works commenced at Goldney's Saddle	...	...	...	...	100	0	0
Forming dray track in the upper part of the Bealey Valley	...	...	...	...	350	0	0
Survey party, exploring and cutting tracks	...	...	...	...	80	0	0
Cutting foot road over Arthur's Pass, and setting out line of dray-road	...	...	...	...	180	0	0
On account of contract for bridle track	...	...	...	...	193	0	0
					<u>£1746</u>	<u>0</u>	<u>0</u>

18. I have passed two (2) vouchers in payment of this account, viz. :—

$\frac{1}{25.65}$	...	...	...	...	£1000	0	0
$\frac{2}{13.5.65}$	...	...	...	...	746	0	0

Total £1746 0 0

19. It is unnecessary that I should enter into any description of the works now in progress for the improvement of the Craigieburn Road and the construction of a dray track along the south bank of the Waimakiriri, as Mr. Thornton, the Engineer in charge of these works will report to you fully on this subject. It is sufficient here to state that their completion will bring the head of the Bealey within a day's drive from Christchurch, and that except during heavy floods there is no reason to apprehend any obstruction to the traffic throughout the year if road parties are employed to attend to the necessary repairs and to clear the summit of Porter's Pass after heavy falls of snow.

20. The works required for opening a horse track from the north end of Smith's contract through the lower gorge to the open valley of the Otira, a distance of about one and a half ($1\frac{1}{2}$) miles, are of a very trifling character, all that is required being to lower the depth of water at the fords by blasting out the boulders which at present dam up the stream so as to give an increased width of waterway. At present the river has to be crossed sixteen (16) times, but a great number of these crossings might probably be avoided by making short side cuttings. I estimate the cost of making safe fords and connecting them by a track along the islands and shingle terraces at two hundred and seventy (£270) pounds. The work could be readily done in a fortnight's time.

21. This improvement of the fords would render it perfectly safe to drive packhorses or stock through the Gorge, except in times of flood, when the traffic might be stopped for three or four days. For the convenience of foot travellers I would recommend putting foot-bridges over the river as near the fords as practicable. These foot-bridges would each consist of a single log adzed level on the upper side and bolted down at each end with inch screw-bolts let into the solid rock. There is abundance of suitable timber on the spot, and the cost should not exceed five (£5) pounds for each bridge, say in all eighty (£80) pounds; this would bring up the total cost of the bridle track through Arthur's Pass to three thousand six hundred and fourteen pounds fifteen shillings (£3614 15s.) as under, viz. :—

Estimated amount of Contract	...	...	...	£3264	15	0
Fords in Lower Gorge	...	...	...	270	0	0
Footbridges do.	...	...	...	80	0	0
				<u>£3614</u>	<u>15</u>	<u>0</u>

22. As I shall presently have occasion to explain, the only way of making a road through the lower gorge of the Otira, which shall not be subject to interruption from floods, is by building up retaining walls in the river bed, and thus constructing a series of artificial terraces, connected by heavy cuttings through the projecting points of rock, the sides of the gorge being too precipitous to allow of forming a

road by scarping the hillside in the ordinary manner. As these retaining walls must be solidly backed up whatever the nature of the road they are to carry, it will easily be seen that the cost of making a bridle road above the flood level would be little less than that of making a dray road, the difference being chiefly in the width of the rock cuttings. Until the Government are prepared, therefore, to continue the line of drayroad down the valley of the Taramakau, I do not consider it is worth while to incur the expense of making a road above the flood level through the gorge of the Otira, as the track will always be passable for horses when the Taramakau itself is fordable.

23. From the bottom of the lower Otira gorge to the Taramakau, a distance of about six (6) miles along an open river bed no difficulty exists in taking either packhorses or stock.

24. A sum of six hundred pounds (£600) spent in cutting through the timbered flats, and in making side-cuttings where necessary to avoid the necessity of crossing the river would probably be sufficient to make a very fair dray track as far as the junction of the Otira with the Taramakau.

25. As Mr. W. Blake is now engaged in exploring the country for the purpose of ascertaining the best route between Hokitika and the junction of the Otira and Taramakau, I will only observe with regard to this portion of the road to the West Coast that I am disposed to think, from the description of the country given me by returned diggers, that a track could be found from the Taramakau, starting a little below the mouth of the Hopeakowa, crossing into the valley of the Arahura by a low saddle, and thence passing over low timbered country to the mouth of the Hokitika.

26. Before concluding this Report it may be desirable that I should briefly describe the character of the several West Coast passes, and that I should give an approximate estimate of the cost of making a dray road through the dividing range by the only routes at present known to be practicable, viz., the Hurunui Saddle and Arthur's Pass.

27. The first point to be noticed in regard to the central chain is, that it does not, as is popularly supposed, present an unbroken line of watershed, but rather a series of peaks and broken ridges separated from each other by deep ravines, and for the most part perfectly inaccessible.

28. The clue to this system of ravines and ridges is to be found in the fact that the palæozoic rocks forming the main range, have been at a very early period subjected to intense pressure, the effect of which has been to crumple them up into huge folds, the upper portions of which have been removed, leaving the remaining portions of the strata standing up on edge, either in a vertical position, or at very steep inclinations.

29. The strike of the beds, corresponding with the direction of the axes of the foldings, is tolerably regular, being generally about N 22 deg. E. (true).

30. It is important to observe that in the Waimakariri district, as well as in the southern portion of the central chain described by Dr. Haast (see Gazette, vol. ix. No. xviii.) the rule appears to hold good which has been found to prevail in other mountain chains of similar formation, viz., that the greatest amount of denudation has taken place along the original ridges which are now occupied by valleys whilst the existing peaks and ridges are on the sides of former depressions.

31. This may be seen, both at Arthur's Pass and at the upper part of the Waimakariri Valley, leading to Browning's Pass. At each of these places the strata on the east side of the valley stand vertical or nearly so, whilst those on the western side have a north-west dip, (see fig. 30) shewing the general form of the folds to be as in the annexed sketch (fig. 1).

32. In the upper part of the Otihaake Gorge the strata on both sides of the valley have a north-west dip, the rocks on the western side in many places overhanging the water (see figs. 20, 21, 22, and 23) This appears also to be the case in the pass leading N. from the White River examined by Messrs Harman and Browning.

33. The next feature to be noticed is the jointed structure of the rocks. Although the joints cross each other in all directions, apparently without order, there are two systems of joints which are met with throughout the whole valley of the Waimakariri, and which have an important influence on the configuration of the passes. These are—

- 1st. A system of vertical cross joints at right angles to the stratification, and running in unbroken lines for great distances with such regularity that they might easily be mistaken for planes of stratification were it not for the frequent occurrence of beds of trap rock, the outcrop of which marks unmistakably the true bedding.
- 2nd. A system of joints more or less inclined to the horizon, not running in parallel planes, but arranged in a series of curves radiating from a common centre.

34. The effect of this system of jointing is to produce a certain rectangular arrangement in the plans and sections of the ravines; the rivers and watercourses running either on the strike of the beds or in the direction of the cross joints, or in a zigzag course, following alternately these two directions, as in the annexed sketch (fig. 2), which shows the character of the valleys connecting the Waimakariri and Tere-makau, which have a general northerly direction, thus making an angle of about 22 deg. with the strike of the strata.

35. In consequence of the vertical position of the strata and the inclined position of what may be called for convenience of description, the *horizontal* joints, the sides of the ravines present either sheer precipices or dangerous slips, according to the extent to which the rocks have been loosened by exposure to the rain and frost; and the result is that to form a road in side cutting through any of these ravines is simply impossible.

36. The only plan to be adopted, is to blast away or tunnel through the projecting portions of the cliffs, and connect these cuttings by embankments either formed of stone or protected by stone walls and raised sufficiently above the river bed to secure the road from being flooded during freshes (as shown in Figs. 3 and 4).

37. In some places, as in the Gorge of the Otihake, even this is impracticable from the numerous slips along which every winter large masses of stone, detached from the cliffs by successive frosts, find their way to the river bed below, falling with a force that would destroy any engineering works that might arrest their course. The only alternative would be to bridge over these slips, leaving sufficient headway for the moving masses of debris; but the cost of a road constructed in this manner would out-balance the advance to be derived from its construction.

38. In addition to the foldings above described, the rocks of the central chain have been subject to a variety of upheavals and dislocations which have resulted in the formation of a system of valleys, the direction of which is very remarkable; the principal valleys, from the Taramakau on the north to the Makarora on the south, radiating from a common centre situated about fifty (50) miles to the north of Mount Darwin. (See map, Fig. 5.)

39. It might naturally be imagined that these valleys would form passes through the dividing range; but such is not the case, as, with the exception of the Hurunui Valley, they do not extend through the western portion of the chain, but terminate in glaciers, or are bounded by high rugged precipices, as is shewn in the sketch of the range at the head of the Waimakariri. (Fig. 27.)

40. The pass at the head of Lake Wanaka, explored by Dr. Haast, and of which a section is given (Fig. 13), is no exception to this general rule, as it only leads through the southern branch of the main chain into another valley running to the coast in a westerly direction, and bounded on its northern side by the Gray Range.

41. The pass is, however, a remarkable one, being the lowest of all the known passes between the east and west coasts, a circumstance which is probably due to the fact that the line of the valley coincides with the strike of the strata, whilst in the case of the Waimakariri the line of the valley is at right angles to the stratification. The pass has not yet been opened, even for foot traffic; but it will probably one day become a very important line of communication between the West Coast of Canterbury and the northern part of the Otago Province, and it appears desirable that a horse track should be opened through it with as little delay as possible, should it be found practicable to do so within a moderate cost.

42. Between Haast's Pass and the head waters of the Rakaia it may be considered as settled that no pass whatever exists, Dr. Haast's surveys showing that the summit of the range is covered with perpetual snow.

43. It is probable that passes might be found out of the Rakaia, along which tracks might be cut which would enable stock to be driven over to the West Coast, but, from the height of the mountains, communication would be completely stopped by snow during the winter months, and the country is unsuited for dray traffic.

44. I think it would be very desirable to connect the Rakaia Valley with the head of the Hokitika by a foot track, and would suggest the selection of the pass traversed by the late Mr. Henry Whitcombe (See Fig. 14), unless Mr. Browning's present exploration should result in the discovery of a better line. The saving of distance between Christchurch and the Hokitika township, as compared with the route by Arthur's Pass, is, however, so trifling, that I do not think it would be worth while at present to spend any large sum in an attempt to make a second horse track over this portion of the range.

45. Passing from the head waters of the Rakaia to those of the Waimakariri, we still find a total absence of westerly passes. The tributary valleys at the head of this river lead in a northerly direction

over high saddles into deep and impassable ravines, apparently the sources of the Hopeakowa; the main stream known as the White River coming from the south out of a large glacier.

46. Browning's Pass, which at first sight appears to offer a favorable route across the range, is at a lower elevation than the other saddles, but is inaccessible even on the eastern side, the so called pass being cut off from the Valley of the Waimakariri by cliffs having a total height of seven hundred and fifty (750) feet, whilst the only line along which a sidling could be safely cut to connect the valley with the top of the pass has a gradient of one in three, and is quite unsuited for anything but a foot track. (See Figs. 28, 29, and 30.)

47. We now come to the consideration of the valleys between the Waimakariri and Taramakau. Of these the Hawdon and the Poulter may at once be set aside as leading either to the Gorge of the Otiha through which not even a foot track could be made, except at a fearful cost, or into the upper part of the Taramakau Valley, over saddles from which the descent is too precipitous for the construction of any useful road.

48. Of the two passes by the Valley of the Bealey, viz., Arthur's Pass and the Goat's Pass, the latter may be dismissed from consideration on account of the elevation at which the range has to be crossed, although in other respects it is well suited for a stock-driving road, and could be opened for this purpose at a moderate cost.

49. We have, therefore, only two passes left to select from, viz., Arthur's Pass and the Hurunui Saddle, none other being known to exist in the northern portion of the province over which it would be possible to construct a dray road.

50. (See Figs. 33 to 40). The Summit of Arthur's Pass is a long open valley, the highest point having an elevation of rather less than three thousand (3000) feet above the sea level. The approach on the south side is by a gentle ascent, the line of road following the general inclination of the ground up to the summit. On the north side the valley is broken up into terraces strewn with large blocks deposited by the glaciers of a past age. The upper terrace has been formerly a lake of considerable size, but, from the melting of its icy barrier, it is now little more than a swampy flat, intersected by numerous streams which filter through the moraines one hundred and fifty (150) feet below the level of the lake, and unite to form one of the tributaries of the Otira.

51. At the end of the open valley just described, the Otira falls one hundred (100) feet, or more, into a basin about half a mile in length, bounded on the west by cliffs and on the east by slopes of loose shingle. This is called the Upper Otira Gorge, and it is the descent from the open valley into this gorge that forms the principal difficulty in constructing a road through Arthur's Pass. I have already explained that a track can be formed which would be practicable for light dray traffic by widening and improving the bridle road now in formation on the east side of the valley; but the only satisfactory solution of the problem is to construct a tunnel, as shewn in the section (Fig. 10), to connect the upper and lower levels. It is impossible, without detailed plans and sections, to state very closely what would be either the gradient or the length of this tunnel; but it may be safely calculated that the distance to be tunnelled through would not exceed one hundred and eighty (180) yards, and I have taken this length as the basis of my calculation of the cost of the work.

52. At the lower end of this basin the whole valley becomes contracted, and the river runs for a mile and half through a gorge, which, narrow at first, gradually widens out until, at the junction of a tributary from the westward, it ceases altogether, and the river runs through a broad shingle valley to its junction with the Taramakau. This is called the Lower Otira Gorge.

53. Through the upper part of this gorge the road would have to be formed, as already described, by building up retaining walls and tunnelling through projecting points of rock; but on the lower portion the sides of the gorge are less precipitous, and advantage may be taken of shingle terraces, islands, and sloping hill sides, crossing the stream, where necessary, by timber bridges, so as to take advantage of the most favorable ground. Although a great body of water occasionally comes through this gorge, I do not consider that there is any difficulty in constructing a permanent road above the flood level, if care is taken to maintain a proper width of water-way, and to avoid sharp turns or projections in the retaining walls. No detailed estimate can be made of this work, without preparing the Contract plans and taking out the quantities of bridging, blasting, and walling, that may be required; but, from the experience I have had of similar works, I consider that my approximate estimate will be found to be very close to the actual value of the work.

54. The only other engineering work of importance in the Arthur's Pass Road is a bridge over the Bealey, which will be required to connect the terraces on the eastern and western sides of the river, it being impossible, on account of the cross gullies, to make the ascent of the Pass entirely on either bank.

55. I have prepared two designs for this bridge. No. 1 (Fig. 36) is for a timber superstructure, resting on two wrought iron arched ribs of one hundred (100) feet span. No. 2 (Fig. 37) is lighter and less costly, and consists of iron lattice girders supported on wire ropes, the cables being crossed under the girders so as to form a diagonal bracing, and thus prevent lateral oscillation, which is one of the great defects of ordinary suspension bridges.

56. I estimate the cost of opening a dray track through Arthur's Pass, as follows:—

Cost of bridle road, as before stated, in round numbers	£3600	0	0
Additional cost of opening out the track to a width of 12 feet in the rock cuttings, and 16 feet in all other places, and metalling where required	3800	0	0
Suspension bridge over River Bealey	3000	0	0
Retaining walls, cuttings, and short tunnels, in Lower Otira Gorge	6000	0	0
Improvements in Otira Valley	600	0	0
<hr/>			
Cost of opening a dray track from the end of the present track to the junction of the Otira and Taramakau	£17,000	0	0
Add, for tunnel and works in Upper Gorge	14,000	0	0
<hr/>			
Total estimated cost of permanent road	£31,000	0	0

57. The track might be opened for traffic nine (9) months after letting the Contract. The tunnel would take some months longer, but it would be desirable to defer its construction until after the opening of the dray track, on account of the facilities which would be afforded for bringing plant and materials to the site of the works.

58. The distance from Christchurch to the Taramakau, by Porter's Pass and Arthur's Pass, is one hundred and four (104) miles. It would, however, be desirable, should the overland traffic justify the expenditure, to avoid the steep ascent of Porter's Pass by forming a road through the Gorge of the Waimakariri. This would reduce the length of the road by seven (7) miles, making the total distance from Christchurch to the Taramakau only ninety-seven (97) miles, whether the route taken followed the Coal Track on the south, or the Lower Eyre Road on the north side of that river. But as it would only lengthen the distance about four (4) miles more to go through Kaiapoi and Rangiora, it appears to me that it would be desirable to extend the proposed Northern Railway westward through Rangiora to Oxford, and to make a road thence through the Gorge of the Waimakariri, joining the present track between Grassmere and Goldney's Saddle. The total distance by this route from Christchurch to the Taramakau would be one hundred and one (101) miles, and the completion of the road to the coast would bring Hokitika within two (2) days' journey from Christchurch.

59. For parties coming from the southern part of the province, the shortest route is by the Rakaia Gorge and Lake Lyndon. This route is perfectly safe for horsemen and stock, and does not require any present expenditure. The distance from Timaru to the Taramakau by this track is one hundred and forty (140) miles.

60. Having thus carefully considered the difficulties and advantages connected with the construction of a road through Arthur's Pass, it remains only to examine whether the Hurunui route presents any special advantages which should lead to its adoption in preference to that by the Waimakariri Valley.

61. The Hurunui Saddle is considerably higher than the summit of Arthur's Pass, and the upper part of the Hurunui Valley is subject, like the Valley of the Waimakariri, to occasional floods, by which the traffic might be stopped, but no part of the route involves works of the heavy character required in Arthur's Pass. On the other hand, of the sixty-one (61) miles intervening behind the end of the present dray track at the Waitohi Gorge and the junction of the Otira and Taramakau, no less than thirty-six (36) miles are over hilly sidling country requiring an amount of rock-cutting, walling, and bridging, which cannot be estimated to cost on an average less than two thousand four hundred pounds (£2,400) per mile, or, in round numbers, eighty-six thousand pounds (£86,000). Assuming the remaining twenty-five (25) miles to cost on an average one hundred and sixty pounds (£160) per mile, the cost of the line from the Waitohi Gorge to the Otira junction will amount at a very moderate estimate to ninety thousand pounds (£90,000), being nearly three times the estimated cost of the road by Arthur's Pass; nor is there any saving of distance to compensate for the increased cost of construction.

62. The distance from Christchurch, by the Hurunui Valley to the Otira junction, is one hundred and nineteen (119) miles, or fifteen (15) miles longer than by Porter's Pass ; whilst from Timaru the distance is two hundred and nineteen (219) miles, shewing a saving of seventy-nine (79) miles in favor of the route by Lake Lyndon and Arthur's Pass.

63. Another point to be observed is that several miles of the Hurunui route would be on the Nelson side of the boundary, and a grave question arises as to the propriety of a Government executing public works beyond the limits of its jurisdiction. And it must be clearly understood that it is not to the interest of the Nelson Government to give any assistance to the Hurunui route, because a much more useful line of road can be made in the direction of the track already cut from the Hammer Plains to the Grey Valley, which would connect the Hurunui Plains with the Valleys of the Waiau, the Maruia, and the Ahaura, whilst a branch line on the east side of Lake Brunner would connect this track with the Canterbury road leading down the Taramakau to the Coast.

64. I would suggest, therefore, that instead of spending money upon the Hurunui track, which will not be used by the settlers north of the Hurunui, and which offers no advantages in point of distance over that by the Waimakariri to the Canterbury settlers south of Leithfield, it would be preferable to arrange with the Nelson Government for bridging the Hurunui at the joint expense of the two provinces, and connecting the Nelson track with the Taramakau Valley by cutting a branch line from the Pakihi to the Ahaura. These works would be a material benefit to both provinces, whilst, on the completion of the Nelson road, Canterbury would reap the advantage of having a route to the West Coast from the north of the province without taxing its revenues for the cost of its construction.

65. I have prepared and annexed to this report a map shewing the positions and heights of the passes between the Waimakariri and Taramakau, with sections of the principal passes and of the valleys of the Waimakariri and Taramakau, all drawn to a uniform horizontal scale of one inch to the mile, and to a uniform vertical scale of five hundred feet to the inch. A comparison of these sections will convey a great deal of information respecting the dividing range which could hardly be learnt from a verbal description.

66. I have also forwarded (Appendix C) a copy of my journal, containing various details respecting the alpine district in which I have been travelling, which could not have been introduced into the body of this Report without adding unnecessarily to its length.

67. In conclusion, I must express my obligations to Mr. Hawdon and Messrs. Goldney Brothers, whose hospitality and assistance materially forwarded the work of the survey, and enabled me to complete my examination of the passes much sooner than I could otherwise have done.

I have the honor to remain,

Sir,

Your obedient Servant,

E. DOBSON,

Engineer of Lyttelton and Christchurch Railway.

APPENDIX A.

CORRESPONDENCE.

No. 1.--Instructions for Survey of West Coast Passes.

Public Works Office, Christchurch,
Canterbury, New Zealand, 14th March, 1865.

SIR,—I am directed by his Honor the Superintendent to acquaint you that the Government is desirous of obtaining as speedily as possible the report of an Engineer upon the practicability and cost of forming a bridle track either through or above the Gorge of the Otira, a tributary of the Teremakau, recently explored by Mr. George Dobson. If the present condition of the works on the Lyttelton and Christchurch will enable you to absent yourself for a week or ten days, his Honor will feel obliged if you will undertake this task, and he will authorise any expenditure which you may find it necessary to incur for this purpose.

I am desired to add that Mr. George Dobson has been instructed to continue exploring in the neighborhood of the Otira, and if he should discover any route apparently more desirable than that over Arthur's Pass he will communicate with you. In this case, if an engineering report on the subject appears to be required I shall feel obliged if you will make such enquiries as may enable you to furnish it.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,
Secretary for Public Works.

Edward Dobson, Esq., C.E., Christchurch.

P.S.—With a view of saving time in the completion of any necessary works, a road party will immediately be dispatched to the Upper Waimakariri under the charge of Mr. J. Smith, by whom various works in that neighborhood have already been carried out. Mr. Smith will await your instructions in the neighbourhood of Lake Pearson, where some improvements to the existing road are required. When you have decided on the works you may consider it desirable to undertake, you are authorised to let a contract for the execution of them to Mr. Smith, who has consented to take the work at the price you may put upon it. As the Government is very desirous to have these works carried on with the utmost dispatch, you may possibly find it advisable not to let more than a part of them to Mr. Smith; but this point the Government leaves to your discretion. In order to keep the working gang employed until you are ready for them, Mr. Smith has been authorised to undertake some improvements which are required in the neighbourhood of Lake Pearson. I shall feel obliged if you will value for the Government any work which you may find he has done in pursuance of this authority.

No. 2.--Report on Progress of Survey.

Arthur's Pass,
April 5, 1865.

TO THE SECRETARY FOR PUBLIC WORKS.

MY DEAR SIR,—I write briefly to report progress. The result of the work of the last three weeks is that the most practicable pass from the Waimakariri to the Teremakau is that by the Bealey and Otira Gorges.

I am now setting out the line of road, and hope to be in Christchurch with my son in about ten days time, leaving Mr. Smith fairly at work.

I am afraid the Government will share the impatience of the public at the time this survey has taken ; but the country is so rough, and the difficulty of getting through the bush so great, that it has only been through great exertion on the part of all concerned that I have been enabled so soon to arrive at a definite result.

I remain, &c.,
E. DOBSON.

No. 3.--Preliminary Report on Otira Road.

Arthur's Pass,
April 11, 1865.

TO THE SECRETARY FOR PUBLIC WORKS.

MY DEAR SIR,—I am much obliged to you for sending me the tracing of the western pass of the Poulter. It agrees with McRae's description of the place.

I expect that Mr. George Dobson will meet me this week at Grassmere, on his return home. There is now not a single pass out of the Waimakariri, to the N. and W., that has not been examined by either one or both of us, and I trust that my Report on the subject will be found both complete and conclusive. I think you will be pleased with the line of road I am laying out. I have cut a four-foot wide track at a trotting gradient from the foot of the pass across the saddle, and am going down into the river bed of the Otira as fast as thirty good axe-men can cut their way through the dense scrub.

With the exception of a bridge over the Gorge of the Bealey (which will be avoided by the horse-track), the work required for the formation of a dray-road is of an ordinary character from the foot of the Bealey Gorge to the head of the Otira Gorge. Through the Otira Gorge there will be about 90 chains of heavy rock cutting, but there is no real difficulty about the whole matter, provided the necessary funds can be obtained.

I have instructed Mr. Smith to make some cuttings at Goldney's Saddle, which will enable the drays to be brought up to the foot of the pass. At present it is a very serious matter to pack tools and provisions for such a large party of men.

There is a stream of diggers both coming and going through the new track. The returning men speak well of the diggings, with not a single exception, and say that the good claims on the Greenstone Creek are paying from £12 to £18 per man per week. I am sorry to hear of the unsatisfactory termination of FitzGerald's expedition. I had previously examined the western sources of the Waimakariri and taken a set of levels, which showed the impracticability of getting a road in that direction.

I remain, dear Sir,
Yours faithfully,
E. DOBSON.

APPENDIX B.

Detailed Statement of the Cost of the Repairs and Improvements effected on the Porter's Pass Road, between the Kowai and Grassmere.

1865.—March 17 to April 27.—	£	s.	d.
Repairing main ford of the Kowai and its southern approach	3	0	0
Repairing gut cutting north side of Kowai	5	0	0
Porter's Flat—repairing 3 culverts and opening 4 chains of side drains ...	4	0	0
Repairing culvert and clearing 7 chains side cutting	7	0	0
Repairing ford and making new approach	4	0	0
Repairing ford, nearer foot of Pass... ..	5	0	0
Porter's Pass—widening and clearing 81 chains	142	0	0
Taking off projecting spurs, 1104 yards cube rock cutting	450	0	0
9 culverts, with 4 chains of stone drains	22	0	0
Putting new floor to bridge at head of Craigieburn Creek	10	0	0
47 chains catch-water drains on Craigieburn Flat	10	0	0
Widening and straightening road round Lake Pearson, 173 chains ...	173	0	0
Widening 2 culverts near Lake Pearson	8	0	0
	£843 0 0		

APPENDIX C.

Journal of Proceedings during an Exploration of the Dividing Range between the Valleys of the Waimakariri and Taramakau during the Months of March and April, 1865.

1865.—March 15.—Left Christchurch, and rode up to Willis' accommodation house, having been joined in the course of the day by Mr. George Dobson and Messrs. Browning and Cahill.

March 16.—Rode over Porter's Pass, and arrived at Mr. Hawdon's station in the afternoon. Some portions of the road are in a very neglected state, and require immediate attention to enable the traffic to be continued through the winter.

March 17.—Left Mr. Hawdon's station, and started up the Hawdon for Walker's Pass with Mr. G. Dobson, leaving Messrs. Browning and Cahill to go up the Waimakariri to examine the source of the White River. Camped in the afternoon in the river-bed, leaving the horses on a flat at the north side of the Waimakariri.

March 18.—Heavy rain all day. Mr. George Dobson started up the valley to examine the pass, and just returned before the river rose sufficiently to prevent him from regaining the camp. The river had risen nearly three feet by nightfall, but the rain ceasing, it fell as quickly as it rose, and had nearly regained the original level on the following morning.

March 19.—Struck camp and followed the river to Walker's Pass. The pass is not in the line of the valley, but is a gap in the lateral range, the lowest part of which is about 600 feet above the level of the river. The ascent is, however, tolerably easy, a zig-zag track having formerly been cut through the bush by Messrs. Walker and Pearson, who took a pack mule to the summit. The top of the pass forms a rough valley covered with loose stones and scrub, and rising to the westward, with a deep pool near the summit. The luxuriant vegetation on the pass forms a striking contrast to that of the Valley of the Hawdon.

The descent on the western side into the Gorge of the Otiwake is very steep, but it would be quite practicable to make a dray road over the pass to the head of the gorge by means of side cutting. Bad weather came on, and we camped a short distance down the gorge.

March 20.—Struck camp and proceeded down the gorge, which is only practicable when the river is low, as the cliffs in most places descend to the stream. The strata are nearly vertical, but have a north-west dip on both sides of the stream. The joints extremely loose, and the rocks generally in a shattered and insecure state. I endeavoured to define something like a regular flood level, but without success. From the constant succession of shingle terraces many feet above the water line, it would appear that the gorge is being continually blocked up by falls of rock and slips of shingle, which continue to accumulate until the pressure of the backwater becomes sufficient to remove the barriers thus formed. A curious illustration of this occurs near the head of the gorge, where I observed a large fragment of rock perched on the top of a boulder many feet above the water, and wedged up by small stones, which had evidently been washed into their places by a strong current. It would be simply impossible to construct a road through a ravine of this character.

In many places the gorge is blocked from cliff to cliff with a tangled mass of timber and scrub, which it was difficult to pass either through or over. It should be noted that the character of the timber changes on crossing the saddle. In the Hawdon Valley there is little else but white birch, of small growth and quite worthless; but in the Otiwake Valley the timber is chiefly red birch of large size, generally sound and useful timber, could it be made accessible. There is also a great variety of shrubs which are not to be seen on the north side of the range; the *nene* growing in great profusion.

The loose and jointed structure of the rocks enables the trees to take root even in the face of the cliffs, which are in most places covered with luxuriant vegetation. We followed the stream for some hours, occasionally climbing the cliffs to avoid deep pools or dangerous waterfalls, till we came to a point where the river ran deep between sheer precipices. Here we climbed into the bush on the east side of the valley, and scrambled along the steep hill-side till night-fall, when we camped in a gully coming down from the eastward.

These steep hill-sides, offer both rough and dangerous travelling, the ground being covered with loose blocks of rock, over which lie the rotting trunks of the trees of a past generation, the intervening spaces filled up with peat and moss, and the whole shaded by a dense forest of red birch, the trees generally healthy, but past their prime and beginning to decay. There is no trace of this country ever having been burnt, and such an event would be now simply impossible.

March 21.—Climbing all day amongst precipices; followed the Otiwake sufficiently far to be able to sketch in the country between Walker's Pass and the Taramakau, and camped for the night on the cliffs in a crow's nest built up with logs and brushwood over a fallen tree, which made a foundation.

March 22.—Returned, after a toilsome day's climbing, to our former camp in the gully, having taken the whole day to travel a distance of about two miles.

March 23.—Retraced our steps to our camp at the head of the Otiwake Gorge; the weather very cold and wet, but the river was very low, so that we were able to wade up the stream without having to take to the cliffs.

March 24.—Returned to Grassmere.

March 25.—G—crossed the river and brought up the horses. In the afternoon engaged with Mr. Smith examining the work done at Lake Pearson, and arranging for sending a survey party to cut a line over Arthur's Pass. Mr. Browning brought me a sketch plan of the head of the Waimakariri, with sketches of the junction with the White River and of a Pass which he had found, and left them with me for my assistance in future exploration.

March 26.—Very wet. A quiet Sunday, enjoying Mr. Hawdon's hospitality at Grassmere. G—rode over to Mr. Minchen's station, to be in readiness for starting up the Poulter on the following day.

March 27.—Started Mr. Smith, with a party of 12 men, to cut a survey line over Arthur's Pass. Engaged all day with maps and sketches.

March 28.—Left Grassmere for the Bealey, Mr. Goldney kindly accompanying me for some miles to point out the fords. Found, on arriving at the head of the Bealey, that no one had gone across the camping flat since Sunday's rain, and therefore returned to the Waimakariri, and followed the track of the pack horses till nightfall, when I camped on the Crow River. Sharp frost at night. N.B.—There is no pass at the head of the Crow River; the glacier descends to the bush.

March 29.—Started at daybreak from the Crow River, and came up with Mr. Smith's party at the head of the Waimakariri under Browning's Pass. Found that instead of going up the Bealey and taking the left fork, they had taken the left-hand stream at the junction of the Bealey and Waimakariri. Engaged in examining the northernmost branch of the river. Followed the stream for some distance up a rugged valley, which is little more than a mass of loose boulders and shingle between two vertical walls of rock, with glaciers at their summits as far as a waterfall, but did not think it worth while to risk life or limb by climbing to the watershed. Mr. Smith, however, ascended to the saddle, and reported as follows: viz., that above the waterfall was an upper valley with three small lakes; the saddle and the greater part of the valley covered with a glacier, to the summit of which he climbed by crawling over one of the lateral moraines, and, aided by a light fall of snow, gained the watershed, and found on the north side a deep desolate ravine running for some distance northward, and then turning *westward*. This would lead to the conclusion that there is no connexion between the Otira and the head of the Waimakariri, but that the stream on the western side of the dividing range falls either into the Hopeakowa, or the Arahura. In the afternoon started a track through the bush on the west side of the valley, to enable me to ascertain the practicability of making a road in side cutting up to Browning's Pass.

March 30 and 31.—Cutting tracks and examining the country. On the night of the 31st a violent storm occurred which blew down all the tents.

April 1.—In the morning the men engaged in setting up the tents, drying blankets, and repairing damages; in the afternoon cutting track. Reached a cross gully, which could not be passed without great difficulty and expense. From this point I obtained a good view of the hillside, which is in a loose and dangerous condition—the strata overhanging the valley, whilst the joints are inclined to the horizon, the whole surface of the hill being more or less shattered by exposure to the weather; the barometer at this point showed an elevation of more than 500 feet above the river bed, whilst the top of the waterfall at the entrance of Browning's Pass appeared to be 200 or 300 feet higher. The height of the waterfall as calculated from sextant angles taken in the valley below proved to be 750 feet. To reach this elevation at a gradient of 1 in 10 would require about $1\frac{1}{2}$ mile of side cutting, whilst the hillside is too loose either to afford a secure foundation for a road, or to allow of its being safely used if made; this appears a fatal objection to Browning's Pass. Even if the ascent were practicable, the summit of the saddle cannot be much less than 4000 feet high, whilst within a very short distance the Hopeakowa cannot be more than 700 feet above the sea so that there would be a drop of about 3000 feet in somewhat less than three miles. Another difficulty is that the river bed of the Waimakariri for the last few miles is too rough, and the fords too deep for dray traffic, unless a road were formed in side cutting on the banks which would involve heavy blasting.

April 2, Sunday.—Wet and wintry weather. Remained in camp all day.

April 3.—Struck camp and started down the river; met G—, who had returned from the Poulter by the Otira Gorge, and had examined the White River and its northern tributary, the valley of which he described as too steep and rugged to be of any value as a line of road. At the White River we were joined by a party of diggers who had come from the South by way of Lake Lyndon, and had followed the tracks of the packhorses. Travelled all day and camped at night a little below the forks of the Bealey.

April 4th.—Left the men to form a camp at the head of the camping flat of the Bealey; spent the day examining Arthur's Pass with G—. Sent the diggers on to the Taramakau. Arthur's Pass has features which distinguish it from all the other passes; as elsewhere the vegetation changes on reaching the watershed, the timber on the Bealey being only white birch with small patches of pine scrub, whilst on the Otira, totara, pine, and remu abound, and there are many plants and trees which are not to be found on the eastern side of the dividing range. But Arthur's Pass differs from the other passes in the width and length of the summit valley, and the gentleness of the ascent which is very easy; whilst the general character of the passes is that they rise up like a wall from the valleys by which they are approached. The summit is strewn with large blocks of stone, in a confused manner, rendering it difficult to say whether their position is due to slips or to glacial action. As we descend on the northern side, however, the evidences of glacial action become very clear; there is a large swampy flat which has been a lake in former times, the valley being dammed by a lateral moraine brought down by a glacier from a tributary valley in the west. Further down, the main valley is again blocked by an immense pile of loose rocks overlying a mass of mud and shingle with which the valley seems to have been filled at a very early date, and of which a good section is exposed at the head of the upper Otira Gorge. Still further north the valley narrows

and becomes a mere gorge, the sides of which are sheer precipices many hundred feet in height, all further progress being impossible, except along the river bed. As in the Otihake, bands of trap rock occur, the outcrop of which is strongly marked by black lines on the hill sides, and there are traces of what appear to be seams of coal in several places. Returned to the camp at night after a fatiguing day, fully satisfied with the general character of the pass, although many serious difficulties presented themselves on both sides of the ascent.

April 5th.—G— left the Bealey for another trip up the Poulter to examine a saddle at the head of the western branch. N.B.—He describes the passes out of the East Poulter as unavailable for a line of road as they only lead at high elevations into the upper part of the Taramakau valley. Tried for a long time to find a means of ascending the pass on the east side of the river; adopted a very steep gully as the temporary route, and set the men to cutting a track.

April 6th, 7th, and 8th.—Cutting a path through the bush on the east side of the valley to the open ground at the summit; decided that the ascent must commence on the western side, and that some means must be found for crossing the Bealey in the gorge.

April 9, Sunday.—Showery and cold. Walked up the west side of the river to some apparently open ground which I had seen from the east side; found it open but covered with moss and peat, apparently full of fallen timber, but overlying hard ground, either rock or shingle. Found a good place for bridging the river, at a point where a bridle track could be made by side cutting at a steep gradient to a ford in the river bed. *Mem.*—On the 5th instant received a note from Mr. FitzGerald, saying that he was going to examine the head waters of the Waimakariri, and would call at the Bealey on his return.

April 10.—Bad weather setting in, cut a track up the western side of the valley to the point selected for crossing the Bealey, and found it was practicable to descend to the river bed with a packhorse track.

April 11.—The weather too bad to allow me to leave the camp.

April 12.—Still very wet. Partially cleared in afternoon; set men to work making side cuttings near the camp.

April 13.—Weather too bad to go on with survey work. Turned the hands on to the improvement of the track up the Bealey; the snow low down on the hills. G— returned from the Poulter in the evening.

April 14.—Morning clear. G— chained the line up to the summit, and returned to Grassmere to set out cuttings at Goldney's saddle. The men cutting a track towards the Otira Gorge.

April 15.—Heavy rain all day. In camp writing and finishing rough sketches.

April 16.—Heavy rain all day.

April 17.—Took tent and provisions and camped in the lower Otira Gorge.

April 18.—Examining the gorge; find it easy enough to open the bridle track by improving the fords, and concluded that to make a dray road was simply a question of money. Received despatches from the Secretary of Public Works, stating that Mr. Thornton was on his way to take charge of the works, accompanied by Messrs. White and Wright. Decided, in consequence, to leave the contracts for the work in the lower gorge to be let by Mr. Thornton, and therefore stopped the detailed survey of that portion of the work.

April 19, 20, 21.—Setting out Smith's contract.

April 22.—Started for Craigieburn; met Mr. Thornton and reported to him all that I had done and the arrangements made with reference to Smith's contract. Reached Craigieburn in the evening.

April 23.—Rode to Willis's; the weather very bad all the afternoon. Going through Craigieburn Gorge examined the large coal seam; it appeared to be rather more than 5 feet thick and to be in a vertical position. It has been used for some time by the Contractor's blacksmith with success.

April 24.—Rain all day; engaged plotting plan of Arthur's Pass, and drawing up Smith's contract.

April 25.—Rain all day. Returned to Christchurch.

APPENDIX D.

Table of Altitudes obtained from Aneroid Observations
during an Exploration of the Passes between the Wai-
makariri and the Teremakau Rivers.

MARCH AND APRIL, 1865.

NAME OF STATION.	HEIGHT ABOVE THE SEA.
	Feet.
Willis's Accommodation House	1332
South bank of Kowai River	1422
Water line Kowai River	1386
North bank Kowai River	1450
Highest point west end of Kowai flat	1838
First ford inside pass	1856
Creek at foot of Porter's Pass	2194
Half-way Saddle, Porter's Pass	2763
Summit of Porter's Pass.	3026
Lake Lyndon	2641
Watershed between Rakaiia and Waimakariri	2681
River Porter	2158
River Thomas	2072
Broken River	2016
Craigieburn Terrace	2593
Lake Pearson	1912
Mr. Hawdon's House, Grassmere	2307
Goldney's Ford, Waimakariri	1607
Junction of River Waimakariri with River Bealey	1932
Junction of River Waimakariri with Crow River	2203
Junction of River Waimakariri with White River	2533
Last flat, River Waimakariri	2824
River Hawdon, junction with first creek	2119
River Hawdon, first camp	2355
River Hawdon, junction of stream at foot of Walker's Pass	2563
Top of waterfall	3192
Lake Misery, Walker's Pass	3527
Walker's Pass, summit	3619
Otihahe, second camp	3112
Otihahe River, third camp	1838
Highest point reached on hill side, supposed to be 150 feet above saddle leading to south branch of West Poulter	3378
River Bealey, camp below the forks	2110
Camping flat, lower end	2325
River Bealey, camp at foot of pass	2421
Top of cut line at end of bush	*2321
Summit of Arthur's Pass	*2928
Northernmost lake on saddle	*2840
Top of moraine, north of lake, in line of road	2869
Top of terrace above lower flat	2802
Bottom of incline	*2645
Lower flat north side of creek	*2636
North end of lower flat	*2587
Highest point of moraine crossed by the bridle road	*2737
Camp at head of lower Gorge of the Otira	*1987
Junction of the Otira River with the Taramakau. (Rochfort)	737

NOTE.—The heights marked * have been checked with the spirit level.

APPENDIX E.

CONTRACT FOR BRIDLE PATH OVER ARTHUR'S PASS.

Specification and Schedule of Works to be done on the West Coast Road, between the head of the Bealey River and the summit of the Pass, as per Plan attached. — Distance, 1 mile 67 chains.

	£	s.	d.
No. 1.—Clear the timber 10 feet wide; cut the stumps close to the ground; remove all obstructions, and fill up all holes. Length, 3 chains, at 20s. - - - - -	3	0	0
2 & 3.—Blast away rocky point to give 6 feet wide on solid, and make up the gradient not steeper than 1 in 10; blast a road 6 feet wide on the solid and metal same the whole width. Length, 6 chains, at £12. - - - - -	72	0	0
4.—Blast down the point 20 feet back from the river, and make an embankment across the river, with an easy slope up stream, at per cube yard			
5.—Make ford across River - - - - -	1	0	0
6.—Clear the timber 10 feet wide; cut the stumps close to the ground; remove all obstructions; fill all holes; make crossing to the creek and approaches to the main ford. Length, 2½ chains, at 22s. - - - - -	2	15	0
7.—Side cutting; nowhere less than 4 feet on solid; metalled the whole width. 2 chains, at per chain, £6 - - - - -	12	0	0
8.—Cut down and remove all the timber for a width of 40 feet; cut side and centre drains with connecting drains half a chain apart down to the bottom of the peat; the remainder of the work will be determined on after the drains are cut, and paid for at the valuation of the Government Engineer in addition to the cost of clearing and draining. 11 chains, at per chain, £4 - - - - -	44	0	0
9.—Gut cutting 10 feet wide at the bottom; the sides, as upright as the rock will allow, the floor to be thoroughly metalled at the permanent gradient of the proposed dray road. At per cube yard			
10.—Side cutting, metalled 6 feet wide on solid; the timber to be cleared not less than 14 feet wide. 2½ chains, at per chain, £6 - - - - -	15	0	0
11.—Clearing and draining, as No. 8. 1 chain, at per chain, £4 - - - - -	4	0	0
12.—Gut cutting, as No. 9; the stone to be used to the best advantage in making the approach to the bridge, at per cube yard			
13.—2½ chains draining and clearing, as No. 8, at £4 - - - - -	10	0	0
2 box culverts 1 feet 6 inches wide and high, and 12 feet long, each £3 - - - - -	6	0	0
14.—Cut and remove the timber 10 foot wide; remove the peat, and make a metalled road. 3½ chains, at £4 - - - - -	14	0	0
15.—Side cutting, not less than 4 feet on the solid; metalled throughout with proper turning places. 3 chains, at per chain, £4 - - - - -	12	0	0
16.—Same as No. 1. 2 chains, at per chain, 20s. - - - - -	2	0	0
17.—Foot bridge, 3 logs wide, on trussels; with proper approaches, to be properly secured against freshes - - - - -	5	0	0
18.—Side cutting and approaches, same as No. 15, with ford for horses. 5½ chains, at £3 10s. - - - - -	19	5	0
18a.—Clearing and draining, same as No. 8. 1½ chains, £4 - - - - -	6	0	0
19.—Clear the timber 10 feet wide; remove the stumps; remove or break up all large stones, and fill up the holes with metal; make proper fords to all the creeks. 6½ chains, at £3 - - - - -	18	15	0
20.—Gut cutting as No. 9; the stone to be used to the best advantage in filling up the hollows on each side of the cutting. At per cube yard			
20a.—Same as No. 19. 6 chains, at £3 - - - - -	18	0	0
21.—Gut cutting, same as No. 20. At per cube yard			

CONDITIONS OF CONTRACT.

The Contractor is to execute, without any extra charge, all works that may be necessary to make the track safe for pack horses and stock throughout its whole length, whether such works are particularly described or not.

Should the Engineer in charge of the work direct the construction of any additional culverts, or the execution of any works not included in the above Schedule, such additional work is to be performed by the Contractor at Contract price.

The Engineer shall have the power of directing any alterations in the Contract that may be considered desirable during the progress of the work, but the Contractor shall be allowed a fair remuneration for any extra work that such alterations may involve.

The whole of the side cuttings and gut cuttings are to be made on the level of the permanent dray road, except where otherwise specified.

The whole of the track is to be made passable for stock driving by the end of May, and the whole of the work, with the exception of the gut cuttings, is to be finished by the end of June. The gut cuttings are to be finished by the 14th of July.

Should the Contractor not make this rate of progress, the Government shall be at liberty to cancel the Contract at any date after the first day of June, on paying to the Contractor 90 per cent. on the value of the work actually done.

The whole of the work is to be done in a thoroughly workman-like manner, under the direction and to the satisfaction of the Government Engineer, and to be left in good order at its completion.

Should any question arise as to the meaning of any portion of the Specification, the execution of the work, or the payments which may become due to the Contractor, such questions are to be referred to Mr. Edward Dobson, Civil Engineer, as sole arbitrator between the Government and the Contractor, and his decision is to be final and binding on all parties concerned.

Money will be advanced to the Contractor as the work proceeds, at the rate of 75 per cent. on the value of the work done, and the balance will be paid within 14 days after the Government Engineer shall have certified to the satisfactory completion of the Contract.

The gut cuttings are to be measured and valued by the Government Engineer, according to the character of the ground removed. The price for shingle and boulders not to be less than 2s. 6d., and for solid rock not to exceed 12s. per cubic yard, such prices to include wheeling or carting on to the work to dispose of the stuff to the best advantage to distances not exceeding three chains average lead. In all cases where rock cuttings are run to bank, the top surface of such embankment is to be metalled not less than 10 feet wide with stone broken to a 3-inch gauge.

CONTRACT.

I hereby agree to perform the works necessary for forming a bridle road over Arthur's Pass from the head of the Bealey River to the head of the lower gorge of the Otira River, according to the schedule and conditions of the Contract hereunto annexed and signed by me for the prices therein named.

(Signed) JOHN SMITH.

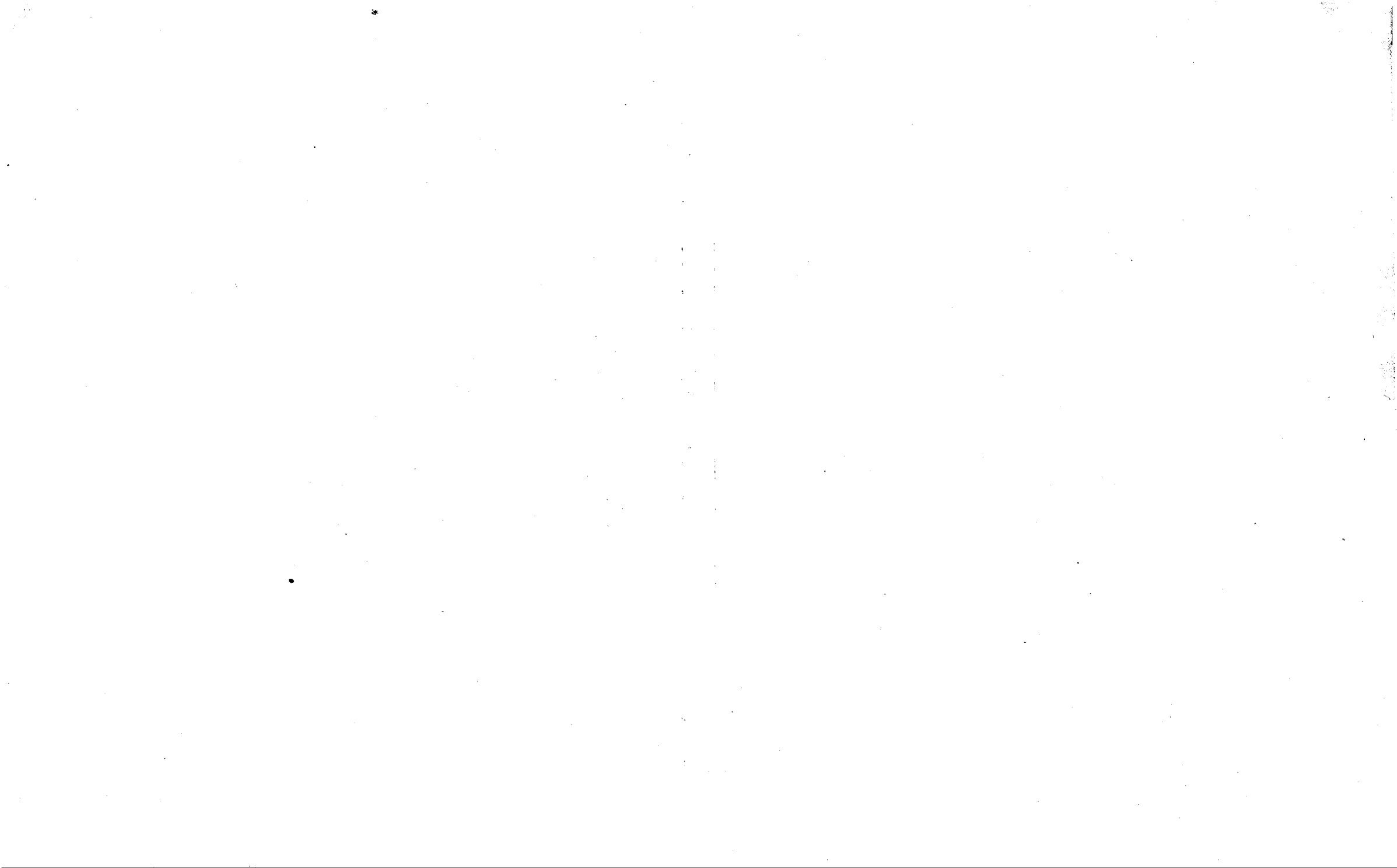
APPROVED on behalf of the Provincial Government of Canterbury, under instructions from his Honor the Superintendent, dated March 14, 1865.

(Signed) E. DOBSON,
Civil Engineer.

April 24, 1865.

*For Maps, Sections, Sketches, &c., referred to in this Report,
see End of Volume.*

COPIES
OF
CIRCULAR LETTERS
TO THE VARIOUS
ROAD BOARDS.



CIRCULAR LETTERS.

TO THE CHAIRMAN OF THE

ROAD BOARD.

Public Works Office,

Christchurch, September 28, 1864.

SIR,—I beg leave to inform you that by an amended "Roads Ordinance," which has just passed the Provincial Council, the annual meeting of Ratepayers for the election of the various Road Boards is appointed to be held in the month of January next, instead of the first Tuesday in October. The existing Boards will therefore continue in office until January. I will forward you a copy of the new Ordinance as soon as it is printed.

I have the honor to be, Sir,

Your obedient Servant,

JOHN HALL,

Secretary for Public Works.

TO THE CHAIRMAN OF THE

ROAD BOARD.

Public Works Office,

Christchurch, October 12, 186

SIR,—I am directed by his Honor the Superintendent to acquaint you that the Provincial Government is authorised by the "Appropriation Ordinance, 1864," to appropriate to the service of the Road Board during the current financial year a sum not exceeding that specified in the margin, in the event of the condition of the Provincial Revenue during the year rendering such an appropriation practicable. You will perceive that a portion of this sum is allotted to a specific work, to which, of course, it must be strictly confined. With regard to the sum not so allotted, although no absolute rule was laid down by the Provincial Council, it was understood that it is to be expended mainly, if not entirely, in new works of permanent utility, and not in the maintenance or repair of roads, which must be provided for by rates or other local sources of income.

All grants of money to Road Boards for the present year have been made subject by the Council to the following conditions:—

"That the sums appropriated by the Council for the service of the several Road Districts shall be paid, as the means at the disposal of the Provincial Treasurer will permit, by Government, in quarterly instalments.

"That the payment of any contribution from the Public Treasury for the service of any Road District shall be withheld, if, in the opinion of the Executive Government, the preparation of the Ratepayers' Roll for the District is unreasonably delayed."

The present state of the Provincial Treasury renders it desirable that no larger sums shall be drawn than are actually required by the various Boards for works in progress; but any sums which are so required, and are within the amount payable under the conditions above recited, will be paid on the usual application.

I am further directed by his Honor to state that while in many cases the arrangement of the Road Boards for designing and superintending works undertaken by them have been economical and satisfactory, there are several instances in which it appears to his Honor that the sums devoted to the payment of salaries are higher than the circumstances of the case require or justify. I am directed to call the serious attention of the Road Boards to this question, and to inform them that, from opinions expressed very generally in the Provincial Council on the subject it is probable that any future grant to the various Road Districts will be influenced to a considerable extent by the proportion of previous grants which has been expended in the payment of salaries. I beg leave to suggest that in some localities an agreement between two or more adjoining districts to appoint one Engineer for the superintendence of all the works to be executed in those districts, would conduce both to economy and efficiency in the matter of engineering supervision; and I trust that in cases where such an arrangement is found practicable this suggestion will

be taken into consideration. In cases presenting any special engineering difficulties in which any Road Board may be desirous of being aided by the advice of the Provincial Engineer, it will, on application to this office, be furnished whenever practicable.

The Provincial Council having authorised the appointment of an "Inspector of Roads," his Honor the Superintendent has appointed Mr. Thornton to this office. As the duties of this officer will be to examine and report upon all public works undertaken by Road Boards, on which any portion of the grant from the Provincial Treasury has been expended, and especially on the main roads of the province, I beg to request that you will furnish him with any information on the above subjects for which he may apply to you, and render him any other assistance in the discharge of his duties which you may be able to afford.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

Secretary for Public Works.

TO THE CHAIRMAN OF THE

ROAD BOARD.

Public Works Office, Christchurch,

October 26, 1864.

SIR,—I am directed by his Honor the Superintendent to forward to you herewith two copies of the "Roads Ordinance, 1864," which has been assented to by his Honor, and by which therefore the proceedings of Road Boards must now be regulated. A perusal of this Ordinance will show that it introduces several important alterations in the law as established by the preceding Ordinance, and which alterations will be found materially to assist the operations of the Boards. I am desired to draw your special attention to Sections Nos. 16, 17, 20, 24, 27, 31, 36, 37, 38, 52, 53, 54, 55, and 56. I beg also to enclose a lot of printed forms which will assist the Board in making a rate in accordance with the provisions of section No. 31.

An alteration has been made in the boundaries of the district which is described in the schedule, and which will be set forth in the altered map to be forwarded to you at a very early date.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

Secretary for Public Works.

TO THE CHAIRMAN OF

ROAD BOARD.

Public Works Office, Christchurch,

November 11, 1864.

SIR,—I have the honor to acquaint you, for the information of the Road Board, that the Government have received representations from the Bank of New Zealand that the fact of advances made by the Government to the Road Boards, being in several instances deposited in other banks, is a departure from the existing agreement with that establishment, under which all Provincial Government accounts are to be kept there.

With regard to the proceeds of rates levied by Road Boards, the New Zealand Bank has no claim to their being kept there, but so far as the Government subsidies are concerned, the representation of the bank appears a just one, and it has a fair claim to the custody of provincial revenues until they are actually required to be disbursed in payment of work executed.

I desire to add that a departure from this course, by interfering with the banking arrangements of the Government, would probably diminish the ability of the Government to make advances to the Road Boards.

I have to request, therefore, that you will be good enough to call the early attention of the Road Board to this subject.

I have, &c.,

JOHN HALL,

Secretary for Public Works.

TO THE CHAIRMAN OF THE

ROAD BOARD.

Public Works Office,

Christchurch, November 29, 1864.

SIR,—I am directed by his Honor the Superintendent to request that you will forward for inspection the Ratepayers' Roll for the District as soon as possible after the 31st of January. The production of the Roll for inspection is provided for by the 10th Clause of the Hospital and Charitable Aid Ordinance, and it has appeared to the Government that the most convenient course will be to request you to forward the Roll to this office. The Roll will be returned in a few days.

I have, &c.,

WM. ROLLESTON,

For the Secretary for Public Works.

TO THE CHAIRMAN OF THE

ROAD BOARD.

Public Works Office,

Christchurch, December 12, 1864.

SIR,—I am directed by his Honor the Superintendent to inform you that the state of the Provincial Chest is such as to render it necessary that the Road Boards should not for the present enter into fresh engagements relying to any considerable extent upon funds from the Public Treasury. The Government consider it advisable to give this early intimation of the state of the Treasury, in order to avoid future embarrassment and that no difficulty may arise in enabling the Boards to meet engagements already entered into.

I have to request that as far as possible the

Board will postpone application for funds

until payments become actually due upon works in hand.

I have the honor to be, Sir,

Your obedient Servant,

WM. ROLLESTON,

For the Secretary for Public Works.

TO THE CHAIRMAN OF THE

ROAD BOARD.

Public Works Office,

Christchurch, January 16, 1865.

SIR,—I beg to inform you that his Honor the Superintendent has, in terms of Clause 14 of the "Roads Ordinance, 1864," appointed the Provincial Auditor to examine and report on the accounts of the Road Board of which you are Chairman, for the period expiring 31st December, 1864. I believe that the simplest form in which these accounts can be presented will be to place on the one side the particulars of all sums, of whatever sort, received on account of the Board, and on the other of all disbursements made on the same account, each item containing such information as may enable the Auditor to place it under the proper head in his abstract. All payments must of course be supported by vouchers. A separate statement, shewing the amount in detail of all outstanding liabilities, will also be required, in order that the Auditor may be enabled to report in compliance with the provisions of the Ordinance.

I have the honor to be, Sir,

Your obedient Servant,

JOHN HALL,

Secretary for Public Works.

P.S.—I shall feel obliged if you will cause the accounts to be prepared according to the enclosed printed form, which has been drawn up with a view of ensuring uniformity in the accounts of the various Boards. The Provincial Auditor will communicate to you the day on which he will visit your District for the purpose above mentioned.

TO THE CHAIRMAN OF THE

ROAD BOARD.

Public Works Office, Christchurch,
January 27, 1865.

SIR,—I have the honor to request that you will be good enough to furnish me, for the information of the Government, with a statement of the contracts entered into by the Road Board previous to the 12th ultimo, together with the sums payable under such contracts, and the dates on which such payments are likely to fall due, also with a statement of the sum of money in the hands of the Board on the above mentioned date and the amounts receivable from rates or other sources of revenue.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

Secretary for Public Works.

TO THE CHAIRMAN OF THE

ROAD BOARD.

Public Works Office, Christchurch,
February 1st, 1865.

SIR,—I have the honor to inform you that his Honor the Superintendent has, in accordance with section 3 of the "Sheep Rating Ordinance, 1864," caused a list to be prepared of persons in the Road District liable to be rated in respect of sheep. A copy of such list is enclosed. With a view of assisting the Superintendent in causing this list to be corrected and revised as required by the Ordinance, I am directed to request that the Springs Road Board will be good enough to point out any inaccuracies which this list appears to them to contain, and that you will return the same to me at your earliest convenience.

You are, no doubt aware that sheep under 12 months old are not liable to be placed on this roll, nor any sheep under the charge, control, and management of the same person in any district, and being less than 2000 in number; also, that from the number of sheep in respect of which any person is liable to be rated there has to be deducted a number equal to that of the number of acres of freehold land occupied by him. The list I enclose has been prepared in conformity with these Rules.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

Secretary for Public Works.

TO THE CHAIRMAN OF THE

ROAD BOARD.

Public Works Office, Christchurch,
February 21, 1865.

SIR,—I am directed by his Honor the Superintendent to forward to you the list of persons in the District liable to be rated in respect of sheep, which has been prepared and revised in accordance with the provisions of the "Sheep Rating Ordinance," Session XXII, No. 10. As this list has now been signed by the Superintendent, it henceforward forms a part of the Ratepayers' Roll for the district.

I am directed to point out to you that for the future the preparation of this part of the Ratepayers' Roll will devolve on the Road Board of the respective districts.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

Secretary for Public Works.

CORRESPONDENCE

BETWEEN

THE PROVINCIAL GOVERNMENT

AND

MR. BALFOUR,

MARINE ENGINEER, OTAGO,

ON THE SUBJECT OF THE

CONSTRUCTION OF A BREAKWATER OR JETTY,

TIMARU ROADSTEAD.

UNITED STATES GOVERNMENT

OFFICE OF THE SECRETARY OF THE INTERIOR

WASHINGTON, D. C.

DEPARTMENT OF THE INTERIOR

LAND OFFICE

LAND OFFICE GOVERNMENT

WASHINGTON, D. C.

CORRESPONDENCE, &c.

TO HIS HONOR THE SUPERINTENDENT, OTAGO.

Superintendent's Office,
Christchurch, February 13, 1865.

SIR,—I have the honor to acquaint you that the Provincial Government of Canterbury is anxious to obtain correct information with regard to the practicability, and if practicable with regard to the cost of constructing a breakwater or a jetty in the roadstead of Timaru. As Mr. Balfour, the Marine Engineer to your Government, a gentleman said to be eminently qualified to report on this question, is expected in Canterbury shortly on his return from Taranaki, I shall feel very much obliged if your Honor will authorise Mr. Balfour to visit Timaru, and favor me with his opinion on the subject above referred to.

I shall be prepared to accede to any terms of remuneration for this service which your Honor may consider reasonable.

I have the honor to be, Sir,
Your obedient servant,
S. BEALEY,
Superintendent.

TO HIS HONOR THE SUPERINTENDENT, CANTERBURY.

Superintendent's Office,
Dunedin, 16th February, 1865.

SIR,—I have the honor to acknowledge the receipt of your letter, No. 29, of the 13th instant, in which you request that the services of Mr. Balfour, the Marine Engineer of this Province, may be placed at the disposal of the Canterbury Government for the purpose of reporting on the roadstead at Timaru, and intimating that you will be prepared to accede to any terms of remuneration for the service which I may consider reasonable.

In reply, I beg to state that Mr. Balfour's services will be placed at the disposal of your Honor's Government upon the following terms, viz., that his salary and travelling expenses be borne by it, while engaged on the work required. I enclose a letter to Mr. Balfour, informing him in accordance with the above, which perhaps your Honor will cause to be delivered to that Gentleman upon his arrival at Lyttelton.

I have the honor to be, Sir,
Your obedient servant,
J. HYDE HARRIS,
Superintendent.

VISIT TO TIMARU.

Christchurch, Canterbury, February 28th, 1865.

MEMO for the Canterbury Government.

My charge for a visit to Timaru will be five guineas per diem and all actual travelling expenses, such as steamer and coach fares, &c.

If an opinion can be satisfactorily arrived at from a mere visit of inspection, the time required will be from eight to ten days, according to the amount of office work. Should, however, a more or less minute survey be required (as is at least very probable), this will be a matter of future arrangement, and will be recommended in a preliminary report.

JAMES M. BALFOUR,
Provincial Marine Engineer of Otago.

To J. M. BALFOUR, Esq., C.E., MARINE ENGINEER OF OTAGO.

Public Works Office,
Christchurch, Canterbury, March 3, 1865.

SIR,—In reference to your memorandum of the 28th instant on the subject of your visit to Timaru, I am directed by his Honor the Superintendent to inform you that the Government will agree to the terms proposed by you if they are not objected to by the Provincial Government of Otago.

I have the honor to be, Sir,
Your obedient Servant,
JOHN HALL,
Secretary for Public Works.

To J. M. BALFOUR, Esq. MARINE ENGINEER.

Public Works Office,
21st March, 1865.

SIR,—I have the honor to acknowledge the receipt of your Report, dated 14th instant, of the result of your visit of inspection to the Roadstead of Timaru, and in reply I beg to state that the Government will undertake the additional borings and surveys which you consider necessary, and accepts the first of the alternative proposals submitted by you for the superintendence of the survey.

I have also to add that immediately the Port Officer returns from the Hokitika he will be instructed to collect the necessary materials and communicate with you with a view to the commencement of operations.

I have the honor to be, Sir,
Your obedient servant,
JOHN HALL,
Secretary for Public Works.

To THE SECRETARY FOR PUBLIC WORKS, CANTERBURY.

Marine Engineer's Office,
Dunedin, March 30, 1865.

SIR,—I have the honor to acknowledge receipt of your letter of the 21st instant (No. 356), intimating that the Government of Canterbury will undertake the additional borings and surveys, &c., which I recommended at Timaru, and accept the first of the alternative proposals submitted by me in my Report of the 14th instant for the superintendence of the survey.

I shall lose no time in commencing the work as soon as the Port Officer may return, and shall immediately prepare and forward to his address a memorandum with sketches, shewing the plan I propose to adopt in making the borings, and I may add that his nautical experience will be a very valuable aid in the undertaking. I shall also prepare instructions for my assistant, and send him down as soon as I hear from the Port Officer, and, if circumstances should allow, will go myself also. To commence the work sooner would be merely a waste of time, as I calculate that the other work can all be done while waiting for weather suited to the boring operations.

I have the honor to be, Sir,
Your most obedient servant,
JAMES M. BALFOUR,
Marine Engineer.

TO THE SECRETARY FOR PUBLIC WORKS, CANTERBURY.

Marine Engineer's Office,

Dunedin, March 14, 1865.

SIR,—I have the honor to report, for the information of his Honor the Superintendent, that I have now paid a visit of inspection to the Roadstead of Timaru, as personally arranged with the Provincial Government.

While there I carefully studied the Report of the Commissioners appointed to inquire into the matter, and, in the course of numerous conversations, obtained the opinions of a number of the residents, who, from their previous nautical training, and from their long acquaintance with the Roadstead, seemed most likely to be conversant with the question. In addition, I examined with care the whole coast line from the southward of Patiti Point to the north of Caroline Bay, with a view to ascertaining the best probable site for any artificial harbour works which might be contemplated.

Having thus acquired as much information as is attainable without a farther survey, I beg to report that on the whole I agree with the Commissioners, at least in many of their conclusions, and especially in considering the present, or "Cain's," landing place the best on the whole. Moreover, the works at present being carried out by Government at that point will probably prove of very considerable service, and it should always be kept in view that these works should if possible form a part of and be benefitted by any more extended design.

The general opinion at Timaru seems to be that an open screw-pile jetty, if practicable, would very frequently be of service, and I incline to endorse that opinion, as during my stay at Timaru, there was on more than one occasion such a "break" on the shore as to prevent the working of the boats, though the "swell" outside the surf would not in the least have interfered with the traffic.

The objection to any continuous stone pier or breakwater, urged by the Commissioners, that the shingle, travelling, as it undoubtedly does, to the northward, would tend to fill up the harbour when made, is a very serious one, and is probably fatal to any works in Caroline Bay; but farther investigation is necessary to establish with a reasonable amount of certainty the *manner* in which the shingle really travels. I think it probable, if a free opening were left between high water and half-tide levels (where alone the shingle is found to lie in any quantity), that even a continuous pier or breakwater could be erected outside of Cain's Landing-place without danger of injury from intercepted shingle. My present opinion is that if the bottom prove of such a nature as to admit of screw piles being employed, a jetty could be run out at a moderate cost, which would greatly benefit the community, and I hope that a further investigation will shew that it will be possible at a very trifling outlay to erect a small breakwater, or mound of roughly dressed masonry, on the reef in such a manner as to protect the landing place to a considerable extent without at the same time forming a "shingle trap." Should this prove the case, and the work be found really beneficial, the solid work may be afterwards extended seawards "bit by bit," as the wants of the locality and the sum of money available may render such extension advisable.

Before, however, giving a final opinion, or deciding on the works which should at present be recommended, and their cost, it is absolutely necessary that a further survey should be instituted. The existence of the very excellent survey by W. Woolcombe renders it unnecessary to take many soundings, though a few will be required, but a number of borings outside the reef at Cain's Landing are absolutely necessary, and certain observations on the travel of the shingle not less so.

From the nature of the work required, and the exposure of the locality, it is very difficult to estimate the cost of such a survey, should his Honor authorise it; but I shall propose two different arrangements for the consideration of the Government, on either of which I shall be prepared to superintend the survey and give in a final report with estimates and ground plan.

1st. The Government to furnish boring tools and defray all cost of borings, including carriage of tools, staging, and labour. I to furnish the necessary superintendence of the borings and a sketch of the best and simplest way of making them, and to defray all other expenses connected with the survey, and to bear all risk of lost time from bad weather, &c., for the sum of two hundred and fifty pounds sterling (£250). Note.—I estimate that the few borings which will be required—probably not more than four in number—would cost from £50 to £100, but this is so uncertain an item that it is better not to include it in my offer.

2nd. The Government to defray all expenses of the survey and borings, including hire of boats and men and all other charges whatever, on the receipt of vouchers for the same; also all travelling expenses of

my assistant and of myself, and to pay three guineas (£3 3s) per diem for every day my assistant should be engaged on the work, whether travelling, making the survey, delayed by bad weather, or in office, and five guineas (£5 5s.) per day for every day that I may be similarly occupied.

In either case the sum of two hundred pounds sterling (£200) to be paid to my account in the local Bank before the commencement of the work to defray current expenses, and, on vouchers being forwarded for the cost of the borings in one or more sums, as may be convenient, such sums to be also placed to my credit. The balance to be paid immediately on receipt of the Report, which will I hope be within a month or six weeks from the commencement of the survey, according to the nature of the weather.

Should my first alternative be adopted, the sum of two hundred and fifty pounds sterling (£250) to be in addition to my charge for my preliminary visit, which will amount, in terms of our agreement, to about fifty pounds sterling (£50).

I shall be glad to get an early reply as to a farther survey, that no unnecessary delay may take place as to the final report.

I have the honour to be, Sir,

Your most obedient Servant,

JAMES M. BALFOUR.

P.S.—I shall retain the sketches furnished by the Commissioners for a few days, or till I receive further instructions from the Canterbury Government.

J. M. B.

TO CAPTAIN GIBSON, PORT OFFICER.

Public Works Office,

Christchurch, Canterbury, 6th April, 1865.

SIR,—I have the honor to enclose herewith copies of letters from Mr. Balfour, and of my reply thereto, on the subject of the Timaru Roadstead, for your information, and to request that on your return from the West Coast you will inform Mr. Balfour when you will be able to undertake the duty referred to by him.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

Secretary for Public Works.

TO THE SECRETARY FOR PUBLIC WORKS, CHRISTCHURCH.

Marine Engineer's Office,

Dunedin, 18th May, 1865.

SIR,—I have the honor to forward my account for preliminary survey at Timaru in terms of my letter of date, Christchurch, No. 1^o of February 23rd, 1865, and your acceptance of date, March 3rd, 1865, No. 265, which appears to have been omitted to be forwarded along with the preliminary Report. A cheque for the amount £48 12s. will be a favor.

I have the honor to be, Sir,

Your most obedient Servant,

JAMES M. BALFOUR,

Marine Engineer of Otago.

RESOLUTIONS OF PUBLIC MEETINGS

AT

TIMARU AND AROWHENUA,

AND

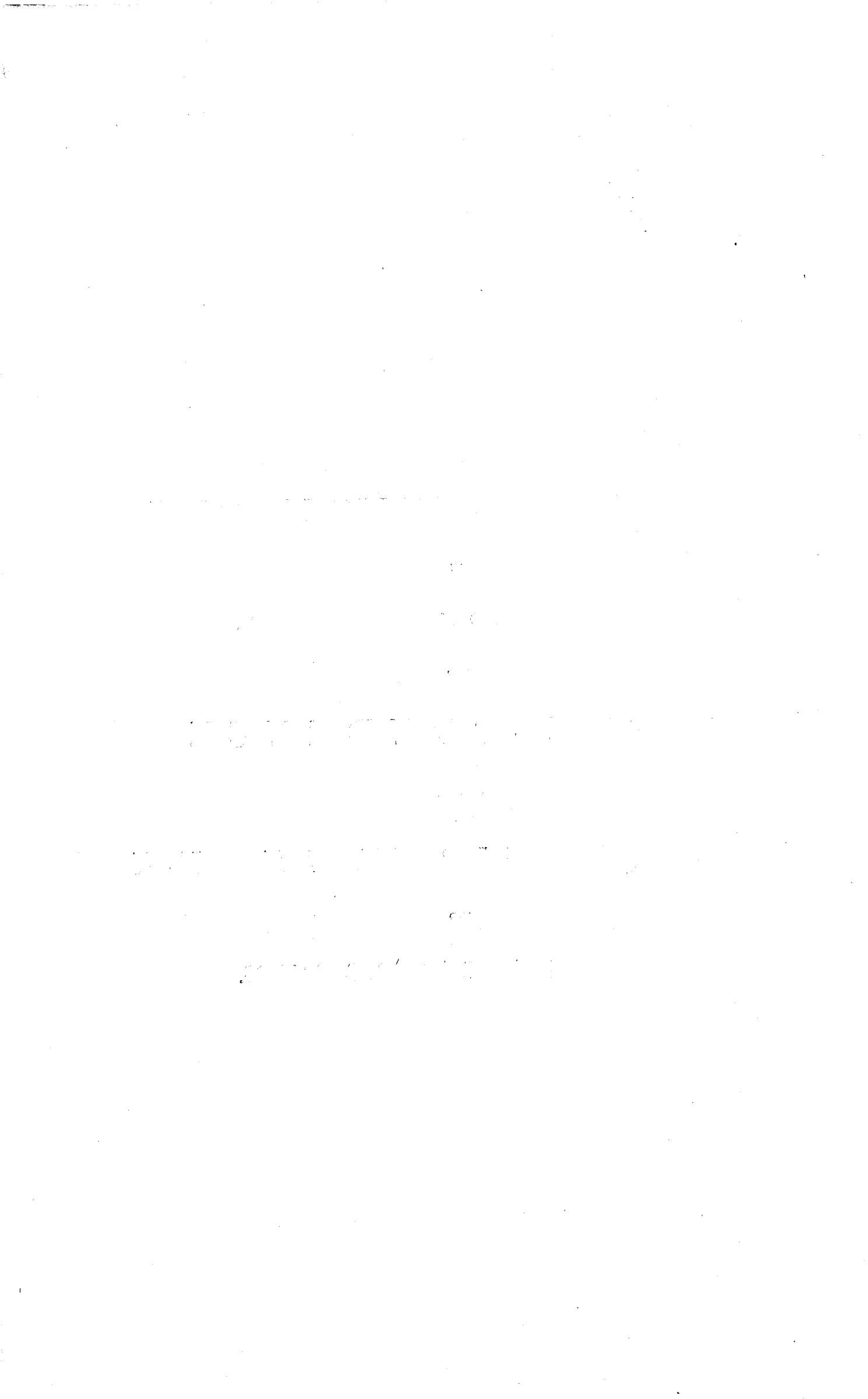
C O R R E S P O N D E N C E

RELATIVE TO THE

APPROPRIATION OF 25 PER CENT. OF LAND SALES

AND

PASTURAGE RENTS TO ROAD BOARDS.



RESOLUTIONS

PASSED AT A PUBLIC MEETING AT TIMARU, JANUARY 4, 1865.

1. That his Honor the Superintendent be requested to urge his Government to a compliance with the resolution passed by the Provincial Council in its last session, sanctioning the handing over of twenty-five per cent. of the Territorial Revenue for the construction and maintenance of roads to the several road districts in which such revenue is raised, and that such reserve out of the said revenue shall be paid into an account not chargeable with expenditure incurred in carrying out of any Provincial Works.

2. That a memorial be at once addressed to his Excellency the Governor requesting him to cause this district to be formed into a separate province.

3. That the representatives of this part of the province be requested to wait upon his Honor the Superintendent, to make known the views expressed by this meeting, and to urge their adoption upon his Honor's Government.

4. That by Territorial Revenue this meeting desires to be understood as meaning proceeds derived from the letting as well as the sale of Crown Lands.

TO THE PROVINCIAL SECRETARY, CHRISTCHURCH.

Orari, 23rd March, 1865.

SIR,—At a meeting of Electors, held at Arowhenua on the 21st of this month, to take into consideration the reply of the Provincial Government to a deputation from Timaru which lately waited upon them, it was thought desirable that I should bring the following resolution under your notice.

Proposed by A. Cox, seconded by F. Jollie:

“That the Chairman of this meeting communicate with the Provincial Government to ascertain whether it is their intention to propose to the Provincial Council—that a fixed proportion, viz., 25 per cent. of the proceeds of Pasturage Rents, as well as the proceeds derived from the sale of Crown Lands, be reserved and appropriated as an endowment to Road Boards, for the construction of ‘roads’ in the several districts where such revenue is raised.”

I remain,

Your obedient servant,

W. K. MACDONALD.

TO W. K. MACDONALD, ESQ., ORARI.

Provincial Secretary's Office,

Christchurch, 6th April, 1865.

SIR,—I am directed by his Honor the Superintendent to acknowledge the receipt of your letter of the 23rd instant, transmitting copy of a resolution passed at a public meeting held at Arowhenua, in which you are requested to ascertain whether it is the intention of the Provincial Government to propose to the Provincial Council that twenty-five per cent of the proceeds of Pasturage Rents should be appropriated as an endowment to Road Boards in the several districts where such revenue is raised.

In reply, I am directed to point out to you that the principle upon which the claim contained in the resolution is based is one entirely novel in the administration of the Land Revenue in the Province of Canterbury, and that while it has been always admitted that a portion of the revenue arising from the sale of Waste Lands should be directed to facilitating access to and otherwise improving the land from which such revenue was derived, it has not been held that such a principle was applicable to the case of Pasturage Rents.

His Honor desires me to say, that in deference to the wishes expressed in the resolution referred to, the Provincial Government will bring the whole subject under the consideration of the Provincial Council at its next session ; but, as at present advised, he cannot recommend the Council to adopt the course suggested in the resolution.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

In the absence of the Provincial Secretary.

REPORTS

FROM

DR. HAAST & MR. DOYNE, C.E.,

RESPECTING

SUPPLY OF WATER FOR TIMARU.

1870
1871
1872
1873
1874
1875
1876
1877
1878
1879
1880
1881
1882
1883
1884
1885
1886
1887
1888
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900

1870

1870
1871
1872
1873
1874
1875
1876
1877
1878
1879
1880
1881
1882
1883
1884
1885
1886
1887
1888
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900

1870

1870
1871
1872
1873
1874
1875
1876
1877
1878
1879
1880
1881
1882
1883
1884
1885
1886
1887
1888
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900

REPORTS, &c.

TO HIS HONOR THE SUPERINTENDENT OF THE PROVINCE OF CANTERBURY.

This Petition of the Inhabitants of the Town of Timaru, Humbly Sheweth—

That the great deficiency and uncertainty of the Water Supply has hitherto formed a very serious drawback to the health and prosperity of this town, and has even at times caused a considerable amount of distress.

That the peculiar physical configuration of the neighborhood of Timaru renders all well-sinking a matter not only of great expense, but what is of more import, one of the greatest uncertainty.

That, could well-sinking either in the "artesian" or other form be undertaken with greater confidence, we are persuaded it would soon be entered into to an extent which would speedily relieve to a very large degree the great want of water complained of, but which the risk attending such enterprises at present renders out of the question. Under these circumstances your Petitioners would respectfully press on your Honor the desirability of causing, at as early a period as possible, a geological examination of this neighborhood to be effected by the Provincial Geologist with special reference to the Water Supply.

And your Petitioners will ever pray, &c.

(Here follow 51 signatures.)

TO THE PROVINCIAL GEOLOGIST.

Provincial Secretary's Office,

October 26, 1864.

SIR,—The inhabitants of Timaru have petitioned his Honor the Superintendent to furnish them with such expedition as he can obtain on the subject of the best means of obtaining a water supply in that town. Your knowledge of the geological features of the district will, no doubt, enable you to give much valuable information as to the best means of obtaining water by artesian wells or otherwise. I shall be glad if, without interfering with the progress of other work which you may have in hand, you can furnish me with a report which would determine how far the geological structure of the surrounding country affects the probability of obtaining water by well-sinking.

I have the honor to be, Sir,

Your obedient Servant,

WM. ROLLESTON,

Provincial Secretary.

TO THE PROVINCIAL SECRETARY.

Geological Survey Office,

October 27, 1864.

SIR,—I have the honor to acknowledge the receipt of your letter of the 26th of October, wishing to be furnished with such information as I could offer, in order to facilitate the obtaining of a water supply for Timaru. In answer, I beg to state, that owing to the peculiar geological features of the country on which Timaru is situated, I am at present not yet able to offer any precise data on that subject.

Two years ago, when passing Timaru, on my way to the West Coast, the same question was put to me by several of the inhabitants; but I was sorry that I could not devote the necessary time, although I obtained a general acquaintance of the geological structure of the country close to Timaru. The surface of that country and the cliffs near the sea consist of Dolerite (a kind of basalt), but if in *sheets* or *dykes*, or forming a system of *submarine craters*, I was not yet able to decide, a minute examination being necessary to fix such points of vital importance. But I am quite willing, as soon as the collections, maps, &c., for the N. Z. Exhibition are ready (in about four weeks), if the Provincial Government wishes it, to proceed at once to Timaru, and to continue my researches so as to make myself thoroughly acquainted with the geology of that part of the Province, and to report afterwards, without loss of time, on the matter in question.

I have the honor to be, Sir,

Your most obedient Servant,

JULIUS HAAST,

Provincial Geologist.

TO THE PROVINCIAL GEOLOGIST.

Christchurch, 7th November, 1864.

SIR,—With reference to your letter of the 27th ultimo, on the subject of Water Supply for Timaru, I have the honor to state that, as I understand from a personal communication I had with you, that the necessary examination of the neighborhood of Timaru to enable you to report upon the practicability of obtaining water there by artesian wells, would not take you more than ten days or a fortnight, the Government will be glad if you will undertake this work on the completion of the collections, &c., for the Dunedin Exhibition on which you are now engaged.

I have the honor to be, Sir,

Your obedient Servant,

JOHN HALL,

Secretary for Public Works.

TO THE SECRETARY FOR PUBLIC WORKS.

Christchurch, February 25, 1865.

SIR,—According to your instructions to examine into the geological structure of the locality where the town of Timaru is situated, in order to see if, by boring of artesian wells or other means, an ample supply of good water could be obtained, I have the honor to communicate to you, for the information of his Honor the Superintendent, that I have just returned from that examination, and I beg to lay before you, in the following notes, the result of my researches, accompanied by some geological sections in explanation.

The town of Timaru is situated on the eastern end of a dolerite plateau, which stretches from Mount Horrible, lying between the Pareora River and its last northern tributary for ten miles to the sea with a breadth of about six miles, the northern bank of Pig-hunting Creek to the south, and Washdyke Creek to the north, forming the other boundaries.

The existence of this dolerite sheet is the cause of the configuration of the Timaru roadstead, and of the preservation of the loose pleistocene strata lying upon the volcanic rocks, which otherwise, like similar strata to the north and south of Timaru, would probably have been destroyed by the great glacier rivers in later pleistocene times. We must not, however, lose sight of the fact that as apparently none of those coming from the central chain reached the sea in this district, another favorable circumstance was added for the preservation of the estuary and fluvial deposits, lying upon the dolerite, as well as of the loose young tertiary strata immediately below it.

This dolerite plateau begins, as before stated, on the summit of Mount Horrible, the slopes of which, towards the Pareora and its northern tributary, are very steep and precipitous. The flat summit, consisting of dolerite identical with that of Harper's Hill in the Malvern Hills, forms vertical escarpments for about 100, to 150 feet, from the numerous fissures of which a fine vegetation grows, giving additional beauty to the picturesque scenery. A deep and straight valley runs here, as in the Malvern Hills, west of this great escarpment, suggesting at once that these dolerites deposited on the bottom of the sea, were ejected by a longitudinal fault or fissure in the tertiary strata by which the valley is bounded on both sides. This valley, at the junction with the Pareora, is, according to barometrical measurement, 312 feet above the level of the sea, whilst the highest summit of Mount Horrible reaches to an altitude of 1138 feet.

This capping of dolerite forms generally a horizontal sheet on that summit, although at some localities a dip towards east of as much as ten degrees at the edge of the escarpment may be observed.

In travelling eastwards, after half a mile, the horizontal line of the dolerite changes, and the mountain begins to have a small slope, which is greatest above Mr. King's shepherd's hut, the foot of Mount Horrible being in fact situated here. This shepherd's hut, distant about seven miles from Timaru, lies 686 feet above the level of the sea.

As I obtained mostly only single aneroid observations at the different stations, and had to calculate the altitudes from the data furnished by the meteorological station in Christchurch, I give them of course only as approximate.

Here at this shepherd's hut begins, properly speaking, the dolerite plateau, overlaid by silt, sloping in an almost uniform angle to the sea, and showing dolerite rocks in some gullies only, which have their beginning either in the eastern slopes of Mount Horrible, or even on the plateau itself for the surface drainage of the ground; but notwithstanding their local origin, the latter have been able not only to denude the loose silt deposits near the surface, but also to cut through the dolerite sheet into the looser tertiary strata beneath. This occurrence gave me an opportunity to convince myself that, as far as I was able to judge, only one large sheet was spread on that plateau, which with a slight gradual slope dipped towards east, whilst it had a nearly horizontal extent towards north and south, the fall being, as it seems, very slightly towards both directions. The fall for the last seven miles being only about 90 feet in the mile, or one foot in 58, the inclination is almost imperceptible.

At the same time I became conscious of another fact, namely, that the dolerite stream as it advances towards east thins out so as to be, in some places in the cliffs of Timaru, only four feet thick, but still exhibiting well, as I shall show in the sequel, the peculiar nature of these beds. This regularity is very striking, and is of the highest importance, as it shows us that since the deposition and cooling of that dolerite sheet, no disturbance except a gradual slow upheaval of the country has taken place, although other proofs are not wanting to demonstrate clearly that minor changes have occurred, and that the present configuration of the surface, near and in Timaru, is not at all in accordance with that which the dolerite below presents. There is no doubt that most of the many spurs which intersect the Timaru plateau in all directions, although all leading towards the sea, have been formed by the present surface drainage since the last silt covering was deposited, which obliterated below its level the channels of former watercourses cut into the dolerite or even removing it entirely. One very interesting and instructive instance I met with on the property of P. Luxmore, Esq., where two wells on two different spurs of about equal height above the sea had been sunk.

Whilst one of them, after having passed for 30 feet through a bed of silt, reached the rock, which, owing to its cellular lithological structure, would not be able to retain upon it water to any extent, the other, after having passed through fifty feet of silt, reached a bed of shingle, which became more and more compact as the workmen excavated into it, and, after another fifteen feet, a fine supply of water was obtained. The gravel of this well, which I examined attentively, consists of sub-angular shingle, mostly dolerite, more or less decomposed, but also of palæozoic rocks, dioritic sandstones, cherts, and other rocks of our Mount Torlesse series, thus indicating that a watercourse of some magnitude fell here into the sea. Some of the sources of this watercourse must have been situated behind the tertiary rocks in the first higher range consisting of palæozoic strata, as are now, for instance, the main sources of the Pareora River; whilst, as previously stated, none of the watercourses which now traverse the Timaru plateau have their sources beyond the dolerites. This important fact demonstrates practically that wells may be sunk

in gullies on that plateau without any result being obtained; whilst, if they are sunk on a neighboring spur, an ample supply of water may be reached. I may add that as the dolerite crops out on the same property in the next gully towards north, a depression must occur in that rock, and that thus the channel form is convincingly shown.

To demonstrate this fact more clearly, I give section No. 1, drawn to natural scales.

Similar facts were ascertained by examining other wells in Timaru, and they may account for the great uncertainty of obtaining water by well sinking; and, as Mr. W. Williamson, C.E., has undertaken to furnish me with the particulars of all the wells sunk in that town, I hope to be able to add to this Report some more details concerning this important question by generalising on the facts and levels obtained by him.

But I may state that generally the water in many wells is obtained by reaching a bed of fine clay, somewhat plastic, from three inches to one foot in thickness, which lies immediately upon the rocks. This clay, without doubt, owes its existence mostly to the decomposition of the dolerite itself.

Should the water thus obtained not be sufficiently abundant, and the excavator, therefore, continue to go deeper, he will very soon in striking upon the dolerite lose the little water previously met with, the rock being so porous that none could run or stand upon it without being immediately absorbed.

I shall now proceed to give some details concerning the nature of the cliffs which form the Timaru roadstead, as they will assist in following the deductions at the end of this Report, based upon the results obtained during this survey.

The cliffs south of the landing place consist entirely of silt, forming banks often 50 to 60 feet high but as, besides the occurrence of the dolerite in Saltwater Creek (Otipua) and Pig-hunting Creek, near the sea, the Patiti reef shows these loose banks have been protected by the dolerites, which form here reefs in the sea, and which have broken, and are still breaking, the force of the waves and currents. After having passed the landing place, where I had an opportunity of examining the silt in the new cutting giving a vertical section of about 25 feet, we reach the first bed of rocks. It is a dolerite of a normal character, almost identical with that of Harper's Hill in the Malvern Hills, of which I gave an analysis made by the Chevalier Chas. de Hauer in my Progress Report of last year.

It is porous, often cellular; the pores generally empty and only occasionally filled by calcite, or with a zeolite, probably chabasite.

This rock, if properly selected, would form the material for excellent millstones, for which it is used extensively on the continent of Europe, and even exported to many parts of the world. I was glad to see that some persons have begun to use it as a building stone, for which, for many purposes at least, it is well adapted.

The rock, for a thickness of about 10 to 12 feet is here visible, and consists of large blocks, being irregularly jointed, which has been without doubt the effect of cooling. These joints are filled with silt, often hardened and ferruginous, as if it had been deposited during the cooling of the rock, so that the heat had been sufficient to produce some change in it; or should we attribute to the decomposition of this basic rock that the silt between the joints or fissures has become more compact by being impregnated with oxide of iron derived from the dolerite?

The pores are not distributed indiscriminately all over the rocks, but show a certain linear arrangement with the flow of the stream by which this sheet has been formed.

On the top of the sheet the silt is more ferruginous, and in it lie pieces of the same dolerite, more or less decomposed, partly angular, partly with rounded edges, without doubt originating from the same stream higher up.

This sheet, before reaching Caroline Bay, diminishes considerably, till near the first gully, just below the residence of Mr. Le Cren, it ceases; but the section here observable is very instructive, as it shows at a glance the nature of the beds immediately below the dolerite.

Section No. 2, which is drawn to natural scale, enables us to obtain a clear insight into the sequence. The lowest bed visible (No. 1) is about two feet thick, and consists of shingle and gravel very ferruginous and compact. The pieces of rock of which this bed is composed are sub-angular, like those of a river bed, and consist almost entirely of dolerite, proving the existence of another doleritic eruption before the sheet

at present visible was deposited, and of which I shall have an opportunity to speak when treating of Mount Horrible.

This lowest visible bed (No. 1) changes insensibly into No. 2, a stratum of about three and a half feet in thickness, and consisting of silt, becoming more ferruginous towards No. 3, a bed of about one foot in thickness, which has all the characteristics of a tufaceous deposit, at the same time showing clearly that the dolerite sheet No. 4, of a thickness of four to five feet, when flowing over it, was able to burn it, giving it immediately below a red brick-like appearance.

Above the dolerite we find again the same boulders and angular blocks as before described imbedded in coarse ferruginous silt, which a few feet above becomes more uniform and exhibits a thickness of 12 to 15 feet.

Advancing towards the north we pass to the next cliff, which consists entirely of silt, being at its northern end near the lagoon about 30 feet high. No fossils of any kind rewarded my search; and only in one locality the uniformity of this deposit was broken by the occurrence of a layer of white fine silt of about a foot in thickness, 12 feet above the sea level, interstratified with the yellow coarse silt, and having somewhat the appearance of glacier mud, being almost impalpable.

On the southern side of the lagoon the dolerites make again their appearance, they being often 15 to 20 feet in height. They cease near the Washdyke, and only in the bottom of the outlet of that large lagoon some rocks of the same nature, but already greatly decomposed, make their appearance.

The fan of the Opihi River reaching to the northern end of the Washdyke Lagoon, a shingle bank similar to that described when speaking in another publication of the formation of Lake Ellesmere, has given origin to that first-named sheet of water.

On the western side of the road to Christchurch, after leaving the Timaru plateau, the same dolerites crop out as far as the Washdyke Creek, which seems to be their boundary to the north. My examination of the southern banks of the Opihi convinced me that they do not stretch so far; besides which it is quite clear, from the configuration of the country, that did such sheets exist they would certainly be visible.

I may here observe that the examination along the Timaru beach did not indicate in the least that several sheets of dolerite overlaying each other existed there, although we may assume that streams from the same eruptions were flowing in several branches, of which that of Flagstaff Hill thinned out sooner than the more important one near the Washdyke.

Proceeding next up the Saltwater Creek, I observed the dolerite near the spot where the southern road crosses it. The sheet lies here in a very low position, so that in drawing a line to the sea it would reach it a few feet below low-water mark.

Although the valley is here rather broad, the corresponding lines of equal altitude on both sides are very clearly defined. As we ascend, the sheet becomes broader and rises above the level of the valley, so that a mile and a half from the sea, where the valley begins to narrow considerably, it is about 80 feet above the creek, continuing to show in a remarkable way its horizontal position on both sides. The sketch No. 3, from nature, may convey an idea of that characteristic uniformity, whilst section No. 4 will explain the geological relations.

At one spot only was I able to examine the nature of the beds below, everywhere else the slopes below the dolerites being covered with vegetation or debris. These beds consisted of coarse ferruginous silt, and were exposed for about one foot below the sheet, but nowhere was there any indication that a second sheet was underlying. Two and a half miles from the sea coast the bed of the creek begins to rise rapidly, so as to shallow the valley considerably, and an altitude obtained showed that a rise of 194 feet above the sea had taken place. From here to the shepherd's hut at the foot of Mount Horrible the gullies continued to be shallower, but exhibited, invariably, when favorable circumstances admitted it, the same volcanic rocks covered slightly with silt.

The same may be said of Pig-hunting Creek, with the difference that the dolerites are only confined to its northern bank until it approaches the slopes of Mount Horrible, where again the rocks are exposed on both banks. Following the dolerite sheet of Timaru to the summit of Mount Horrible, we at once observe that it becomes thicker the more we advance towards that mountain, and, as the beautiful vertical precipice at its western termination shows, is here of a thickness of more than 100 feet. Descending that

mountain in a westerly direction, which, with horses, is rather a difficult task, we find below the dolerite the same burnt tufaceous beds as in Harper's Hill and the beach at Timaru; but afterwards for 300 feet no indication whatever of the nature of the strata is to be met with, till, at an altitude of 650 feet, another dolerite stream makes its appearance, which is of a more compact character than the uppermost or Timaru sheet.

This stream overlies beds of a calcareous or marly nature, identical with those of the Curiosity Shop of the Rakaia and of a middle tertiary age.

They consist of tufaceous limestones, calcareous sandstones, marly and argillaceous beds alternating with each other for many hundred feet. The presence of a large *Waldheimia*, even without the identical lithological character of the rocks, assigns to them at once their proper age.

In these beds good lime and building stones, the latter equal in quality to the Oamaru stones, are to be obtained with the greatest facility.

On the right bank of the deep creek washing the western foot of Mount Horrible, the same tertiary rocks crop out, all dipping towards east at an angle of four to seven degrees, sometimes with a southerly, sometimes with a northerly tendency.

In descending the Pareora River towards its mouth, we soon, after about a quarter of a mile, observe these older tertiary beds disappear below the lower dolerite stream, which again ends about a quarter of a mile further down.

For the next 700 or 800 yards the side of the mountain is covered with slope deposit to the water's edge, or with boulders of fluvial origin. Still descending, we meet with blueish clays, sometimes changing into clay marls, full of shells, of which many are identical with those now living on our coast. These fossil shells are perfectly well preserved, so that some of them have even retained their original color; among them the *Voluta Pacifica* is the most abundant.

After a few hundred feet, slope deposits conceal them again from our examination, till we meet them finally, after another half mile, but now being interstratified with bands of shelly sandstone full of well-preserved fossils, of which *Arca*, *Turitella*, *Pectunculus*, and many others are very conspicuous. It is here that the River Pareora leaves Mount Horrible, the eastern slopes of which, as before observed, fall towards the Timaru plateau.

In Section No. 5 I give the different beds actually observed, and previously described as occurring on the southern side of Mount Horrible, and it will show at a glance that the indications that the younger tertiary beds continue to the western side of Mount Horrible between the two dolerite sheets, are strong enough to warrant a belief in their existence, although nowhere, as far as I examined that mountain, they actually cropped out between them.

Another strong corroboration is offered in the hills south of the Pareora behind the station of Messrs. Innes and Ellworthy. The same young tertiary strata as those described previously occur there too, rising several hundred feet above the river, with a dip to the south-east varying from seven to thirteen degrees, whilst on the western side of the southern tributary of the Pareora, rocks of middle tertiary age (our Curiosity Shop series) rise to an altitude equal to that of Mount Horrible.

In summing up the evidence offered by the examination of these beds, I shall once more mention their occurrence as giving additional confirmation of the existence of young tertiary strata between the two dolerite sheets.

Where the capping of that volcanic rock leaves the Pareora River turning towards Timaru, the young tertiary strata continue with their easterly dip along the banks of the river, and show that where no dolerite covered them, other beds were deposited upon them. Section No. 6 is exposed on the southern bank of that river opposite the station of Messrs. Innes and Ellworthy.

Here 12 feet of blue clay with *Septaria*, and *Voluta Pacifica* are overlaid by 10 feet of boulders, shingle, and gravel of fluvial origin, consisting mostly of palæozoic rocks, the largest boulders below and towards its upper portion becoming more and more sandy till it changes into 12 feet of silt, yellowish fine, undistinguishable from the silt which overlies the dolerite on the plateau.

The general Section No. 7 contains the result of my examination, having placed from the indications obtained, the young tertiary strata between the two lava streams; but it is evident, should some other lava streams even lie between them, that they will be of little importance, as the decrease of the upper

one between the summit of Mount Horrible and the beach of Timaru shows, whilst from the regularity of the tertiary strata strike as well as dip, there is no doubt that they will continue in a regular way from the base of Mount Horrible to the sea. Thus no conditions are wanting, either in the nature or in the strike and dip of the strata, to oppose the conclusion that if reached by means of borings or shafts, they will offer the supply of water very much wanted in the town of Timaru.

It may, perhaps, be urged against this opinion that the dip of the beds will probably be too small to force the water here collected so high as to become available for that purpose, but I may observe that according to well established and practically confirmed laws on hydrostatical pressure, such pressure does not depend at all for its energy upon the slopes on which water descends, but merely upon the difference of level of the two connected parts or ends of the mass, which has to be raised, and there is no doubt that the difference of level in this case is more than sufficient—owing to the shelly sandstone beds interstratified between the clay and clay marls, another necessary condition for an ample supply of water, namely, permeable beds lying between impermeable ones is not wanting; at the same time the lithological character of these beds will not present any difficulty in boring or sinking through them. Some of these beds ought to be reached below the town of Timaru at 250 to 300 feet, if not sooner.

It is not my province to enter here into a discussion as to the cost of obtaining an abundant water supply, and of the means to be used for that purpose, the application of this Report being an engineering question.

Although the examination of the different strata has shown me that water may be obtained, I am, of course, not certain if the slope on which the water runs (a secondary question, it is true), and the pressure which is exercised upon it, are sufficient to force it to the surface, or whether pumping apparatus will have to be erected.

I have to go no further than to collect the geological data at our command, so as to ascertain what strata will be found by boring or sinking, and must leave all the working details of such an important question to the proper engineer. I may, however, express my conviction, based upon the facts stated in this Report, that everything seems very favorable for the attainment of the object in view; and, in summing up, it will be palpable to you that no link in the evidence before us is wanting to come to such a conclusion.

1. In the middle tertiary epoch, extensive strata of calcareous or argillaceous beds were deposited in this locality on a deep sea bottom having an almost uniform slope towards the east.
2. Some of these beds by their lithological character are impermeable to water, being at the same time interstratified with permeable strata.
3. Submarine eruptions of dolerite took place, which, spreading over the sea bottom, covered the first-named tertiary strata, protecting them at the same time from denudation.
4. Between these eruptions subsequent tertiary beds were also deposited, which, by repeated eruptions of dolerite, were also preserved.
5. Some of these younger beds present us with the same characteristics as described in No. 2.
6. The dolerite sheet on the summit of Mount Horrible, which can be followed from there to the sea, was the last deposited on the sea bottom.
7. This sheet, by flowing towards east, where it terminates, becomes gradually smaller and thinner.
8. Since the deposition of this latter sheet, only minor changes took place, of which several old river channels now covered by silt, and as shewn by the wells in Timaru, are witness.
9. That occurrence at the same time proves the oscillation of the ground, but the upward motion was predominant.
10. Finally, no signs of any disturbance, since the deposition and rise above the sea of the different levels alluded to, have been observed; so that by boring or sinking they will be found in their natural position.

In consideration of all these propositions, which seem to me in favor of obtaining an ample supply of water, I beg to recommend to the Provincial Government, should no engineering difficulty, of which I am not aware, be in the way, to have water sunk for, either by artesian wells or otherwise, on the highest locality of Timaru, so that the water obtained could be brought by gravitation over the whole town.

JULIUS HAAST,
Provincial Geologist.

TO THE SECRETARY FOR PUBLIC WORKS.

Christchurch, April 6, 1865.

SIR,—In accordance with your instructions of the 2nd ultimo, I have the honour to inform you that I have examined the neighborhood of Timaru with the view of forming some definite conclusion as to the course which should be pursued in seeking for an abundant supply of water for the use of the towns-people. I understand that an artesian supply is the great desideratum, and undoubtedly if that could be obtained by sinking a bore hole in the higher portion of the township, so that the whole could be distributed by gravitation as suggested by Dr. Haast, it would be the best plan to adopt. But from the information supplied by Dr. Haast in his Geological Report on the district, from the examination I have made personally, the information I have received from Mr. Williamson obtained by levels taken to a large number of wells that have been sunk throughout the district, and the materials that have been passed through with various results, I have failed to see any promise of an *artesian* supply, or even of any supply sufficient for town purposes, to be obtained above or in the first sheet of dolerite rock described in Dr. Haast's report. This sheet, as proved by the wells in Timaru, lies at depths varying from 10 to 100 feet below the surface.

Dr. Haast suggests that by sinking through the upper doleritic sheet into or through the silt deposits which separate it from the lower sheet an ample supply of water may be struck which may rise to the surface, or may not; but failing to find it there the probabilities will be largely increased by continuing to bore or sink a shaft through the second doleritic sheet into the strata below it.

As I cannot find any indication of a basin being in existence to any depth at which we possess information of the strata, and as I believe no artesian supply has yet been obtained without tapping the roof of a basin, I consider the search after artesian water to be in this case purely speculative, and the probabilities to be largely against success. On the other hand, I think the probabilities are in favor of a copious supply of water being obtained by a deep well, but here again the attempt is purely experimental.

The nature of the material, as proved by the existing wells, and so well illustrated in Dr. Haast's Report, shows that water may be obtained at one point and none a few yards off. I am therefore of opinion that water should be sought for by sinking a well instead of by boring, as in the latter case if the water should not rise to the surface (which appears most probable), and if an underground stream should be struck, the expenditure will be completely thrown away, as the water cannot be raised through a bore-hole, while by the former plan it can; its quantity can be accurately gauged, its quality tested, and a decision can be arrived at as to the cost which should be incurred in raising it to the surface for general use. From the information I have collected I believe that the cost of sinking a shaft will but little, if at all, exceed that of an ordinary boring by rods, while the greater amount of accurate information that will be gained by this method as to the strata passed through will be of great importance in all future trials, and the quality of the water will be subject to better tests. To this latter question I attach considerable importance, as I have reason to believe that at great depths brackish water may be found. Viewing the sinking of a well in Timaru to obtain a large supply of water as purely experimental, I advise that the trial may be made at a point, which according to the information we possess, may be made at the least possible cost, consistently with making a thoroughly useful examination of the sub-strata. With this object in view, and also to sink the well in the present centre of population, I recommend that the trial should be made in the locality of the Post Office on some available piece of ground. The first stratum of rock will then be struck at a short depth, and the largest amount of population is centred there; the site is in low ground, and consequently deep water will probably be found at less expense.

By sinking at a point high above the township (as proposed by Dr. Haast), there would probably be less chance of meeting with brackish water, but on the other hand no supply obtained there would be available for the present population, unless it rose to the surface—a contingency I consider to be so remote as not to be worth calculating upon.

Mr. Nathan Fisher, an experienced well-sinker at Timaru, offers to sink a well at the rate of 4s. a foot, where there is no rock, and 30s. a foot through the rock, he being found in powder, fuse, and timber if required. At this rate, assuming that one-third would be through rock, and the remainder through

similar material to that which lies above the upper doleritic sheet, the cost of a well 300 feet deep would be about £200.

None of the wells which have been sunk at Timaru have required timber, but I cannot say whether the materials below the rock might not require it. If they do so, the cost will probably amount to £250.

I have the honor to remain, Sir,

Your most obedient servant,

W. T. DOYNE.

TO THE CHAIRMAN TIMARU ROAD BOARD.

April 19, 1865.

SIR,—I have the honor to forward for the information of the Timaru Road Board copy of Dr. Haast's report, and also the report of Mr. W. T. Doyne on the subject of the Timaru water supply, and with reference thereto I beg to state that if the Board desires to proceed with the work recommended by Mr. Doyne, the Government will provide the necessary funds as they are required.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

Secretary for Public Works.



C O R R E S P O N D E N C E

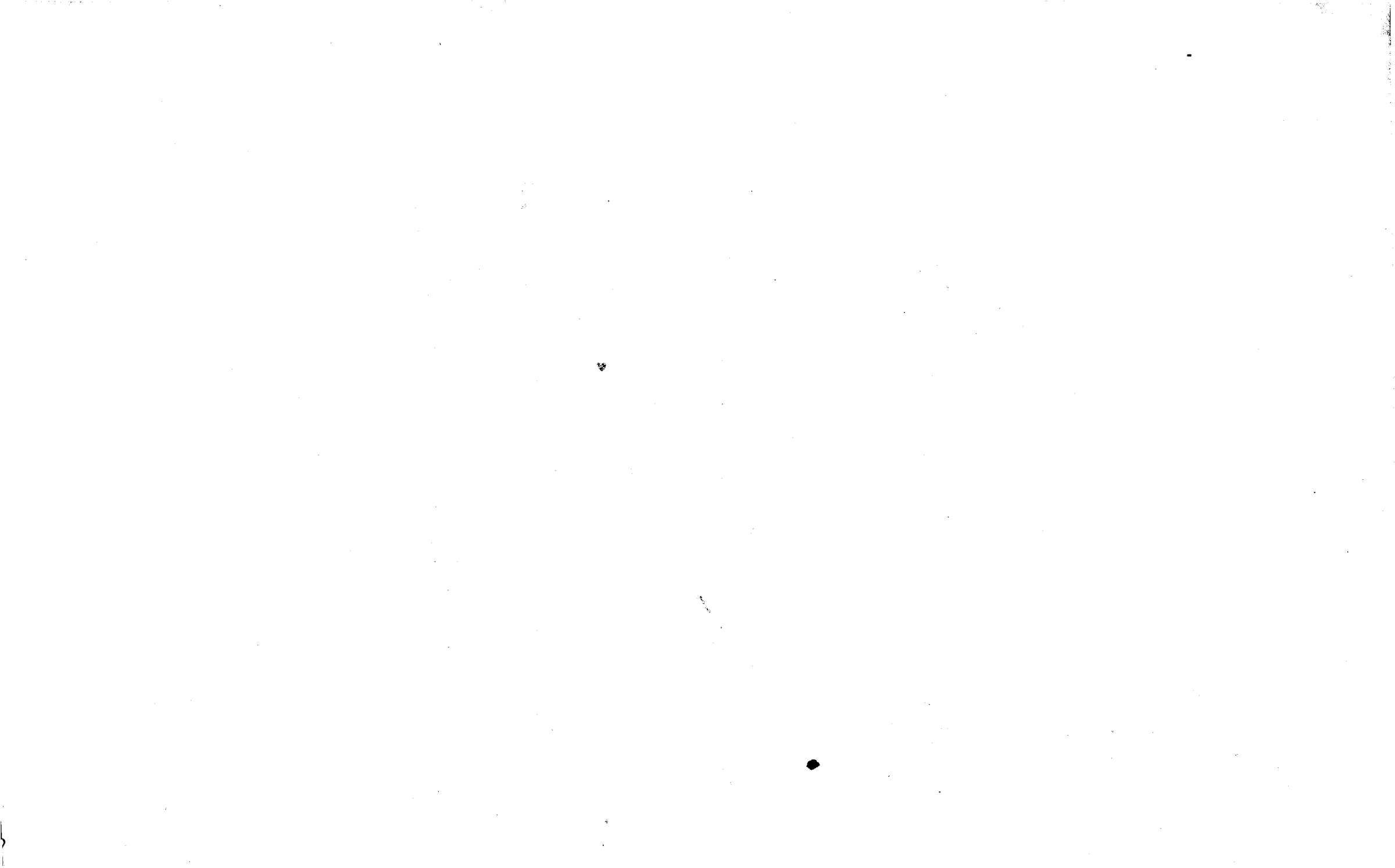
RESPECTING THE

A D V A N C E O F £ 5 0 0 0

FOR

O B T A I N I N G A S U P P L Y O F B U I L D I N G S T O N E

A T A R E D U C E D P R I C E .



CORRESPONDENCE, &c.

To H. S. CRIDLAND, Esq.

October 4, 1864.

MY DEAR SIR,—As in the preparation of the Gaol Plans you must have fully considered the whole question of the supply of stone, I shall feel much obliged if you will confer with Messrs. Bury and Mountfort, and let me know to which quarry or quarries, in your opinion, a tramway would be most useful in bringing a plentiful supply of stone for the buildings contemplated by the Government, and for Christchurch generally. Also, what are the usual prices at home for rubble stone at the quarry. If the Government assists Messrs. Brittan and Forgan in bringing their stone to Christchurch, it has a right to ask that they shall supply it at a reasonable price.

Yours very truly,

JOHN HALL.

To THE SECRETARY FOR PUBLIC WORKS.

Christchurch, October 14, 1864.

SIR,—We have had your letter of the 4th October, addressed to Mr. Cridland, under our consideration, in the which you request that Mr. Cridland should confer with Messrs. Bury and Mountfort as to which quarry or quarries we collectively consider the most plentiful supply of stone could be obtained. As the number of quarries or scratchings on the Port Hills from which building stone is procurable are almost numberless, and as a personal inspection of them all would take up a considerable time and involve expense in instituting a thorough investigation of these quarries or openings in the hills, we have considered that it would be more to the purpose to consider the quality rather than the quantity.

There are only four quarries known to us that are sufficiently developed, and from which we could recommend the Government or private individuals to obtain stone for rubble walling, viz.: Ellis, Thompson, Brittan, and Fisher's. The stone procured from these quarries is good, and the cost delivered in Christchurch almost the same, viz., 26s. per cubic yard. The Messrs. Ellis, we believe, have a large quantity of rubble material in stock; Mr. Thompson, who is now laying down a tramway under Mr. Dobson's superintendence, will also shortly we believe be in a position to send a large quantity of rubble and cube stone to market at perhaps a reduced price. Mr. Brittan's quarry appears to be almost inexhaustible; Mr. Fisher's old quarry is, we believe, worked out; but he has lately opened another equally good, but we are not aware whether he is in a position to send much to market.

Having used stone in various buildings from the before named quarries, our experience leads us to prefer the stone from Brittan's quarry, as from its geological formation it possesses a true natural flat bed, which produces better work at less cost than stone from the other quarries, and in the item of labour alone is worth quite 2s. per yard more than stone from other known quarries. For these considerations we have decided upon the use of rubble stone from Brittan's quarry in preference to the others, for all those works we have in hand for the Government. We have gone into the subject of the cost of rubble delivered into Christchurch by carts and also by trams, and we find it to be as follows:—

Cost by Tram—

Stone at quarry, 9s. per yard; haulage, 7s.; transhipping from depôt into town, 3s. £0 19 0

Cost by Carts—

Stone at quarry, 9s. per yard; cartage to town, 17s. per yard 1 6 0

Thus, if assistance is given to Messrs. Brittan and Forgan to bring stone to market by means of a tram, a saving of seven (7) shillings per yard would be effected, provided the cost of haulage was not more than 7s. per yard.

We think it might be made a condition, that should assistance be given to Messrs. Brittan and Forgan to construct a tram from the Halsewell quarry, that they should be compelled to run a siding into the jail site, and lay down there rubble at 16s. per cubic yard, thus effecting a saving of 10s. per yard; and assuming the quantity of rubble stone to be used at the jail at 3000 cubic yards there would be a saving of £1500 to the Government, and the same amount may be computed for the Government works in Christchurch, at a saving of 7s. per yard, would represent £1050. The consumption for private works we estimate will amount to about 6000 yards, which would effect a saving of £2000, and probably induce buildings of a more substantial character to take the place of those now being generally erected.

We therefore think that looking to the saving that may be effected, provided the tram is made speedily and opened for traffic, say within six weeks, that assistance given towards that object would be a great boon to the public, and also effect a considerable saving to the Government.

We are, sir,

Yours most obediently,

H. CRIDLAND,

MAXWELL BURY,

BENJAMIN W. MOUNTFORT.

TO MR. WILLIAM WHITE.

October 15, 1864.

SIR,—I have the honor to request that for the purpose of enabling the Government to decide upon the expediency of making an advance of money in aid of the construction of a tramway to the neighborhood of Mr. Brittan's quarry, you will be good enough to inform me—

1. What the estimated cost of this tramway will be, and what the gauge will be?
2. Within what time it can be completed?
3. At what rate you would undertake to carry rubble stone from the quarry to the tramway terminus in Christchurch, including loading and unloading?
4. Assuming that the Government will advance £5000 towards the work, at 7 per cent. interest, within what time that sum would be repaid, it being understood that the sum payable for carriage on all stone for Government buildings will go towards repayment of the advance?
5. Whether you will construct a siding on the gaol site on the Lincoln road, and deliver stone there at 7s. per yard for carriage.
6. What security you can offer for the fulfilment of the above conditions.

I shall feel obliged by as early an answer as possible, as the assistance this work would render to the Government in the erection of contemplated buildings depends upon its being completed at an early date.

I have the honour to be, Sir,

Your most obedient Servant,

JOHN HALL,

Secretary for Public Works.

TO THE SECRETARY FOR PUBLIC WORKS, CHRISTCHURCH.

Christchurch, October 17, 1864.

SIR,—I have the honor to acknowledge the receipt of your letter to me (885, 15th October), desiring certain information with reference to that portion of the Little River Tramway, extending from Christ-

church to the neighborhood of Mr. Brittan's Quarry. I now beg to lay before you the following answers to the questions you have submitted to me.

1. Estimated cost from the Christchurch terminus to the neighbourhood of Mr. Brittan's Quarry.

22 sleepers at 3s. 6d. each	...	...	...	...	...	...	£3 17 0
Rails, double measurement, and allowing for waste 275 feet...							3 8 9
Spikes or trunnels	...	...	...	...	...	...	1 0 0
Formation	...	...	...	...	...	...	1 0 0
Rail-laying	...	...	...	...	...	...	1 5 0
10 yards of ballast at 4s.	...	...	...	...	...	...	2 0 0
Spreading do.	...	...	...	...	...	...	0 5 0
							<hr/>
For one chain	...	...	...	...	...	...	£12 15 9
							<hr/>
For one mile	...	...	...	...	...	...	£1,023 0 0
							<hr/>
For seven miles	...	...	...	...	...	...	£7,161 0 0
Three bridges, culverts and crossings	...	...	...	...	...	...	1,200 0 0
							<hr/>
							£8,361 0 0

The gauge will be four feet.

2. With the assistance of the Government's advance of money in aid, I shall be prepared to complete the above portion of the tramway in four months; presuming nothing very unforeseen to occur. Should such happen, the Government shall say whether the delay is reasonable or not.
3. I will deliver stone from the foot of Brittan's quarry hill to the Tramway terminus, Christchurch, at the rate of 7s per yard; but the stone should be put into my trucks at the expense of the quarry owners; it would induce them so to construct their carts or tram-trucks, so as to shoot their loads into my trucks. With a view to accelerate the delivery of stone, and to save much labour, I would suggest that boxes be provided and constructed so as to contain one yard of stone each, and with appliances for being lifted by means of a crane; I would provide a crane at the Christchurch terminus for this purpose; it will enable carters to shift the box with its contents from my trucks into their carts, or from the ground into their carts, as the case may be, occupying under any circumstances but a few minutes. I will willingly provide some of these boxes for the purpose, charging a small sum for the use of them, and I am inclined to believe that the quarry workers will find the system so convenient as to induce them to adopt the principle and furnish their own boxes.
4. If, at the expiration of *three* years, the sum advanced by Government be not repaid, the balance thus remaining shall be paid off by four equal instalments at 3, 6, 9 and 12 months.
5. I am willing to construct a siding on the goal site, on the Lincoln road, and deliver stone there at 7s. per yard for carriage; the Government paying half the cost of such siding, and be themselves the valuers of the cost of the said siding.
6. The Government to hold as security a lien on my Waimakariri bridge, and likewise on that portion of the Tramway as it progresses, for the construction of which this advance from Government has been sought.

I beg permission to state, in conclusion, that the progress of this work greatly depends upon the Government aid referred to in your letter, and with its assistance I am prepared to push the work on immediately and vigorously.

I have the honor to be, Sir,

Your obedient servant,

W. WHITE.

To W. GUISE BRITTAN, Esq.

Public Works Office,

Christchurch, October 18, 1864.

SIR,—I am directed by his Honor the Superintendent, to state that the Government has under consideration the question of advancing a sum of money to Mr. William White, for the purpose of enabling him to construct at once that portion of the Little River Tramway extending from Christchurch to the neighborhood of your quarry. . . . As such a measure will probably secure for this quarry almost a monopoly of the supply of rubble stone to Christchurch, the Government feels bound, before arriving at a decision, to ascertain definitely the terms on which this stone would be furnished; I have the honor, therefore, to request that you will be good enough to state at what maximum price you will undertake that rubble stone shall be delivered on to Mr. White's trucks on his Tramway, in boxes holding not less than one yard of stone. The charge is to include the use of this box, which would be returned from Christchurch by Mr. White free of charge, the arrangement to be binding on you for a period of five years.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

Secretary for Public Works.

TO THE SECRETARY FOR PUBLIC WORKS, CHRISTCHURCH.

Lansdowns, October 19, 1864.

SIR,—I have the honor to acknowledge the receipt of your letter of yesterday's date in reference to my quarries at the Halswell. In the first place I may observe that I have leased these quarries, on payment of a royalty, to Messrs. Forgan and Feathers for a term, the remainder of which is now nearly six years.

I have, however, with the view of affording you the information which his Honor's Government require, had an interview with those gentlemen, and after carefully considering the subject, we have jointly come to the conclusion that we can engage to put stone from the quarries in question into boxes at the station of Mr. White's Tramway in the way proposed by you at a maximum price of ten shillings per cubic yard.

We wish to observe that we have been given to understand that Mr. White proposes charging seven shillings (7s.) per cubic yard, to convey the stone into Christchurch; and that we are decidedly of opinion that this charge is too much, and that it should not exceed five shillings (5s.)

I have the honor to be, Sir,

Your obedient humble Servant,

WILLIAM GUISE BRITTAN.

We concur in the above.

JAMES FORGAN.

JAMES FEATHER.

TO THE SECRETARY FOR PUBLIC WORKS, CHRISTCHURCH.

Halswell, October 24, 1864.

SIR,—Referring to my letter to you of the 18th inst. on the subject of the price at which stone from my quarries at the Halswell could be delivered at the station of Mr. White's Tramway, I now beg to inform you that I am prepared, with the concurrence of the lessees of the quarries, to deliver the same at a maximum price of nine shillings per cubic yard in the way proposed by you in your letter.

I have the honor to be, Sir,

Your obedient humble Servant,

WILLIAM GUISE BRITTAN.

COPY OF DEED.

THIS DEED made the Twenty-ninth day of October One thousand eight hundred and sixty-four between William White of the City of Christchurch in the Province of Canterbury in the Colony of New Zealand contractor of the first part William Guise Brittan of the same place gentleman of the second part Grosvenor Miles of the same place merchant of the third part and Samuel Bealey Esquire Superintendent of the Province of Canterbury of the fourth part Whereas the said William White is desirous of and has commenced the laying down and constructing of a tramway from and out of the City of Christchurch aforesaid to the foot of the said William Guise Brittan's quarry hill situate at Halswell And whereas the said William White has requested the Provincial Government of the Province of Canterbury to advance him the sum of Five thousand pounds towards the construction of the said tramway which the said Government has agreed to do upon under and subject to the stipulations covenants and agreements hereinafter contained And whereas the said William Guise Brittan and Grosvenor Miles have (amongst other reasons) agreed to join in and execute these presents for the purpose of securing the performance of the said stipulations covenants and agreements on the part of the said William White his executors administrators or assigns Now this Deed witnesseth that in consideration of the sum of Five thousand pounds paid to the said William White by the Provincial Treasurer out of the public funds of the said Province of Canterbury the receipt whereof he the said William White doth hereby acknowledge they the said William White William Guise Brittan and Grosvenor Miles do hereby for themselves their heirs executors and administrators and each of them doth hereby for himself his heirs executors and administrators covenant with the said Samuel Bealey as the Superintendent of the Province of Canterbury aforesaid and his successors in office That he the said William White his executors administrators or assigns shall and will forthwith commence the laying down and construction of a tramway from and out of the said City of Christchurch to the foot of the said quarry hill according to plans and specifications to be approved of by the said Provincial Government of the Province of Canterbury and shall and will proceed with the laying down and construction of such tramway with all due diligence and shall and will complete the said tramway within six calendar months from the date of these presents and shall and will within the said period of four months construct a siding from the said tramway to the site of the intended gaol on the Lincoln road and that in case the said tramway and siding be not completed within the time prescribed as aforesaid the said sum of Five thousand pounds shall be forthwith repaid to the said Government of the Province of Canterbury together with interest thereon in the meantime at the rate of seven pounds per centum per annum and that upon the completion of the said tramway the said William White his executors administrators or assigns shall and will at all times during the next ensuing five years take charge of and convey all rubble stone of whatever description which shall be offered and committed to the charge of him the said William White his executors administrators or assigns by any person whomsoever from the terminus at the foot of the said quarry hill to the terminus of the said tramway at the City of Christchurch aforesaid at the rate of seven shillings for every cubic yard of such stone and shall and will take charge of and convey all stone of whatsoever kind which shall be offered and committed to the charge of him the said William White his executors administrators or assigns by any person whomsoever along the said tramway from any terminus or siding to any terminus of the said tramway at a rate not exceeding one shilling per cubic yard for every mile which the said stone shall be carried the said stone to be delivered in boxes holding one cubic yard each for carriage and shall and will convey and deliver all stone which shall be required for the erection of the said gaol on the Lincoln road and brought from the said quarry hill to the gaol aforesaid at the rate of seven shillings per cubic yard and shall and will not make any other charge whatsoever for or in respect of such goods which may or can be chargeable under any name whatsoever incidentally to the carriage of such stone and shall and will take back from the said terminus at the City of Christchurch aforesaid to the terminus at the foot of the said quarry hill all boxes in which the said stone has been conveyed free of charge and that all and every sums or sum of money which shall be due and payable by the said Government of the Province of Canterbury aforesaid to the said William White his executors administrators or assigns for or in respect of the carriage of stone upon the said tramway shall be devoted and detained by the said Government for or towards the repayment of the said sum of Five thousand pounds and interest thereon at the rate aforesaid and that in case the said sum of Five thousand pounds and the interest thereon as aforesaid be not wholly paid to the said Government by the means aforesaid within two years from the date of these presents then he the said William White his executors administrators or assigns

shall and will well and truly pay unto the Government of the Province of Canterbury all and every sums or sum of money which shall then be due and owing by him the said William White to the said Government by four equal payments at three six nine and twelve months together with interest thereon at the rate aforesaid and that the said William Guise Brittan his executors administrators or assigns during the next five years shall and will sell and deliver to all and every person whomsoever requiring the same rubble stone on to the trucks at the terminus of the said tramway at the foot of the said quarry hill in boxes holding one cubic yard each at a rate not exceeding nine shillings per cubic yard And it is hereby declared and agreed that upon the breach non observance or non performance by the said William White his executors administrators or assigns of any covenant stipulation or agreement herein contained it shall be lawful for the said Samuel Bealey as such Superintendent *as* aforesaid or for the Superintendent for the time being of the said Province or his assigns into and upon the said tramway and all buildings and premises connected or used therewith or any part thereof to enter and thereout and therefrom to eject expel put and remove the said William White his executors administrators or assigns and to have hold and possess and enjoy the said tramway and premises and to work for the then unexpired residue of the said term of five years and use the tramway and premises for the use and benefit of the Provincial Government of the Province of Canterbury and free from any interference or control on the part of the said William White his executors administrators or assigns and it is hereby declared and agreed that upon default by the said William Guise Brittan his executors administrators or assigns of any covenant agreement or stipulation herein contained it shall be lawful for the said Samuel Bealey as the Superintendent as aforesaid or for the Superintendent for the time being of the said Province to enter into and upon the said quarry hill and therefrom and thereout to eject expel put out and remove the said William Guise Brittan his executors administrators or assigns and to have hold possess and enjoy the said quarry hill and the quarry of the said William Guise Brittan for the then unexpired residue of the said term of five years and to work and use the said quarry hill and quarry for the use and benefit of the said Government and that free from interference or control on the part of the said William Guise Brittan his executors administrators or assigns.

In witness whereof the said parties to these presents have hereunto subscribed their names.

Signed by the said William White and William Guise Brittan in the presence of W. P. Cowlishaw Provincial Soli- citor Christchurch.	}	WILLIAM WHITE, WILLIAM GUISE BRITTAN.
Signed by the said Grosvenor Miles in the presence of W. P. Cowlishaw Pro- vincial Solicitor Christchurch.	}	G. MILES.

This Deed made the eighth day of March One thousand eight hundred and sixty-five between the within-named William White of the first part the within-named William Guise Brittan of the second part the within-named Grosvenor Miles of the third part and the within-named Samuel Bealey as Superintendent of the Province of Canterbury of the fourth part witnesseth that each of them the said William White William Guise Brittan and Grosvenor Miles doth hereby for himself his executors and administrators covenant and agree with the said Samuel Bealey as the Superintendent of the Province of Canterbury and his successors in office that in lieu of the rate of interest whenever payable under and by virtue of the within written deed there shall be payable and paid to the Government of the Province of Canterbury the like rate of interest which the said Government at the time of any payment may be paying or liable to pay to its Bank upon its then overdrawn account (if any) with such Bank provided always that in case the said Government shall have no overdrawn account the rate of interest payable shall continue and be payable as fixed by the within written Deed

In witness whereof the said parties to these presents have hereunto subscribed their names.

Signed by the said William White and William Guise Brittan in the presence of Jas. B. Fisher articled clerk to W. P. Cowlishaw Solicitor Christchurch.	}	WILLIAM WHITE. WILLIAM GUISE BRITTAN.
Signed by the said Grosvenor Miles in the presence of W. A. Shepherd Accountant Christchurch.	}	G. MILES.

R E S E R V E S

TO BE

C O N F I R M E D

BY THE

P R O V I N C I A L C O U N C I L .



RESERVES.

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
317	A. R. P.	All that tract of land, being a strip of land half a mile wide as marked on the plan of the Railway Commissioners, and colored green thereon, dated 6th February, 1864, extending from the thirty-first mile peg to section No. 5800... ..	For Railway from Christchurch to the Waitangi.
318	... ..	All that tract of land, being half a mile wide, on each side of the present railway reserve, as marked on the plan of the Railway Commissioners, dated 6th February, 1864, extending from the northern bank of the Ashburton to the southern bank of the Orari	For Railway from Christchurch to the Waitangi.
319	... ..	All that tract of land, being half a mile wide, on each side of the present railway reserve, as marked on the plan of the Railway Commissioners, dated 6th February, 1864, extending from the northern bank of the Otaio to the northern bank of the Waitangi	For Railway from Christchurch to the Waitangi.
349	... ..	All that tract of land one mile wide, lying between the River Rangitata and the Arowhenua township, the centre line of the same being a right line drawn from a point on the northern bank of the Rangitata aforesaid, one mile above McDonald's crossing to a point on the western side of the south railway reserve, about 30 chains to the southward of Trig. Station 4 (save and except the freehold), as the same is more particularly delineated on the map of the Chief Surveyor of the Province of Canterbury setting out and describing the rural land in the Timaru district	For Railway purposes.
350	... ..	All that tract of land one mile wide, lying between the Rivers Ashburton and Rangitata, the centre line of the same being a right line drawn from the south-western corner of section 4354; on the South road to a point on the northern bank of the Rangitata aforesaid, one mile above McDonald's crossing (save and except the freehold land and the reserve for railway purposes numbered 318 in red), as the same is more particularly delineated and described on the map of the Chief Surveyor of the Province of Canterbury, setting out and describing the runs between the Rivers Ashburton and Rangitata before mentioned	For Railway from Christchurch to the Waitangi.
368	5 0 0 more or less	Situate in the Waimate township, commencing at the intersection of the road running along the north-eastern boundary of the aforesaid township, by the north-western side of the road, forming the south-eastern boundary of section 2513, following north-westerly along the first-mentioned road, a distance of ten chains, and running back south-westerly a distance of five chains, in a rectangular block ...	For police purposes.

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
369	A. B. P.	All that piece or parcel of land in the Christchurch district, three chains wide, extending from the road, on the north-west side of section 1765, to the road along the south-eastern bank of the Waimakariri as marked on the plans, Nos. 1 and 3, dated respectively 30th August, and 13th September, 1864, signed by the Chairman of the Railway and Bridge Commission	For railway purposes.
370	... ..	All that piece or parcel of land in the Mandeville district, three chains wide, extending from the north-west boundary of section 4295, to the south-western boundary of section 317, as marked on plan No. 3 of the Railway and Bridge Commission, dated 13th September, 1864, subject to sections 5736 and 6676	For railway purposes.
371	... ..	All that piece or parcel of land in the Mandeville district, three chains wide, extending from the northern boundary of section 437 to the southern boundary of section 6692, as marked on plan No. 3, of the Railway and Bridge Commission, dated 13th September, 1864	For railway from Christchurch to the Hurunui.
372	32 0 0 more or less	Situate in the Lincoln district, bounded on the northward by section 6343, on the eastward by section 4659, on the westward by the road west of the first-mentioned section, and on the southward by the Ellesmere Junction road ...	For a gravel pit.
373	11 1 0	In the Christchurch district, bounded on the north-westward by the railway reserve, on the south-west by section 7416, and on the south-east by the South road	For the purposes of a railway station.
374	3 2 0 more or less	Situate on the north bank of the river Teramakau, on the West Coast of the province of Canterbury, bounded on the north-east by native reserve No. 27, for a distance of four chains twenty-two links, on the south-east by the northern bank of the river Teramakau before mentioned, and on the south-west and north-west by the sandy beach	For the uses of the Provincial Government and other public purposes.
375	40 0 0 more or less	Situate on the south bank of the river Teramakau, on the West Coast of the Province of Canterbury, being bounded on the south by native reserve No. 26, on the north-west by the sandy beach, and on the east, north-east, and south-east by the Ohinekata lagoon	For the uses of the Provincial Government and for other public purposes.
376	11 0 0	Situate in the Ashley district, commencing at a point on the Upper Sefton road, the same being the south-eastern corner of section 2940, following north-easterly along the said road to the road and railway reserve, following north-easterly along that reserve to a point being one chain from the southern boundary of section 6116, thence southerly following a line parallel with the boundary first described to the north-eastern boundary of the before-mentioned section 2940, and from thence returning along that boundary to the commencing point	For Provincial Government purposes.
377	... ..	All that tract of land three chains wide, commencing at a point on the eastern side of the south line of railway, opposite section 7218; branching from the said line of railway in a curve of eighty chains radius; and running	

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
	A. R. P.		
		in a south-easterly direction to the Lower Ferry, on the Waitangi	For Road, Railway, and Telegraphic purposes
378	320 0 0 more or less	Situate on the north bank of the Waimakariri, having frontage of about one mile seventy-two chains to the said river, and extending back northerly a distance on the average of forty chains, exclusive of the river-bed of the Bealy	For Provincial Government purposes.
379	320 0 0 more or less	Situate on run 333, opposite to the ford, having frontage of eighty chains to the southern bank of the Waimakariri, and extending back southerly a distance, on the average, of forty chains	For Provincial Government purposes.
380	91 0 0 more or less	Situate in the Mandeville district, commencing at the northernmost corner of section 5635, thence following in a line north-westerly in continuation of the south-western boundary of that section to the northern bank of the river Eyre, following north-easterly along that bank to the south-eastern corner of section 6090, thence northerly along the eastern boundary thereof a distance of eight chains eighty links to a road following the said road in a south-easterly direction to the reserve for the Eyre main drain, following westerly and south-easterly along the northern and western boundaries thereof to the north-west corner of section 6482, following southerly along the western boundary of that section to section 3685, thence south-westerly following the north-western boundary of said section 3685 to the flood-line of the river Eyre, being the north-eastern boundary of section 5707, following north-westerly along the said flood-line to where it is intersected by the north-western side of the road forming the north-western boundary of the last mentioned section, thence south-westerly along that road to the north-eastern boundary of the above mentioned section 5635, and from thence returning along that boundary to the commencing point. ...	For drainage and other purposes of public utility.
381	75 0 0 more or less	Situate in the Ellesmere district, commencing at a point on the high bank of the old river bed forming the south-western boundary of section 7270, the same being seventy-five links west of the southernmost corner of that section, thence following a line bearing south 22° west (mag.) a distance of twenty-six chains seventy-five links, thence at a right angle north-westerly a distance of forty chains, thence again at a right angle north-easterly to the high bank before mentioned, and from thence returning along the same to the commencing point, exclusive of reserve No. 315, and also tramway reserves Nos. 297 and 208. ...	For the purposes of the construction of a tramway.
385	100 0 0 more or less	Bounded on the northward by section No. 7125, on the westward by the tramway reserve, on the southward by the low-water line of Lake Forsyth, and on the eastward by the low-water line before mentioned, and the river Kakerikawai.	For native and other purposes of the Provincial Government.
386	... ..	All that tract of land, being ten chains wide on each side of the River Bealey, extending from Reserve No. 378 (in red), to the source of that river.	For Provincial Government purposes.
387	320 0 0 more or less	Commencing at Lake Pearson, and extending southerly along the road towards Porter's pass, a distance of about eighty	

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
	A. R. P.	chains, and extending back westward of the road a distance on the average of forty chains.	For the purposes of a township.
388	8 0 35 more or less	Situate in the Lincoln district, commencing at a point on the road to the Selwyn, the same being the southernmost corner of section 4257, following south-westerly along the said road a distance of eight chains, thence north-westerly at a right angle following the north-eastern boundary of section 6662 a distance of twenty chains fifty-five links to the south-western boundary of the before-mentioned section 4257, and from thence returning along that boundary to the commencing point.	For a gravel pit.

RESERVES for SCHOOLS and other PUBLIC PURPOSES within Towns.

		In the township of Waimate, sections Nos. 94, 95, 96, 97, 98, 99, 100, 101, 102, 117.	For educational purposes.
		And Sections Nos. 134, 135, 159, 160, 161, 186, 187, 188, 271, 272, 273, 274, and 310.	For Provincial Government purposes.

89	50 0 0 more or less	Commencing at a point on the northern bank of the river Kowai, where it is crossed by the eastern side of the North road, following along the said road, in a northerly and north-easterly direction, a distance altogether of nineteen chains ten links; thence following a line in an easterly direction, at an angle of 121° with the said road, a distance of eighteen chains, forty-four links, to a point on the high bank or terrace, the same being twelve chains north-east of trigonometrical pole 8; following the said high bank to its south-eastern extremity, and a line in the same general direction, a distance of six chains seventy links to the northern bank of the river before mentioned, and returning along the said bank to the commencing point.	For the purposes of a ferry.
116	2 0 0 more or less	Commencing at the junction of the Red House road, with the road leading to the Dissenters' cemetery, following north-westerly along the latter road to the south-eastern boundary of the before-mentioned cemetery; thence following along the south-eastern boundary thereof, and a line in continuation of the same, a distance of five chains seventy links; thence in a south-easterly direction, at an angle of 82°, a distance of four chains seventy links to the first-mentioned road, and from thence returning along that road to the commencing point.	For a cemetery.
162	10 0 0 more or less	Commencing at the intersection of the Oxford and Rangiora road with the road west of section No. 2071, following along the latter road, in a southerly direction, a distance of ten chains ten links; thence, at a right angle easterly, a distance of ten chains, thence again at a right angle north-easterly a distance of about nine chains seventy links to the road first-mentioned, and from thence returning along that road to the commencing point.	For a cemetery.

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
163	A. R. P. 10 0 0 more or less	Commencing at a point on the northern boundary of the town of Sefton, eighteen chains fifty-one links from the north-eastern corner thereof, following along the said boundary in a westerly direction a distance of ten chains, and running back northerly in a rectangular block a distance of ten chains.	For a cemetery.
202	10 0 0 more or less	Commencing at a point on the Springs' Road, the same being the southernmost corner of section 3643, following south-westerly along the said road a distance of thirteen chains fifty links, thence at a right angle north-westerly a distance of seven chains forty links, thence again at a right angle north-easterly a distance of thirteen chains fifty links to the south-western boundary of the before-mentioned section 3643, and from thence returning along that boundary a distance of seven chains forty links to the commencing point, being bounded on the north-west and south-west by section 3835.	For a gravel pit.
253	28 0 0 more or less	Situate in the Ashley district, bounded on the north-west by the main line of road between Marshman's road and the Upper Sefton road, on the north-east by a road south-west of and adjoining section 2779, on the south-west by section 3796, and on the south-east by section 3865.	For a gravel pit.
254	13 0 0 more or less	Situate in the Ashley district, west of the terrace, and between sections 2083 and 2726, adjoining reserve No. 201, in red.	For a gravel pit.
255	20 0 0 more or less	Situate in the Ashley district, bounded on the north-west by road through Marshman's land, on the north-east by another road forming the north-eastern boundary of the same, and extending southerly between said roads from their junction, so as to include the above quantity.	For a gravel pit.
256	25 0 0 more or less	Situate in the Ashley district, bounded on the north-west by road and railway reserve, on the south-east by the Rangiora and Sefton roads, and on the north-east by section 2545....	For a gravel pit.
257	20 0 0 more or less	Situate in the Ashley district, commencing at a point on the northern bank of Stony Creek, where it is crossed by Marshman's road, thence north-easterly along the said road a distance of about eight chains, thence north-westerly at a right angle a distance of twenty chains, thence again at a right angle south-westerly to the before mentioned creek, and returning south-easterly along the said creek to the commencing point.	For a gravel pit.
258	20 0 0 more or less	Situate in the Ashley district, commencing at a point on the northern bank of Stony Creek, where it is crossed by the line of road between Marshman's road and the Upper Sefton road, thence north-easterly along the said road a distance of about nine chains eighty links, thence north-westerly at a right angle a distance of about seventeen chains, thence south-westerly at a right angle to the before mentioned creek, and returning north-easterly and south-easterly along the said creek to the commencing point.	For a gravel pit.
259	20 0 0 more or less	Situate in the Ashley district, commencing at a point on the south-eastern side of the Rangiora and Sefton road, opposite the third mile peg; thence north-easterly along the said road a distance of twenty chains, and running back south-easterly in a rectangular block a distance of ten chains.	For a gravel pit.

No. IN RED.	QUANTITY.	DESCRIPTION.	REMARKS.
105	A. R. P. 1 0 0 more or less	Situate in the town of Timaru, being town sections Nos. 121, 122, 127, and 128, having a frontage of two chains to the Beach road, and extending back south-westerly five chains in a rectangular block.	For Provincial Government purposes.

RESERVES for SCHOOLS and other PUBLIC PURPOSES within Towns.

		In the town of Ashburton, sections Nos. 160, 161, 162, and 163.	For school purposes.
		In the town of Ashburton, sections Nos. 343, 344, 345, 346, 355, and 356.	For public purposes.
		In the township of Wai Rewa, sections Nos. 14, 15, 16, 17, and 18.	For school purposes.
		In the township of Wai Rewa, sections Nos. 4, 5, 21, 47, 59, 60, 81, 82, 83, 83a, 84, 85, 100, 101, 119, 146, 147, 155, 156, 171, 172, 187, 188, and 189.	For the uses of the Provincial Government.
		In the town of Geraldine, section No. 50.	For public purposes.

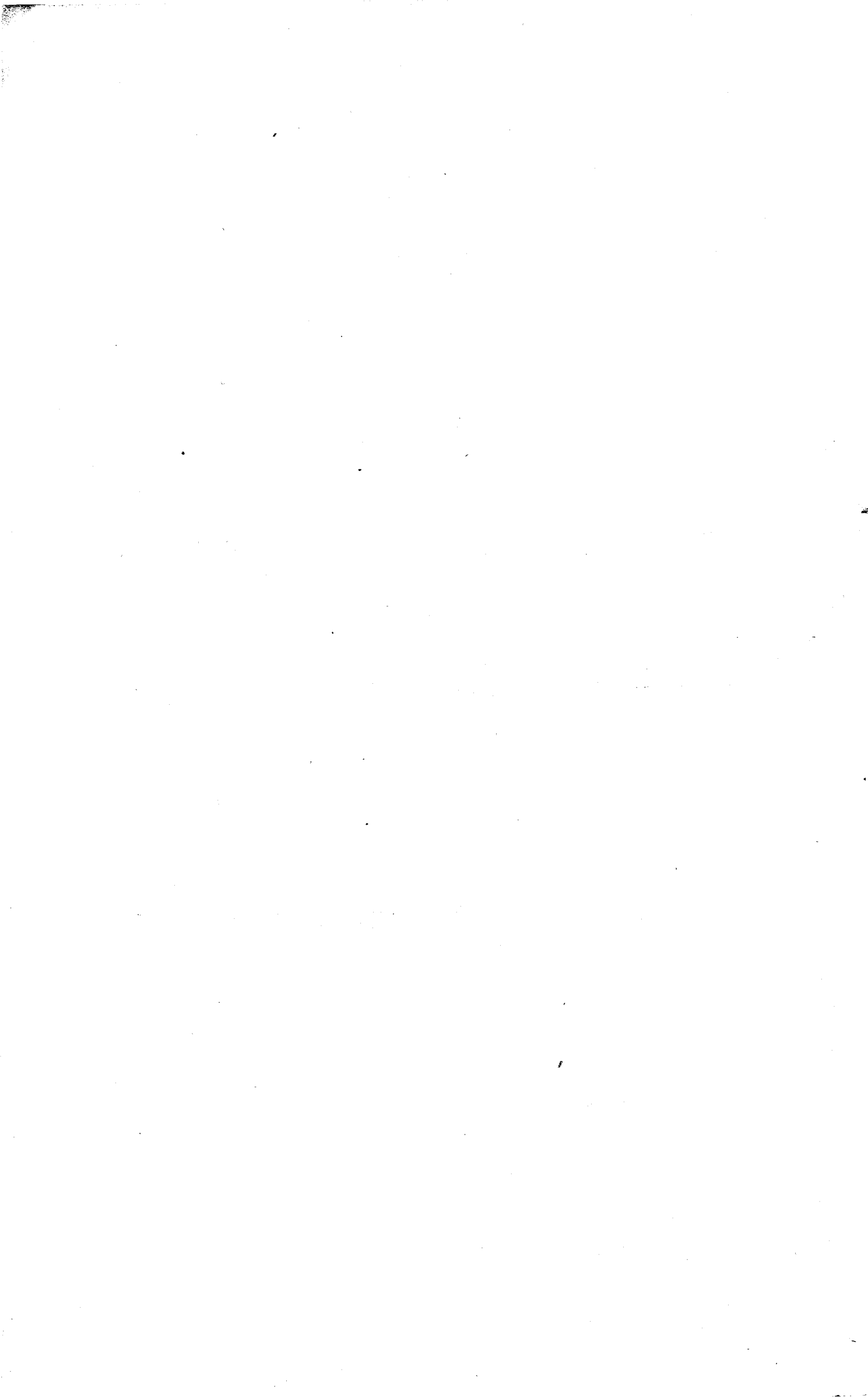
EXTRACTS
FROM
CORRESPONDENCE.

HENRY S. SELFE, ESQ., ENGLISH AGENT,

TO

HIS HONOR THE SUPERINTENDENT.

25th August, 1864, to 27th March, 1865.



EXTRACTS FROM CORRESPONDENCE.

London, 25th October, 1864.

SIR,—I have perused with attention the correspondence between the General Government of New Zealand and the Honorable John Hall, as representing the Provincial Government of Canterbury, on the subject of Canterbury Loans, and the means proposed to be adopted by the action of the General Assembly with a view of facilitating the negotiation of Provincial Debentures.

I am bound to express to your Honor my very decided opinion that no steps which can be taken by the General Assembly will have the slightest effect in promoting the sale of Provincial Debentures in the London market. What the General Assembly does, or is asked to do for Canterbury, it must in fairness do, and will certainly be asked to do, for other Provinces. If the guarantee of the General Government is to have any substantial value (and money lenders in England are too shrewd to attach importance to a merely nominal guarantee), it must mean *this*: We, the General Government will be responsible for the payment of principal and interest of Provincial Loans. But out of what funds is this payment to be made? If it ever becomes necessary to make the payment, there is no possible fund available but the Land Fund of the Provinces.

But the Land Fund of Canterbury is by far the largest among the Provinces of New Zealand; and at present it is all your own, subject to certain possible charges for the loans of the General Government. If you consent to saddle that fund with the possible liability of having to pay the interest and principal of *other* Provinces' Loans, you positively deteriorate and diminish, instead of improve the security you have now to offer. But I apprehend this is not what your Honor's Government anticipate or desire. What you wish is that the General Government should enable each Province to say to any intending lenders, "We have the promise of the General Government that our Land Fund shall not be touched for their purposes, until we have satisfied you, our creditors."

I admit that such a guarantee would not be open to the objection above stated. But I feel as sure as I can be of any future event that no Colonial Ordinance, pledging Provincial Funds for Provincial purposes, could or ought to be sanctioned by the Home Government, so long as New Zealand remains a colony with heavy liabilities incurred by the colony at large. And even were such a measure passed and ratified at home, I am bound to tell you my belief that, for years to come, very little money will be forthcoming from England on such security.

Certainly it is not at a time like *this*, with an expensive war just closed, and the amount of the liabilities thereby incurred not yet ascertained—with a loan of two millions just raised or promised upon the security of the colony—with money commanding in London 9 per cent., that English capitalists will look with favor upon any financial schemes, however ingenious, for adding another million or two to the debt of New Zealand. I earnestly hope the attempt will not be made, because I think it will fail, and because I think the failure will tend to defeat the object you have in view, of establishing the credit of the Province; I believe that will best be promoted by not pressing loans, Provincial or General, on the market for some time to come. These opinions, I believe, must needs be unwelcome; but, indeed, "I am not your enemy because I tell you the truth." I hardly know whether the failure of Mr. Reader Wood to raise the million he attempted to negotiate would have been more disastrous than his success in raising it.

Certainly I thought when I last wrote that the attempt would fail, and I was mistaken, for I heard about the time the last mail left England that the Crown Agents for the Colonies had made an arrangement with one of the numerous financial companies who are engaged in the mischievous task of blowing bubbles on the Stock Exchange and elsewhere, to find them the money. I am not informed of the exact terms of the bargain; but it is reported, and I believe it to be true, that a discount of £165,000 is to be allowed for the advance, that is, that £835,000 only, instead of one million, is to be advanced to the New Zealand Government, paying interest at 5 per cent. upon the million, or 6 per cent. on

the £835,000. It remains to be seen whether this arrangement is within the terms of the Colonial Ordinance, authorising the Loan at 5 per cent. You will probably have the particulars of the Loan in an authentic form before you in the colony, through the General Assembly, almost as soon as this reaches you. I am well acquainted with one of the members of the committee of the Stock Exchange, and I will not fail to take an early opportunity of obtaining his opinion and advice as to the best mode of inducing the committee to take the most favorable view of Canterbury securities. But if securities of the General Government can with difficulty obtain money at 6 per cent., your Honor will see at once how unlikely it is that a Provincial security, which even with the proposed guarantee must be postponed to the former, can command a market on equally favorable terms.

The renewed attempt of the Union Bank of Australia to put off the £277,000 Queensland Debentures was a complete failure.

I cannot be surprised that in the present state of the market your Honor should have authorised the Union Bank of Australia to accept 98 for the Canterbury Debentures, though I regret the necessity for this step, as it may form an unfavorable precedent hereafter.

Perhaps I ought here to mention that the Union Bank of Australia committed the mistake of issuing the debentures of the Railway Loan without stamps, and had their attention called to this by the Board of Inland Revenue. The mistake has been since rectified. I think the same objection will not apply to the debentures of the £500,000 Loan issued in the colony; but any disposed of in England will require stamps, which I presume must be imposed at the expense of the Provincial Government. Though I have remarked with satisfaction the considerable balance to the credit of your Honor's Treasury at the expiration of the last quarter for which accounts have reached us; yet, bearing in mind how heavy the demand on it must be, and the continued difficulty of obtaining money on debentures, Mr. Marshman and myself have agreed that it is desirable to economise in every possible way. We have therefore taken the responsibility upon ourselves of not ordering the heavy ordnance which your Honor commissioned us some time since to procure.

I trust the reported intention of the Home Government to have the rifles at present in use in the army turned into breech loaders, will not have the effect of making the Canterbury Volunteers dissatisfied with the 250 rifles ordered from Mr. Lancaster. But it is to be feared that in any such contingency as that shadowed forth by the "Times" newspaper of the proceedings of the Russian fleet, in case war should break out between England and Russia, neither heavy ordnance nor 250 Lancaster rifles would avail for the protection of Lyttelton.

A paragraph appeared in the "Times" about three weeks since stating that the Porchester was under orders to proceed to Auckland, New Zealand, with 300 convicts. Though I could not believe this possible, I immediately addressed Mr. Cardwell officially, and Sir Frederick Rogers (Under Secretary for the Colonies) privately, begging for an explanation and contradiction of the report, which they promptly sent me; Sir F. Rogers declaring it was just as likely convicts would be sent to the North Pole as to New Zealand, and that the mistake had arisen from the fact that the Porchester, which was proceeding to Gibraltar with convicts, had some time previously been tendered to the Government for the conveyance of troops to Auckland. Whence do the funds come to pay for the free emigration to Auckland, which is now so extensively advertised? from Provincial Revenue or General? I ought to have previously informed your Honor that Mr. Wallcott remitted to me as desired, the balance of the amount in the hands of Her Majesty's Emigration Commissioners for the purpose of defraying the emigration of the Lancashire operatives. The sum (£471 17s. 7d. I think) will appear in Mr. Marshman's accounts. I hope Mr. Marshman will have satisfied your Honor that the unfortunate mortality on board the *Ivanhoe* was not attributable in any degree (as supposed) to the mode in which the fittings were arranged, and the consequent impossibility of cleaning the between decks. The fittings of the *Amoor* on which there was *no* death, were precisely similar to those of the *Ivanhoe*, yet no word of complaint has been made respecting the fittings of the *Amoor*. The long indictment of some of the *Ivanhoe* passengers was, at my request, handed to Messrs. Shaw and Savill, and I understood them to promise as voluminous a reply, which, when received, shall be forwarded to your Honor. It cannot but strike one as very singular that the second class passengers, as well as those in the steerage, have unanimously expressed their satisfaction with rations, accommodation, and attention of captain and doctor, while a portion of the saloon passengers should have been so loud and multifarious in their accusations.

I have, in compliance with your Honor's direction, transmitted to Messrs. M'Clean and Stephenson your thanks for their services upon the Lyttelton Harbour Commission. I have not yet been able to obtain from Mr. M'Clean a memorandum of the amount due to him for his services. Nor has Captain Evans yet sent in his account. Captain Birstall was paid £52 10s. for his attendance and advice. I have heard nothing from Mr. Bray on the subject of the remuneration he claimed, and I am glad to have the approval of your Honor for the course I adopted on the subject.

The Contractors for the Papanui bridge have made no further communications to me respecting a remission of the moderate penalty suggested by Sir Charles Fox for their breach of contract. The account with them may therefore be considered closed.

Mr. Woolner has furnished me with a design for the pedestal for Mr. Godley's statue. I do not send it out at present, as I should like to show it to others in England whom it will interest, and there will be plenty of time to transmit it before the statue comes out. The latter is at the foundry in Shropshire (Coal Brook Dale), but I have not heard lately what progress has been made in the casting.

I have read with interest the account of the reported gold discoveries between the Grey and the Teramakau, and I hope that the intelligence, if confirmed, may be productive of good to the Province, as little mixed with evil as one can dare anticipate.

I have the honor to be, Sir,
Yours &c.,

HENRY SELFE SELFE,
English Agent for Canterbury.

16, Charing Cross, London,
November 25, 1864.

SIR,—I have the honor to acknowledge the receipt of your letter of the 15th September.

It was indeed a source of very great gratification to me to hear of the successful voyage of the British Empire. Whatever merit attaches to the arrangements for her despatch made at this office, belongs exclusively or nearly so to Mr. Ottywell, whose indefatigable attention to his duties during Mr. Marshman's absence I have previously had occasion to notice.

I am ashamed to receive praise which in truth belongs to him. I beg your Honor's attention to the fact that the arrangements in that ship for removing, as occasion required, the lower boards of the berths were precisely similar to those adopted in the *Ivanhoe*, with which fault was found by the Immigration Commissioners; that they really facilitate instead of impeding the operations necessary for cleansing the between decks, and that the omission to avail themselves of this improvement, and the consequent dirt, &c., of the *Ivanhoe*, attaches blame to those entrusted with the duty of enforcing cleanliness, and not to those by whom this improvement was adopted here. Dr. Nash was an energetic medical officer, and was seconded by the captain. The surgeon of the *Ivanhoe* was less efficient.

I have written to the Provincial Treasurer on the subject of the interest payable at the Union Bank of Australia on the 31st December on the debentures of the Lyttelton and Christchurch Railway Loan. Up to the present date £51,700 in all have been negotiated, £1000 of which were placed last week. The diminution in the rate of interest affords some prospect of some more of them being disposed of; but the rate is still high and it would be unsafe to count upon any considerable amount being realised for some time to come. The agents of the Otago Government have recently made a forced sale of £150,000 of their debentures at about 80. It would be idle to expect the *general* public will become purchasers of Canterbury Bonds (bearing the same rate of interest) at 98. I have heard, on what I believe good authority, that some of the £50,000 debentures—portion of the £50,000 Canterbury Loan—issued in the colony at 102 have recently changed hands in London at 91. These were some of those taken by Messrs. Peacock and others, and remitted to Messrs. Redfern, Alexander, and Co. I have too much confidence in the sound judgment of your Honor and your Executive Council to imagine that under these circumstances you can expect a speedy sale of any considerable portion of the debentures you desire to issue at the price put upon them. And these facts will prove that it would be unwise, as I have before said, to make any

financial arrangement dependent upon an estimated increase of which any large portion is to be raised by loan. I earnestly trust your Honor's Government will not consent to their debentures being sold at any greater discount. Such a sacrifice, though it might meet present pressing necessities, would, I am persuaded, have a permanently injurious effect upon the credit of the province. Money lenders will always take advantage of those whose needs they imagine to be great, and to some extent the public will take into account the price the borrower puts upon his securities, as indicating his opinion of their value. Sell now at 85 or 90, and you will have to sell all the remainder at no higher price—possibly a lower; and to press securities upon a reluctant market can do no good. It is surely far better to wait till more favorable times, and your own expressed determination not to sell your Loan for less than yourselves know it to be really worth, brings purchasers to you at a fair price. All whom I have consulted concur in opinion that it is idle to expect that any puffing or energy in inviting people to buy what they don't want, and what they can get cheaper elsewhere, will really enhance its value in the market.

As an example of what a little firmness and patience may do, let me instance the last issue of Queensland 6 per cent Debentures—£277,000 were offered by the Union Bank of Australia at par in August: they only had tenders for £30,000. The whole of them have since been gradually taken up by private customers and friends of the *Bank at par*. True, they had not to contend against the impression produced by the issue of securities of the same kind by a neighboring Province at 20 per cent. discount, nor with the equally discouraging fact that the superior Government of the colony—whose securities are *supposed* to take precedence of Provincial Loans—are deluging the market with debentures issued at the same, or nearly the same, ruinous discount of 20 per cent. I think your Honor will learn, not without surprise, and—if you share my feelings—with indignation, that the Crown Agents for the colonies have, as I am informed and believe, disposed of the first million of the Three Million New Zealand Loan which Mr. Reader Wood came over to negotiate, at about 80. There is some difficulty in getting at the exact figures and facts. But as I hinted in my last—a Financial Company—the Credit Mobilier and Foucier, has, as I am told, taken this first million at very little if anything above 80, and are now offering it for sale at 82.

It is said the Crown Agents had no alternative—that the money was wanted, and that they had to submit to these hard terms. I wait with interest to hear how the news will be received by the colony, and whether the Assembly, which sanctioned the Loan upon a financial statement which certainly never alluded to the possibility of the debentures being issued under par, will approve of the transaction. However that may be, one thing is clear, that a second million of the same loan, if it is even raised *at all* in England, will not command a higher price. And you will have learnt already, that some of the money thus raised is being advanced to send over ship-loads of *free* emigrants—(two ships filled with Irish only), with a promised money bonus to be paid them on their arrival in the Province of Auckland. But I did not intend to digress to the appropriation of the money, I was referring rather to the terms on which it has been raised as a warning to all Governments, Canterbury included, not to receive advances from Banks in anticipation of repaying those advances by debentures to be afterwards negotiated; and further, not to consent to a sale of any portion of a Loan upon terms they are not willing to accept for the whole of it. With regard to what has been called, perhaps unfortunately, “The Guarantee of the General Government for Provincial Loans,” I admit that as the intention of your Honor's Government is now explained, I misunderstood the meaning of the application made by Mr. Hall on behalf of your Honor to Mr. Fox. But I am not at all satisfied that I misunderstood the meaning of Mr. Fox's reply to the application. That remains to be seen. I venture to express my regret that the principle enunciated in Mr. Cox's resolutions, adopted and supported as it was by your Honor's Government, and affirmed by the Provincial Council, was not distinctly propounded to Mr. Fox as one of the conditions with which the “guarantee” asked for was to be coupled. If, as I understood your Honor's letter now under reply, all that is asked of the General Government was, and is, that the General Government shall take care that the Provinces do not repudiate their obligations to their creditors, and for this purpose shall take “security from each Province respectively, upon the revenue accruing to it,” I confess I do not see the value of the concession, nor why Mr. Fox, in his reply to Mr. Hall, should have apparently considered he was granting a boon by complying with the request. It seems to me to amount merely to this—the Provincial Government will be enabled to say, “We cannot repudiate the claims of our creditors, because we have agreed that the General Government shall prevent our so doing by taking *our* money to pay our debts, if we are dishonest enough not to pay them ourselves.” Such an undertaking or guarantee would not be worth a

sixpence in the money market. It seems to me to imply a distrust of Provincial Governments, which would damage rather than assist you. It gives no real additional security to the creditor, for after all it is Provincial money which is to pay the debt—only it is to be paid by a trustee, whose interests may be antagonistic to yours, instead of by yourselves. What strikes me as simpler and better *if you can get it* would be an act of the General Assembly, leaving to each Province the absolute right to its Land Fund—in short, affirming the principle of Mr. Cox's resolutions. This is quite consistent with more stringent regulations as to *future* Provincial Loans. I had hoped to have addressed your Honor by this mail on the subject of the Stock Exchange regulations with regard to such loans as those of Canterbury—I am in communication, through a personal friend, who is in the Committee of the Stock Exchange, with the Chairman and other influential members of it. I understand from him that there are various objections to the Loans being at present quoted in the official list—first, and chiefly, the Loan is not yet taken up, but only a small portion of it. A Loan is never allowed to be quoted till it has been negotiated, if not for the whole amount, for a substantial portion of it. Loans for a small amount are never quoted. Thus the £30,000 Loan of 1856 has never been in the market. Nor the Wellington Loan. There has never been a single transaction in either. They were purchased for investment, and remain in the hands of the original holders. When these objections have been removed, the Stock Exchange Committee must be thoroughly satisfied with the nature of the security. Under present circumstances the so-called guarantee of the General Government would, my friend thinks, rather tend to create distrust than confidence. What you really want to get is a promise that you shall be *let alone*. If we could go to the Committee of the Stock Exchange, and show them a yearly land fund averaging £150,000 per annum, which the General Government were pledged not to interfere with, it would be a far more satisfactory security than an undertaking to pay by a Government which is inundating the market with its own depreciated securities.

I have forwarded to Mr. Stephenson the reports of the borings in Lyttelton harbour as desired. May I suggest that documents of this kind had better be transmitted in future through the department of Public Works direct?

I am not sure whether I am indebted to your Honor, or to the courtesy of the proprietors of newspapers in Canterbury for copies of their papers. If to your Honor, would you be so good as to give directions that they should be forwarded to me, at my private residence, No. 15, St. George's square. I am disappointed in not having received the *Press* for the last two months, and the *Summaries* would be doubly acceptable if sent via Marseilles.

I am your Honor's very faithful Servant,

HENRY SELFE SELFE,

English Agent for Canterbury.

16 Charing Cross, London, S.W.,

23rd December, 1864.

SIR,—I have the honor to acknowledge the receipt of your letter No. 144, dated 13th October last enclosing copy of a Resolution passed by the Provincial Council, requesting your Honor to place the sum of £200 on the Estimates as an honorarium in recognition of my services in the absence of Mr. Marshman from England.

I beg to convey to your Honor, to the Provincial Council, and to the people of Canterbury, my hearty thanks for this substantial mark of your approval. Though I did not work in the expectation, or with the desire of such reward, I accept it without hesitation, in the belief that by so doing I shall best please those who have bestowed it.

I am, &c.,

HENRY SELFE SELFE,

English Agent for Canterbury.

16, Charing Cross, London, S.W.,

24th December, 1864.

SIR,—I have the honor to acknowledge the receipt of your letter, No. 145, dated 14th October, 1864.

Although the Bank of England has reduced its rate of discount, which now stands at 6 per cent, and money is consequently more plentiful than it has been five months past, I cannot hold out to you any immediate prospect that Provincial Debentures are likely to find purchasers in the London market.

Your Honor has been repeatedly informed by me of the causes which have combined to render them unsaleable, and these causes are many of them still in operation here. Among others the offers made by Messrs. Redfern, Alexander, and Co., to sell your 6 per cent. debentures (purchased in Canterbury for 102) at 90, offers made without much success, would be alone sufficient to prevent the public from tendering for similar debentures at 98. The Union Bank of Australia are of opinion, in which I entirely concur, that it would be worse than useless to advertise these debentures at present, and that the only course is to wait for better times.

Your Honor will doubtless have remarked that the New Zealand Government 5 per cent. debentures negotiated by the Crown Agents, are quoted in the Stock Exchange list at about 90. But it does not follow from such quotations that bona fide purchases have been made at that price. I forwarded, via Southampton, a copy of the rules of the Stock Exchange. Whenever the public have sufficient confidence in the security which Canterbury can offer to purchase her debentures, there will be no practical difficulty, as I believe, in procuring their being quoted in the official list.

I should have been glad if your Honor could have informed me upon what grounds the feeling rests, which you inform me is apparent in the Provincial Council, *against* investing the sinking fund of your Loans in New Zealand securities and in favor of Australian securities. Why should this be so? Does it indicate a distrust of your own securities? If so, how can it be expected that the public can have confidence in them? I can conceive few things more likely to inspire distrust in others than to show it oneself. May I be allowed to say, with great respect, that the question of how a sinking fund should be invested is substantially one which can be more impartially decided by the creditors than by the debtors; or if the creditors opinion cannot be conveniently ascertained, by the trustees in whom the sinking fund is vested. I apprehend there could be no possible doubt, both in principle and in practice, that the most legitimate mode in which a sinking fund can possibly be invested is in the stock which it is ultimately to extinguish, and that it is a positive recommendation of such investments that every purchase made on behalf of such sinking fund is *pro tanto* an extinguishment of the debt. Let it be remembered, too, that Australian securities must be bought at a premium, whilst Canterbury debentures can be had under par. For instance, I would, if allowed, gladly purchase those same debentures to which I have adverted, from Messrs. Redfern and Co., and prevent their being hawked about the market. At any rate I trust the subject will be reconsidered, and some ground stated why the ordinary practice in these cases is to be departed from. So far as I can gather from the reports in the Council, the resolution seems to have passed without discussion.

With regard to the Panama Contract, nothing further has been done or said here. I was perhaps in error in my letter of August 26, on mentioning Mr. Steven's private letter to me. But he was bound to call my attention to the important point of the charges for the transmission of letters across the isthmus, and I should have been guilty of a serious omission of duty if I had not done my best to show that the possible difficulty was not a probable one. At the same time I regret having in an official letter indicated the source from which I first heard of the difficulty. I trust the next mail may bring us tidings that the Assembly has been summoned to meet, when this and other questions of great interest await discussion. I note your Honor's information, confirmed by the Treasurer, that a further credit of £5000 has been established at the Bank of New Zealand in favor of the English Agency.

Your Honor will receive by this post, via Southampton, copies of letters to and from Mr. Larkworthy respecting the stamps necessary for the debentures issued here. I hardly think that the Bank of New Zealand should have thought it necessary to ask to be paid for such a service rendered to so good a customer as the Provincial Government of Canterbury. I don't know whether the Union Bank of Australia sent you in a bill for similar services in respect to debentures (Railway) issued by them; but I hope not.

The borings and report of Captain Gibson shall be sent to Mr. Stephenson as soon as he returns to London.

I am,

Your Honor's very faithful and obedient servant,

HENRY SELFE SELFE,

English Agent.

Canterbury Emigration Office, 16, Charing Cross, London, S.W.

26th January, 1865.

SIR,—Although the state of the general money market here is more favorable than it has been for some months past, the rate of discount by the Bank of England having been reduced to $5\frac{1}{2}$ per cent., there is no perceptible improvement in New Zealand securities. The same causes which existed during the last six or eight months to depreciate those securities are still in existence, and there is a marked disinclination on the part of the public to invest in them. As a consequence the Union Bank of Australia have been unable to dispose of any further portion of these debentures, even at the reduced minimum of 95, at which your Honor has authorised their sale. When offered at that price in quarters where, if anywhere, they might reasonably have been expected to find purchasers, the answer has been, "We can get any quantity of Otago 6 per cent. debentures at 90. The amount issued, therefore, is still only £51,700 in all.

I can only preach patience and economy till better times come, when the general distrust of all New Zealand securities has been modified or dissipated by the settlement of native wars, the ratification of contracts entered into in England on behalf of the colony, and substantial proof of progress made in public works, and export trade, without unduly anticipating the actual resources of the colony. When that time comes, it will probably be expedient to issue proposals for the loan of a larger sum, and not in small parcels of £50,000.

There has been no difficulty in getting money at 6 per cent. for the Queensland Government £277,000 at par, and £130,000 at 1 per cent. premium. But then they have no native wars, no repudiated contracts, no frightful debts incurred trusting to the negotiation of debentures to be afterwards issued.

I must be allowed to say that the action of the Bank of New Zealand in London has been, in my judgment, most prejudicial to the credit of the Colony at large, and of the Provinces in particular.

They advanced immense sums to the General Government of New Zealand and to the Provincial Governments of Otago and Southland. Of course they must be repaid. The debentures of both are sold at a ruinous depreciation for what they will fetch, and the inevitable consequence has followed that Canterbury and its credit have undeservedly suffered also.

I much regret the decision at which your Honor has, I doubt not with great reluctance, arrived at to reduce the minimum price for Canterbury debentures to 95. May I be forgiven for repeating in substance what I said in deprecation of such a step, before I knew it had been resolved on, that it is practically useless, and I fear worse.

The money will not be forthcoming at 95, and the offer to take that price will, I should think, only be looked at as an admission of weakness, and an indication of the probability of a further fall in price. My humble advice is, if it be in any way possible, to refuse to part with debentures under par, and to repay the Union Bank of Australia the balance of its advance out of the first large land sales which swell the Treasury Fund, at all events by any excess over the estimated annual receipts from that source.

I regret to learn that a disinclination exists to issue debentures in payment to contractors for works. I hardly understand the objection to this course, which, in Mr. G. R. Stephenson's opinion, might be adopted to a considerable extent. True, contractors would doubtless frame their tenders upon the calculation of a possible or actual depreciated value of debentures, but nominally they would be paid to them at par as for cash, and this would surely be better than that the Provincial Government should sell their securities in the public market under par.

I have the honor to be, &c.,

HENRY SELFE SELFE,

English Agent.

16, Charing Cross, London,

February 24, 1865.

SIR,—I have conferred with the Union Bank of Australia on the subject of the proposed reduction of the minimum price of the Railway Debentures to 90, which you have authorised them to accept for the unsold portion of the debentures already in their hands. None have been sold since October last, and the Union Bank do not seem to think it very likely that they will be able within any short period to sell at

90. My previous letters on this subject will have conveyed to you my own opinion that, except under great pressure and strong necessity, it is extremely undesirable to sell at this price. These successive reductions of the minimum price, if allowed to transpire—which they could hardly fail to do—especially if any tenders were made, would defeat the very object for which they are made. The knowledge encourages intending investors, if any such there be, to wait for a still further reduction, and purchasers will not buy in a falling market. I concur with the Union Bank Directors that it is inexpedient publicly to advertise these debentures, either with or without a declaration of the reduction of the minimum price, and that the best plan is to continue to invite tenders from those most likely to make reasonable offers in private.

This course they intend to pursue without disclosing the *minimum*, and it will be time enough to decide whether it would be expedient to accept an offer at one or two per cent. below 90, when any such offer is made. At present the directors fear that there would be no greater probability of disposing of them at 88 than at 90, especially if the offer to accept the lower price came from those who have to dispose of them. The Union Bank of Australia will not press your Honor's Government for payment of the balance due to them. And I am decidedly of opinion that it is far better to pay 8 per cent. upon the advance for a time, than to run the risk (all but certainty) of permanently depreciating the value of your securities, by disposing of them at a heavy discount. For your Honor must be fully aware (as Mr. Reader Wood showed himself to be in his correspondence respecting the £3,000,000 Loan) that the price at which your securities *now* sell will be *at best* the ruling price hereafter. I regret to hear that it is still intended to send home another parcel (£50,000) of these debentures. Whenever the proper time comes (and though delayed, it will come at last), it seems to be the opinion of most men acquainted with the money market, that it will be better to attempt the negotiation of the whole amount of the Loan at present unplaced, than to issue successive portions of it. Regrets for the past are useless, but the result has shown it would have been expedient to accept the offer which I was informed nearly three years ago, was made by the Bank of New Zealand to take your provincial debentures at par to the extent of £100,000.

I have the honor to be,

Your Honor's very faithful and obedient servant,

HENRY SELFE SELFE,

English Agent.

15, St. George's Square, London,

27th March, 1865.

SIR,—I have the honor to acknowledge the receipt of your letter dated 14th January.

So long as the Government of Canterbury continue to feel that such services as I can render as Agent are of any value, I should be loath to sever the official connection between us; but as I can well understand that it may be desirable for the interests of the Province that it should be represented in England by a more active Agent, and by one whose other engagements would, in case of need, leave him more time to attend to your business, I hope no hesitation will be felt by your Honor or your Government in providing another Agent, if you should think it better to do so. From ill-health and the pressure of other occupations, I feel that I have done no real work for you during the winter which has passed.

You will have learnt from other sources that the state of the money market here is decidedly better than when I last wrote, and with a tendency to further improvement. The Union Bank of Australia, during the earlier part of the month, disposed of about £12,000 (twelve thousand) debentures in small quantities at 91 to 92; and last week they had an offer for the whole of the remaining portion of the second £50,000, *i. e.* (£36,000) at 88. They submitted this offer to me. My first inclination was to decline the offer altogether, in accordance with the opinion I have repeatedly expressed to your Honor, especially in my letter of last month. But, taking into account the fact that there is still a balance due to the Union Bank of Australia of about £15,000 (though they have abstained from pressing for repayment), and that you have informed me the Government account is also "Considerably overdrawn at the Bank of New Zealand," considering, also, that I was assured that the intending purchaser desired to have these debentures as a permanent investment, not to place them on the market, which would have

made public the fact of their depreciation, I thought it better to take the responsibility of offering them at 89.

That offer was at once closed with, and the purchase-money is to be paid on the 1st of next month.

As the half-year's interest will be payable on the 30th June, your Honor will perceive we are making a further sacrifice of three months' interest, *i. e.*, 30s. per £100 Debentures. In truth, therefore, we only realise £87 10s. I hope I have not overstepped the limits of the discretion you gave me in your letter of the 15th December, or if I have, that you will pardon me for shrinking from the responsibility of declining an offer you might have wished me to accept.

The third instalment (£50,000) of the same Lyttelton and Christchurch Railway Debentures reached the Union Bank of Australia on the 23rd instant, and for these your letter of the 14th January, now under reply, fixes the minimum price at 90. Your Honor does not give any specific directions, as to whether the current interest is to be taken into account in calculating the price.

Since the purchase of the £36,000 (balance of the second instalment), in fact this very day, I have had an offer to take the whole of this last £50,000 at 90, to be paid April 15. If the current interest is taken into account, this would be really £88 5s. (five) only, and I have doubts whether I should not be exceeding the limits you have fixed in accepting the proposal. I shall therefore not do so without further consideration, and consultation with Mr. Marshman, and I shall hardly be able to let you know the result by to-day's mail. I think the offer so far satisfactory that it indicates a rising market, and the probability of our being able to obtain 90 ex coupons before the 30th of June, in which case we should probably feel it right to accept the price last-named. I need not enlarge on the various reasons which still operate to depress the price of your securities below their *real* value. Among these, of course, the advertisements for tenders for £400,000 Treasury Bills at 8 per cent. for the General Government of New Zealand (to be made on the 31st inst.), stands prominent. Nor do I feel at liberty, in a letter which may be laid on the table of the Provincial Council, to mention the statements which have reached me as to the price at which the debentures of other Provinces have been sold. I believe I am within the mark in saying that Canterbury debentures at 90 are 15 per cent. higher than similar debentures of some of your sister Provinces.

I am your Honor's very faithful and obedient Servant,

HENRY SELFE SELFE,

English Agent.

1. The first part of the document is a list of names and addresses, which appears to be a directory or a list of subscribers. The names are mostly male and include surnames such as Smith, Jones, and Brown. Some names are followed by initials or abbreviations, possibly indicating titles or professions.

2. The second part of the document is a series of short, fragmented sentences or phrases. These appear to be either a list of items, a set of instructions, or a collection of brief notes. The text is difficult to decipher due to its brevity and the possibility of being a scan of a handwritten or typed list.

3. The third part of the document contains several lines of text that seem to be a continuation of a list or a set of records. The format is similar to the first part, with names and possibly associated information.

4. The final part of the document is a very faint and sparse set of text, which may be a conclusion, a signature, or a reference to another document.

HIS HONOR THE SUPERINTENDENT

TO

H. S. SELFE, ESQ., ENGLISH AGENT.

Superintendent's Office, Christchurch, New Zealand,
October 15, 1864.

SIR,—The intelligence conveyed by your letter as to the state of the money market in England leaves but little hope of our being able to realise any considerable amount of our debentures until money generally is cheaper. I have, however, thought it advisable to be in a position, in the event of any favorable fluctuation in the money market, to take advantage of it, and I have accordingly determined to place another instalment of Lyttelton and Christchurch Railway Loan in the hands of the Union Bank of Australia at the commencement of the year. With the same view, I shall probably despatch a further portion of the Half-million Loan by the next mail, and request you to retain the debentures in your hands till a favorable opportunity occurs for placing them in the market. The necessity which exists for the erection of a gaol, and other large public buildings, renders it inexpedient that the works on the Lyttelton and Christchurch Railway should be carried on out of the current revenue to such an extent as to interfere with these works. The advance that has already been made from the territorial revenue to this account has been very considerable. While, therefore, the commencement of any large undertakings dependent upon the negotiation of debentures must remain in abeyance until the state of the money market is improved, I have considered that rather than check works indispensable to the well-being of the Province, it will be better to submit to such a sacrifice in the disposing of the Lyttelton and Christchurch Railway Debentures as will ensure their being negotiated at an early date. I have accordingly authorised the substitution of the lower limit of 95 as the minimum rate for the sale of the debentures at present held by the Union Bank of Australia; I trust that by the time a further instalment is placed in the market it will be unnecessary to fix a lower limit than par. The monetary depression alluded to in my former despatches still prevails to a considerable extent, and is at present causing some pressure upon the labouring classes. This will, I trust, be only of temporary duration, and will give way as the season becomes more advanced, and shearing and harvest afford more employment.

Mr. Marshman will, however, be advised to make further reduction in the number of immigrants of the ordinary class of labourers, and to confine the immigration to such classes as will, under any circumstances, be acceptable.

I have the honor to be, Sir,

Your obedient servant,

S. BEALEY,

Superintendent.

Superintendent's Office, Christchurch, New Zealand,
December 15, 1864.

SIR,—The large payments which have fallen due on account of railway plant, and the work in the tunnel, during the last few weeks, have been a heavy drain upon the Treasury, and the land sales, as is usual at this time of year, have somewhat decreased. The result is that we are at present considerably overdrawn at the bank. I do not, however, anticipate that this will be the case for any long period.

It becomes, at the present time, very essential that the necessary works throughout the country should not be stopped to enable the Government to meet the payments for the Railway. I have accordingly authorised a further reduction of the minimum price for our debentures to (90) ninety for the instalment now in the hands of the bank; I have further informed the bank that if the debentures will not go off except at a somewhat lower rate, say from one to two per cent. lower, the bank shall have discretion to dispose of them at such lower limit, subject to your approval.

As I before stated, a further issue of £50,000 worth of Railway Debentures will be placed in the hands of the Union Bank at the beginning of next year.

I have the honor to be, Sir,

Your obedient servant,

S. BEALEY,

Superintendent.

Superintendent's Office, Christchurch, New Zealand,

January 14, 1865.

SIR,—With reference to what you say on the subject of the English Agency, I need hardly say that it would be a matter of deep regret to me, and the Province generally, if from any cause the connection between yourself as English Agent and the Province of Canterbury were brought to a close. I cannot, however, but see that the increasing work which has devolved upon you, with the gradual growth of the Province, would become a greater tax upon your time and strength than I could venture to hope that you could continue without the assistance of some one in whose ability you have entire confidence. Under these circumstances I hope to retain Mr. Marshman in his present position, and shall look for the earliest intimation from him of any intention on his part to relinquish his present office. In such an event I should hope, with due warning, to be able to find some one who would be able to fill his place, if not as efficiently, yet in such a way as will justify me in requesting you to remain the Agent of the Province.

I have forwarded by the present mail a further instalment of the Lyttelton and Christchurch Railway Loan. I have fixed the minimum price at 90, leaving it to the Bank Directors, after conference with you, to raise the minimum to 95 if there should be such an improvement in the money market as would seem to give promise of their being able to dispose of any considerable portion of them at the higher rate. I wish, if possible, to avoid selling the debentures at a sacrifice; but the payments on account of the Railway have been so considerable during the present year that unless some portion of the Loan is negotiated, necessary works throughout the Province will have to be checked to an extent which will be very prejudicial.

Upwards of £44,000 have been paid on account of the tunnel and railway plant since last year. The land sales have been, on the whole, satisfactory, having amounted to nearly £80,000 since July 1st, 1864.

I have the honor to be, &c.,

S. BEALEY

Superintendent.

Superintendent's Office, Christchurch, N. Z.,

February 13, 1865.

SIR,—With respect to the lower limit which I have substituted for the sale of the Lyttelton and Christchurch Railway Debentures, a perusal of the correspondence which I enclose will show you that the limit was fixed with regard to a portion of the debentures in accordance with an agreement made with the Union Bank. This agreement was made at a time when no difficulty was contemplated in disposing of the bonds, and is similar to that made for a previous instalment. The continued tightness of the money market, affecting as it does, not only the sale of debentures, but the amount of our land sales, renders the substitution of the same limit necessary upon the further instalment which has been placed in the hands of the bank upon which no advance has been made.

The payments for contracts already entered into must be met, and so far as we can see can only be met by submitting to this reduction. The question ceases to be one of expediency, as it becomes a matter of good faith with those with whom we have entered into engagements that we should leave no means untried to procure funds to carry on the works begun. Should the advices by the next mail continue to be more favorable to our prospects of negotiating debentures, I propose to place an instalment of the £500,000 Canterbury Loan in your hands, that I may take advantage of any favorable fluctuation which may occur in the money market to obtain funds for carrying on works which are not yet entered upon.

The difficulty which may arise from entering upon large works without previously making sure of the capital with which to carry them out is abundantly shown in the present instance of the Lyttelton and Christchurch Railway. I have to thank you for the trouble you have taken in obtaining information on the subject of the views taken of our Loans by the Stock Exchange Committee, and shall look with great interest for further communications respecting their regulations. I will write by the next mail on the subject of the payment of the interest upon debentures in June next. A credit will most probably be established in your favor for the purpose.

It has been intimated to me that you have expressed a wish to be furnished with the photographs of some of the leading men in the Province. I have directed a sheet containing the likenesses of the members of the Provincial Council to be forwarded to you.

I have the honor to be, &c.,

S. BEALEY,

Superintendent.

Superintendent's Office, Christchurch, N. Z.,

March 14, 1865.

SIR,—I have thought it desirable that you should be furnished as soon as possible with these debentures, in order that, should the state of the money market become more favorable, you might be able to dispose of them on favorable terms; and I have to instruct you that the minimum price of sale has been fixed at par. I regret to say that the copy of the rules of the Stock Exchange which you mention as having been forwarded, via Southampton, has not come to hand, and I can therefore only form a general idea of the difficulties which stand in the way of bringing the debentures of this Province to the notice of the public. So far as I am at present informed, the purchasers have mainly, if not exclusively, consisted of persons more or less interested in the Colony, and more or less acquainted with the resources of this Province. The success which has attended their sale among this limited number appears to warrant me in the belief that if some means could be devised for drawing the attention of capitalists more pointedly to the present condition, and prospective resources of the Province, many of the causes which have hitherto prevented the sale of its debentures would cease to exist. I quite agree with you that it would be unwise to attempt to effect this object by means of repeated advertisements—such a course, if successful, could only have a bad effect upon the credit of the Province. It appears to me, however, that so long as the successful negotiation of the debentures depends upon the exertions of one bank, as at present, the opportunities of disposing of them will be confined to a very narrow sphere, in all probability almost exclusively to those connected directly or indirectly with that particular bank, or almost to persons interested in these colonies. As a matter of fact I believe I am not mistaken in believing that the great bulk of those who have invested in our debentures are persons to whom this remark applies; no effort of any consequence appears, so far as I am aware, to have been made to bring them to the favorable notice of the general English public. It has occurred to me that some plan might suggest itself to you for inducing other banks to co-operate, either in actually placing the debentures, or at least by advising how this object might most easily be effected. I am not aware how far it would be possible to form a committee of bankers for this purpose, or on what terms they would be willing to act in the matter if at all; but it appears to me that some steps should be taken for enlarging the limits to which negotiation has till now been confined. In the event of the negotiation being entrusted to a committee of the banks, I consider that the New Zealand Bank, as the present bankers of the Provincial Government, has a fair claim to be included in such Committee. It has been suggested that application might be made to some of the larger London Banks, or capitalists, with a view of ascertaining how far they would be willing to take up the whole, or any considerable part of the Loan at once. The above will place you in possession of my views as to the best means to be adopted to negotiate the debentures now forwarded to you; but as the question must depend to a considerable extent upon circumstances respecting which I cannot be fully informed, I think it best, after this expression of my opinion, to request you to take such steps for placing these debentures on the London market as in your opinion may be best adapted for insuring their successful negotiation.

I have the honor to be, Sir,

Your most obedient servant,

S. BEALEY,

Superintendent.

Superintendent's Office, Christchurch, N. Z.,
April 15, 1865.

SIR,—I have forwarded by this mail, via Southampton, debentures of the £500,000 Loan to the amount of £170,000 (one hundred and seventy thousand pounds), being No. 801 to 2500 inclusive; these, with the £30,000 worth sent last mail, will make £200,000 worth that you will have received.

Adverting to my former letter to you, in which I stated that £400,000 worth of these debentures would be forwarded, I have now to inform you that we do not think it advisable at present to transmit more than £300,000 worth in all. In case the state of the money market is such as to enable you to dispose of those now sent, or any portion of them, I should wish the proceeds to be paid into the Bank of New Zealand, in London, to await further instructions from me as to their disposal; and it is hardly necessary for me to say that unless there is a reasonable probability of a sale being effected, I should be unwilling that any great efforts should be made to bring these debentures to the notice of the public; but should you think it advisable to place them on the market, I have to instruct you that they are not to be disposed of at a price lower than par. I transmit by the present mail a copy of the "Canterbury Loan Ordinance, 1862" and the "Railway and Harbour Works Ordinance, 1864," from which you will see that the sums raised on debentures of the £500,000 Loan can only be appropriated to the execution of large works of a character calculated to improve the security on which the money is lent.

The attraction to the West Coast of the Province, caused by the gold-fields, has almost entirely ceased, and, as was to be expected, the reaction has set in; consequently, our labour market is at present overstocked, owing to the great influx of strangers without means of subsistence, and unless large works are set on foot, considerable distress during the winter may be anticipated. Under these circumstances it has been deemed advisable to instruct Mr. Marshman to confine his shipments, as far as practicable, to female emigrants.

I have the honor to be, Sir,

Your most obedient servant,

S. BEALEY,
Superintendent.

Superintendent's Office, Christchurch, N. Z.,
May 15, 1865.

SIR,—I have transmitted by this mail, via Southampton, a further instalment of debentures of the £500,000 Loan, being Nos. 2501 to 3500 inclusive. This will conclude the amount which I propose to send for the present. My previous letters will have put you in possession of my views as to their disposal. While I am desirous of losing no favorable opportunity which may occur for placing them in the market, I do not wish them to be obtruded by advertisement on the attention of the public before such opportunity arises; when it does arise, I am of opinion that the whole amount should be placed at once—an opinion in which you, as I gather from your letter, concur. With respect to the Lyttelton and Christchurch Railway Loan, I have no alternative but to place it in instalments, as provided by the third clause of the Ordinance.

I have, &c.,

S. BEALEY,
Superintendent.

FROM THE PROVINCIAL SECRETARY

TO

JOHN MARSHMAN, ESQ., EMIGRATION AGENT.

Provincial Secretary's Office, Christchurch,
September 15, 1864.

SIR,—I have the honor to acknowledge the receipt of your letter announcing your arrival in London in time to see the British Empire before she sailed.

She arrived here on the 6th instant, and the condition in which she arrived was very satisfactory and creditable to the officers in charge; the only complaint appears to have been of the somewhat overcrowded state of the 'tween decks, and the want of sufficient ventilation consequent upon an imperfect arrangement of berths. As these points were remarked upon by you before the sailing of the vessel, it is unnecessary to allude further to them.

Married couples have been getting from £50 to £70 per annum; single men £45 to £60, and single women £13 to £35; masons, for whom there is a great demand, obtain 12s. per diem. There is a great demand for domestic servants, and it would be especially advisable at the present time, when the dull state of trade renders the prospect of tradesmen precarious, to increase the number of domestic servants beyond the usual limits. Shepherds are another class whose employment is certain under almost any fluctuation which may take place in the monetary condition of the Province. With shearing and harvest coming on there will be no difficulty in disposing of the number you propose to send by the William Miles and the Eastern Empire. A fair proportion of general laborers out of each ship will, as heretofore, obtain ready employment. When the spring is fairly set in, the effect of the gold diggings upon our population will be more apparent, and I shall be in a better position to indicate our probable requirements. In the meantime it will be better to send too few than too many immigrants in accordance with your own suggestion.

With reference to your letter, No. 36, relative to the relaxation as to price of passages, what you state is entirely in accordance with the wishes of the Government on this point; it was never the intention of the Government that the relaxation referred to should apply to any other than bona fide single women.

I have the honor to be, Sir,

Your obedient Servant,

WM. ROLLESTON,

Provincial Secretary.

Provincial Secretary's Office, Christchurch, New Zealand,
October 14, 1864.

SIR,—I have to acknowledge the receipt of the draft of contract with Shaw, Saville and Co., for the current year's emigration. I have been carefully through this, and the instructions drawn up by you for the captains, surgeons and matrons of the ships. These documents together appear to embrace all that can be required. I had hoped that in the case of a vessel being placed in quarantine the expense might have devolved on the contractors for a *longer period*, but I conclude that such an arrangement would have materially increased the contract price per head. After the departure of the last mail, several cases of fever occurred in the immigration barracks, and the immigrants who at that time had not obtained work, have consequently remained on hand. A report appeared in one of the public newspapers that the fever was of a malignant character, and though this was not the case, and though the few cases which did occur were at once isolated from the rest, the fact that seven deaths took place principally from weakness and diarrhoea, gave the public reason to be cautious about employing servants from the ship. The depression in trade mentioned in my last letter still continues, and there does not appear much prospect of a change in this respect until money becomes less difficult to obtain in England, and

our debentures are looked upon more favorably as an investment. The class of immigrants for which there is the greatest demand is stonemasons, and the demand for these is likely to continue, bankers being most in request. Good quarrymen are in demand, also good bricklayers and joiners; several blacksmiths by the last ship still remain on hand. Shepherds and good useful farm laborers, especially men who can milk and understand the management of stock, are sure of employment. For domestic servants the demand is as great as ever. The proportion of other trades should for the present be small.

The Provincial Council at its last session voted the sum of £200 as an honorarium to Mr. Selge in recognition of his services. I have to request that you will draw that sum, and hand it to Mr. Selge on behalf of the Government.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

For the Provincial Secretary.

Provincial Secretary's Office, Christchurch, New Zealand,
November 15, 1864.

SIR,—The continual monetary depression which prevails throughout the colony, as well as the influx of population from other provinces, render it advisable to restrict the immigration for some time to come to such classes as will readily obtain employment, and except in the case of those sent for by their friends to abstain from sending the class of ordinary laborers. Masons, bricklayers and men accustomed to quarry work, especially foremen, will obtain high wages, and a few single men as shepherds. The great demand, however, is for masons and domestic servants. I should be sorry if any remarks which appear in the list furnished from the Servants' Home tended to give you the impression that there was not a great demand for female servants. I trust that my subsequent letters will have been acted upon independently of Mrs. Ritchie's returns.

We have still five families (14½ adults) in the barracks, chiefly convalescents from the British Empire. That two ships should have arrived within so short a period, and containing together so many immigrants, and that they should have gone off so well, leads me to believe that the distress which you will see alluded to in the papers, does not exist to any extent, and that as shearing and harvest comes on, we shall not have more labor in the Province than is required. As I stated in a previous letter, the state of the money market and our own ability to negotiate debentures must guide you very much in your estimate of what we shall require. There are several families at Kaiapoi, chiefly Lancashire people, who still are more or less dependent on the Government, and there has been a slight agitation there to keep up the current rate of wages for Government work put on by way of relief.

The Government have had their attention called to the merits of Morton's patent slip, and would be glad if you would obtain all printed particulars with relation to it, as well as with relation to its expense, &c. I am directed by his Honor the Superintendent to request you to obtain an opinion from Mr. Stephenson as to its being suitable for the requirements of Lyttelton. Your knowledge of the locality will enable you to place the matter before him more clearly than could be done by letter. Messrs. Morton and Co. are engineers at Leith. I enclose a copy of correspondence between Mr. Hamilton and myself, which will explain itself.

I have the honor to be, &c.,

WM. ROLLESTON,

Provincial Secretary.

Provincial Secretary's Office, Christchurch, N. Z.,
December 15, 1864.

SIR,—The demand for all classes of laborers has increased considerably, and wages still keep up at the old rates. I must, however, still request you to maintain great caution in the dispatch of emigrants. The fact that we are unable to realise upon our debentures to pay for the work going on on the Lyttelton and Christchurch Railway causes a great drain upon our general revenue, the payments on this account having

amounted since the 1st of last month to the sum of over £10,700, and during (since July 1, 1864), the financial year to the sum of £34,971. The land sales have not been sufficient to meet the current demands upon the Treasury, and unless they should increase considerably in the course of the next month, the Government will find it necessary to put a check upon the expenditure of the Road Boards, and a considerable amount of labour will thus become dependent upon private individuals for employment. The land sales have, however, improved during the last week, and I trust that this step will not be necessary.

At the same time it is impossible not to anticipate that the high rates for money which obtain in England will, to a considerable extent, divert capital from colonial investments, and it would be unwise to calculate upon any considerable relief for some time to come.

Under these circumstances it will be well that you should as far as possible limit the immigration, as before advised, to the special classes for which there will be a certain demand; such as single women, shepherds, quarrymen, stonemasons, bricklayers, carpenters, and good farm hands.

The number of applications for assisted passages which will be forwarded to you is a satisfactory indication of the prosperity of the working classes generally. Those sent for by their friends are sure of employment on their arrival. Looking to the future it is highly inexpedient to check immigration, if the necessities of the case can be met by a special adjustment of the classes sent out. I have to call your attention to a humorous article in the *Press* upon the subject of Mr. Boot's letter. I thought it well to publish your very satisfactory reply to that letter.

I have the honor to be, Sir,
Your obedient servant,
WM. ROLLESTON,
Provincial Secretary.

Provincial Secretary's Office, Christchurch, New Zealand,
January 14, 1865.

SIR,—I shall cease to forward returns from the Servants' Home, as those returns do not give a correct notion of the demand for domestic servants. The returns were forwarded according to an arrangement made on the occasion of your visit to Canterbury, without any notion of their modifying or superseding the instructions contained in my letters. There will still be a great demand for this class and for the classes mentioned in my last letter.

The probability, however, that portions of the Auckland immigrants will find their way sooner or later into the Southern Provinces, coupled with the difficulty which exists in realising debentures, still renders it necessary for me to reiterate the caution given in previous letters as to the dispatch of immigrants.

I conclude that the March ship will be engaged on the receipt of this letter. It will probably be advisable to postpone the dispatch of the ship you propose to send in May, so that it may not arrive until the spring is advanced. In this, however, you will be guided by the state of the money market in London which will materially affect our prospects here.

With regard to what you say with respect to immigrants in quarantine, after reading the contract, and further consideration of the matter, I do not see that the arrangement can be improved except at an additional expense on account of additional risk, which would hardly be warranted by the circumstances of the case. With reference to the purchase of heavy ordnance, I had understood from letters received from the General Government that arrangements had been made for Mr. Morrison to complete the purchase of the guns under Mr. Reader Wood's instructions, and that he (Mr. Morrison) would draw upon you for the amount. It appears, however, from letters received by the last mail that it was still within your power to forego the purchase, and that you had taken the responsibility of not ordering the ordnance. If the instructions have not been subsequently carried out, the Government wish the order to remain in abeyance for a time; but I must observe that, as a rule, it is highly inexpedient that instructions, when given, should not be carried out.

I have the honor to be, Sir,
Your obedient Servant,
WM. ROLLESTON,
Provincial Secretary.

Provincial Secretary's Office, Christchurch, N. Z.,

February 13, 1865.

SIR,—I have the honor to acknowledge the receipt of your letter, No. 78, of the 26th November last. You will be glad to hear that the *Glenmark* arrived in excellent condition on the 21st of last month, previous to the arrival of your last letter, which announced that she had sailed. The greater portion of the emigrants found employment immediately, and though we have still some families in the barracks, they are almost exclusively the wives of men who are working at the harvest; of the 46 single women, all except three had situations waiting for them on their arrival at the barracks. The Government wish as far as possible to have all engagements made at the barracks, and therefore think it unadvisable to obtain employment for emigrants through any registry office in Christchurch. Hence, as I stated in my last letter, no reports will be forwarded from the Servants' Home or similar institutions. Masons and labourers are still in request, but, with respect to the latter, the fact that a very dry season has brought the harvest on very rapidly, will account for a present demand which I am disposed to think will not be maintained when the crops are got in.

My last letter will, no doubt, have induced you to postpone the dispatching of the next vessel after the *Greyhound*; so that it may not arrive till the spring is well advanced. It will be well that emigrants should be chiefly those sent for by their friends and domestic servants. The number of emigrants dispatched to Auckland, which I have reason to believe are rather understated by you, will probably render this caution unnecessary, as it would be impossible to obtain emigrants who pay part of their passage, while free passages are given with the additional inducements mentioned by you. I have made careful inquiries from the captains and medical men who have come out in the last ships, and from all I can learn, our present system, with the improvements introduced latterly, is as good as can be desired.

I have the honor to be, Sir, &c.,

WM. ROLLESTON,

Provincial Secretary.

Provincial Secretary's Office, Christchurch, N.Z.,

March 15, 1865.

SIR,—The Immigrants mentioned in my last letter as being still in the barracks have since left, and the barracks are now empty. With respect to future shipments, the rush which has set in from all parts to the newly-proclaimed gold fields on the West Coast of the Province will cause such an increase to the male population, as to render it desirable that as large a proportion as possible of single women should be sent, and the shipment which will arrive in the spring should be almost exclusively of that class; you will consider the instructions of the Government on this point as definite, and not in any way to be modified by the reports of the newspapers or other information which may reach you. It is estimated that there are already 2000 diggers on the ground, and numbers are pouring in almost daily from Otago and elsewhere.

Mr. Rolleston has gone over himself to organise the departments of Government which it has become necessary to establish on the spot, and to make himself acquainted with the actual requirements of the place. The discovery of a shorter and more practicable route overland than the one at present known is occupying the serious attention of the Government, and a party under Mr. Dobson has been dispatched to explore the back ranges with that object.

I have the honor to be, &c.,

JOHN HALL,

In the absence of the Provincial Secretary.

Provincial Secretary's Office, Christchurch,

April 15, 1865.

SIR,—With respect to emigration matters, the Government have nothing to add to the instructions forwarded to you by last mail; though the West Coast diggings at first drew off considerable numbers from the labour market, a reaction has already set in, and the supply of labour during the winter will, it is to

be feared, be in excess of the demand. This of course applies only to the male sex ; for female servants there is as great demand as ever. The Government will be better able on hearing Mr. Rolleston's report of the actual state of things at the West Coast, to form an idea of the extent and permanence of the gold field : 10,000 persons are said to be now on the spot, and a great many of these are sure to return disappointed before the winter sets in, and will be seeking work. The road across the ranges to the diggings, which the Government are pushing forward, will give employment to some of these hands during the winter, and should money be more plentiful, the large works which may be initiated in the spring will provide employment for all.

By the following mail the Government will give you more precise information as to the future requirements of the Province, and in the meantime, until you hear further from them, they wish you not to despatch any but female emigrants.

I have the honor to be, Sir,

Your obedient servant,

JOHN HALL,

For the Provincial Secretary.

Provincial Secretary's Office, Christchurch, N. Z.,

May 15, 1865.

SIR,—Looking to the probable influx of population to the diggings from all quarters in the spring, as well as to the probability that numbers will find their way here from Auckland, it will be necessary to limit our immigration to single women, for whom the demand is unabated, and to those who are sent for by their friends. We have at present a considerable number of unemployed, consisting partly of men returned from the diggings, partly of men who came out as assisted immigrants, but who are unsuited for the work of ordinary labourers. The rate of wages remains much the same : for married couples, from £60 to £70 ; single men, £50 to £60 ; and for single women, from £16 to £30. I cannot, however, conceal from myself that there has been, and I fear, will continue through the winter, to be a considerable number of people in distress. The causes are, I believe, for the most part local and temporary ; but the facts are undoubted, and it would be unwise, unless further observation leads to a different conclusion, to bring in any number of ordinary labourers. The West Coast Gold-fields are daily assuming a more permanent character, and the yield of gold continues to increase. At present no available dray road has been discovered across the ranges in a more direct line to the diggings than the one recently explored by Mr. Dobson, and I very much doubt if anything more than a mere bridle track can be carried over, except at a cost greatly exceeding the advantage to be gained.

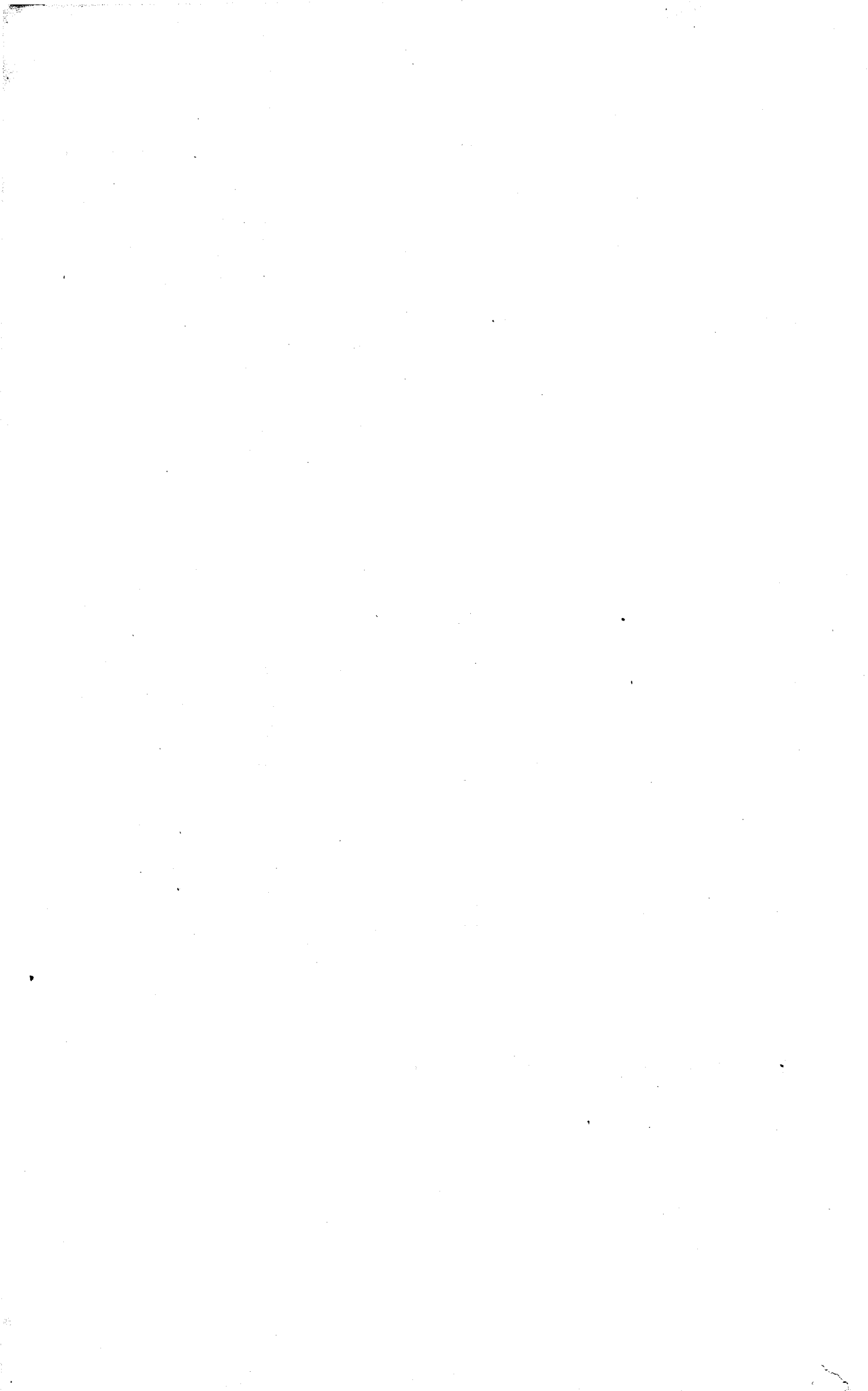
Our Great South Railway will shortly be commenced, the Government having concluded an agreement with Messrs. Holmes and Co. for the portion of it to the Rakaia. The nature of this agreement is fully explained in the Superintendent's letter to Mr. Selfe.

I have the honor to be, Sir,

Your obedient servant,

WM. ROLLESTON,

Provincial Secretary.



JOHN MARSHMAN, ESQ., EMIGRATION AGENT,
TO
THE PROVINCIAL SECRETARY.

16, Charing Cross, London, August 25, 1864.

SIR,—I have the honor to acknowledge the receipt, by this month's mail, of your despatches 123 and 125 of the 15th June last with enclosures; also extract from register at the Servants' Home of places to be filled, and servants wanting places, and notes of the Immigration Officer to be appended to return already furnished of balances unpaid on immigration bills and promissory notes.

I find, both from the newspapers and from your letters, that the supply of labour was at that time in excess of the demand. I wish it had been possible to prevent this, but the causes which led to it could not be foreseen, even in Canterbury, much less here. Your letter of May mentioned the departure of many labouring men for the Nelson diggings, and pointed to a possible scarcity of workmen in the Province. A month later, it seems, that those who went away had come back again, and others who were passing through Canterbury on their way from Otago stayed there in consequence of the unfavorable news brought from the Nelson country by the returned Canterbury men. I wish now that the numbers by the British Empire had been less: they will, I am afraid, add to your embarrassment. I advised you, in June last, that the emigration of labouring men would be slackened here for some little time, and the present directions confirms the propriety of that intention. Since the British Empire, three months ago, there has been but one ship, the William Miles, with about 100.

The Eastern Empire sails to-morrow with about 300; a large proportion of these have been sent for, and will therefore be taken in hand on arrival by friends, so that as respects them the Government will be relieved from trouble or expense. Moreover, when this ship arrives, the season will be advanced and work more abundant. I do not imagine, however, that you will require anything like the number sent last year. I must be guided from time to time by your directions, newspaper accounts, and other sources of information; but the present idea is not to send ships at shorter intervals than six weeks for the next three or four months. I will endeavour to get some stonemasons and a few bricklayers. They cannot be got readily in the summer, because the building trade is active then, and men generally think of emigration only when they cannot get employment at home. The next ship will be dispatched about the middle of October. Your letter mentions women servants as being still much wanted; looking at the Servants' Home registry it would seem that the demand was not pressing. I see there are about 26 places to be filled, and 20 girls out of place. Among those wanting servants, 12 desire cooks, and somebody else asks for "a general servant to assist in the dairy, wages from 5s. or not more than 6s. per week." I should think, and hope too, that he or she would not be able to find such a servant on such terms. I certainly would not move a finger in furtherance of the object. Others ask for cooks described "Qualified," "First-rate," &c., and the Matron of the Servants' Home says, "There is a strong determination on the part of employers not to give more than £30 a-year in any case, and really good servants may obtain from £25 to £30." If nothing short of first-rate cooks will satisfy the ladies of Canterbury, they are not likely to get them at £30 a-year; such people can do better than that at home. The Canterbury people are getting particular. They must have an article exactly according to the pattern, at a low price, and "No Irish," or they won't take it at all. They must go without it then. It will do them good. While men earn three times as much as they do here, it is sinful to pay a dairymaid only £13 or £15 a-year. Moreover, if the applicant's present attainments do not exactly suit the lady's crochets, she won't look at her. It is totally impossible to send out young women who shall exactly please everybody, and only exactly as many of them as are asked for. Concessions must be made. If they can't get service, they will go on the streets; what else can they do? and those who clamour the loudest for servants, will clamour as loudly about immorality, wicked women, deplorable social condition, agents' recklessness, and other vices, on which virtue can always be eloquent. The best thing will be to slacken the supply for a time. There are about 70 or 80 young women in the present ship. If I had had your last letter a month ago I would not have sent so many.

I have the honor to be, Sir,

Your most obedient Servant,

JOHN MARSHMAN,

Emigration Agent.

16, Charing Cross, London,

September 26, 1864.

SIR,—Some of the papers referring to the *Ivanhoe* have been sent on to the contractors, and they have been requested to supply whatever explanation they can offer in respect of the defects which they allege. I will make enquiry also about the ship's fittings and some other points. That which has happened cannot be undone, but we may find out how far the unhappy results are traceable to mistakes made here, and take care to avoid them in future.

I will say nothing about the complaints of the saloon passengers, because the Government are not directly concerned with them. There may be much that is true in the statement of grievances signed by some of them, and there is also much that is frivolous. The framers obviously tried to make as long and as formidable a story as they could; complaints of this kind have their uses, however; shipowners and others concerned with the management of ships are the better for being stirred up now and then. Shaw, Savill, and Co. tell me that at the urgent request of the owner of the *Ivanhoe*, they consented, contrary to the ordinary practice, that he should supply the cuddy himself. This is, of course, no answer to the passengers, who dealt with them for their passages, and know no one else in the transaction. They say they will not do it again.

I happen to know that the scale on which live stock is supplied by them is the same as that of the Black Ball and White Star lines; but the live stock died—hence that element of complaint.

With respect to the emigrants, the painful fact is that so many of them died. That the deaths arose mainly from an absence of cleanliness, there can be no doubt. The Commissioners say, most properly, that the former cargo of the ship increased the difficulty of keeping the ship clean. It appears that the ship originally intended to be sent was the *Amoor*, but she could not be got ready in time. The *Ivanhoe* was obtained at the last moment. It may be worth mentioning that the ship was surveyed, and passed as suitable for the conveyance of passengers by the same officers who surveyed and certify the Commissioners ships. They are the official inspectors in fact, under the Passenger's Act, and the ship would have been accepted if she had been tendered for Government emigrants.

The same rules and considerations apply to private ships, as they are called, when under the Act as to the Commissioners ships. The doctor states that the construction of the berths and mess tables was such as prevented the ship from being kept clean. I have not yet had time to ascertain how they were constructed, but I should think there were no essential differences between the mode of fitting adopted in this case from that used in others. The objection may not be wholly nonsense, but it is in great part. That the *Ivanhoe* might have been kept clean enough to prevent diseases arising from an accumulation of dirt, whatever may have been the mode of fitting, I have not the slightest doubt, and I am glad to find that the Government have marked their sense of the neglect by stopping the captain's gratuity. The first impression is that the doctor deserved to be mulcted also, but of course the Government are best able to form an opinion on this point.

It is pleasant to receive at the same time with those unhappy details, the report of the succeeding ship the *Amoor*. The cases are generally parallel as respects what is to be done here, and in one the number of deaths was alarmingly great, while in the other, with the same number of passengers, there was but one death, and that from a cause beyond anybody's control, and independent of surrounding circumstances. The widely different results are attributable rather to accident and misfortune than to inherent defects in the system.

I have to thank you for detailed information of future emigration requirements. Your instructions as to numbers and description of emigrants to be sent shall have my best attention. The contract for ships is so made as to be susceptible of any degree of modification which you might have occasion to direct.

I have also taken from Mr. Selfe the correspondence relating to an order for school books, for which draft £95 odd was remitted; these books will also be sent by the *Glenmark*. I hope to be able to send a few bricklayers and masons in that ship; carpenters will not be much wanted. The building trade in London has been active all the summer, and full employment has been obtainable by first class men. Better workmen on the average are got in London than can be safely reckoned on from the country. Complaints are sometimes made that inferior workmen are sent out. No doubt some of them are so; so they are here. Your average is, I take it, quite up to the average at home. All the London tradesmen who are taken are men who are paid full wages, 5s. 6d. per day, by their employers, and that is as good a

test of capacity as can be applied. The complaints are, however, very few. I am not unhappy about them. The Government always takes an indulgent view of their Agents' shortcomings and mistakes. The people consider themselves entitled to have everything A1, and to complain now and then if they do not get it.

The cash account for the quarter ending June last, bill of lading of specimen muskets per Dona Anita, and duplicates of August letters are sent in another parcel by the present mail.

I have the honor to be, Sir,

Your obedient servant,

JOHN MARSHMAN,
Emigration Agent.

16, Charing Cross, London, S.W.,

19th October, 1864.

SIR,—My best attention will be given to your instructions respecting prospective emigration. The arrangements with the contractors for the passages admit of any degree of modification, even to the extent of suspending altogether for a time the despatch of emigrants, if such an extreme step should become necessary, but I do not imagine that it will. If there are gold diggings in Canterbury, or if even a report of a gold-field gets abroad and is believed, there will be an influx of a mixed lot of men, most of them unskilled labourers, some of whom will go to the diggings and stay there, some will go and come back, and some will not go at all; and these latter will expect, whether reasonably or not is not the point, to have employment found for them, and whatever else they may do, they will stand in the way more or less of men arriving from England. I shall, therefore, until further advised, confine the passages in a great degree to tradesmen and shepherds. This has indeed been done for some time past, as advised in my June letters. The August newspapers report a surplus of carpenters—many being, it is said, unable to get employment. If employment were slack at any time it may be expected to be in August. I hope the relations are amended before this. It is always unsatisfactory to hear that men cannot get employment; it reacts detrimentally, and when men are afterwards really wanted, they cannot be got. It would not do to shut out carpenters altogether, but I think it may be well to send but few for some time.

The Glenmark will sail next week with about 200 emigrants. I do not propose to send another ship till about Christmas. The contractors will despatch an intermediate ship carrying paying passengers.

It is fortunate in a sense that country labourers are not urgently wanted; if they were I should not know how to get them. There is a large emigration being done now to Auckland by the Agents of the New Zealand Government. The creation of a quasi civilian garrison, or army of occupation, seems to be its object—which object, by the way, is very obscurely hinted at in the advertisements and placards which are distributed profusely about the country. The colonising of Auckland at the expense of the Colony of New Zealand is the effect, whatever name may be given to the process—and by a very expensive process too—free passages are given. Considering, however, that the authorities are doing the business with borrowed money, they can afford to be liberal. Victoria, in its most palmy days, when it had more money than it knew how to spend, and got it by a process almost as easy as borrowing, gave free passages, but it has long since discountenanced them, and New Zealand—that is, Auckland—is the only colony which offers free passages. But while free passages are given to Auckland, and the advertisements offering them are subscribed “New Zealand Government Emigration Board,” there is not much chance of a subordinate establishment like a Provincial Agency, which can only offer “assisted passages,” attracting much notice. Excepting those who have friends in the Colony, one part of New Zealand is pretty much the same as another to the emigrating element, and they will hardly pay to go to one part of it, if they can go to another part for nothing.

I have just had a second edition—2000 copies—of the Canterbury pamphlet published, the former edition being exhausted. Half-a-dozen copies are sent by book post. It will, or at least I hope so, prevent the Canterbury Province from being entirely forgotten. If you do not want people now, they may soon be wanted, and I very well know what is meant by working up something which has passed away from the public eye, and out of the public mind. The gross cost will be about £40; off this will come

the receipts for advertisements on the wrapper, say £20. I propose to spend this from time to time in advertising it. Some copies will be given away; the majority will be sold. The net cost will therefore be the cheapest as well as the most effective form of advertisement which could be adopted. I hope the Government will approve of what has been done.

I have the honor to be, Sir,

Your obedient servant,

JOHN MARSHMAN,
Emigration Agent.

16, Charing Cross, London,

26th November, 1864.

SIR,—I have advised, in another despatch, the sailing of the Glenmark the end of last month. The next ship will be the Greyhound, on the 18th of January. The emigrants by her will be chiefly bill holders. The applications originating here are now absolutely nil. You will be prepared for the announcement. Nothing else can be looked for while "the New Zealand Government Emigration Board," as those gentlemen style themselves, who are conducting the emigration which is to people Auckland at the expense of the Colony, continue to give in a wholesale form, free passages, free transport into the interior, a freehold, a loan of money to the emigrant to work it, and employment at the public expense—so tempting a programme advertised in newspapers, pamphlets, everything that circulates, and placarded in every market place in the country—is absolutely prohibitory of emigration on such conditions as those in which passages to Canterbury are offered. The Government cannot afford to squander money in this insane manner, and if they could afford it ever so well, would not, I am sure, dream of doing it. Add to these surprisingly liberal conditions the announcement, to which equal publicity is given, that bricklayers, stonemasons, &c., can get 14s. a day in Auckland, and other classes of labour proportionate rates. The Government will be perhaps surprised presently, and the people may complain that no emigrants are sent to them. This is the explanation, and I wish to put this point very clearly. I hear that the Province of Auckland will receive in about three months, from 2,200 to 2,500 people (statute adults) in this way, and by the time all the expenses incident to them have been paid, I should expect they will cost the colony as much as the first cost to Canterbury of the 8,000 and odd people who have been landed there within the last six years, without taking into account the deduction due in respect of sums repayable by emigrants on their promissory notes. If any consideration can aggravate this disgraceful mismanagement and extravagance it is that it is being done with money borrowed at 20 per cent. discount. It is difficult to restrict one's self to temperate and becoming language in commenting upon it.

I have the honor to be, Sir,

Your obedient servant,

JOHN MARSHMAN,
Emigration Agent.

16, Charing Cross, London,

24th December, 1864.

SIR,—I can add nothing to what was said last month about emigration. The Auckland free passages are still continued. I hear from the contractors that their present contract expires with a ship which will sail about the middle of January, and the agents say they must wait further instructions before continuing it. I shall send a few people by the Greyhound next month, probably not more than 150, and the greater part of those will be bill holders. If the Auckland free passages are suspended, there will be a chance of my finding some emigrants, but as I have already explained this is impossible now. It is hopeless to put forward the Canterbury assisted passages in competition with the Auckland scheme.

Whatever the facts may be—however true it may be that men would do wisely to pay for going to Canterbury, rather than go to Auckland for nothing, I can only say that as opportunity may offer I will use my best endeavours to give effect to the directions of the Government.

I have the honor to be, Sir,

Your most obedient servant,

JOHN MARSHMAN,
Emigration Agent.

16, Charing Cross, London, S.W.,

25th January, 1865.

SIR,—With regard to Alice Braxton's liability, Mr. John Abel Smith with whom the conditions of the passage were settled, says in reply to a note which I wrote to him on the subject, "You may rest perfectly assured that the most careful pains were taken to make them [he refers to Alice Braxton, and Julia Cahill, and Ann Smith who went out with her] understand the responsibilities they took upon themselves as to a portion of the passage money, and *that they did so understand it*, I am quite clear, from my own personal knowledge, that there is no plea which can be properly urged against payment of the note on the ground of ignorance." Now this is just the sort of answer which I expected to have from Mr. John Abel Smith. It was arranged with me by him that £10 10s. should be paid for these three young women, *i.e.*, £3 10s. each, and that they should give promissory notes for £10 each payable in Canterbury. The young women were at that time at the Dudley Stuart Refuge, Edgeware Road. This is an establishment which is used for the houseless poor during the winter months, as a charity, and in summer the charity is suspended, and it is used as a lodging house, open to the servants out of place and others of good character, who pay for the accommodation, as these young women do (though at a cheaper rate) who use the Christchurch Servant's Home. These young women were there in that character and capacity. There is nothing, therefore, in the nature of the establishment, or in the people who use it in this way, to warrant Mr. Hamilton's proposition, put incidentally, by the way, for it has nothing to do with the subject of his letter—that "it might be fully expected that nine-tenths of those who came out under such circumstances as have been stated would soon fall into prostitution here." I do not know, for example, why it should be expected that Alice Braxton and her friends would do it, because they had once lived in such a place as the Dudley Street Refuge, and it is not suggested that either of them has done so, or ever exhibited an inclination to do so. Mr. John Abel Smith takes a warm interest in this establishment, goes there, as he tells me, almost every day, and he took an active interest in these young women. Now, it is inconceivable that he should have omitted to explain to them the conditions on which their passages were being supplied, and the liability they would have to undertake. No doubt this was had in view when the promissory notes were being signed by them. I cannot of course say precisely what happened in Alice Braxton's case. In all likelihood that sort of explanation was not given which would have been called for, if the passenger had never before heard of this promissory note. It was assumed in the nature of the case that she had already been made aware that she would have to pay £10 in Canterbury, and it was sufficient to say that this was the instrument which pledged her to it. Less than this could not have been said. Mr. Abel Smith's note, from which I have quoted, confirms such a supposition.

The general practice in respect to notes, and the arrangements of passages is this:—The applicant makes a proposal in writing, which recites among other things "I agree to pay the sum of £... in cash, and to sign promissory notes for the sum of £... payable to the Provincial Government." Then when the usual enquiries have been made and the case is completed, assuming that he is accepted, a letter addressed to him to that effect, containing among other things a Dr. and Cr. account of how the reckoning is made, as—

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Dr.</td> <td style="width: 80%;"></td> <td style="width: 10%; text-align: right;">£ s. d.</td> </tr> <tr> <td>Passage of Adults</td> <td>... ..</td> <td></td> </tr> </table>	Dr.		£ s. d.	Passage of Adults			<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Dr.</td> <td style="width: 80%;"></td> <td style="width: 10%; text-align: right;">£ s. d.</td> </tr> <tr> <td>Cash Payment Government Aid</td> <td>...</td> <td></td> </tr> <tr> <td>Amount to be covered by Prom. Notes</td> <td></td> <td></td> </tr> </table>	Dr.		£ s. d.	Cash Payment Government Aid	...		Amount to be covered by Prom. Notes		
Dr.		£ s. d.															
Passage of Adults																
Dr.		£ s. d.															
Cash Payment Government Aid	...																
Amount to be covered by Prom. Notes																	

Then the contract ticket follows, in which the same particulars are recited. So far from leaving the person in ignorance of what he is doing, every care is taken to make him aware of it. I have never, to the best of my recollection, met with an instance in which the emigrant alleged that he had been misled, or objected to sign his promissory note on the ground that he did not know he would have to do it, and I am confident that the nature of the instrument is always made known when the signature to it is being obtained. Reverting for a moment to Alice Braxton, it is said "that at the age of sixteen [she is described in the papers here as eighteen], when she signed the promissory note in the ship's cabin, it was neither read over to her nor explained to her, and even if it had been she would not at all have understood the full meaning of what she was doing." If the latter part of the sentence is to be relied on, it would be very difficult to deal satisfactorily with such a case, because, although one may supply information, it is beyond one's power to supply if it is wanting the capacity for understanding it. If the emigrant cannot write he must have had the previous correspondence with this office done for him by some friend, and the letter addressed to him from here must have been explained to him, so that even in that case ignorance could not

be pleaded. Mr. Hamilton lays some stress on the fact that this young woman was a minor, and proposes that "no such notes should be accepted from girls or young men under age." The proposal amounts to the shutting out of minors altogether, unless they are going with friends who will undertake for them or the receiving from them whatever they say they can pay in cash, and giving them all the rest. If you were to shut out all such minors among single women as did not accompany friends, I should certainly not be able to send you as many as you require. It is not worth while to discuss this proposition, because you do not allude to it, or hint at any alteration in the existing procedure in such cases. True that the debtor may plead minority, and the plea, if established, would bar the claim of the Government, but that cannot be helped. I have not heard that this is often done, and the exceptional cases in which such a plea is set up are so few as not to supply, I imagine, an argument for shutting out minors, or for not taking promissory notes from them, when no better security can be obtained.

I am, Sir,

Your obedient servant,

JOHN MARSHMAN,

Emigration Agent.

16, Charing Cross, London, S.W.,

January 26, 1865.

SIR,—I am pleased to learn that you intend in future to visit the emigrant ships yourself, and I am also pleased to find that with respect to the William Miles, you express your entire approval both of the ship's arrangements, and of the emigrants.

It is curious that on the one hand the emigrants both by the British Empire and the William Miles should have found employment so readily, the former, although a large number, within a short time, and the latter, a small number, in a few days, and on the other hand that there should appear in the newspapers as well as in your letters allusions to distress from want of employment, meetings of unemployed to memorialise the Government, &c. It is difficult to infer from these conflicting accounts the actual condition of the labour-market, and to decide with confidence what ought to be done here. I suppose the explanation is that the emigrants are, on the whole, more acceptable to employers than those who appear at Kaiapoi and elsewhere, and who constitute the deputations to the Government. Employers have "a pick," and they naturally take those who best suit them. Still it is very unpleasant to meet with statements of this so-called destitution in the local newspapers, and still more so, such a letter as that which appeared in a Nottingham paper a few weeks ago. (Copy herewith.) I answered it after a fashion. (Answer enclosed.) There is no help for this kind of thing, but it is embarrassing. Your November letter seems to indicate a necessity for an almost entire suspension of the emigration of labouring men. But if I understood it rightly, it refers to the then present time, or at all events that the forecast did not extend to more than a month or two ahead. What has been done within the last four or five months will have given you but few of this class of men. But the effect of what is being done now will operate with you six months hence. The arrivals during the summer will have been small, and it seems to me safe to conclude that during the summer the excess of labour which existed at the beginning of it will have disappeared, and something like healthy relations of supply and demand been re-established, and the inference that by the beginning of the next season—that is August or September—a want of men of all classes will have grown up. This is what I have to consider now, and in view of this state of things, I propose to provide for a resumption of emigration on an extended scale compared with late operations, in the course of two or three months, and to send a ship in March with a moderate number and a full ship about the end of May. What may follow will depend on your future advices. I have no reason to expect difficulty in getting people, though the South Australian Government is pushing emigration rather largely, particularly in the West of England, and the Queensland Agent also. The free emigration to Auckland would, as has been explained in former letters, have prevented the getting of people for Canterbury if they had been wanted ever so badly; but I am informed that the agents have been instructed to "suspend" their operations after the dispatch of a ship which is now loading. I take it that "suspension" in this case means "cessation." The Wellington Province sent an Agent home

about two months ago to get I don't know how many hundreds per month, relying, no doubt, on funds coming from the source which has supplied those for the Auckland emigration, and now I hear he is told to do nothing, so that competition in these quarters seems to be at an end.

I have the honor to be,
 JOHN MARSHMAN,
 Emigration Agent.

16, Charing Cross, London, S.W.,

February 25, 1865.

SIR,—I hope we have heard the last of the “unemployed” at Kaiapoi. For several months past, letters and statements have appeared in the country papers, after the arrival of the mail, purporting to describe “the condition of the working classes.” I have seen some of them, and replied to them in every case. There are, no doubt, others which I have not seen. It is annoying beyond measure to find such stories set afloat, and especially so, that whatever I may say in answer or explanation will not entirely convince the readers that they are not true. The enclosed slip cut out of a Derby paper was sent me a few days ago by a person who said he had been thinking of going to Canterbury, but he was afraid now to venture upon it, and he inquired what explanation of it, if any, I could supply. I wrote at once both to him and to the newspaper, but there has not been time to get a reply. If the letter is published I will send it next month. This is an example of how such stories operate. If the writers of these indignation letters stated correctly the measure of this so-called distress, no harm would be done, but the inference sought to be conveyed is, that the condition of working men generally in the colony is that of the few incapables at Kaiapoi. They appear to be for the most part Lancashire people. Many of these people appear to have been successful, and some are now sending for their friends, but on the whole the importation of them was a grievous mistake. The cost in money of these worthless few is ascertainable, but the damage that has been and is still being done to the Province by their clamour is incalculable. It may be hoped the subject will drop out of sight by-and-bye, but in the meantime I am placed in a position of intense difficulty and embarrassment. Mr. Widdowson, of Christchurch, sent me a letter by the last mail, exhibiting the other side of the picture. It has been published. I wish many others would write in the same strain.

I will pay the closest attention to your directions as to future emigration. I am not sending emigrants by the Canterbury.

I have the honor to be, Sir,
 Your obedient Servant,
 JOHN MARSHMAN,
 Emigration Agent.

16, Charing Cross, London, S.W.,

March 27, 1865.

SIR,—Until you direct otherwise the assisted emigration will be limited to artisans and special classes of labourers. The ship of the 12th of April will probably not bring more than 150, and the succeeding ship originally intended to be dispatched in May will be, as you direct, postponed to about the middle of June so as to arrive later in the spring.

You refer to the intended purchase of heavy ordnance. The facts are these. Mr. Morrison was instructed by Mr. Reader Wood that £3000 would be handed to him by this office to pay for ordnance. I did not know, until after the draft had been drawn for it, in accordance with your instructions to the same effect, that no contract had been made for the supply for it, and on finding this out I suggested to Mr. Selfe, and he agreed, that the question should be referred back to the Government—Mr. Selfe wrote about it at the time—I did not.

I believed that the Government was desirous of restricting its expenditure to works of immediate necessity. The supply of cannon was obviously not of that nature. A delay of five months could be productive of no inconvenience, and this delay would give the Government the opportunity of avoiding the present expense if it should prefer to do so. The Government now wish that the order should remain in abeyance for a time, that is, in fact, directed to be done, the affording of an opportunity of doing which was the sole object of the reference to the colony.

I may be excused for expressing some measure of disappointment and regret that my action in the matter should have been judged on merely technical grounds, and that the motive which prompted it should not have exempted me from the censure which is implied in the concluding paragraph of your letter.

I have the honor to be, Sir,

Your obedient Servant,

JOHN MARSHMAN,

Emigration Agent.

CHRISTCHURCH :

Printed, under the authority of the Provincial Government of the Province of Canterbury, at the 'Press' Office, Cashel-street, by JAMES EDWARD FITZGERALD, Official Printer for the time being to the said Government.