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# SESSIONAL PAPERS.

# VOLUME 7.

### FIFTH SESSION OF THE FIRST PARLIAMENT

OF THE

DOMINION OF CANADA.

SESSION 1872.



PRINTED BY I. B. TAYLOR, 29, 30 & 31, RIDEAU STREET, OTTAWA.

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Correspondence between the Dominion and Imperial Governments, relative to the illegal abduction, by American Citizens, from the Port of Guysboro', in Nova Scotia, of the American Fishing Schooner, C. H. Horton, while awating the action of the Court of Admiralty in Canada.

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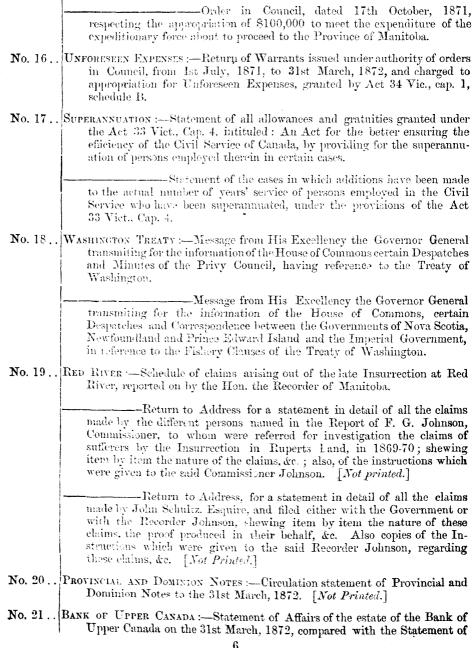
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- No. 12. BAPTISMS, MARRIAGES, AND BURIALS:—General Statement of, for certain Districts in the Province of Quebec. (Not Printed).
- No. 13. Banks:—Lists of the Shareholders of the several Banks of the Dominion of Canada, in compliance with the Act 34 Vic., cap. 5, sec. 12.
- No. 14.. Census:—Returns for the year 1871, taken under the Act 33 Vic., cap. 21. (Not Printed).
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- No. 23... Statutes of Canada :—Official distribution of the Statutes of Canada, 34 Victoria, being the Fourth Session of the First Parliament, 1871, under the provisions of the Act 31 Vict., Cap. 1, Sec. 14. [Not printed.]
- No. 24.. RECEIPTS AND EXPENDITURE OF CANADA:—Statement of Receipts and Expenditure of Canada, from the 1st July, 1861, to the 31st March, 1872.
- No. 25. Intercolonial Railway:—Annual Report of the Commissioners.

Return to Address, Statement of all costs and charges connected with the survey and management of the Intercolonial Railway, since the date of last Return made to this House on the subject, up to the present time; shewing in separate sums the amount of travelling and other expenses of the Commissioners, including all the expenses of the Commissariat Office, since the above date.

Return to Address, Papers, Letters and Documents that have passed between the Government of the Dominion, the Commissioners on the Intercolonial Railway, and other persons interested in the following matters, viz.—As to the rent paid by the said Commissioners, for the use of the House now occupied at Newcastle, by A. Light, Esq., and the Intercolonial Office, stating who was the owner.

1st.—Of the said House at the time it was so rented.

2nd.—Of the lands taken for the Railway Station.

3rd.—Of the Old Ship Yard intended for Water terminus.

4th.—Of the Old Commercial Buildings now occupied as the Custom House at Newcastle, specifying separately the amount paid yearly for rent, the land damages, and the price paid or to be paid for each of the said premises, and to whom, when and how?

No. 26.. Fenian Invasion, Canada:—Return to Address, Copies of all Despatches and correspondence between the Dominion Government and the Imperial Government, relative to the claims arising from the Fenian Invasion of Canada, &c., and of the account of the Fenian Brotherhood drawn up by Lord Tenterden.

Manitoba:—Return to Address, Copies of all correspondence with Lieut. Governor A. G. Archibald, of Manitoba and Mr. McMicken, Land Commissioner, regarding the Fenian Invasion of Manitoba; and the intercourse of the said Lieut. Governor with Louis Riel, &c.

- No. 27... PENITENTIARIES: -- Report of the Directors of Penitentiaries of the Dominion of Canada, for the year 1871.
- No. 28.. Indians:—Return to Address, Copies of all correspondence relative to the appointment of a Commissioner or Commissioners for the Indians in Northumberland, N. B. [Not Printed.]
- No. 29.. Provincial Buildings, Halifax:—Message from the Governor General transmiting certain correspondence, with the award of the Arbitrators on the Claims of the Government of Nova Scotia, in connection with the Provincial Buildings at Halifax.
- No. 30... TRIDER, ALBERT:—Return to Address, Official Reports relative to the death by an accident on the Government Railway between Windsor and Halifax; of Albert Trider, an Employé on the road; the proceedings on the Coroner's Inquest; and also a Return of all accidents on the road. [Not printed.]
- No. 31.. Geological Survey:—Account of the moneys expended under the authority of the Act 31 Vict., Cap. 67; on account of the Geological Survey of Canada, for the year ending 30th June, 1871.

—————Summary Report of Geological Investigations, dated the 20th May, 1872.

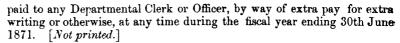
- No. 32.. Perley, M. (C. E.):—Return to Address, Reports made by Mr. Perley, C.E., on the most practicable and effectual means of securing and maintaining unimpeded navigation of the River St. John, at or near the Oromocto Shoals (so called.) [Not printed.]
- No. 33... Canadian Pacific Railway:—First Progress Report on the Canadian Pacific Railway, by Sanford Fleming, Esq., Engineer-in-Chief.
- No. 34.. Windson and Annapolis Railway:—Return to Address, Correspondence between the Government and the Windsor and Annapolis Railway Company; including any memorials or protests addressed to the Government by the Company, and of any agreements made between the Government and the Company of the Government Railway between Windsor and Halifax, on their enjoyment of running power over the said Road. [Not printed.]
- No. 35... Province of Canada, Debt of:—Return to Address, Correspondence between the Government of the Dominion, and the Governments of the Provinces of Quebec and Ontario, on the subject of the division of the surplus of the debt of the former Province of Canada, &c.; and correspondence with the Governments of the different Provinces of the Dominion with respect to applications made for additional subsidies or more favorable financial terms than granted by the Confederation Act. [Not printed.]
- No. 36. School Act, New Brunswick: Return to Address, Correspondence or

other documents relating to the School Act passed by the Local Legislature of New Brunswick, between the Dominion Government and that of New Brunswick.

No. 37. Hamel, A., Jr.:—Return to Address, Correspondence between the Government and any officers of Customs of the Dominion, or of the United States, respecting the seizure, in the hands of Mr. A. Hamel, Junr., of a quantity of merchandize, the property of the firm of Jos. Hamel, et frères, of the City of Quebec. [Not printed]

Supplementary Return :—Ditto, ditto. [Net printed.]

- No. 38... EMPLOYES, DOMINION GOVERNMENT:—Return to Address, names, origin, creed, position and pay of all Employes of the Dominion Government,—with statements from all the Public Departments, and from the Senate, the House of Commons, and the Intercolonial Railway Commission.
- No. 39... Bossk, Hon. Mr. Justice:—Return to Address, Correspondence between the Government of the Dominion, and of the Province of Quebec, and the Hon. Mr. Justice Bossé, with respect to the refusal of that Hon. Judge to comply with the Order of the Government of Quebec, directing him to reside at Montmagny, in the District of Montmagny. [Not Printed.]
- No. 40. HALIFAX POST OFFICE:—Return to Address, Correspondence passed between the Portmaster of Halifax, N.S., and the Hon. Postmaster-General, relative to the abstraction of Money letters from the Post Office. [Not printed.]
- No. 41. Custom's Duty, Hudson's Bay:—Customs' Duties collected at Hudson's Bay Ports, on Hudson's Bay, 1868-69, 1869-70, and 1870-71. [Not printed.]
- No. 42.. Thames and Sydenham Rivers:—Return to Address, Plans, reports, specifications and contracts relating to the improvement of the navigation of the Rivers Thames and Sydenham, since 1867.
- No. 43.. PASPEBIAC HARBOR:—Return to Address, Correspondence, reports and plans relating to the Paspebiac Harbor roadstead; (first), as a Harbor of Refuge; (second), as a Winter Harbor, communicating with the Intercolonial Railway.
- No. 44.. St. Clair Flats Canal:—Return to Address, Report of Engineers or others appointed to investigate the location of the Canal across the St. Clair Flats, on the Canadian side of the Channel, by the Government of the United States.
- No. 45... Appeal Cases:—Return to Address, Statement of the number of cases which, from the 1st January, 1369, to the 1st January 1872, were taken before Her Majesty in Her Privy Council, on appeal of the Judgments rendered in each of the Provinces of Ontario, Quebec, New Brunswick and Nova Scotia. [Not printed.]
- No. 46.. MAIL SERVICE, JOLIETTE:—Return to Address, &c., relative to the establishment of a daily Mail Service between Joliette, St. Ambroise de Kildare, and the Melaine d'Aillebart, in the County of Joliette. [Not printed.]
- No. 47.. DEPARTMENTAL CLERKS:-Return to Address, Showing all sums of money



- Charged or received on account of Salaries, extra services, travelling expenses, or on any other account, by the several Deputy Heads and Officers of Departments at Ottawa, &c. [Not printed.]
- No. 48 North West Boundary:—Return to Address, Correspondence between the Dominion Government and the Government of Ontario, respecting the North West boundary of Ontario.
- No. 49... Indians, Iroquois:—Return to Address, Correspondence since the 1st November last, between the Government, the Agent at Caughnawaga, and the Iroquois Indians relative to the conduct of the Chiefs of those Indians. [Not printed.]
- No. 50.. Printing, Confidential:—Return to Address, Accounts paid or received for Departmental and Confidential Printing, since the date of last Returns, with the Orders in Council, and all other documents relating thereto; and of all accounts paid or received for Binding, since the work was given without tender to the present contractor.
- No. 51.. Grenville Canal:—Return to Address of the 25th ult.; for copies of all tenders sent in for repairing or enlarging the Grenville Canal; and also for copies of all contracts entered into, Orders in Council, and all other documents relating thereto. [Not printed.]
- No. 52... Welland Canal:—Return to Address, Reports by the Engineer in charge of the survey of the Welland Canal, in 1871, giving the quantity of earth and rock excavation required to be done to complete the Canal for Lake Erie level, by Port Colborne and Port Maitland route respectively; also, copies of all Reports on the same subject by the Chief Engineer of the said Department. [Not printed.]
- No. 53... METEOROLOGICAL OBSERVATIONS:—Return to Address, Correspondence with the Government of the United States, and persons in the Dominion, on subject of Meteorological observations and Weather reports.
- No. 54... Copyright:—Return to Address, in relation to the question of Copyright.

  [Not printed.
- No. 55... CORPORAL PUNISHMENT:—Return to Address, Cases in which the sentence of corporal punishment has been carried into effect in Canada. [Not printed.]
- No. 16. Light-Houses:—Return to Address, Tenders for the supply of Coal for Light-House purposes, for the years 1870, 71 and 72; with the Reports of the Inspectors on Samples. [Not printed.]
- No. 57... NORTH WEST TERRITORIES, INTOXICATING DRINKS:—Return to Address, Correspondence between the Government and the Lieut. Governor of Manitoba and the North-West Territories, having reference to the introduction of intoxicating drinks, arms, ammunition and other supplies, for sale or disposal, to natives of the said Territory, and others residing therein. [Not printed.]
- No. 58. Manitoba Laws:—Return to Address, Laws of Manitoba, enacted during

- the last Session of the Local Legislature, relating to the registration and qualifications of Electors; and the constitution of a Supreme Court. [Not printed.]
- No. 59... Elections, British Columbia and Manitoba:—Return from the records of the Elections to the present House of Commons, in British Columbia and Manitoba, showing the aggregate number of votes polled in each Electoral Division in which there has been a contest, with the total number polled in each such Division, and the number of votes on the voters' lists of the same respectively, and the population in each constituency as shown by the last census prepared by the Clerk of the Crown in Chancery.
- No. 60.. Indian Reserve, Sarnia:—Return to Address, Correspondence between the Secretary of State for the Provinces, and any party or parties, including Officers of the Department, respecting Lot 51, Front of the Indian Reserve at Sarnia. [Not printed.]
- No. 61. West Indies Trade:—Return to Address, Correspondence, &c., since the 1st July, 1867, relating to trade relations between Canada and the West Indies.

Supplementary Return :- Ditto, ditto. [Not printed.]

- No. 62.. BAY VERTE CANAL:—Return to Address, Report and Estimates relating to the Bay Verte Canal.
- No. 63.. Shippegan Gully:—Return to Address, Correspondence, Orders in Council, Reports, Estimates relating to the deepening of Shippegan Gully. (Not Printed).
- No. 64.. EMIGRANTS, FORT GARRY:—Statement shewing the expenses of maintaining teams and men at Prince Arthur's Landing, for the conveyance of emigrants to Fort Garry; also for the same service from the Western terminus of the Lake Superior and Shebandowan Road to the Western side of the Lake of the Woods; and from the Lake of the Woods to Fort Garry; also the number of emigrants conveyed over said route.
- No. 65. Bonded Goods, U.S.:—Return to Address, Correspondence relative to fees charged by American officials on goods and produce passing through the United States in bond.
- No. 66.. PLOUGHS:—Return to Address, Number of Double furrow ploughs entered at the Port of Guelph, the value and the number on which duty has been paid, the number (if any) passed free of duty. (Not Printed).
- No. 67... MUD LAKE:—Return to Address, Correspondence relating to the building of the Dam across the outlet of Mud Lake, in the Township of Bedford, in the County of Addington, Ontario, in the year, 1871. (Not Printed).
- No. 68... CRIMPING BUSINESS:—Return to Address, Correspondence since 1st July, 1869, relating to the shipping or desertion of seamen, or what is known as the Crimping business. (Not Printed).
- No. 69... Lumbermen Fees:—Return to Address, Tariff of fees, under Chapter 46 of the Consolidated Statutes of Canada, now charged to lumbermen for supplying specifications, and allowed to Cullers for measuring, etc., respectively. (Not Printed).

- No. 70. Post Office, Quebec:—Return to Address, Tenders received for the heating apparatus in the Post Office, Quebec, with the Report of the Chief Architect of the Department of Public Works thereon. (Not Printed).
- No. 71.. PORT COLBORNE HARBOR:—Return to Address, Tenders received by the Department of Public Works, for the excavation of earth and rock, in deepening and improving Port Colborne Harbor, on Lake Erie, last year. (Not Printed).
- No. 72... Areitrators:—Address shewing all the cases which have been decided by the Dominion Board of Arbitrators since Confederation; with the awards made, and all the amounts paid to the said Arbitrators as salaries and travelling expenses, or any other account. (Not Printed).
- No. 73... DOCKYARD, HALIFAX:—Return to Address, Correspondence between the Imperial Government and the Government of the Dominion, respecting the proposed arrangement for obtaining a portion of Her Majesty's Dockyard at Halifax, as a terminus for the Intercolonial Railway. (Not Printed).

## REPORT

OF THE

# SECRETARY OF STATE

FOR

# CANADA,

FOR [THE YEAR ENDING THE 30TH JUNE, 1871.

PRINTED BY ORDER OF PARLIAMENT.



#### REPORT

OF THE

## SECRETARY OF STATE OF CANADA,

FOR THE YEAR ENDING ON THE 30TH JUNE 1871.

To His Excellency the Right Honorable LORD LISGAR, Governor General of Canada, &c., &c.

#### MAY IT PLEASE YOUR EXCELLENCY :-

I have the honor to lay before Your Excellency the Annual Report of my Department for the year ending 30th June, 1871.

The number of letters received and answered in the different Branches of the Department during the year 1870-71, amounts to 9,444, exclusive of letters of simple acknowledgment of receipt, divided as follows:—Corresponding and Ordnance Lands Branches, 7,515; Queen's Printer Branch, 1,825; Dominion Lands Branch, 104, the latter embracing four months only, from March (when it was established) to July, 1871.

It was only in the course of October, 1870, that arrangements were made for the management of the lands of the Estate of the Bank of Upper Canada, which devolves upon this Department.

The object had in view by the Government in assuming the charge of this Estate, that is to say, economy in the management and a speedy settlement of its affairs, have not been lost sight of. To attain the first of these objects, the previous local staff of this unfortunate enterprise had been dispensed with, C. Gamble, Esq., of Toronto, long

connected with the Bank and familiar with its transactions, and a valuator, paid by a per centage on sales, are the only gentlemen employed outside the Departments. Col. Coffin, the head of the Ordnance Lands Branch, here, in addition to his special duties, assumed the charge of these interests without additional assistance or compensation, and has performed them with his usual accuracy and despatch. The larger and more valuable portion of these properties had been sold previous to the date of the transfer of the same to this Department, but the amount of sales made will, up to the present time, testify to the activity employed. The total is \$66,678.12.

Recourse has been had whenever advantageous to auction sales, and the result has been satisfactory.

It is hoped that the remainder of these lands will be disposed of in the current year.

The Report from the Ordnance Lands' Branch marked A and appended hereto shows

ery large return from sales and rents for the present year, the total amounting to

a very large return from sales and rents for the present year, the total amounting to \$93,783, and the explanation given which assigns a part of this amount to the preceding year shows a gradual and actual progress of improvement, which is in every way satisfactory.

The experience of another year in the working of the Queen's Printer's Office has fully established the wisdom of its organization upon its present basis. The constant supervision of the printing and binding for the several Departments, and the uniform audit of the accounts for those services as performed under contracts at a schedule of prices, tend alike to economy and uniformity of work and price—both satisfactory results. The system of the office has been so far perfected that now the cost of every detail of every job can at once be ascertained, and the account promptly closed. The basis for future contracts or other arrangements, derivable from the registered statistics of the office, will always hereafter be forthcoming when needed. It will be seen from the Queen's Printer's Report (Appendix B to this Report), that the cost of the printing and binding of the Departments has been considerably increased, but he shows at the same time so large a quantity of work performed as to account for this; and this increase of work and expenditure is explained by the Census taking and other causes referred to by him in this and his previous Report. The cost of the publication of the Canada Gazette has been unavoidably increased by the same causes.

The duties incumbent upon the Registrar's Branch have continued to be fulfilled with accuracy and promptness.

A large number of Indian and Ordnance Land Patents have been engrossed and recorded during the past year, and Returns of the same have been regularly sent to the spective Registrars in whose Counties the lands Patented were situated.

I have caused to be sent to the Ontario Government, when completed, the copies of Crown Land Patents, which prior to 1st July, 1867, were recorded in books, which had to be kept, inasmuch as in them were registered Patents for the Indian and Ordnance Lands. They could not therefore be transferred to that Province. These documents covered over 1,700 pages of large paper.

The number of Officers' Bonds recorded in the Branch during the year, is 250. Since my last Report the North West Territories have been transferred to and become

part of the Dominion of Canada, and by Sec. 34, Chap. 42 of 31 Victoria, are under the management of this Department.

The extensive Territory thus transferred possesses a very large area suitable for the growth of wheat and coarse grains, roots and vegetables, second to no country on this continent.

The statements made as to the great fertility and productions of the soil are fully verified by those who within the last few years have visited that country, or made it their home.

Valuable minerals, among others gold, silver, and coal, are known to exist in it. With regard to the latter, its importance, in view of the extent of prairie in the Territories, it would be difficult to over-estimate; and steps are contemplated during the coming season which will in part elicit information as to the character and extent of this deposit.

The northern portion of this Territory, where it ceases to be valuable for agricultural purposes, is valuable as being the great fur-producing region of this continent.

The Province of Manitoba, to which the attention of this Department has been in most part directed, is taken out of the south-east portion of the Territories, and embraces the land contained between the 95th and 99th meridian west of Greenwich, and between the international boundary or 49th parallel of latitude, and latitude 50° 30°; it covers about 13,908 square miles, equal, nearly, to 9,000,000 acres.

The liberal land policy adopted, which gives to a bona fide settler a homestead of one hundred and sixty acres on condition of a three years occupancy, will it is believed tend to attract a share of the emigration at present flowing from Northern and Central Europe to this part of the future great grain growing region of the Dominion.

Our own people who desire change, or those who wish to engage in farming, can here obtain a prairie home without having to sacrifice their allegiance, or disown their attachment to the British flag.

All that is necessary for the rapid settlement of Manitoba and the North West Territories, is that railway connection be had between them and the older Provinces. This will be furnished by the Canadian Pacific Railway, when constructed.

In the interim the "Dawson route," which passes through our own country, will provide a good highway for summer travel. The Red River, which has been tapped by the American lines of railway, can also be used to good purpose during the season of navigation.

To meet the requirements of settlement a large number of surveyors were employed during the past year, for whom, and the working parties they required, provisions had to be sent into the Province; these were furnished to them at cost price, with freight and all other expenses added.

Supplies, in like manner, have been ordered to meet the wants of the largely increased surveying staff to be employed during the coming season.

For the conducting of those surveys and the management of these lands a branch has been added to this Department, known as the Dominion Lands Branch, at the head of which John Stoughton Dennis, Esq., has been placed with the title of Surveyor-General.

Knowing the great interest taken in all land matters in Manitoba, I append his Report (see Appendix C), which shows the work performed by the Surveyors up to the close of the year. It also shows that, notwithstanding the delays caused by smoke and fires, the season's operations have been very satisfactory.

It may be of some interest to add that Mr. McMicken, Land Agent at Winnipeg, has been furnished with maps of the Townships surveyed, so that he is now prepared to deal with all parties who may desire to make entries for lands either by sale, pre-emption or homestead.

All of which is respectfully submitted,

J. C. AIKINS.

#### APPENDIX A.

DEPARTMENT OF THE SECRETARY OF STATE,
ORDNANCE LANDS' BRANCH,
OTTAWA, 27th February, 1872.

SIR,—I have the honor to submit a report on the transactions of this branch of your Department to the close of the fiscal year, terminating 30th June, 1871.

Auction sales have been made of building lots laid off for that purpose, at the following

places, which realized also the following prices:-

Chambly	\$9,119	18
Coteau du Lac		
Cornwall	352	00
Prescott	2,333	00
Ottawa	9,980	00
Toronto		
_		
<b>:</b>	\$47,857	06

payable on time, the first instalment having been paid at the time of sale.

Active exertions on the part of the Branch, and the improved condition of the country at large, have resulted in the collection of a large amount of arrears. A generous policy towards purchaser and tenant accompanied by a pressure, which has never been oppressive, has produced its natural fruits. We have very few absolute defaulters, and the lots held by these parties, on cancellation of sale under the statute, will now sell more advantageously then heretofore. The collections made for the year ending 30th June, 1871, partly derived from rents, and partly from instalments on account of sales, amount to the sum of \$93,733:88. It is right to observe that of this sum \$24,228:88, ought to have gone to the credit of last year, but was received a few days after its fiscal termination, which would have made the returns for 1870, \$73,845:40, instead of \$49,616:52, and those of the present year 1871, \$69,505, thus distributing the amount above first mentioned in a more equal ratio, and showing a more regular and healthier rate of annual improvement. The returns since the advent of confederation have been

1867		\$45,981 85
1870		73,845 40
1871	••••••••••	69,505 00

With respect to the work done in this office, I can only repeat what was said last year, that it is difficult to form any precise or tangible estimate. The "handwork" may to a certain extent be judged of by the folios covered with writing—856 folios, representing about 1,100 letters despatched, in answer to 700 letters received, by 87 drafts of Letters Patent prepared, and 151 assignments registered and transfers made, after a careful examination of wills and documents, but the amount of "headwork" required to digest and and mature the material of the above correspondence can only be gauged and measured by men who have been engaged in like occupations. The office hours are from nine to four and the work is rarely intermitted.

The account books of the office are laboriously kept and in a style of carefulness and

neatness worthy of all praise.

The miscellaneous work which arises hourly requires constant attendance, to answer

enquires, to make explanations, which also lead to searches and other enquiries, and creates a routine which never ceases.

From daily intercourse with this Branch and its operations, you are yourself, Sir, best able to judge of the accuracy of the above statements.

I have the honor to be, Sir, Your most obedient servant,

> WILLIAM F. COFFIN, Ordnance Lands' Agent.

#### APPENDIX B.

To the Honorable James Cox Aikins, Secretary of State of Canada, &c., &c., &c.

SIR,—I have the honour to report that the printing services under the supervision of this office, have been generally performed during the past year in a satisfactory manner; and the method of ordering work, of accounting and of auditing the printing accounts has been more completely systematised. This, however, has thrown a good deal of extra work upon the office, and I found, it necessary on the 28th June last to ask for the assistance of another clerk, who should act as book-keeper and engrossing clerk, in order to keep the books and registers of the office properly and punctually written up. His Excellency in Council was pleased, on your recommendation, to grant the application on the 31st July last. In support of my application, I pointed out that a very considerable increase of business had taken place, the number of requisitions for departmental printing, &c., for the six months ending November 1st, 18.0, having been about 750 or 125 per month; for the next six months they rose to 1,119, or 186 per month, and for the 2 months then just closing they had been 432, or 216 per month, or an average of nearly 194 per month for the eight months against 125 per month for the previous six months, an increase of over 55 per cent. since the theoretical organization of the office had been settled.

I also pointed out on that occasion that each of these orders or requisitions involved-

1st. The issue of requisitions;

2nd. The necessary supervision to see the work executed in time;

3rd. The receiving, counting and examining it;

4th. Delivery to the Departments, and taking receipts therefor;

5th. Registering requisitions, receipts and deliveries;

6th. Checking the accounts when sent in; 7th. Registering the accounts;

8th. Transmitting accounts to Departments and schedules thereof to Clerk of

Contingencies, and issuing certificates to the contractor.

To this is to be added the work of making out all accounts, collecting all subscriptions and fees for advertisements for the Canada Gazette, and accounting for the same, checking the bills for printing, and securing a proper supply of paper for this, the statutes and other printing work. Besides this, if the superintendence of the printing, binding and distribution of 15,000 to 25,000 volumes of statutes, the registering such distribution and the accounting for all deliveries and casual sales is taken into account, it will be seen that the increase asked for was needed for efficiency.

This addition to the office staff has justified itself by the result, in the greater facility afforded for answering references from other Departments, for superintending the progress of the work and checking the accounts when it has been performed. The amount of printing and other work is set forth in tables below, shewing a total of nearly 70,000 volumes of books, pamphlets and maps printed, bound, ruled or mounted, and nearly five-and-a-half

millions of forms printed, ruled, &c.

#### The Canada Gazette.

The anticipations respecting the decline in the subscription list of the Canada Gazette, stated in my report of last year, have been fully realized, the number of paying subscribers having been reduced to 49. The total numbers printed week by week to supply official persons, subscribers and advertisers, and to meet casula demands, have ranged from 978 to 1,069.

The receipts for the fiscal year have been,— From advertisements do Subscriptions. do Sale of Gazettes.	300	
The summer on the other hand have been	\$910	74
The expenses on the other hand have been,—  For paper	\$916 1,98 <b>3</b>	-
Total	\$2.899	89

Shewing a loss of \$1,989 15.

This is considerably in excess of my estimate of the deficit; but the amount has been swollen by the cost of printing the very heavy extra Gazettes necessary for the Census, for which I had not last year made sufficient allowance.

#### The Statutes.

I subjoin a statement of the cost of the publication and distribution of the Statutes passed during the last Session of Parliament. An increased demand being sure to arise from the entrance of Manitoba and British Columbia into the Dominion, a larger number of copies were ordered to be printed than in 1870, the gross expenditure being thereby increased; and this expenditure has been increased further by binding a somewhat larger number in full and half calf, and by increased express charges on the copies sent to the Maritime Provinces and Manitoba; but the cost per volume and per sheet is the same as last year, as will be seen by the following statement:—

Cost of Statutes.

	English, 17,500 copies.		French, 5,000 copies.		Total 22,500 copies.	
Paper. Paid James Cotton	28 reams, 8 quires, 8 sheets, at	\$ cts.	166 reams, 11 quires, 19 sheets, at	\$ ets.	\$ ets.	
Printing.	\$2.99	1,580 00	\$2.99	488 14	2,068 14	
Paid I. B. Taylor:— Composition		64 80 294 00 15 60		78 90 96 00 7 90	143 70 390 00 23 50	
Binding.	Copies.		Copies.		557 20	
Paid A. Mortimer:  Half Sheep.  Half Calf.  Full Calf  Extra	17,263 64 171 2	1,985 24 33 28 136 80 3 10	4,918 26 55 1	565 57 13 52 44 00 1 55	2,550 81 46 80 180 80 4 65	
Despatching.			į l		2,783 06	
Paid A. Mortimer		236 24		63 12	299 36 392 16	
					<b>\$691</b> 52	

RECAPITULATION.	
Paper	. \$2.068 14
Printing	557 20
Binding	2.783 06
Distribution	691.54

This is about 27 cents per volume, or 2 cents per sheet for the  $13\frac{1}{2}$  sheets forming the volume. The average for the years 1868 and 1869 was  $3\frac{1}{5}$  cents per sheet, which would have made the present volume cost over 43 cents, or the whole edition \$9,675. Thus the volume of 1871 is cheaper by about 16 cents per volume, and \$3,575 on the edition.

#### Departmental Printing, Binding, &c.

As anticipated when my last annual report was made, the work done, and consequently its cost have been much greater in the past financial year than in that which preceded it; and, in so far as I have been able to ascertain, in consequence of the causes there indicated, viz., the gradual exhaustion of the previous stock of forms &c. on hand when the new system was begun, the more constant conformity of officials in the outside service with the rule of ordering all work to be done here by the contractor, the addition of Manitoba and British Columbia, and the Census.

The subjoined table of work done during the twelve months ending 30th June last

shows how much labour has been performed:-

No. of Requisitions issued.	No. of Jobs of Work.	No. of Volumes bound, or printed, bound, &c.	No. of Impressions of Forms, printed, ruled, &c.
2,066	3,282	69,848	5,485,984

It will be seen by the tables subjoined that the cost of these services performed by the contractor for the year ending 30th June last was \$37,888.06, and with paper furnished through this office (amounting to \$2,558.91) to \$41,446.97.

The total cost of these services for the year ending October 12th, 1871 (without paper) was \$39,345.83 for ordinary work, and \$1,065.78 for confidential, making a total of \$40,411.61, as against \$27,678.66 for the previous year, or an increase of about 50 per cent.

I learn from the Stationery Office that the cost of paper and other stationery, &c. furnished through that office for the past year has also risen to \$41,197.95, making the total cost of the two \$81,609.56, as against \$47,582.62 in the year 1869-70, or an increase of \$34,026.94; but of this there is chargeable to account of census:—

Amount	of printing a	account throug	h this office	\$5,657	04
do	Paper	do	do		
do	do	do	Stationery Office	9,927	86
		Total		\$19,114	85

Thus more than one-half of the increased cost of these services is due to this work, which is rather chargeable to ten years than to one or two.

I subjoin tables similar to those appended to my report of last year, and have the honor to remain,

Sir, your very obedient humble servant,

B. CHAMBERLIN, Queen's Printer.

Ottawa, 30th November, 1871.

Cost of Departmental Printing, &c., for the years ending June 30th, 1871, and October 12th, 1871.

Month.	Year.	Year ending 30th June, 1871.	Year ending 12th Oct., 1871.	Year ending 15th ()ct., 1870.
July August September October November December January February March April May June June July August September October  Confidential (ride Table below)	1870 ,, ,, ,, ,, ,, ,, ,, ,, ,,	\$ cts. 2,696 32 1,859 56 2,347 03 5,448 04 1,554 97 2,329 08 2,608 89 3,777 79 4,382 65 3,198 29 2,698 75 3,901 92 36,803 29 1,084 77	\$ cts.  2,079 67 } 1,552 67 } 2,328 08 2,608 89 3,777 79 4,382 65 3,198 29 2,698 75 3,901 23 2,996 71 5,044 11 1,239 07  39,345 83 1,065 78  40,411 61	\$ cts.  2,773 99  1,240 54  913 38  943 15  2,865 71  2,391 75  3,198 18  2,252 70  2,667 40  1,907 75  2,938 24  3,585 87  27,678 66

#### CONFIDENTIAL.

September October November December January March	,, 1871	13 8 5 7 10 6 657 6 72 7 325 6	10 03 60 72	10 03 657 60 72 72 325 43	
		1,084 7	77	1,065 78	

Cost of Departmental Printing, &c., by Departments, for the years ending 30th June, 1871, and 12th October, 1871.

		30th June, 1871.		ending 12th Oct., 1871.	ending 15th Oct., 1870.
Agriculture  Census  Census  Civil Service Board  Clerk of Crown in Chancery  Lustoms  Cinance  do Audit  do Treasury  do Marriage License Fund  do Stationery Office  Covernor-General's Secretary  nland Revenue  ntercolonial Railway  ustice  Marine and Fisheries  dilitia  Pacific Railway  Cost Office  do Savings Bank Branch  Privy Council  Cublic Works  Leceiver-General  Lecretary of State of Canada  do Dominion Lands  do Registrar's Branch  do Registrar's Pranch  do Queen's Printer  Lecretary of State for Provinces  do Indian Lands  Jupper Canada Bank  Confidential (ride Table below)	1,034 74 490 68 99 79 23 43 12,862 43 980 84 172 57 477 92 40 35 21 61 59 35 60 00	3,677 09 1,648 64 345 46 86 74 5,137 35 392 08 240 43 1,054 58 1,221 05	975 82 566 48 28 38 38 74	\$ cts. 6,343 25 2 38 380 78 3,743 30  1,609 42 321 50 84 84 5,254 18 448 80 430 35 1,107 21 1,309 02 7 92  15,483 28 209 59 771 80 620 47  898 41 114 92 200 51 3 90  39,345 83 1,065 78	\$ cta 425 73 48 40 3,472 72 } 1,093 18 290 90 10 92 3,131 84 5 02 183 42 1,679 34 2,319 52 11,954 90 980 33 420 36 673 74 195 41 } 318 83 200 80 } 27,678 66

#### CONFIDENTIAL.

Department.	Year ending 30th June, 1871.	Year ending 12th Oct., 1871.
Finance	\$ cts. 417 23 550 60 116 94	\$ cts. 417 23 550 60 97 95
	1,084 77	1,065 78

#### APPENDIX C.

DEPARTMENT OF SECRETARY OF STATE OF CANADA,
DOMINION LANDS OFFICE,
OTTAWA, March 1st, 1872.

SIR,—I have the honor to submit the following Report on the operations of this

branch since its establishment on the 7th March last.

A few preliminary remarks, however, on the extent and general character of the territory which has lately become the property of Canada, with the management of which, designated as Dominion Lands, this branch has been charged, will prove, at the present time not uninteresting.

The extent of the territory is immense, as will appear from the following estimate of

areas which has been made up from the most reliable data.

The total area is calculated within the coast lines as laid down on the admiralty

charts, and is exclusive of Labrador and the islands in the Arctic sea.

The classification of productive areas is based upon the most reliable practical evidence so far attainable, that is to say: reports of official explorations, information obtained from the Hudson's Bay Company's posts, from mission stations, and from other trustworthy sources.

#### STATEMENT OF AREAS DOMINION LANDS.

1. Unavailable for cultivation, being the portion of the great American Desert, which extends into British 't'erritory.	greater part of which is unsur- passed for agricul-	occasional large prairies (as in Peace River District) adapted for growth of wheat and other cereals. Possesses abundance	3, (or agricultural zone proper), in which potatoes, barley, and grasses may be successfully	barren lands, in which the timber growth extending up from south gra- dually disappears. Fur producing re-
Square miles, 50,000	Square miles, 120,000	Square miles, 466,225	Square miles, 928,200	Square miles, 642,300
In acres, 32,000,000	In acres, 76,800,000	In acres, 298,384,000	In acres, 594,048,000	In acres, 411,072,000

Shewing a total area of 2,206,725 square miles, equal to 1,412,304,000 acres, of which, saying nothing of tracts 1 & 4 above, (which are of more or less value for grazing and other producing purposes), we have 2 & 3, containing 375,184,000 acres of agricultural land, and the greater part of which is beyond question specially well adapted for wheat growing.

The winter climate is somewhat severe, but not more so than in parts of Ontario and Quebec; on the other hand, the country is undoubtedly one of the healthiest in the world, and the particular portion to which allusion has just been made, is calculated to

sustain a farming population of many millions of souls.

#### SURVEYS.

The system of survey adopted was fixed by Order in Council on the 25th of April last, and steps were at once taken to organize and prosecute the surveys in the field with energy.

A manual of survey, setting forth the system in detail, and containing standing

instructions for the guidance of Surveyors of Dominion Lands, consisting of 32 pages, together with maps illustrating the instructions, and containing also forms of the contract to be entered into by Deputy Surveyors, was compiled and published.

A supply of Transit Theodolites of a class required for the use of surveyors who might be employed on the block surveys, and which were not attainable here, was ordered

from Troughton & Sims, in London, England.

Contracts were entered into, seven in number, involving the survey into blocks of four townships each, of the whole of Manitoba, and embracing also a strip of country in addition on the east and west sides of the Province.

This survey of the Province into blocks of twelve miles square, including four townships each, with iron bar boundaries at the several angles, the number and range of the townships being stamped thereon, and with the section and quarter section corners marked on all the outlines, it will be understood is one of the features in carrying out the system of survey adopted, and is effected in all cases preliminary to the subdivision of townships into sections and quarter sections.

These contracts are those numbered from one to seven, in the schedule marked B following this report, which schedule will be found to give the names of all contract surveyors employed during the past season in Manitoba, and the number of miles run on the

several contracts. In schedule C will be found the rates paid for contract work.

An accurate survey of the settled portions of the Province became necessary in order to describe the lands actually occupied, and to prepare Patents therefor under section 32 of the Manitoba Act, and the four mile strip on the Red and Assineboine Rivers, ceded to the late Earl of Selkirk by the Indians, which included these settlements, was therefore divided into surveys and apportioned as shewn by schedule D, which also exhibits the rates of compensation allowed to the gentlemen to whom the settlement surveys were entrusted, and the extent of work severally performed by them.

The number of gentlemen employed, and the extensive field included in the surveys. having rendered necessary the appointment of an inspector, you were fortunate in obtain-

ng for this purpose the services of Lindsay Russell, Esq.

The duties of this gentleman have been arduous, not alone involving the visiting the different surveys under contract in order to see that the work is performed in all respects as called for by the manual, but also the looking after, instructing and advising with the gentlemen in charge of the several settlement surveys.

From Mr. Russell's report for the season, extracts marked E, together with schedule

A, referred to by him are herewith submitted.

The contractors for the block surveys were not able, for reasons which Mr. Russell adverts to at length in his report, to accomplish the whole extent of the work severally allotted to them, and the time for such completion has therefore been extended to the ensuing season.

There is every assurance that the portion unfinished will then be entered on with

energy and pushed to completion without delay.

The preliminary survey of the settled portion of the Province has been completed,

and the several surveyors are now mapping their work.

It still remains on these maps being completed, to settle upon what should be deemed the exact boundary lines of the individual occupancies, and then to mark such limits

finally on the ground. This will be all completed during the ensuing season.

The surveyors with whom subdivision contracts were made, were sent forward close upon the heels of the block surveyors, and having completed sixteen townships near Fort Garry, additional townships, fourteen in all, were apportioned to them lying north and north-west of Portage Laprairie, which so far seems to be the favorite locality for new settlers.

Of these latter townships nine were completed, and the surveys of the remainder were being prosecuted, when the weather became so severe that further operations had to be postponed.

Regarding the extent of lands at present available for settlement, it is fair to place it at the quantity as shown by Mr. Russell in schedule A, that is to say:

439,214 Acres. In subdivided townships ..... In section and quarter sections marked off on outlines of 717,440 Acres. blocks

Total ...... 1,156,654 Acres.

This, it will be understood, is entirely unconnected with the settlement surveys.

The measures you have directed to be taken with a view to the surveys of the coming meason will result in the subdivision of the greater part, if not all, of the remaining townships in the Province.

I regret from the impossibility of obtaining reliable data as to the fact, not to be able to give some idea of the number of people who settled in the Province last year. It appears, however, from the notes and reports of the different surveyors that the provisions of the Order in Council of the 25th May last, authorizing on certain conditions the settling on land in advance of the surveys, has been availed of by a great number of parties, besides whom, doubtless many families were absorbed in the settlements.

It only remains for me to add a few remarks on the character of the country surveyed. Attention is called to Mr. Russell's remarks in this particular, in addition to which my own knowledge enables me to state that the greater portion of Manitoba is excellent farming land, and as regards those portions of the Province embracing the extensive valleys of the Red and Assineboine Rivers, I never yet met with a soil so surpassingly rich.

I have the honour to be, Sir,

Your obedient servant, J. STOUGHTON DENNIS,

To the Honorable J. C. AIKINS, Secretary of State of Canada. Surveyor-General.

#### [E.]

#### Extracts from Mr. Lindsay Russell's Report.

"I may add a cause of delay at the outset common to nearly all the parties. "did not find the expected facilities in providing themselves with horses, camps and "equipage. Prices of everything were so excessively high that anyone newly entering "Manitoba could not fit himself out without more than usual time spent, even though "fruitlessly, in search and endeavour to procure what he required at rates more nearly "approaching those to which he had been accustomed."

"The surveys were most seriously retarded by the unusually prevalent and ex-"tensive fires that last summer raged throughout our own and the U.S. North Western

" Prairies."

"Even before they reached any particular section their heavy smoke darkened all "the country alike and effectually prevented the surveyors from taking anything but "exceedingly short and unprofitable sights. Sometimes obliging them through the im-" possibility of seeing a Picket at all to cease work until a favorable wind would spring " up to dissipate the densely hanging fog of smoke and ashes. Their necessary astronomical " observations were frequently similarly delayed."

"These were the least of the troubles arising from the fires; when, as they eventually "did, they swept over the tracts being surveyed a certain damage to all, extreme danger "to some and actual disaster to others were the results. Two of the parties that of Mr. " Wagner, and Mr. F. H. Lynch Staunton, were completely burnt out, losing all their "provisions, tente, equipage, clothing, some of their instruments and barely escaping " with their lives. Mr. Milner Hart, though successful in saving his effects under the "like circumstances, had with his party even a narrower escape from suffocation and " burning."

"Besides the arresting of the work thus caused, time was necessarily lost in these

" cases, in repairing to Fort Garry, to re-fit for its resumption."

"The disadvantage under which all lay, nearly alike after the fires passed, was the difficulty the various parties had in keeping their horses used for transport. Very few patches of grass remained, they were often obliged to carry hay feed long distances."

"The fires and their disastrous effects had been barely got over when there was another interruption to the steady prosecution of the work: I allude to the Fenian

" Raid."

"The difficulties and the delays set forth above, encountered by the surveyors would not have been dwelt upon at such length did not justice to them, when judging from the amount of their work done, require it."

"The total amount of the seasons work reckoning it by mileage of line surveyed is

" to the nearest mile as follows:--

 "Block Surveys"
 1207 miles.

 "Sub-division Surveys
 1406 .,

"Settlement Surveys equivalent to of above sub-division line 1200

"This amount of line surveys into farm lots shows an area of 1,535,530 acres or in "round numbers a million and a half of acres."

"The annexed schedule marked A, gives details of townships, sub-divided whole and "fractional, also of base and correction lines with their intersecting meridian exteriors "surveyed up to present time."

"As will be seen on reference to the Surveyors' returns, but a trifling portion of the

" area surveyed is other than first class land."

"The swamps or marshes that are occasionally met with are nearly, if not quite, as "valuable as the drier arable land seeing that they give without the least trouble of cul-

"tivation extremely rich hay meadows."

"With respect to wood for fuel, fencing, building &c., the returns of survey so far show but a moderate portion of forest, but it is to be borne in mind that the sub-division surveys especially have as yet been nearly altogether confined to the prairie portions of the Province. Whilst the block surveys—though they have reached wooded sections have not yet extended sufficiently over them to give full information as to the kind and

"quantity of wood to be counted upon."

"The following are generally well known as the parts of the Province that will be the principal sources of supply within its limits. Commencing at the eastward the thickly wooded country extends from north to south across all that portion of the Province that would be comprised between its eastern boundary and an irregular line varying from ten to twenty miles east of the Red River. Poplar, spruce and tamarac would be the prevalent timber in these woods; as to dimensions, it is not likely that anywhere in this section a higher than fourteen inch average diameter of saw logs could be got whilst much of it would not furnish even that, still though small the timber of all kinds is unusually clean and quite large enough for lumber for ordinary purposes of building, fencing &c."

"The next considerable body of woods is that lying above the south bank of the "Assineboine. At about twenty miles from its confluence with the Red River, the "usual narrow fringe of small woods widens out in going westward till it embraces several miles of depth back; of wooded country of which that next the river gives timber of comparatively larger growth, excellent oak and poplar for building of larger dimensions

"than that described in the previous section."

"Mixed wood and prairie extends over the greater part of the so called Pembina "Mountain, in the west part of the Province also in the country north of the Assineboine, "Shoal Lake and Lake Manitoba."

"Fringes of wood are generally to be found along all water courses of any size and about the shores of Lakes."

## (A.)—MANITOBA LAND SURVEYS.

### Schedule of Surveys made in 1871.

No.	Townships.	Lir surve		Block Lines.	Lin surve	
4 4 4 Part 1 Parts 2 2 3 3 2 Part 1 30	In 1st Range East— Townships Nos. 9, 10, 11 & 12 In 2nd Range East— Townships Nos. 9, 10, 11 & 12 In 3rd Range East— Townships Nos. 9, 10, 11 & 12 In 4th Range East— Townships Nos. 9, 10, 11 & 12 In 4th Range West— Township Nos. 10, 11 & 12 In 4th Range West— Township Nos. 12 & 13 In 6th Range West— Townships Nos. 12 & 13 In 7th Range West— Townships Nos. 12, 13 & 14 In 7th Range West— Townships Nos. 12, 13 & 14 In 8th Range West— Townships Nos. 12, 13 & 14 In 9th Range West— Townships Nos. 13 & part 14 In 10th Range West— Townships Nos. 13 bart 14 In 10th Range West— Townships Nos. 13 & part 14 In 10th Range West— Townships Nos. 13 & part 14 In 10th Range West— Township part 14  Total miles Quartering lines of these thirty Townships and parts of Townships Miles surveyed and posted on Township lines  439,214 a	200 62 168 22 40 114 138 159 57 25 1,195 210	25 06 43 16 33 11 12 41 72 75 37 51 25	Area posted on block lines 717,4		02 43 41 47 03 64 32 31 13 64 13 64 13 557 27 40 9 52 68 00 18 27 06 00 00 00 00 00 00 00 00 00 00 00 00
				Area of Settlement surveys 378,8  Total area surveyed 1,535,8	_ ''	

### (B.)—SCHEDULE SHEWING CONTRACT SURVEYS.

No.	Name,	Residence.	Character.	Extent.	Completed.	Remarks,
3 4 5 6 7 8 9 10	Milner Hart	Brighton, O	do Sub-division do do do do	340 340 425 334 303 303 233 183 192 232	miles chs. 151 44  187 16 98 64 345 10 74 17 190 39 159 57 187 43 183 68  152 12 222 00 256 18	To be finished during season of 1872, do Accepted as completed. To be completed 1872. Accepted as completed. To be completed 1872.
	W. Wagner		do do.		241 76	Accepted as com-
14	S. L. Brabazon Walter Beatty	Portage du Fort,Q.	do do. do do.	133 85	115 30 46 69	pleted. do do To be completed 1872.

## (C.)—SCHEDULE OF RATES.

Character of Survey.	aracter of Survey.  1st Class, Open Prairie.		3RD CLASS.  Other woods,—heavy timber, Windfall, or dense bottom scrub, with Vines, or thick Willow, or Hazel.	
Block Surveys	Per Mile.	Per Mile.	Per Mile.	
	\$9 00	\$15 00	\$25 00	
	7 00	11 00	18 00	

For measuring and marking the section and quarter section corners on one limit of the Road allowance on a correction line, the other limit having been previously run and marked, the uniform rate of eight dollars per mile shall be paid.

It being further understood that stationary lines in traversing shores of lakes or navigable rivers, as shewn in Field Notes, shall be paid for according to the above Schedule.

## (D.)—SCHEDULE SHEWING SETTLEMENT SURVEYS, &c.

Number.	Name.	Residence.	Parishes, or part Parishes covered by and extent.		rate allowed for when in to cover his pay and all s for men and e of supplies.	ly allowance himself and to cover cost subsistance.	Remarks.
Z		-	Locality.	Square miles.	Daily ra Surveyc field, to own pa charges cartage	Daily for hi party t	
				,	\$ cts.	\$ cts.	
1	Duncan Sinclair.	Winnipeg, M	St. John, Kildonan,	*	1		
_	G 35 D: :::	g ( ) 0	and St. Paul	44	10 00	3 60	Preliminary survey com-
2	G. Merninps	Seaforth, O	St. James, St. Charles Headingly, and St.		do	đo	pleted.
3	Moses McFadden	Newry, O	Francois Xavier St. Paul in Bay, Pop	100	: <b>(1</b> 0	1	do
•		]	Point, High Bluff,				
	C A Doubet	Inla Vanta O	and P. Portage	152	do	do	do
4	G. A. Doucet	jisie verte, Q	St. Andrew's, Maple- ton, and St. Peter's	48	do	do	do
5	J. A. U. Baudry	Montreal, Q	St. Boniface, St.				
			Vital, and St. Norbert	76	do	do	do
6	L. J. D'Auteuil.	Rimouski, Q	St. Agathe	188	do	do	do

## REPORT

OF THE

# INDIAN BRANCH

OF THE

## DEPARTMENT

of THE

## SECRETARY OF STATE FOR THE PROVINCES.

PRINTED BY ORDER OF PARLIAMENT.



#### OTTAWA:

PRINTED BY I. B. TAYLOR, 29, 31 AND 33, RIDEAU STREET. 1872.

## REPORT

OF THE

# INDIAN BRANCH

OF THE

#### DEPARTMENT

OF THE

# SECRETARY OF STATE FOR THE PROVINCES.

10 His Excellency the Right Honorable Lord LISGAR, G.C.B., G.C.M.G., Governor General of Canada, &c., &c., &c.

#### MAY IT PLEASE YOUR EXCELLENCY:

The acquisition of the North-West Territories, the organization of the Province of Manitoba, and the admission of British Columbia into the Dominion, widely extend the sphere of operations of the Indian Branch of this Department, and must ultimately throw upon it a great increase of labour and responsibility. Before long the general system of management, tested by the experience of the two Canadas, must be, in whole or in part, extended to those Provinces; but in the meantime my attention has been directed to such measures as appeared to press for immediate consideration and adjustment.

In anticipation of the movement of troops across the country lying between Thunder Bay and Manitoba, in 1870, agents were employed to visit the Indian Tribes along the route, to conciliate them by presents, and to assure them that while a peaceful right of way for troops and emigrants only was required, the Government would be prepared, at a convenient season, to compensate them for their friendly co-operation, and to cover by a Treaty any lands which they might be willing to part with and the Government deemed it politic to acquire.

These conciliatory measures were eminently successful, and the troops and employes

of the Government passed to and fro without obstruction.

In the spring of 1871, Wemyss M. Simpson, Esq., was selected as General Indian Agent, to make Treaties with the Indian Tribes, and to represent the Government and this Department in the North-West. The Reports to, and Orders in Council, with the letters of instruction addressed to Mr. Simpson, which follow in their order, will explain

the policy of the Government, and the steps taken by the Department to carry it out, Mr. Simpson's reports of the 30th July and 3rd November, 1871, are given below, together with the Accounts and Pay Lists, from which Your Excellency can ascertain the first cost of these diplomatic arrangements, and the extent of the annual payments which they involve

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor-General in Council on the 25th April, 1871.

The Committee of Council have had under consideration the annexed Memo: dated 17th April, 1871, from the Hon. the Secretary of State for the Provinces, recommending the appointment of Wemyss McKenzie Simpson, Esq., as Indian Commissioner, and submitting certain suggestions in respect to his salary, duties, &c., and they respectfully advise, that Mr. Simpson be appointed as recommended, and that the suggestion contained in the said memorandum be approved and carried out.

Certified.

WM. H. LEE. Clerk, Privy Council.

The Honorable The Secretary of State for the Provinces, &c., &c., &c.

The Secretary of State for the Provinces calls the attention of the Privy Council to the Despatches laid from time to time before the Council from the Lieutenant-Governor of Manitoba, having reference to Treaties and arrangements with the Indians in the North-West, and to his suggestion that a Commissioner should be appointed to conduct the necessary negotiations in the Spring.

He respectfully suggests that this branch of the Public Service should be confided to Mr. Wemyss McKenzie Simpson, who should be styled Indian Commissioner, receiving his instructions from, and reporting to this Department.

That the salary of this officer, should be fixed at \$2,000, with such reasonable

allowance for travelling expenses as may hereafter be assigned by Order in Council. That the Commissioner be instructed to confer, from time to time, with the Lieut.

Governor of Manitoba, who will consult and co-operate with him. Where they agree they will report jointly. Should they differ, the grounds of disagreement must be distinctly stated.

That the attention of the Commissioners be directed to the necessity of arranging with the Bands inhabiting the Tract of Country between Thunder Bay and the Stone Fort, for the cession (subject to certain reserves such as they should select) of the lands occupied by them.

The Secretary of State also suggests that as the Bands, lying along this route, conducted themselves peaceably, and offered no obstructions to the expeditionary force sent through their country last summer, the provisions promised them last year, should be sent to Fort Francis and the Lake of the Woods, early in the Spring, as an earnest of the friendly disposition of the Government,

It is also further submitted that it will add much to the usefulness of the Commissioner among the Indian Tribes, if he be allowed to wear an uniform, without which they are slow to believe that any one, having the Queen's authority, can be sent to treat

with them.

JOSEPH HOME.

## DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES.

OTTAWA, 28th April, 1871.

SIR.

I have the honor to transmit to you, herewith, for the information of your Government, a copy of an Order of His Excellency the Governor-General in Council, authorizing the appointment of Mr. Wemyss McKenzie Simpson, as Indian Commissioner, to treat with the several Tribes of Indians between Thunder Bay and the Stone Fort.

Mr. Simpson's commission is being prepared, and will be sent to him at an early day.

I have, &c.,

Joseph Howe,

Secretary of State.

The Honorable
A. G. Archibald,
Lieutenant-Governor,
Fort Garry.

## DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES.

OTTAWA, 5th May, 1871,

SIR.—I have the honor to enclose, herewith, a Commission under the Great Seal' appointing you Indian Commissioner, to conduct negotiations and make Treaties with the Indian Tribes in the North-West, with the powers and authorities specially set forth in the Commission.

Your instructions, as to your duties as Commissioner will be sent to you from time

to time from this Department, and to it you will address your official reports.

Your Salary as Commissioner, has been fixed at \$2,000 per annum, to commence from the date of your Commission, with such reasonable allowance for travelling expense as may hereafter be fixed by His Excellency in Council.

You will confer from time to time with the Lieut. Governor of Manitoba, on all matters connected with your duties as Commissioner, and you will endeavour as much as

possible to co-operate with him.

As soon as you have completed your labours at Fort Francis, as a Commissioner, jointly with Mr. Dawson and Mr. Pether (for with the Indians in that neighborhood it will be necessary first to deal), you will, without loss of time, proceed to Fort Garry, to confer with the Lieutenant-Governor of Manitoba, and enter upon your duties as sole Commissioner with the Indian Tribes to the West of the Province.

His Excellency having appointed you Lieut.-Colonel of the Regimental Division of Algona, it will be well that in your official interviews with the Indians, you should wear

the uniform to which you are entitled as a Militia Officer of that rank.

I enclose a printed copy of Lieut. Butler's report of his journey from Fort Garry to Booky Mountain House and back, as the information it contains about the Indians in the West may be useful to you in negotiating with them.

I have, &c.,

JOSEPH HOWE,

Secretary of State.

W. M. Simpson, Eng., M. P., Sault Ste. Marie.

## OFFICE OF THE SECRETARY OF STATE FOR THE PROVINCES.

OTTAWA, 6th May, 1871.

GENTLEMEN,—I have the honor to enclose a Commission under the Great Seal, authorizing you jointly to treat with the Saulteaux and Lac Seul Indians of the Ojibbeway Nation, for the surrender of their lands to the Government.

Those lands are assumed to cover the area from the water shed of Lake Superior to the North-West Angle of the Lake of the Woods, and from the American border to the

height of land from which the streams flow towards the Hudson's Bay.

One object which the Government have in view in seeking the surrender of this tract of country is to make the route now being opened from Thunder Bay to Manitoba secure for the passage of Emigrants, and of the people of the Dominion generally. They also desire to throw open to settlement any portion of the land included in this area

which may be susceptible of improvement and profitable occupation.

As opinions vary very much as to the extent of arable land from which any income may be derived, the Government must depend very largely upon the exercise of your judgment in fixing the price to be given. The powers intrusted to you are large, and they should be used with constant reference to the responsibility which the Government owes to Parliament and to the country for the judicious and economical expenditure of the funds and supplies intrusted to your charge. It should therefore be your endeavor to secure the session of the lands upon terms as favorable as possible to the Government, not going as far as the maximum sum hereafter named unless it be found impossible to obtain the object for a less amount.

The number of Indians assumed to inhabit this tract of country, is estimated at about 2,500, and the maximum amount which you are authorized to give, is twelve dollars per annum for a family of five, with a discretionary power to add small sums in addition when the families exceed that number. In fixing this amount, you must not lose sight of the fact that it cannot fail to have an important bearing on the arrangements

to be made subsequently with the tribes further West.

The Finance Minister will arrange with the Hudson's Bay Company, to supply you with funds to the extent of \$6,000, which may be required during the progress of your

negotiations.

It is desirable that you should be at Fort Francis not later than the middle of June, as the Indians usually assemble there about that time. In order, however, to assure a full attendance of the Indians next month, Mr. Commissioner Pether will, on receipt of this communication, send out runners to notify the Indians of the proposed meeting. Any provisions, stores or presents sent up last year for the Indians, but not expended, will be available for the purpose of your negotiations, and Mr. Commissioner Dawson is hereby authorized to arrange (with the sanction of the Minister of Public Works) to purchase and forward to Fort Francis, as early in June as possible, such additional provisions, clothes, &c., as the Commissioners may require for the purpose of their negotiations.

The chiefs' clothing and flags provided last year, will also be at your disposal, as well as four additional suits of chiefs' clothing and flags, which Mr. Dawson will take with

him.

I enclose, for your information, a copy of the surrender negotiated by Mr. Robinson in 1850, of the Indian Lands round Lake Superior, assumed to be rich in minerals, and extending to the height of land which separates the tract conceded from the Territory of the Hudson's Bay Company.

I may mention that I am informed that in the old Provinces of Quebec and Ontario, the highest price paid for the finest lands has seldom, if ever, exceeded four dollars per

head per annum, to the Band with which the treaty was made.

Another point to which I wish to call your attention is the policy of restricting as much as possible the amount to be paid in money. It has been represented to the Government that money is but little used by the Band with whom you will negotiate,

and that provisions and clothing are much more highly prized. There is a danger too that, should money become plentiful among those people, traders will bring spirits into the settlement, and demoralize and destroy the Indians.

One part of your duty, and by no means the least important, will be to select desirable reserves for the use of the Indians themselves, with a view to the gradual introduction of those agencies which in Canada have operated so beneficially in promoting settlement

and civilization among the Indians.

In accordance with the suggestions of Mr. Commissioner Simpson, the Minister of Public Works has been authorized to erect a house and a store at Fort Francis, on such site and of such dimensions as you may think necessary for the shelter and protection of the supplies sent there, and for other purposes connected with your mission.

It is very desirable that the Lieut. Governor of Manitoba should be kept advised from time to time of your movements as he may possibly think it advisable to meet the Commissioners at Fort Francis, and to lend you the aid of his counsel and co-operation.

You will be good enough to report to this Department at least once a month, and

always advise me where return letters are most likely to reach you.

Identical letters are sent to each of the Commissioners in order that each may have timely notice of his appointment, and be able to make such preliminary arrangements as may be necessary before the meeting.

The Commission and draft treaty referred to in the letter, are sent under cover to

Mr. Simpson, as being the person first named in the Commission.

I have, &c.,

JCSEPH Howe, Secretary of State for the Provinces.

W. M. Simpson, Esq.,) S. J. Dawson, Esq., Robert Pether, Esq.,

## Office of the Secretary of State for the Provinces.

OTTAWA, 6th May, 1871.

SIR,—Referring to the Order in Council of the 26th ultimo (of which I am advised a copy has been furnished you), respecting the appointment of Commissioners to treat next month with the Indians at Rainy Lake, may I suggest you to have the goodness to give Mr. S. J. Dawson, of your Department (being one of the Commissioners above referred to), authority to arrange for the purchase, &c., of such provisions, clothing, &c., as are authorized by the said Order in Council, and as the Commissioners may require during their negotiations with the Indians. May I also request that you will give Mr. Dawson authority to see to the early construction at Fort Francis, of the small House or store authorized by the Order in Council.

This Department will of course be prepared to direct the payment of the amount expended by Mr. Dawson in the purchase of provisions, clothing, and in the construction

of the store.

I have the honor to be, Sir, Your most obedient servant, JOSEPH HOWE, Secretary of State for the Provinces.

The Honorable

H. L. Langevin, C. B., Minister of Public Works.

## OFFICE OF THE SECRETARY OF STATE FOR THE PROVINCES.

OTTAWA, 9th May, 1871.

Srs,—I have the honor to enclose, herewith, for your information, a copy of a letter addressed by me to Mr. W. M. Simpson, M.P., together with a copy of a letter addressed to that gentleman, and Messrs. S. J. Dawson and Pether. The former contains the instructions given to Mr. Simpson, as "Indian Commissioner," and the latter contains the instructions given to that gentleman and the two others above named as Joint Indian Commissioners for certain purposes. I also enclose a copy of a Report of Mr. S. J. Dawson (one of the above named Commissioners) on the subject of the Saulteaux and Lac Seul Indians. The Report is interesting for the information it affords respecting the particular Band of Indians with whom the Joint Commissioners have to deal.

The accompanying letters sufficiently explain the scope of the Commissions and the powers and duties of the Commissioners. They also indicate the position and duties of the Commissioners with reference to you as Lieutenant-Governor of Manitoba. His Excellency feels satisfied that you will in every way in your power give the Commissioners the benefit of your counsel and support in conducting the important and difficult nego-

tiations intrusted to their management by the Government.

I have the honor to be, Sir, Your most obedient servant,

JOSEPH HOWE,

The Honorable

A. G. Archibald, Lieutenant Governor, Fort Garry.

SAULT ST. MARIE,

Secretary of State for the Provinces.

6th June, 1871.

Sir,—I have the honor to acknowledge receipt of your favor of 17th May, and also a package containing 4 flags for distribution among the Indians of the Red River Territory.

Mr. S. J. Dawson passed this to-day for Fort William, and handed me my Commission. I shall leave by the steamer *Chicora* on Friday, and hope to find Mr. Dawson ready to accompany me to Fort Francis. I sent word to Mr. Pether to assemble the Indians about the 25th instant.

Would you kindly send my pay for last year to my wife, having the chaque cashed into small bills and remitted by mail registered.

I have the honor to be, Sir,

Your most obedient servant.

WENTER M. SINTEON.

Secretary of State for the Provinces. Indian Branch,

Ottawa.

# GOVERNMENT HOUSE,

SILVER HEIGHTS, May 28th, 1871.

Sns,—I have the honor to acknowledge the receipt of your despatch No. 262, under date of the 9th instant, enclosing copy of a letter addressed to Wemyss M. Simpson, M.T., together with a copy of a letter addressed to that gentleman and Messis. S. J. Dawson and Pether; also of a report of Mr. S. J. Dawson on the subject of the Satisfacaux and Lac Scul Indians.

His Excellency the Governor General may rest assured that I shall, in every way in my power aid the Commissioners in conducting the important and difficult negotiations intrusted to their management.

I had previously received, enclosed in an envelope addressed to me by Mr. Meredith, a letter for Mr. Pether, which I have forwarded to that gentleman by an Indian of the

neighborhood of Fort Francis, who is returning to his home.

Yesterday the messenger, whom I had sent to the Lake of the Woods Indians, with letters informing them of the intentions of the Government as to the treaty with them, and warning them not to come here, returned bringing me a report that the Indians were gratified to receive the letters, and would await patiently the arrival of the Commissioners.

I have the honor to be, Sir,

Your most obedient servant.

ADAMS G. ARCHIBALD.

The Honorable

The Secretary of State for the Provinces,

Ottawa.

FORT FRANCIS,

11th July, 1871.

S1R,—We have the honor to inform you that we have had repeated interviews with the Saulteaux tribe of the Ojibbeway Indians, at Shebandowan Lake, and at this place.

The Indians, in anticipation of negotiations being entered into with them, had collected in larger numbers than usual, and we had, in consequence, a favorable opportunity of explaining the intentions of the Government as to obtaining a surrender of their Territorial rights. They preferred claims in regard to promises which had heretofore been made to them, for "right of way" through their country. These we admitted to a limited extent, and have made them presents in provisions and clothing; we are also to pay them a small amount in money, and it is fully and distinctly understood, by the Indians, that these presents and payments are accepted by them as an equivalent for all past claims whatever.

The Government is thus, at the present moment, clear of any Indian claim for the past, in the section of country intervening between the Height of Land and the Lake of the Woods

A deputation of Indians from Lac Seul has also met us here, and through it, we have informed the Indians of that section that they will be parties to the treaties to be entered into, and partake in their advantages.

Various causes have prevented us from entering into a formal and permanent arrange-

ment with the Indians at present.

In the first place, it was necessary that they should be afforded time in which to deliberate calmly on the various points to be embraced in a Treaty; and, in order that they might be informed as to what would be expected of them, we have explained to them fully the views of the Government, stating that they would be called upon to surrender their Territorial rights; that reserves of land would be set aside for them, and annual payments made.

In the next place, a disease very like scarlatina had broken out among those of them who had assembled here, and there was an immediate necessity for their separating, which they have already to some extent done, to prevent the spread of the disease. Three deaths

occurred among them to-day, and in all, eleven persons, chiefly children, have been carried off since our arrival, and there are many more in a precarious state.

We have much satisfaction in saying that the result of our interviews has been, in

many respects, satisfactory.

The Indians fully comprehend the altered position in which they are placed by the opening of the communication, and evinced an earnest desire to meet the views of the Government, and we have parted with them with the understanding that we are to meet them early next summer, and that we are then to come provided with presents, and prepared to make such payments as may be determined on.

In the meantime, they are to consider calmly the proposals which have been made to them, and are to be prepared, when we meet again, to point out the land which they desire as reserves, and explain the various matters which they wish to be provided for; while we, on our part, have engaged to point out to the Government the wants of the Indians.

We have much pleasure in saving that the Indians have evinced a most friendly disposition, and look upon the emigrants and others now passing through their country, not only without distrust, but with evident satisfaction, and we have no doubt but that, by careful and prudent management, these friendly relations may be permanently maintained.

We have at present no time to enter into details, but will soon submit a report with statements of the expenditure so far incurred, and suggestions as to future negotiations with the Indians.

We have the honor to be, Sir,

Your most obedient Servants,

WEMYSS M. SIMPSON, S. J. DAWSON, ROBERT PETHER.

Commissioners.

The Honorable

JOSEPH HOWE.

Secretary of State for the Provinces, Ottawa.

GOVERNMENT HOUSE.

SILVER HEIGHTS, July 19th, 1871.

Sir,-I have great pleasure in communicating to you, for the information of His Excellency the Governor General, the arrival at this place of Mr. Simpson, the Indian Commissioner, which occurred on the evening of Sunday, the 16th instant.

You will recollect that in my despatches, numbers 4 and 5, under dates respectively of the 17th and 21st September last, I reported certain interviews with the Indians at the

mission below the Stone Fort.

At these interviews I informed the Indians I was not then prepared to enter upon negotiations for a Treaty with them, that I wished them to disperse to their hunting grounds, and, when the spring opened, I should appoint a time and send them word to meet me in the neighborhood of the Stone Fort; that I should then be prepared, either in person, or by some representative of the Queen directly from Canada, to enter upon negotiations with them, and that I had no doubt a satisfactory arrangement would be made.

On this they were induced to disperse, but as soon as the spring opened they became anxious about the Treaty. They have sent repeated messages enquiring when the Treaty was to come off, and appeared very much disappointed at the delay. They have interfered with emigrants, warning them not to come on the ground outside the Hudson's Bay Company's surveys, and lately they have posted up a written notice on the door of the church at Portage La Prairie, warning parties not to intrude on their lands until a Treaty should be made.

With this anxiety and upeasiness among the Indians, with a feeling of danger on the part of emigrants seeking lands and ready to commence work, but subjected to enforced idleness by the danger of entering against the will of the Indians, you will easily understand that I awaited with much anxiety and hailed with much pleasure the arrival of Mr. Simpson.

Mr. Dawson, who was associated with Mr. Simpson and Mr. Pether, in the Commission

respecting the Indians on the Lakes of the interior, arrived with Mr. Simpson.

On Monday I asked both these gentlemen, and also Mr. James McKay, to meet with me and talk over the whole matter, in the light of the experience acquired at Rainy

River, and of what had been learned of the Indians here.

We were all of opinion that it would be desirable to procure the extinction of the Indian title, not only to the lands included within the Province, but also to so much of the timber grounds east and north of the Province, as were required for immediate entry and use, and also of a large tract of cultivable ground, west of the Portage, which, having very few Indian inhabitants, might be conceded with very little additional cost.

The whole of this ground is occupied principally by one nation, the Chippawas, of whom the Saulteaux of the lakes are a branch, and in some respects, it would have been well to conduct the negotiation for the whole at one time and place, but there are several

practical difficulties in the way.

Such a course would have involved much delay, before anything definite could have been effected. Immigrants would have been kept waiting for such a period as would have prevented their being able to get on to the lands they may select in time to be housed for the winter, and to make the preparations necessary for beginning farming operations next spring.

We should also have been obliged to feed, from this time till the negotiations were completed, the whole body of the neighborhood, who would crowd in before the others could be collected, and we should have had them longer on our hands and find it more

difficult to disperse them when the work was done.

Besides all this, we had led the Indians to believe that they would be treated within their different localities just as their lands were required, and it is exceedingly desirable (with these people) to keep a promise even in matters where a deviation would imply no breach of faith.

We therefore purpose to open negotiations at the Lower Fort with the Indians of the Province, and certain adjacent timber Districts, on Tuesday the 25th instant, and with the Indians of the other Districts at Manitoba Post, a Hudson's Bay Fort, at the

North End of Lake Manitoba, on Thursday, the 17th August.

I send you copies of the notices forwarded to the Indians of these respective Districts. Mr. Simpson has shewn me your despatch to S. J. Dawson, Esquire, No. 298, under date of the 22nd of May last, in which you say that the Minister of Finance had that day been requested to furnish the Commissioners with authority to draw on the Treasurer of Manitoba to the extent of \$6,000, for the money required for the negotiations at Fort Francis.

I have, &c.,

The Honorable

Adams G. Archibald.

The Secretary of State for the Provinces, Ottawa.

# Land proposed to be included in the Indian Treaty.

Beginning on the boundary line of the United States, at a point due mount is control that centre of White Mouth Lake, thence to run due north to such centre, thence by the centre of the Lake and the White Mouth River, to the centre of Winnipeg River, thence by the centre of the River to its mouth, then by the east coast of Lake Winnipeg, as far North as Behring's River, thence across the lake to the mouth of the Little Saskatchewan,

and the north coast of St. Martin's Lake, and thence to Manitoba Lake. Thence by the N. E. coast of Manitoba Lake and the Waterhen River, to the Winnepegosis Lake, thence by the east coast of the Winnepegosis to a part opposite Salt Maker's Village. Thence in a line to the sources of the Shell River, to include the Duck Mountain Country. Thence by the Shell River to its junction with the Assiniboine. Thence by a line due south to the U. S. Boundary, thence easterly by the boundary line to the place of beginning.

## PROCLAMATION.

The Indians of Pembina, of Roseau Lake, of White Mouth Lake and White Mouth River, and of the south shore of Lake Winnipeg, and the Indians of Portages La Prairie and White Mud River, and Bak Point, Manitoba, and all other Indians within the limits of the Province of Manitoba, are hereby, invited to meet the Commissioner of Her Most Gracious Majesty The Queen, at the Stone Fort on the Red River, on Tuesday the 25th day of July instant, at 11 o'clock of the forenoon, to enter into negotiations on the subject of an Indian Treaty.

God Save the Queen.

WEMYSS M. SIMPSON, Indian Commissioner.

Winnipeg, July 18th, 1871.

### PROCLAMATION.

The Indians of Lake Winnipeg, between the southern end of the lake and Behring's River; the Indians of the Little Saskatchewan and Partridge Cross of Fairford; the Indians of Lake Manitoba further north and west than Bak Point, including the Swan Creek Indians; the Indians inhabiting the country between Lake Manitoba and the Assimiboine, including the Indians of Riding Mountain and Duck Mountain, of Shell River and Beaver Creek, and of the Assiniboine; and all the Chippawa British Indians, inhabiting the country between the Assiniboine and the United States Frontier, extending from the west line of the Province and including the Turtle Mountain, are invited to meet the Commissioner of Her Most Gracious Majesty The Queen, at the Hudson's Bay Company's Fort, on Lake Manitoba, known as the Manitoba Post, on Tuesday the 17th day of August next, at 10 o'clock of the forenoon, to negotiate an Indian Treaty.

God Save the Queen.

WEMYSS M. SIMPSON. Commissioner.

Fort Garry, July 18th, 1871.

# GOVERNMENT HOUSE,

SILVER HEIGHTS, July 22nd, 1871.

Sir, -I have the honor to enclose you copy of a proclamation I have caused to be issued, with a view to prevent the danger arising from intoxicating drinks being given to the Indians, on the occasion of the meeting to negotiate a treaty.

I look upon the proceedings, we are now initiating, as important in their bearing upon our relations to the Indians of the whole continent. In fact, the terms we now agree upon will probably shape the arrangements we shall have to make with all the Indians between the Red River and the Rocky Mountains. It will therefore be well to neglect nothing that is within our power to enable us to start fairly with the negotiations.

With that view, I have, amongst other things, asked Major Irvine to detail a few of his troops to be present at the opening of the Treaty. Military display has always a great effect on savages, and the presence, even of a few troops, will have a good tendency.

I fear we shall have to incur a considerable expenditure for presents of food, etc., during the negotiations, but any cost for that purpose I shall deem a matter of minor consequence. The real burden to be considered is that which has to be borne in each recurring year.

I doubt if it will be found practicable to make arrangements upon so favorable a basis as that prescribed by his Excellency the Governor General, as the maximum to be

allowed, in case of a treaty with the Lake Indians.

Nor indeed would it be right, if we look to what we receive, to measure the benefits we derive from coming into possession of the magnificent territory we are appropriating here, by what would be fair to allow for the rocks and swamps and muskegs of the Lake country east of this Province.

But to this subject I shall probably take occasion to call your attention at an early day.

I have, &c.,

Adams G. Archibald.

The Honorable,
The Secretary of Statc
for the Provinces,
Ottawa.

### PROCLAMATION.

### PROVINCE OF MANITOBA.

Victoria, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, &c., &c., &c.

ADAMS G. ARCHIBALD.

To all whom it may concern,

Greeting.

Whereas, Wemyss M. Simpson, Esquire, a Commissioner duly accredited by us to negotiate a Treaty between us and our loyal subjects, the Chippewas, Saulteaux, and other Indian tribes of Manitoba and the North-West Territories, has invited certain of our Indian subjects to meet him for that purpose at the Stone Fort, on Tuesday, the 25th day of July instant; and whereas, it is our intention that the said meeting shall be continued from day to day, till such negotiations are terminated; and, whereas, we are desirous to protect, not only our said Indian subjects, but also the population of this Province from the terrible evils and mischief which would ensue, if intoxicating liquors were allowed to be used by the Indians on the occasion aforesaid: Now we do strictly forbid and prohibit any person or persons whatever, during the continuance of the negotiations aforesaid, to sell or give to any Indian, or to any person for any Indian, in the neighbourhood of the Stone Fort, during the continuance of the said negotiations, any intoxicating liquors whatever; and we also make known that any offender against the law, shall be punished with the utmost rigor of the law; and we enjoin all our Magistrates, Peace Officers, and Policemen, to keep strict watch over, and forthwith to bring to justice, any person who shall be found violating the law, or disregarding this Proclamation.

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In testimony whereof, we have these our Letters to be made Patent, and the

Great Seal of Manitoba to be hereunto affixed.

Witness our trusty and well-beloved, the Honorable Adams George Archibald, Lieutenant Governor of our Province of Manitoba, Member of our Privy Council for Canada, &c., &c., &c., at our Government House, at Silver Heights, this 21st day of July, one thousand eight hundred and seventy-one, and in the thirty-fifth year of our reign.

THOMAS HOWARD, Provincial Secretary.

By Command. Winnipeg, July 23rd, 1871.

# Lower Fort Garry,

July 29th, 1871.

SIR,—I have the honor to inform you that on Monday last I came to this Fort with the Commissioner to meet the Indians called here, with a view to negotiate a Treaty, in-

tending to open the business on Tuesday morning.

It appeared, however on enquiry, that some bands of Indians had not arrived on Tuesday morning, and we were therefore obliged to postpone the opening of the meeting till Thursday. On that day the Indians from all the sections of the country to which the invitation extended were found present to the number of about one thousand. A considerable body of half-breeds and other inhabitants of the country were also present, awaiting with some anxiety to learn what should be announced as the policy of the Government.

I enclose you a memorandum of the observations with which I opened the meeting. On reading them you will observe one or two points which may require some explanation.

At the time of the Treaty with the Earl of Selkirk, certain Indians signed as chiefs and representatives of their people. Some of the Indians now deny that these men ever were chiefs or had authority to sign the Treaty.

With a view therefore to avoid a recurrence of any such question, we asked the Indians, as a first step, to agree among themselves in selecting their Chiefs, and then to

present them to us and have their names and authority recorded.

Furthermore, the Indians seem to have false ideas of the meaning of a Reserve. They have been led to suppose that large tracts of ground were to be set aside for them as hunting grounds, including timber lands, of which they might sell the wood as if they were proprietors of the soil.

I wished to correct this idea at the outset.

Mr. Simpson followed me with some observations in the same strain, after which the Indians retired to select their Chiefs and spokesmen.

On Friday morning, the Chiefs and spokesmen were duly presented, and after their

names were recorded, the Indians were invited to express their views.

After some delay they stated that there was a cloud before them which made things dark, and they did not wish to commence the proceedings till the cloud was dispersed.

On enquiring into their meaning, I found that they were referring to some four of their number who were prisoners in gaol. It seems that some Swampy Indians had entered into a contract with the Hudson's Bay Company as boatmen, and had deserted, and had been brought up before Magistrates under a local law of last session, and fined, and, in default of payment sent to prison, for forty days.

Of this term some considerable part had expired. A few of the offenders had paid

their fines, but there were still four Indians remaining in prison.

On learning the facts I told the Indians that I could not listen to them if they made a demand for the release of the Indians as a matter of right, that every subject of the Queen, whether Indian, half-breed or white, was equal in the eye of the law; that every offender against the law must be punished whatever race he belonged to; but I said that on the opening of negotiations with them the Queen would like to see all her Indians taking part in them, and if the whole body present were to ask as a matter of grace and favor, under the circumstances, that their brethren should be released, Her Majesty would be willing to consent to their discharge; she would grant as a favour what she must refuse if asked for on any other ground. They replied by saying that they begged it as a matter of favour only. Thereupon I acceded to their request, and directed the discharge of the four Indians. This was received with great satisfaction. I explained again, that there might be no misunderstanding about it, that henceforth every offender against the law must be punished. They all expressed their acquiescence in what I said. The discharge of the prisoners had an excellent effect.

Next morning the Indians, through one of their spokesmen, declared in presence of the whole body assembled, that from this time they would never raise their voice against the law being enforced. After the order of the release, the Chiefs and spokesmen addressed us, questions were asked and answered, and some progress made in the negotiations.

Eventually the meeting adjourned till this morning at ten o'clock

A general acquiescence in the views laid down by Mr. Simpson and myself was expressed, but it was quite clear by the proceedings of to-day, that our views were imperfectly apprehended. When we met this morning, the Indians were invited to state their wishes as to the Reserves, they were to say how much they thought would be sufficient,

and whether they wished them all in one or in several places.

In defining the limits of their reserves, so far as we could see, they wished to have about two-thirds of the Province. We heard them out, and then told them it was quite clear that they had entirely misunderstood the meaning and intention of Reserves. We explained the object of these in something like the language of the Memorandum enclosed, and then told them it was of no use for them to entertain any such ideas, which were entirely out of the question. We told them that whether they wished it or not, immigrants would come in and fill up the country; that every year from this one twice as many in number as their whole people there assembled, would pour into the Province, and in a little while would spread all over it, and that now was the time for them to come to an arrangement that would secure homes and annuities for themselves and their children.

We told them that what we proposed to allow them, was an extent of one hundred and sixty acres for each family of five, or in that proportion; that they might have their land where they chose, not interfering with existing occupants; that we should allow an annuity of twelve dollars for every family of five, or in that proportion per head. We requested them to think over these propositions till Monday morning.

If they thought it better to have no Treaty at all, they might do without one, but they must make up their minds; if there was to be a Treaty, it must be on a basis like

that offered.

That under some such arrangements, the Indians in the east were living happy and contented, enjoying themselves, drawing their annuities, and satisfied with their position.

The observations seemed to command the acquiescence of the majority, and on Monday morning, we hope to meet them in a better frame for the dissoussion and settlement of the Treaty.

I have, &c.,
Adams G. Archibald.

The Honorable
The Secretary of State
for the Provinces.

Memorandum of an Address to the Indians by the Lieut.-Governor of Manitoba.

On the 13th September last, on my first arrival in the country, I met a number of you at the mission, I told you I could not then negotiate a Treaty with the Indians, but that I was charged by your Great Mother the Queen, to tell you that she had been very glad to see that you had acted during the troubles like good and true children of your Great Mother. I told you also that as soon as possible you would all be called together to consider the terms of a Treaty to be entered into between you and your Great Mother.

I advised you to disperse to your homes, and gave you some ammunition to enable

you to gain a livelihood during the winter by hunting.

I promised that in the Spring you would be sent for, and that either I, or some person directly appointed to represent your Great Mother, should be here to meet you, and notice would be given you when to convene at this place to talk over what was right to be done.

Early in the Spring, Mr. Simpson, who sits beside me, was made Commissioner. He left his home at once for this Province, by Ramy Lake and the Lake of the Woods.

The Indians of the Lake Districts meet, as you know, on Rainy River yearly, about

the 20th June, to fish for sturgeon, and they could not be called together sooner.

Mr. Simpson met them these at that time, and talked over their affairs with them, and made certain arrangements with them. He then hurried on to see you, and reached this Province a week ago last Sunday. He then sent messengers at once to all the Indians within certain bounds, asking them to meet him here on the 25th day of July. Some of you were unable to come so soon, and he has therefore, at the instance of those who were here, waited till to-day to open the talk. I believe that now you are all arrived, and ready to proceed to business.

It will be the duty of the Commissioner to talk to you on the particular details of the Treaty, and I will give place to him presently, but there are one or two things of a general kind which I would like, before I close, to bring to your notice, for you to think

about among yourselves.

First. Your Great Mother, the Queen, wishes to do justice to all her children alike. She will deal fairly with those of the setting sun, just as she would with those of the rising sun. She wishes order and peace to reign through all her country, and while her arm is strong to punish the wicked man, her hand is also open to reward the good man every where in her Dominions.

Your Great Mother wishes the good of all races under her sway. She wishes her red children to be happy and contented. She wishes them to live in comfort. She would like them to adopt the habits of the whites, to till land and raise food, and store it up against a time of want. She thinks this would be the best thing for her red children to do, that it would make them safer from famine and distress, and make their homes more comfortable.

But the Queen, though she may think it good for you to adopt civilized habits, has no idea of compelling you to do so. This she leaves to your choice, and you need not live like the white man unless you can be persuaded to do so with your own free will. Many of you, however, are already doing this.

I drove yesterday through the village below this Fort. There I saw many well built houses, and many well tilled fields with wheat and barley and potatoes growing, and giving promise of plenty for the winter to come. The people who till these fields and live in these houses are men of your own race, and they shew that you can live and prosper and provide like the white man.

What I saw in my drive is enough to prove that even if there was not a buffalo or a fur bearing animal in the country, you could live and be surrounded with comfort by what you can raise from the soil.

Your Great Mother, therefore, will lay aside for you "Lots" of land to be used by you and your children forever. She will not allow the white man to intrude upon these Lots. She will make rules to keep them for you, so that, as long as the sun shall shine,

there shall be no Indian who has not a place that he can call his home, where he can go and pitch his camp, or if he chooses, build his house and till his land.

These reserves will be large enough, but you must not expect them to be larger than will be enough to give a farm to each family, where farms shall be required. They will enable you to earn a living should the chase fail, and should you choose to get your living by tilling, you must not expect to have included in your reserve more of hay grounds than will be reasonably sufficient for your purposes in case you adopt the habits of farmers. The old settlers and the settlers that are coming in, must be dealt with on the principles of fairness and justice as well as yourselves. Your Great Mother knows no difference between any of her people. Another thing I want you to think over is this: in laying aside these reserves, and in everything else that the Queen shall do for you, you must understand that she can do for you no more than she has done for her red children in the East. If she were to do more for you, that would be unjust for them She will not do less for you because you are all her children alike, and she must treat you all alike.

When you have made your Treaty you will still be free to hunt over much of the land included in the Treaty. Much of it is rocky and unfit for cultivation, much of it that is wooded is beyond the places where the white man will require to go, at all events for some time to come. Till these lands are needed for use you will be free to hunt over them, and make all the use of them which you have made in the past. But when lands are needed to be tilled or occupied, you must not go on them any more. There will still be plenty of land that is neither tilled nor occupied where you can go and roam and hunt as you have always done, and, if you wish to farm, you will go to your own reserve where you will find a place ready for you to live on and cultivate.

There is another thing I have to say to you. Your Great Mother cannot come here hersef to talk with you, but she has sent a messenger who has her confidence.

Mr. Simpson will tell you truly all her wishes. As the Queen has made her choice of a Chief to represent her, you must, on your part, point out to us the Chiefs you wish to represent you, as the persons you have faith in.

Mr. Simpson cannot talk to all your braves and people, but when he talks to Chiefs who have your confidence he is talking to you all, and when he hears the voice of one of your Chiefs whom you name he will hear the voice of you all. It is for you to say who shall talk for you, and also who shall be your chief men. Let them be good Indians, who know your wishes and whom you have faith in.

You will look to the Commissioner to fulfil everything he agrees to do, and the Queen will look to the Chiefs you neme to us, to see that you keep your parts of the agreement.

It is our wish to deal with you fairly and frankly.

If you have any question to ask, ask them, if you have anything you wish the Queen to know, speak out plainly.

Now Chiefs and braves and people, I introduce to you Mr. Simpson, who will say

anything he thinks fit in addition to what I have said.

When you hear his voice you are listening to your Great Mother the Queen, whom God bless and preserve long to reign over us.

### LOWER FORT GARRY

Manitoba, July 30th, 1871.

Sir,—I have the honor to inform you for the information of His Excellency the Governor General that I arrived in this Province on the 16th instant, and, after consultation with the Lieutenant-Governor of Manitoba, determined upon summoning the Indians of this part of the country to a conference for the purpose of negotiating a Treaty at Lower 22—3

Fort Garry, on Tuesday the 25th instant, leaving for a future date the negotiation with the Indians westward of and outside of the Province of Manitoba.

Proclamations were issued and every means taken to insure the attendance of the Indians, and on Monday, the 24th instant, I proceeded to Lower Fort Garry, where I met

His Excellency the Lieutenant Governor.

On Tuesday, finding that only a small portion of the Indians had arrived, we held a preliminary conference with Henry Prince—the Chief of the Swampies and Chippewas residing on what is known as the Indian Reserve, between Lower Fort Garry and Lake Winnipeg-at which we arranged a meeting for the next day at 12 o'clock, for the purpose of ascertaining the names of the Chiefs and head men of the several tribes. At this preliminary conference, Henry Prince said that he could not then enter upon any negotiations as he was not empowered to speak or act for these bands of Indians not then pre-

In the mean time it was found necessary to feed the Indians assembled here, and

accordingly provisions were purchased and rations served out.

On Wednesday the 26th, His Excellency the Lieutenant Governor and myself met those Indians who had arrived, in Council, and addressed them with the view of explaining the purport of my Commission, and the matters which were to form the subject of a Treaty.

It having been reported that the Indians who had not then arrived were on their road here, we agreed that another meeting should take place on the following day, at

which the Chiefs and head men were to be presented to us.

On Thursday, pursuant to appointment, we again met the Indians, when the Chiefs and head men of the several bands present were named and presented. I then explained to them the nature of Indian Reserves, and desired them to determine, in Council among themselves, the locality in which they desired their reserves to be laid out.

On Friday, the 28th, we again met the Indians, but they were not then prepared to

state their demands, and another meeting was appointed for Saturday.

On Saturday, the 29th, we again met them, all having by this time arrived. When the subject of Reserves came up, it was found that the Indians had misunderstood the object of these Reservations, for their demands in this respect were utterly out of the question. After a prolonged discussion with them, I consulted with the Lieutenant Governor, and determined to let them at once understand the terms that I was prepared to offer, and I pointed out that the terms offered were those which would receive Her Majesty's consent. On further explanation of the subject, the Indians appeared to be satisfied, and willing te acquiesce in our arrangements as hereinafter mentioned, and having given them diagrams showing the size of the Lots they would individually become possessed of, and having informed them of the amount of their annuity, it was finally settled that they should meet on Monday, the 31st, and acquaint me with their decision.

The Reserves will compromise sufficient land to give each family of five persons one hundred and sixty acres, or in like proportion, together with an annual payment in per-

petuity of Twelve Dollars for each family of five persons, or in like proportion.

As far as I can judge, I am inclined to think that the Indians will accept these terms. I am happy to be able to say that the precautions taken to prevent the introduction of liquor amongst the Indians have been wholly successful, and that perfect order and contentment have prevailed up to the present time.

> I have, &c., Wemyss M. Simpson, Indian Commissioner.

The Honorable The Secretary of State for the Provinces, Ottawa. (COPY.)

ARTICLES OF A TREATY, made and concluded this third day of August, in the year of Our Lord one thousand eight hundred and seventy-one, between Her Most Gracious Majesty the Queen of Great Britain and Ireland, by Her Commissioner Wenyss M. Simpson, Esquire, of the one part, and the Chippewa and Swampy Cree Tribes of Indians, inhabitants of the Country within the limits hereinafter defined and described by their Chiefs, chosen and named as hereinafter mentioned, of the other part:

Whereas, all the Indians inhabiting the said County, have, pursuant to an appointment made by the said Commissioner, been convened at a meeting at the Stone Fort otherwise called Lower Fort Garry, to deliberate upon certain matters of interest to Her Most Gracious Majesty, of the one part, and to the said Indians of the other; And Whereas, the said Indians have been notified and informed by Her Majesty's said Commissioner, that it is the desire of Her Majesty to open up to settlement and Immigration a Tract of Country bounded and described as hereinafter mentioned, and to obtain the consent thereto of Her Indian subjects inhabiting the said tract, and to make a Treaty and arrangements with them, so that there may be peace and good will between them and Her Majesty, and that they may know and be assured of what allowance they are to count upon and receive, year by year, from Her Majesty's bounty and benevolence

AND WHEREAS the Indians of the said tract, duly convened in Council as aforesaid, and being requested by Her Majesty's said Commissioner to name certain Chiefs and Head-men, who should be authorized on their behalf to conduct such negotiations, and sign any Treaty to be founded thereon, and to become responsible to Her Majesty for the faithful performance by their respective Bands of such obligations as should be assumed by them, the said Indians have thereupon named the following persons for that purpose, that is to say: Mis-Koo-Kenew, or Red Eagle, (Henry Prince); Ka-Ke-Ka-penais, or Bird for ever; Na-sha-Ke-penais, or Flying down Bird; Na-na-wa-nænan, or Centre of Bird's tail; Ke-we-tayash, or Flying round; Wa-ko-wush, or Whip-poor-Will, Oo-za-we-Kwun, or Yellow Quill; and thereupon, in open Council, the different Bands have presented their respective Chief to His Excellency the Lieutenant Governor of the Province of Manitoba, and of the North-West Territory, being present at such Council, and to the said Commissioner, as the Chief and Head-Men for the purposes aforesaid, of the respective Bands of Indians inhabiting the said District, hereinafter described; and whereas the said Lieutenant Governor and the said Commissioner, then and there received and acknowleged the persons so presented as Chiefs and Head-Men, for the purpose aforesaid; And whereas the said Commissioner has proceeded to negotiate a Treaty with the said Indians, and the same has finally been agreed upon and concluded as follows, that is to say:

The Chippewa and Swampy Cree Tribes of Indians, and all other the Indians inhabiting the District hereinafter described and defined, do hereby cede, release, surrender, and yield up to Her Majesty the Queen, and Successors for ever, all the lands included within the following limits, that is to say: Beginning at the International boundary line near its junction with the Lake of the Woods, at a point due north from the centre of Roseau Lake, thence to run due north to the centre of Roseau Lake; thence northward, to the centre of White Mouth Lake, otherwise called White Mud Lake; thence by the middle of the Lake and the middle of the river issuing therefore, to the

mouth thereot in Winnipeg River; thence by the Winnipeg River to its mouth; thence westwardly, including all the Islands near the south end of the Lake, across the Lake to the mouth of the Drunken River; thence westwardly, to a point on Lake Manitoba. half way between Oak Point and the mouth of Swan Creek; thence across Lake Manitoba, on a line due west to its western shore; thence in a straight line to the crossing of the Rapids on the Assiniboine; thence due south to the International Boundary Line, and thence eastwardly by the said line to the place of beginning; to have and to hold the same to Her said Majesty the Queen, and Her Successors for ever; and Her Majesty the Queen, hereby agrees and undertakes to lay aside and reserve for the sole and exclusive use of the Indians the following tracts of land, that is to say :-- For the use of the Indians belonging to the band of which Henry Prince, otherwise called Mis-Koo-Kenew, is the Chief, so much of land on both sides of the Red River, beginning at the south line of St. Peter's Parish, as will furnish one hundred and sixty acres for each family of five, or in that proportion for larger or smaller families; and for the use of the Indians of whom Na-sha-Ke-penais, Na-na-wa-nanan, Ke-we-tayash, and Wa-kowush, are the Chiefs, so much land on the Roseau River as will furnish one hundred and sixty acres for each family of five, or in that proportion for larger or smaller families, beginning from the mouth of the river; and for the use of the Indians, of which Ka-Ke-Ka-penais is the Chief, so much land on the Winning River, above Fort Alexander, as will furnish one hundred and sixty acres for each family of five, or in that proportion for larger or smaller families, beginning at a distance of a mile or thereabout above the Fort; and for the use of the Indians, of whom Oo-za-we-Kwun is Chief, so much land on the south and east side of the Assiniboine, about twenty miles above the Portage, as will furnish one hundred and sixty acres for each family of five, or in that proportion for larger or smaller families, reserving also a further tract enclosing said reserve, to comprise an equivalent to twenty-five square miles of equal breadth, to be laid out round the reserve; it being understood, however, that if at the date of the execution of this Treaty, there are any settlers within the bounds of any lands reserved by any Band, Her Majesty reserves the right to deal with such settlers as she shall deem just, so as not to diminish the extent of land allotted to the Indians.

And with a view to show the satisfaction of Her Majesty with the behaviour and good conduct of Her Indians, parties to this Treaty, She hereby, through Her Commissioner, makes them a present of three dollars, for each Indian—man, woman and child,—belonging to the Bands here represented.

And further, Her Majesty agrees to maintain a school on each reserve hereby made

whenever the Indians of the reserve should desire it.

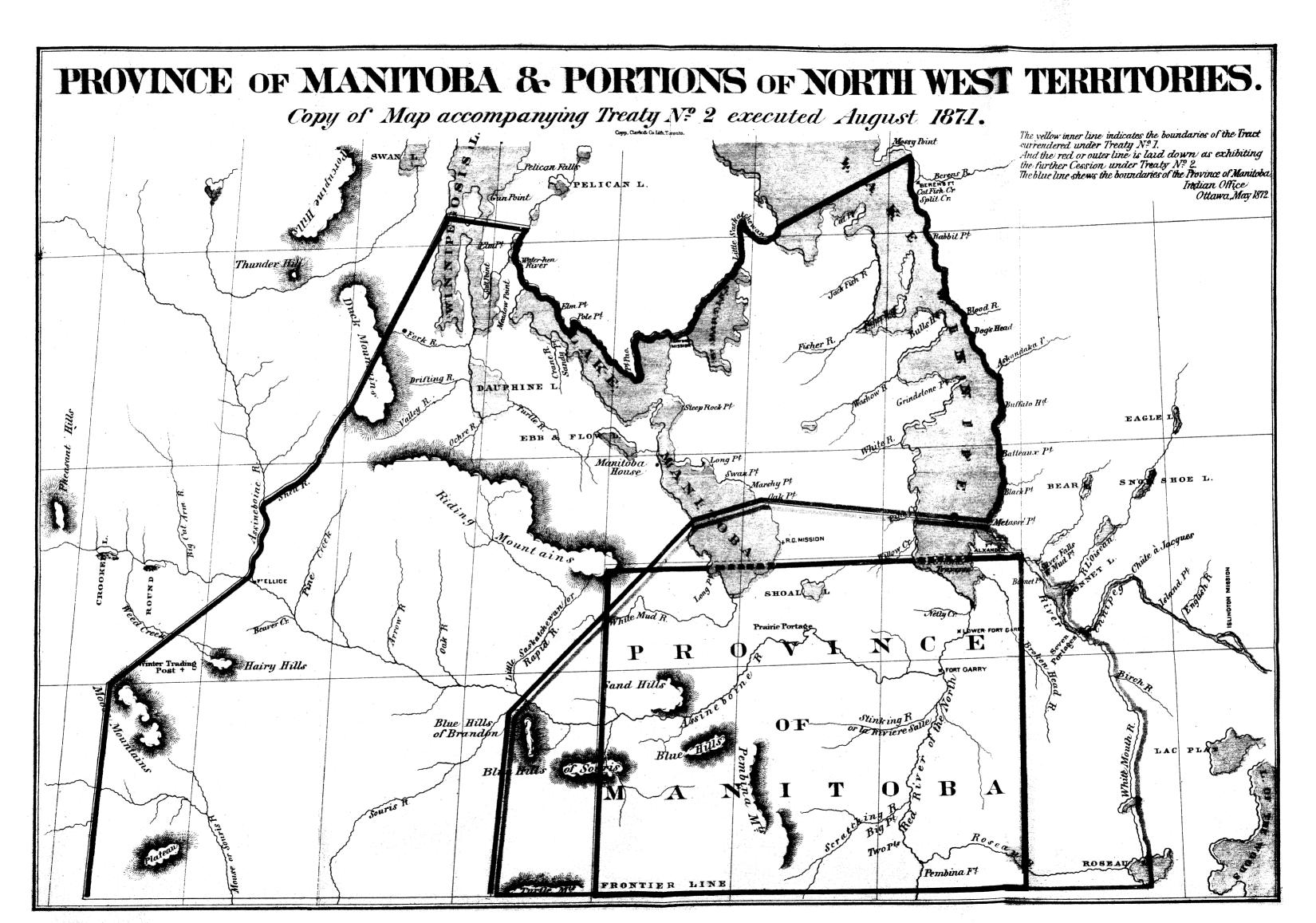
Within the boundary of Indian Reserves, until otherwise enacted by the proper legislative authority, no intoxicating liquor shall be allowed to be introduced or sold, and all laws now in force or hereafter to be enacted to preserve Her Majesty's Indian subjects inhabiting the reserves or living elsewhere from the evil influence of the use of intoxicating

liquors, shall be strictly enforced.

Her Majesty's Commissioner shall, as soon as possible after the execution of this Treaty, cause to be taken an accurate census of all the Indians inhabiting the District above described, distributing them in families, and shall in every year ensuing the date hereof, at some period during the month of July, in each year to be duly notified to the Indians, and at or near the respective reserves, pay to each Indian family of five persons the sum of fifteen dollars Canadian currency, or in like proportion for a larger or smaller family, such payment to be made in such articles as the Indians shall require of blankets, clothing, prints (assorted colors), twine or traps, at the current cost price in Montreal, or otherwise, if Her Majesty shall deem the same desirable in the interests of Her Indian people, in cash.

And the undersigned Chiefs do hereby bind and pledge themselves and their people strictly to observe this Treaty, and to maintain perpetual peace between themselves and Her Majesty's white subjects, and not to interfere with the property or in any way molest

the persons of Her Majesty's white or other subjects.



In witness whereof Her Majesty's said Commissioner and the said Indian Chiefs have hereunto subscribed and set their hand and seal, at the Lower Fort Garry, this day and year herein first above mentioned.

Signed, sealed and delivered in the presence, of (the same having been first read and explained).

(Signed,)

Adams G. Archibald, Lt. Governor of Manitoba and the North-West Territories.

JAMES MCKAY, P.L.C.

A. G. IRVINE, Major.

ABRAHAM COOLEY.

Donald Gunn, M.L.C.

THOMAS HOWARD,

HENRY COCHANE.

JAMES MCARRISTER.

HUGH MCARRISTER.

E. ALICE ARCHIBALD.

HENRY BOUTHILLIER.

Signed,

WEMYSS M. SIMSON,

[Seal.] Indian Commissioner.

his

MIS-KOO-KE-NEW, or Red Eagle (Henry Prince,) + mark.

his

KA-KE-KA-PENAIS, or Bird forever (William Penefather), mark.

NA-SHA-KE-PENAIS, or Flying down Bird,

mark.

NA-NA-WA-NANAN, or Centre of Bird's Tail, +

his KE-WE-TAY-ASH, or Flying Round, +

> mark. his

WA-KO-WUSH, or Whippoorwill,

mark. his

OI-ZA-WE-KWUN, or Yellow Quill, +

mark.

WINNIPEG, MANITOBA, August 27th, 1871.

SIR,—I have the honor to inform you, for the information of His Excellency the Governor General, that I have concluded a Treaty with the Chippewa Indians, without and on the confines of the Province of Manitoba.

The terms upon which the Treaty has been signed, are identical with those of the former Treaty negotiated at the Stone Fort with the Indians of the Province of Manitoba.

The country ceded by the Indians lies to the north and west of the Province of Manitoba, extending on the north to Lake Winnepegosis and the Shell River, and on the west as far as Fort Ellice.

This is a very much larger tract of country than the Province of Manitoba, and contains much fertile and valuable land.

I have just arrived from Manitoba Lake, and find the mail leaving this evening, but I shall shortly be in a position to furnish you with full details upon this matter.

I have, &c.,

WEMYSS M. SIMPSON,

Indian Commissioner.

The Honorable The Secretary of State for the Provinces. &c., &c.,

(COPY.)

ARTICLES OF A TREATY, made and concluded this twenty-first day of August, in the year of Our Lord one thousand eight hundred and seventy-one, between Her Most Gracious Majesty the Queen of Great Britain and Ireland, by Her Commissioner Wemyss M. Simpson, Esquire, of the one part, and the Chippewa Tribes of Indians, inhabitants of the country within the limits hereinafter defined and described by their Chiefs, chosen and named as hereinafter mentioned, of the other part:

Whereas, all the Indians inhabiting the said country, have, pursuant to an appointment made by the said Commissioner, been convened at a meeting at Manitoba Post, to deliberate upon certain matters of interest to Her Most Gracious Majesty of the one part, and to the said Indians of the other; and whereas the said Indians have been notified and informed by Her Majesty's said Commissioner, that it is the desire of Her Majesty to open up to settlement and immigration a tract of country bounded and described as hereinafter mentioned, and to obtain the consent thereto of Her Indian subjects inhabiting the said tract, and to make a Treaty and arrangement with them, so that there may be peace and good-will between them and Her Majesty, and that they may know and be assured of what allowance they are to count upon and receive from Her Majesty's bounty and benevolence.

AND WHEREAS the Indians of the said tract, duly convened in Council as aforesaid, and being requested by Her Majesty's said Commissioner to name certain Chiefs and Head-men who should be authorized on their behalf to conduct such negotiations, and sign any Treaty to be founded thereon, and to become responsible to Her Majesty for the faithful performance by their respective Bands of such obligations as shall be assumed by them, the said Indians have thereupon named the following persons for that purpose, that

is to say :--

For the Swan Creek and Lake Manitoba Indians, Lou-sonse, or, Little Long Ears; for the Indians of Fairford and the neighboring localities, Ma-sah-kee-yash, or, He who flies to the bottom, and Richard Woodhouse, whose Indian name is Ke-wee-tah-quun-nayash, or He who flies round the feathers; for the Indians of Waterhen River and Crane River and the neighboring localities, François, or, Broken Fingers; and for the Indians of Riding Mountains and Dauphin Lake and the remainder of the territory hereby And thereupon, in open Council, the different ceded, Mekis (the Eagle), or, Giroux. Bauds have presented their respective Chiefs to His Excellency the Lieutenant Governor of Manitoba and of the North-West Territory, being present at such Council, and to the said Commissioner, as the Chiefs and head men for the purposes aforesaid of the respective Band of Indians inhabiting the said district hereinafter described; and whereas the said Lieutenant Governor and the said Commissioner then and there received and acknowledged the persons so presented as Chiefs and head men, for the purpose aforesaid, of the respective Bands of Indians inhabiting the said district hereinafter described; And whereas the said Commissioner has proceeded to negotiate a Treaty with the said Indians, and the same has finally been agreed upon and concluded as follows, that is to say :-

The Chippewa Tribe of Indians, and all other of the Indians inhabiting the districts hereinafter described and defined, do hereby cade, release, surrender and yield up to Her Majesty the Queen, and Her successors forever, all the lands included within the following limits, that is to say:—All that tract of country lying partly to the north and partly to the west of a tract of land ceded to Her Majesty the Queen by the Indians inhabiting the Province of Manitoba, and certain adjoining localities, under the terms of a Treaty made at Lower Fort Garry on the third day of August last past, the land now intended to

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be ceded and surrendered, being particularly described as follows, that is to say:—Begining at the mouth of Winnipeg River, on the north line of the lands ceded by said Treaty, thence running along the eastern shore of Lake Winnipeg, northwardly as far as the mouth of Beren's River; thence across said Lake to its western shore at the north bank of the mouth of the Little Saskatchewan or Dauphin river; thence up said stream and along the northern and western shores thereof, and of St. Martin's Lake and along the north bank of the stream flowing into St. Martin's Lake from Lake Manitoba by the general course of such stream to such last mentioned Lake; thence by the eastern and northern shores of Lake Manitoba to the mouth of the Waterhen River; thence by the eastern and northern shores of said river up stream to the northermost extremity of a small lake known as Waterhen Lake; thence in a line due west to and across Lake Winnepegosis; then in a straight line to the most northerly waters forming the sources of the Shell River; thence to a point west of the same, two miles distant from the river. measuring at right angles thereto; thence by a line paralled with the Shell river to its mouth, and then crossing the Assiniboine River and running paralled thereto and two miles distant therefrom, and to the westward thereof to a point opposite Fort Ellice; thence in a southwesterly course to a northwestern point of the Moose Mountains; thence by a line due south to the United States frontier; thence by the frontier eastwardly to the westward line of said tract ceded by Treaty as aforesaid; thence bounded thereby, by the west, north-west and north lines of said tract to the place of beginning at the mouth of Winnipeg River; to have and to hold the same to Her Majesty the Queen and Her Successors for ever, and Her Majesty the Queen hereby agrees and undertakes to lay aside and reserve, for the sole and exclusive use of the Indians inhabiting the said tract, the following lots of land, that is to say :-

For the use of the Indians belonging to the Band of which Mekis is Chief, so much land between Turtle River and Valley River, on the south side of Lake Dauphin, as will make one hundred and sixty acres for each family of five persons, or in the same propor-

tion for a greater or smaller number of persons.

And for the use of the Indians belonging to the Band of which François, or Broken Fingers, is Chief, so much land on Crane River, running into Lake Manitola, as will make one hundred and sixty acres for each family of five persons, or in the same proportion for a greater or smaller number of persons. And for the use of the Band of Indians belonging to the Bands of which Ma-sah-kee-yash and Richard Woodhouse are Chiefs, so much land on the river between Lake Manitoba and St. Martin's Lake,—known as "Fairford River," and including the present Indian Mission grounds,—as will make one hundred and sixty acres for each family of five persons, or in the same proportion for a greater or smaller number of persons. And for the use of the Indians of whom Sonsonse is Chief, so much land on the east side of Lake Manitoba, to be laid off north of the creek near which a fallen elm tree now lies, and about halt way between Oak Point and Manitoba Post, so much land as will make one hundred and sixty acres for each family of five persons, or in the same proportion for a greater or smaller number of persons. Saving, neverthless, the rights of any white or other settler now in occupation of any land within the lines of any such reserve.

And with a view to show the satisfaction of Her Majesty with the behaviour and good conduct of Her Indians, parties to this Treaty, She hereby, through Her Commissioner, makes them a present of three dollars for each Indian—man, woman and child—belonging to the Bands here represented.

And further, Her Majesty agrees to maintain a school in each reserve hereby made

whenever the Indians of the reserve shall desire it.

Her Majesty further agrees with her said Indians, that within the boundary of Indian Reserves, until otherwise enacted by the proper legislative authority, no intoxicating liquor shall be allowed to be introduced or sold; and all laws now in force or hereafter to be enacted to preserve her Indian subjects inhabiting the Reserves or living elsewhere within her North-West Territories from the evil influence of the use of intoxicating liquors, shall be strictly enforced.

And further, that Her Majesty's Commissioner shall, as soon as possible after the execution of this Treaty, cause to be taken an accurate census of all the Indians inhabiting the tract above described, distributing them in families, and shall in every year ensuing the date hereof, at some period during the month of August in each year, to be duly notified to the Indians, and at or near their respective Reserves, pay to each Indian family of five persons, the sum of fifteen dollars, Canadian currency, or in like proportion for a larger or smaller family; such payment to be made in such articles as the Indians shall require, of blankets, clothing, prints (assorted colours), twine or traps, at the current cash price in Montreal, or otherwise, if Her Majesty shall deem the same desirable in the interest of Her Indian people, in cash.

And the undersigned Chiefs, on their own behalf, and on behalf of all other Indiaus inhabiting the tract within ceded, do hereby solemnly promise and engage to strictly observe this Treaty, and also to conduct and behave themselves as good and loyal subjects of Her Majesty the Queen. They promise and engage that they will, in all respects, obey and abide by the law; that they will maintain peace and good order between each other, and also between themselves and other Tribes of Indians, and between themselves and others of Her Majesty's subjects, whether Indians or Whites, now inhabiting, or hereafter to inhabit, any part of the said ceded tract; and that they will not molest the person or property of any inhabitants of such ceded tract, or the property of Her Majesty the Queen, or interfere with or trouble any person passing or travelling through the said tract, or any part thereof; and that they will aid and assist the Officers of Her Majesty, in bring to justice and punishment, any Indian offending against the stipulations of this Treaty, or infringing the laws in force in the country so ceded.

IN WITNESS WHEREOF, Her Majesty's said Commissioner and the said Indian Chiefs have hereunto subscribed and set their hands at Manitoba Post, this day and year herein first above named.

Signed by the Chiefs within named, in presence of the following witnesses (the same having being first read and explained.)

(Signed,)

ADAMS G. ARCHIBALD,

Lieut. Governor of Manitoba and
the N. W. Territories.

JAMES MCKAY, P.C.C.
MOLYNEUX ST. JOHN.
E. A. ARCHIBALD.
LILY ARCHIBALD.
HENRI BOUTHILLIER.
PAUL DE LARONDE.
DONALD McDONALD.
ELIZA MCDONALD.
ALEXANDER MUIR, Sen.

(Signed,)

WEMYSS M. SIMPSON, Indian Commissioner.

Mekis + mark.
his
Son-sonse + mark.

his Ma-sah-kee-yash +

mark.

his
FRANÇOIS +
mark.
RICHARD WOODHOUSE.

OTTAWA, 3rd November, 1871.

Sir,—I have the honor to hand in, herewith, my report, accounts and pay-lists connected with the Indian Treaties in the Province of Manitoba and the North-West Territories, and trust they may be found correct and satisfactory.

Hon. Joseph Howe, Secretary of State for the Provinces, &c., &c., &c.,

I have, &c.,
Wenyss M. Simpson,
Indian Commissioner.
Ottawa.

(Copy.) INDIAN DEPARTMENT, DOMINION OF CANADA.

W. M. Simpson, Indian Commissioner, in account with Government of Manitoba

			7
1871		Dr.	Cr.
July 20.	By paid S. J. Dawson, for Rainy Lake Indians (see receipt here	\$ cts 3,500.00	
Aug. 5.	To Cash paid W. M. Simpson do	3,000.00	
12 30	By paid Capt. Villiers, expenses of constables (account A)	4 000 00	1,073.25
Sept. 1.	do do do do By paid J. J. Hargrave, per R. Tait (account B).  To Cash paid W. M. Simpson.  By paid A. Boyd, for tobacco (account C).  To Cash paid W. M. Simpson  By paid John Schultz, for tea (account \( \omega).  To Cash paid W. M. Simpson  By paid W. Harvey, for horse hire (account E).  To Cash paid W. M. Simpson  By paid J. Romans, for teams (accounts F G).  To Cash paid W. M. Simpson  By paid Bannatyne & Begg (accounts H I).  To Cash paid W. M. Simpson  By paid J. Breinan, for beer (account K).  To Cash paid W. M. Simpson  By paid J. Nesbit, for labor (account L).  To Cash paid W. M. Simpson  By paid A. M. Brown & Co., for sundries (account M).  To Cash paid W. M. Simpson  By paid A. M. Brown & Co., for sundries (account M).  To Cash paid W. M. Simpson  By paid A. M. Chermott, for teams (account N).	. 778.67 . 550.77	778.67
•	By paid A. Boyd, for tobacco (account C). To Cash paid W. M. Simpson	660,63	550.77
	By paid John Schultz, for tea (account 11)	28.00	660.63
	By paid W. Harvey, for horse hire (account E) To Cash paid W. M. Simpson	316.05	28.00
	By paid J. Romans, for teams (accounts F G) To Cash paid W. M. Simpson	87.96	316.05
	To Cash paid W. M. Simpson  By paid J. Breunan for beer (account K)	17.40	87.96
Aug. 4	To Cash paid W. M. Simpson  By paid J. Nesbit, for labor (account L)	35.00	17.40 35.00
5	To Cash paid W. M. Simpson  By paid A. M. Brown & Co., for sundries (account M)	109.00	109.00
б	To Cash paid W. M. Simpson  By paid A. McDermott, for teams (account N)	68.13	68.13
9.	By paid W. M. Simpson By paid W. M. Simpson Cash paid W. M. Simpson By paid W. M. Simpson By paid J. McKay, for sundries (account P) To Cash paid W. M. Simpson To Cash paid W. M. Simpson	7.28	7.28
12	By paid J. McKay, for sundries (account P). To Cash paid W. M. Simpson	669.50	669.50
Sept. 12.	To Cash paid W. M. Simpson  By paid G. Murdoch, for team (account Q)  To Cash paid W. M. Simpson  By paid G. Murdoch, for team (account Q)  To Cash paid By paid Represent Repre	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	25.00
15	To Cash paid W. M. Simpson	5,000.00 894.00	3.75
	By paid Hudson Bay Company (account S) To Cash paid W. M. Simpson	3,324.44	3,324.44
	By paid Major Peebles, Control Department, pork (account O To Cash paid W. M. Simpson	100.00	3,150.00
	To Cash paid W. M. Simpson	40.10	100.00
	By paid Geo. Archibald (Account U)		40.00
	See account furnished by Provincial Treasurer, Manitoba O	\$32,438.93	
	By Cash paid Chief Yellow Quill \$50, and his brave Exetapetung \$40, per advice of Gov. Archibald and Hon. J. McKay. (See		
	letter of 9th August, marked V)  By paid hire of a horse, 20th July (account W)  "Interpreters of the August (account W)		90.00 5.00
	"Interpreters, 5th August (account X)  do 5th Sept. (account Y).  "W. Harvey's account, 4th Sept. (account Z).  H. B. Co.'s account, Oak Point (account No. 1).  "do Manitoba House (account No. 2).  Butcher's account (account No. 3)	••••	68.00 26.00 35.00
	"H. B. Co.'s account, Oak Point (account No. 1)  do Manitoba House (account No. 2)		20.60 66.13
	"Butcher's account (account No. 3) expenses at Oak Point and Manitoba H. (acct. No. 4)	• • • • • • • • • • • • •	8.80 22.62
22	Carried forward		

# W. M. SIMPSON, Indian Commissioner, in account with Government of Manitoba.

Dr	. Cr.
8	cts. \$ cts
Amount brought forward	3.93 14,887.07
By paid Richard Woodhouse, \$40; and his spokesman, John Anderdon, \$20 (account No. 5)	60.00
"Masahkeeyash, \$40; and his spokesman, David Marsden, \$20 (account No. 6)	i
Sources \$40 and his snokesman Navcanwaywaywe-	
tung, \$20 (account No. 7).  Mekis, \$40; 2 councillors and 2 braves, at \$20 each, \$80	60.00
1 (account No. 6)	120.00
" Sousonse, 3 braves, each \$20 (account No. 9)	60.00
\$20 (account No. 10)	
" 3 braves of Fraçnois, each \$20 (account No. 11)	
Wm. Drever's account (account No. 13)	15.00
" sundry expenses (account No. 14)	12.25
H. B. Co., for Pembina Indians (account No. 16)	648.00
do Fort Alexander Indians (account No. 17)  "N. McEachran's account (account No. 18)	150.00 98.50
By Cash paid Riding Mountain Indians, Treaty No. 2, at	
Manitoba House	
" do	
Waterhen and Crane Rivers	
\$6 per head, 1st and 2nd payments, Treaty No. 2	3,102.00
Paid at Stone Fort, August 4th and 5th, 1871. By Cash paid Henry Prince's Band, Treaty No. 1 \$2,910.00	
Fort Alexander Band	
" Pembina Band	
Portage la Prairie Band 963.00	
" Fort Garry Band	
\$3 per head, total 1st payment, and \$3 per head to American Indians whe were at Treaty} \$5,670.00	5,670.00
By Cash paid Henry Prince's Band, Treaty No. 1\$4,221.00	
Fort Alexander Band, H. B. Company, No. 1 (\$150 account No. 17)	
" Brokenhead River Band 447 00	
" Pembina Band, \$648, H. B. Co. (acct. 16) 300.00 Portage la Prairie Band 1,749.00	
" Fort Garry Band	
\$3 per head, total 2nd payment	7,362.00
By paid Washsquam for advising Indians to pollect	1
T. D. J. Count Lover, for printing and postage (account No. 19)	
To Balance due Commissioner	.18
\$32,452	.11 \$32,452.11

Omitted travelling expenses due W, M. Simpson...

\$ 13.18 . 208.90 ----\$222.08

(Signed,)

WEMYSS M. SIMPSON

OTTAWA, November 3rd, 1871.

To the Honorable

the Secretary of State for the Provinces, Ottawa.

SIR,---

I have the honor to submit to you, for the information of His Excellency the Governor General, a report of my negotiations with the Indians of the Province of Manitoba, and with certain of the Indians of the North-West Territory, entered upon by me, in accordance with your instructions, dated 3rd May, 1871.

Having, in association with S. J. Dawson, Esquire, and Robert Pether, Esquire, effected a preliminary arrangement with the Indians of Rainy Lake, the particulars of which I have already had the honor of reporting to you in my report, dated July 11th, 1871, I proceeded by the Lake of the Woods and Dawson Road to Fort Garry, at which

place I arrived on the 16th July.

Bearing in mind your desire that I should confer with the Lieutenant Governor of Manitoba, I called upon Mr. Archibald, and learned from him that the Indians were anxiously awaiting my arrival, and were much excited on the subject of their lands being occupied, without attention being first given to their claims for compensation. Amongst the settlers, also, an uneasy feeling existed, arising partly from the oftenrepeated demands of the Indians for a Treaty with themselves, and partly from the fact that certain settlers in the neighbourhood of Portage La Prairie and other parts of the Province, had been warned by the Indians not to cut wood or otherwise take possession of the lands upon which they were squatting. The Indians, it appeared, consented to their remaining on their holdings until sufficient time had been allowed for my arrival, and the conclusion of a treaty; but they were unwilling to allow the settlers the free use of the country for themselves or their cattle. Mr. Archibald, and those residents in the Province of Manitoba with whom I conversed on the subject, appeared to think that no time should be lost in meeting the Indians, as some assurances had already been given them that a Treaty would be made with them during the summer of 1871; and I therefore, at once, issued notices calling certain of the Indians together, naming two places at which I would meet them. The first meeting, to which were asked the Indians of the Province and certain others on the eastern side, was to be held on the 25th of July, at the Stone Fort, a Hudson's Bay Company's Post, situated on the Red River, about wenty miles northward of Fort Garry—a locality chosen as being the most central for those invited. The second meeting was appointed to be held on August 17th, at Manitoba Post, a Hudson's Bay Company's Post, at the north-west extremity of Lake Manitoba, as it was deemed that such of the bands of Indians residing without the limits of the Province of Manitoba, as I purposed to deal with at present, would meet here more readily than elsewhere.

On Monday, the 24th of July, I met the Lieutenant Governor of Manitoba at the Stone Fort, but negotiations were unavoidably delayed, owing to the fact that only one band of Indians had arrived, and that until all were on the spot those present declined to discuss the subject of a Treaty, except in an informal manner. Amongst these, as amongst other Indians with whom I have come in contact, there exists great jealousy of one another, in all matters relating to their communication with officials of Her Majesty; and in order to faciliate the object in view, it was most desirable that suspicion and jealousy of all kinds should be allayed. The fact of the Commissioner having arrived was sufficient evidence of the good intentions of Her Majesty's Government, and it seemed better to await the arrival of all whom I had summoned, than to press matters to an issue while any were absent. This, however, entailed the necessity of feeding those who were

already there, and others as they arrived.

It is customary in dealing with Indians to do so, and in this case it was absolutely necessary, for, obviously, it would have been impossible to invite those

people from a distance, and then leave them to starve at our doors, or, in search of food, to plunder the neighborhood into which they had been introduced. At that season of the year the Indians were not engaged in fishing or hunting, and consequently large numbers of men, women and children attended at the place of meeting, for all of whom food was provided. The price of provisions, even at the lowest price for which they could be obtained was high, pork being fifty dollars a barrel, and flour twenty shillings stg. per hundred, and such cattle as I was able to purchase £16 per head, so that the expense of keeping the Indians during the negotiation of Treaty and payment of the gratuity, which lasted eleven days, forms no small share of the total expenditure. In addition to this expense, it was thought necessary by the Lieutenant Governor that Major Irvine, commanding the troops at Fort Garry should be requested to farnish a guard at the Stone Fort during the negotiations, and that there should be at hand, also, a force of constabulary for the purpose of preventing the introduction of liquor amongst the Indian encampinents; other expenses of a somewhat similar nature were incurred which would be totally unnecessary upon any future occasion of payment being made to the Indians of Manitoba. I may here refer to the apparently prolonged duration of the first negotiation, and explain, in reference thereto, the causes, or some of them, that entailed the loss of time and attendant expense. For some time, a doubt has existed whether the Chief, nominally at the head of the Indians of the Indian seutlement. possessed the good will and confidence of that Band, and I thought it advisable to require that the several bands of Indians should select such Chiefs as they thought proper, and present these men as their authorized chiefs, before anything was said as to the terms of a Treaty. The Indians having acquiesced in this proposal, forthwith proceeded to such election; but the proceeding apparently involved discussion and consideration amongst themselves, and two days elapsed before the men chosen were presented for recognition, and the business of the meeting commenced.

When the peculiar circumstances surrounding the position of the Indians of the Province were pointed out, the future of the country predicted, and the views and intentions of the Government explained by the Lieutenant Governor and myself, the Indians professed a desire for time to think over what had been said before making any reply, and when their answer came it proved to contain demands of such an exorbitant nature, that much time was spent in reducing their terms to a basis upon which an arrangement could be made.

Every Band had its spokesman, in addition to its chief, and each seemed to vie with another in the dimensions of their requirements. I may mention, as an illustration, that in the matter of Reserves, the quantity of land demanded for each Band, amounted to about three townships per Indian, and included the greater part of the settled portions of the Province. It was not until the 3rd of August, or nine days after the first meeting, that the basis of arrangement was arrived at, upon which is founded the Treaty of that date. Then, and by means of mutual concessions, the following corms were agreed upon. For the cession of the country described in the Treaty refered to, and comprising the Province of Manitoba, and certain country in the North-I st thereof, every Indian was to receive a sum of three dellars a year in perpetuity, ar a Reserve was to be set apart for each Band, of sufficient size to allow one hundred and ixty acres to each family of five persons, or in like proportion as the family might be greater or less than five. As each Indian settled down upon his share of the Reserve, and connected the cultivation of his land, he was to receive a plough and harrow. Each chief was to receive a cow and a male and female of the smaller kinds of animals bred upon a farm. There was to be a bull for the general use of each Reserve. In addition to this, each Chief was to receive a dress, a flag and a medal, as marks of distinction, and each Chief with the exception of Bozawequare, the Chief of the Portage Band, was to receive a Buggy, or light spring waggon. Two councillors and two braves of each Band, were to receive a dress, somewhat inferior to that provided for the Chiefs, and the braves and councillors of the Portage Band excepted, were to receive a buggy. Every Indian was

to receive a gratuity of three dollars, which, though given as a payment for good behaviour was to be understood to cover all dimensions for the past.

On this basis, the Treaty was signed by myself and the several Chiefs, on behalf of themselves and their respective Bands, on the 3rd of August, 1871, and on the following day the payment commenced.

The three dollars gratuity, above referred to, will not occur in the ordinary annual payments to the Indians of Manitoba, and, though doubling the amount paid this year, may now properly be regarded as belonging to a previous year, but only now liquidated.

A large number of Indians, entitled to share in the Treaty, were absent on the 3rd August, and in the belief that I should, almost immediately, be able to obtain a more accurate knowledge than I possessed of the numbers of the several Bands, I paid to each person present, only three dollars—the gratuity—postponing for a short time the first annual payment. Having completed this disbursement, I prepared to start for Manitoba Post, to open negotiations with the Indians on the immediate North and North-West borders of the Province of Manitoba, promising however to visit the several Bands, of the first Treaty, in their own districts, and to there pay them. By this means, the necessity for their leaving their own homes, and for the Government's feeding them while they were being paid, and during their journey home, was avoided.

After completing the Treaty at Manitoba Post, of which mention is hereinafter made, I visited Portage La Prairie, the Indian settlement at St. Peter's, Rivière Marais, and the Town of Winnipeg, according to my promise, and at each place, with the exception of Rivière Marais, found the Indians satisfied with the Treaty, and awaiting their payment. At Rivière Marais, which was the rendevouz appointed by the Bands living in the neighbourhood of Pembina, I found that the Indians had either misunderstood the advice given them by parties in the settlement, well disposed towards the Treaty, or, as I have some reason to believe, had become unsettled by the representations made by persons in the vicinity of Pembina, whose interests lay elsewhere than in the Province of Manitoba; for, on my announcing my readiness to pay them, they demurred at receiving their money until some further concessions had been made by me.

With a view to inducing the Indians to adopt the habits and labors of civilization, it had been agreed, at the signing of the Treaty as before mentioned, to give certain animals as a nucleus for stocking the several reserves, together with certain farming implements, and it was now represented to me by the spokesman of the bands that as the Queen had, with that kindness of heart which distinguished her dealings with her red children, expressed a desire to see the Indians discard their former precarious mode of living and adopt the agricultural pursuits of the white man, they were desirous of acceding to the wish of their great Mother, and were now prepared to receive the gifts she had been good enough to speak of, through Her Commissioner, in full. But, as it could make no difference whatever to their great Mother whether these things were given in kind or in money value, Her red children of the Pembina bands were resolved to receive them in the latter form. I had put a valuation upon all the articles mentioned in the supplement to the Treaty, and could go no further in the matter unless I was prepared to pay them for all these articles at the rates they would now proceed to mention. I declined to comply with the request, and they declined to receive their first annual payment, whereupon I broke up my camp and returned to Winnipeg. As I foresaw, at the time, this determination on their part was shortly repented, and a number of their leading men were subsequently paid at Winnipeg, while at the request of the Indians, the money for the remainder, together with a pay sheet, was forwarded to the officer in charge of the Hudson's Bay Company's Post at Pembina, with instructions to pay the Indians as per list as each might present himself. At Portage La Prairie, although the number paid at the Stone Fort was largely increased, there still remained many who from absence or other causes were not paid, and by the request of the Chief the money was left for these with the officers in charge of the Hudson's Bay Company's Post in the same manner as was done for the Pembina bands,

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As I was unable to proceed to Fort Alexander, the payments for the Indians or for such of them as were present at the signing of the Treaty were sent in like manner to the officer in charge of the Hudson's Bay Company's Post at Fort Alexander, but it may be as well to mention that the number so paid will fall far short of the total number belonging to that place. The latter remark will apply to the Pembina band, for their payment was sent as per gratuity list, and there must necessarily have been others who did not receive payment. All these must receive their back payments during the course of next year.

During the payment of the several bands, it was found that in some, and most notably in the Indian settlement and Broken Head River Band—a number of those residing among the Indians, and calling themselves Indians, are in reality half-breeds, and entitled to share in the land grant under the provisions of the Manitoba Act. I was most particular, therefore, in causing it to be explained, generally and to individuals, that any person now elected to be classed with Indians and receiving the Indian pay and gratuity would, I believed, thereby forfeit his or her right to another grant as a half-breed, and in all cases where it was known that a man was a half-breed, the matter, as it affected himself and his children, was explained to him, and the choice given him to characterize himself. A very few only decided upon taking their grant as Half-breeds. The explanation of this apparent sacrifice is found in the fact that the mass of these persons have lived all their lives on the Indian Reserves (so called), and would rather receive such benefits as may accrue to them under the Indian Treaty than wait the realization of any value in their half-breed grant.

The Lieutenant Governor of Manitoba having expressed a desire to be present at the negotiation of the Treaty at Manitoba Post, His Honor, accompanied by the Honorable James McKay, proceeded thither with me, in company with Mr. Molyneux St. John, the Clerk of the Legislative Assembly of Manitoba, who had assisted me in the duties connected with the former Treaty and payments. I left Winnipeg on the 13th August, but owing to adverse winds on Lake Manitoba, did not arrive until two days after the time appointed. I found that, in the meanwhile, the officer in charge of the Hudson's Bay Company's Post had been obliged to give some provisions to the Indians pending my arrival, but on my speaking to the leading men of the bands assembled, it was evident that the Indians of this part had no special demands to make, but having a knowledge of the former Treaty, desired to be dealt with in the same manner and on the same terms as those adopted by the Indians of the Province of Manitoba.

The negotiation with these bands therefore occupied little time, and on the 21st August 1871, a Treaty was concluded by which a tract of country three times as large as the Province of Manitoba was surrendered by the Indians to the Crown. Payment in full, that is to say, the gratuity and the first payment was at once made, and I have since written to the officers in charge of the Hudson's Bay Company's Posts within the tract above referred

to, requesting them to procure for me a reliable census of the Indians, parties to this Treaty. I have referred to the cost of effecting these Treaties, and remarked that it will prove to be exceptional. It may be regarded as entirely so as far as the Indians with whom the dealing were held are concerned. In the future the annual payment will be only one-half to each Indian of the amount paid this year, for the gratuity was the same as the payment, and the heavy expense of feeding the Indians while at the place of meeting and on their journey home will be avoided by the payment being made at or near their own

All the collateral expenses, therefore, of this year, including dresses, medals, presents, to the Indians, &c., &c., will not appear in the expenses attending during future payments.

But it is to be remembered that a large number of Indians, whose lands were ceded by the second Treaty, were not present. The distance from the hunting grounds of some to Manitoba Post is very great, but while their absence was to be regretted for some reasons, it affected a very considerable saving in the item of provisions.

During the ensuing season, these persons will probably be found at the place where the payments will be made, and will then require their payments as if they had been present at the signing of the Treaty.

Of the land ceded in the Province of Manitoba, it will be hardly necessary for me to speak, as His Excellency the Governor-General is already in possession of accurate information touching its fertility and resources; but I may observe that, valuable as are these lands, they are fully equalled if not exceeded by the country of which the Government now comes into possession, by virtue of the Treaty concluded at Manitoba Post. Already, settlers from the Provinces in Canada and elsewhere, are pushing their way beyond the limits of the Province of Manitoba, and there is nothing but the arbitrary limits of that province, and certain wood and water advantages found in the Territory beyond it, to distinguish one part of the country from the other. The fertility that is possessed by Manitoba, is shared by those of the Territory, and the want of wood which threatens serious difficulty in the one is by no means so apparent in the other.

The Indians of both parts, have a firm belief in the honor and integrity of Her Majesty's representatives, and are fully impressed with the idea that the amelioration of their present condition is one of the objects of Her Majesty in making these treaties. Although many years will elapse before they can be regarded as a settled population, settled in the sense of following agricultural pursuits, the Indians have already shown a disposition to provide against the vicissitudes of the chase by cultivating small patches of corn and potatoes. Moreover, in the Province of Manitoba, where labor is scarce, Indians give great assistance in gathering in the crops. At Portage La Prairie, both Chippewas and Sioux, were largely employed in the grain field, and in

other parishes, I found many farmers whose employés were nearly all Indians.

Although serious trouble has from time to time occurred across the boundary line with Indians of the same tribes, and indeed of the same bands as those in Manitoba, there is no reason to fear any trouble with those who regarded themselves as subjects of Her Majesty. Their desire is to live at peace with the white man, to trade with him, and, when they are disposed, to work for him, and I believe that nothing but gross injustice or oppression will induce them either to forget the allegiance which they now claim with pride, or molest the white subjects of the Sovereign whom they regard as their supreme chief.

The system of an annual payment in money, I regard as a good one, because the recipient is enabled to purchase just what he requires when he can get it most cheaply, and it also enables him to buy articles at second hand, from settlers and others, that are quite as useful to him as are the same things when new. The sum of three dollars does not appear to be large enough to enable an Indian to provide himself with many of his winter necessaries, but as he receives the same amount for his wife or wives, and for each of his children, the aggregate sum is usually sufficient to procure many comforts

for his family, which he would otherwise be compelled to deny himself.

I desire to call the attention of His Excellency to the fact that there is now within the Province of Manitoba, a band of Sioux Indians. They are, properly speaking, American Indians, and many of them are refugees from America, excluded on account of the part they took in the Minnesota massacre. Since their appearance in British Territory, they have, on all occasions, conducted themselves in a quiet and orderly manner, and although they acknowledge the fact of their having no claim upon Her Majesty, they look with hope to her benevolence in their endeavors to live in peace and quiet within her possessions. They cannot justly be treated on the same footing as the Chippewas, Crees, and other tribes of the North-West, but it is open to doubt whether it is advisable to leave them entirely uncared for when the absence of game, the scarcity of grain, or other causes tend to reduce them to a starving and therefore desperate condition. I will not at present suggest any course to be pursued with regard to these Indians, merely desiring for the moment, to draw the attention of His Excellency to the subject.

I desire also to call the attention of His Excellency to the state of affairs in the Indian country on the Saskatchewan. The intelligence that Her Majesty is treating with the Chippewa Indians has already reached the ears of the Cree and Blackfeet tribes. In the neighborhood of Fort Edmonton, on the Saskatchewan, there is a rapidly increasing

population of miners and other white people, and it is the opinion of Mr. W. J. Christie, the officer in charge of the Saskatchewan District, that a Treaty with the Indians of that country, or at least an assurance during the coming year that a Treaty will shortly be made, is essential to the peace, if not the actual retention of the country. I would refer His Excellency, on this subject, to the report of Lieutenant Butler, and to the enclosed memoranda of Mr. W. J. Christie, the officer above alluded to. Amongst the papers accompanying this report is a requisition for dresses, buggies, medals, &c., as promised to the Indians, which I trust may receive early consideration, so that contracts may be given out in time to enable all of the articles named being distributed early in the coming season.

I take this opportunity of acknowledging the assistance afforded me in successfully completing the two Treaties, to which I have referred, by His Honor the Lieutenant Governor of Manitoba, the Honorable James McKay, and the officers of the Hudson's In a country where transport and all other business facilities are necessarily so scarce, the services rendered to the Government by the officers in charge of

the several Hudson's Bay Posts has been most opportune and valuable.

I have, &c.,

WEMYSS M. SIMPSON, Indian Commissioner.

## EDMONTON HOUSE,

13th April, 1871.

Extract of a Despatch,-W. J. Christie, Esq., Chief Factor to Lieut. Governor Archibald, bearing date, Edmonton House, 13th April, 1871.

"On the 13th instant (April) I had a visit from the Cree Chiefs, representing the

Plain Crees from this to Carlton, accompanied by a few followers.

The object of their visit was to ascertain whether their lands had been sold or not, and what was the intention of the Canadian Government in relation to them. They referred to the epidemic that had raged throughout the past summer, and the subsequent starvation, the poverty of their country, the visible diminution of the buffalo, their sole support, ending by requesting certain presents at once, and that I should lay their case before Her Majesty's Representative at Fort Garry. Many stories have reached these Indians through various channels, ever since the transfer of the North-West Territories to the Dominion of Canada, and they were more anxious to hear from myself what had taken place.

I told them that the Canadian Government had as yet made no application for their lands or hunting grounds, and when anything was required of them, most likely Commissioners would be sent before hand to treat with them, and that until then they should remain quiet and live at peace with all men. I further stated that Canada, in her Treaties with Indians, heretofore, had dealt most liberally with them, and that they were now in settled houses and well off, and that I had no doubt in settling with them the same liberal

policy would be followed.

As I was aware that they had heard many exaggerated stories about the troops in Red River, I took the opportunity of telling them why troops had been sent; and if Her Majesty sent Troops to the Saskatchewan, it was as much for the protection of the red as

the white man, and that they would be for the maintenance of law and order. They were highly satisfied with the explanations offered, and said they would wellcome civilization. As their demands were complied with, and presents given to them, their immediate followers, and for the young men left in camp, they departed well pleased for the present time, with fair promises for the future. At a subsequent interview with the Chief. view with the Chiefs alone, they requested that I should write down their words, or messages to their "Great Master" in Red River. I accordingly did so, and have tran-

mitted the messages as delivered. Copies of the Proclamation issued, prohibiting the traffic in spirituous liquors to Indians or others, and the use of strychnine in the destruction of animal life, have been received, and due publicity given to them. But without any power to enforce these laws, it is almost useless to publish them here; and I take this opportunity of most earnestly soliciting, on behalf of the Company's servants, and settlers in this District, that protection be afforded to life and property here as soon as possible, and that Commissioners be sent to speak with the Indians on behalf of the Canadian Government.

#### MEMORANDA:

Had I not complied with the demands of the Indians—giving them some little presents, and otherwise satisfied them, I have no doubt that they would have proceeded to acts of violence, and once that had commenced, there would have been the beginning of an

Indian war, which it is difficult to say when it would have ended.

The buffalo will soon be exterminated, and when starvation comes, these Plain Indian Tribes will fall back on the Hudson's Bay Forts and settlements for relief and assistance. If not complied with, or no steps taken to make some provision for them, they will most assuredly help themselves; and their being no force or any law up there to protect the settlers, they must either quietly submit to be pillaged, or lose their lives in the defence of their families and property, against such fearful odds that will leave no hope for their side.

Gold may be discovered in paying quantities, any day, on the eastern slope of the Rocky Mountains. We have, in Montana, and in the mining settlements close to our boundary line, a large mixed frontier population, who are now only waiting and watching to hear of gold discoveries to rush into the Saskatchewan, and, without any form of Government or established laws up there, or force to protect whites or Indians, it is very plain

what will be the result.

I think that the establishment of law and order in the Saskatchewan District, as early as possible, is of most vital importance to the future of the country and the interest of Canada, and also the making of some Treaty or settlement with the Indians who inhabit the Saskatchewan District.

> W. J. CHRISTIE, Chief Factor, In charge of Saskatchewan District, and Hudson's Bay Company.

Messages from the Cree Chiefs of the Plains, Saskatchewan, to His Excellency Governor Archibald, our Great Mother's Representative at Fort Garry, Red River Settlement.

1. The Chief Sweet Grass, The Chief of the Country,

## GREAT FATHER,-

I shake hands with you, and bid you welcome.—We heard our lands were sold and we did not like it; we don't want to sell our lands; it is our property, and no

one has a right to sell them.

Our country is getting ruined of fur bearing animals, hitherto our sole support, and now we are poor and want help—we want you to pity us. We want cattle, tools, agricultural implements, and assistance in everything when we come to settle—our country is no longer able to support us.

Make provision for us against years of starvation. We have had great starvation the past winter, and the small-pox took away many of our people, the old, young, and children.

We want you to stop the Americans from coming to trade on our lands, and giving firewater, ammunition and arms to our enemies the Blackfeet.

We made a peace this winter with the Blackfeet. Our young men are foolish, it may not last long.

We invite you to come and see us and to speak with us. If you can't come yourself,

send some one in your place.

We send these words by our Master, Mr. Christie, in whom we have every confidence. -That is all.

2. "Ki-he-win," "The EAGLE,"

GREAT FATHER,-

Let us be friendly. We never shed any whiteman's blood, and have always been friendly with the whites, and want workmen, carpenters and farmers to assist us when we settle. I want all my brother "Sweet Grass" asks. That is all.

3. "The LITTLE HUNTER,"

You, my brother, the Great Chief in Red River, treat me as a brother, that is, as a Great Chief.

4. "Kis-ki-on," or "SHORT TAIL,"

My brother, that is coming close, I look upon you, as if I saw you; I want you to pity me, and I want help to cultivate the ground for myself and descendants. Come and see us.

### NOVA SCOTIA AND NEW BRUNSWICK.

The additions made last year by Parliament to the Indian Grants for these Provnices have enabled me to partially introduce into both, the system of management which has worked so well in the larger Provinces of Quebec and Ontario. In Nova Scotia, for many years, Indians and Indian Lands had been committed to the charge of the Commissioner of Crown Lands-an over worked officer-who could rarely leave Halifax, and who could exercise no personal supervision over the Mic-macs scattered through eighteen counties, with the most reliable of whom-who seldom drifted to the Capital-he rarely came in contact. Through well disposed persons, who gave their services gratuitously, coats and blankets, and occasionally seeds and implements were annually distributed, but the Indians had nobody within reach of their settlements, whose duty it was to counsel with and protect them, or to encourage them by special aid, judiciously applied, to abandon the chase, which has long ceased to be profitable and fall back on the cultivation of the soil. Fully alive to the defects of the old system, Mr. Fairbanks cheerfully retired from the service, and I only regret that the limited fund at my disposal enabled me to make him a very moderate compensation for the three years service given to the Dominion.

The old system has now been changed. The Province has been divided into seven Districts. An active resident agent has been appointed in each. The reserves, too lavishly granted away by the Provincial Government, will now be effectually protected, and the annual grants, instead of being merely distributed in an eleemosynary spirit, will be applied to promote education and to encourage habits of industry. Help will no longer be given to the idle and the profligate, but only to those who show a disposition to advance and

help themselves.

The salutary check upon the manufacture of doctors' bills for attendance upon sick Indians, which was applied for many years by the Government and Legislature of Nova Scotia, has been forced upon this Department by the absurd quantity of such claims which were sent to Ottawa, so soon as the idea got abroad that the Indian funds here were unlimited, and that the old restrictions had passed away with the old forms of Government The profession have been notified that the old checks are in force, that no bills for medical attendance will be noticed which have not been first audited and paid by the Court of Sessions, when one-half will be returned to the County authorities from Indian funds. Services specially authorized by the Department or by the Local Agents will alone be paid in full.

New Brunswick has been divided into two Districts; the southern, which is inhabited by the Milicites, includes the Counties of Victoria, Carleton, York, Sunbury, Queen's, Charlotte, King's, St. John; and the northern, over which the Mic-macs chiefly roam, will comprise the Counties of Restigouche, Gloucester, Northumberland, Westmoreland, Kent, Albert.

In New Brunswick the Reserves are larger and more valuable than in Nova Scotia, and appear to have been better preserved. A vast deal of timber has, however, been stripped off of them, under a loose system which has produced but little or no revenue for permanent investment. A more vigilant supervision will turn this property to more account, and it is hoped that by the promotion of education, and through the agency of a more direct and vigilant superintendence than has hitherto obtained, the Indians in New Brunswick may yet be stimulated to come more nearly up to the standard of intelligence and self-help which has been attained by so many of the Red men of Canada.

The Report of the Deputy Superintendent, showing in detail the ordinary working of

the Department, and the results of the year's operation is appended.

All of which is respectfully submitted.

JOSEPH HOWE.

# APPENDIX.

Indian Office, Ottawa.

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES,

25th April, 1872.

Sir,—I have the honor to submit the Annexed Report on Indian affairs for the year terminated, 30th June, 1871, accompanied by the usual particulars, in tabular form, relative to the Receipts and Expenditure, the condition of the Indian Funds, the disposable lands open for sale, Population returns, Indian Schools, Office work, and other details

relating to the operations of this branch of the Public Service.

The amounts received from these sources were \$95,765  $\frac{6.5}{100}$  against \$61,445  $\frac{6.5}{100}$  for the previous year, being an increase of \$34,320  $\frac{5.6}{100}$ . These figures, however, exhibit but imperfectly the soundness of the policy of opening out the Colonization Roads, which, while proving highly beneficial to the new set lers, has, by offering facilities for penetrating into the wooded lands, drawn in a marked degree the attention of individuals to the advantages which the Indian lands present; and has been the means of attracting to them a class of persons much superior to those who, under other circumstances, would become occupants.

It induces, likewise, an earlier sale of the lands, and the consequent speedy clearing

and cultivation of them.

## PROVINCE OF ONTARIO.

The expenditure in the construction of roads of that description in the Saugeen Peninsula, and the Manitoulin Island, was \$6,240 \frac{11}{100}, and the work performed was sup-

plementary, and in continuation of that of former years.

The line of road through the Saugeen Peninsula has now been opened out a distance equal to about ten miles of the northern extremity of the Peninsula, at the Harbor of Bury, and will be completed to that point in the course of the present season; and thus form a line of travel by land to within twenty-five miles by water of the Great Manitoulin Island.

The line of road on the Manitoulin Island, commenced in the year 1866, has now been completed a distance of about fifty miles, extending from Little Current to Shaguiandah, Manitowaning, and Michael Bay, and is now in course of extension to Providence Bay

This is in marked contrast to the state of the Island, when, in October, 1862, the cession from the Indians was obtained, and not a single mile of constructed road existed. During the last summer and autumn, many additional settlers went up, and commenced farming operations, and the intelligence received gives promise of a still larger influx during the coming season. An excellent flouring mill has been built at Shaguiandah, and another at Providence Bay will be erected this spring, upon a location disposed of on that express condition. A saw mill additional to that on Michael Bay, worked by Lyon and Co., is also building on Mindemoga River, which flows into Providence Bay.

The climate and soil of those parts of the Island best suited for settlement, are well

spoken of by the resident settlers.

In the Saugeen Peninsula, it would appear from the assessment rolls, that actual settlement is proceeding satisfactorily, and many additional settlers have taken possession of the lands sold to them.

The projected line of road, through the Golais and Batchewana Bay Reserve, in rear of the Sault St. Marie, has been carefully examined, with a view to the construction of some sections of it during the present season. A considerable portion of the land along its course has been found to be well timbered and adapted for agricultural purposes; and so soon as the road, (on both sides of which, and abutting upon it, lots have been marked off for settlement), that the lands will be taken up, and occupied by the purchasers.

The saw mill in this tract, built by Messrs. Harris and Jones, near Carp River, has

been for some time in full operation.

A reference to the statement in the Appendix, relative to education, will afford useful information, and show the schools aided both from Indian funds and by different Societies.

It will be perceived from the School Reports, that agriculture is being taught at the Mount Elgin Institution, together with other industrial pursuits.

And also, in the Institution near Brantford, sustained by the New England Company,

instructions in similar branches of employment are afforded.

The position of most of the bands in the Province of Ontario, continues, as respects revenue, to improve, and the expenditure is carefully watched. In the collection of rents of lands belonging to the Mohawks of Tyendenaga, by the Local Agent, and the control of them being with this office in the stead of its being with the Chiefs and Council, those people have now a revenue considerably increased; and as I had some years since carried out a similar plan in the case of the Iroquois of St. Regis, I was prepared for the satisfaction which the change has occasioned to the Mohawks.

# PROVINCE OF QUEBEC.

The settlement up the Gatineau, in the Township of Maniwaki, known as the River Desert Settlement, to which have resorted many Indians from the Lake of Two Mountains, has been steadily increasing, and the Agent resident in that Township reports that many families, to the heads of which farm lots were located, have made fair progress in clearing and cultivation, and that other families are from time to time joining them.

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A limited quantity of seed grain, and also of agricultural implements is still provided for them as well as other Bands in that Province who cultivate land, and they are thereby

enabled the better to supply themselves with food.

The Indians of the Lower St. Lawrence, as well as the other bands to whom assistance in provisions and other supplies have usually been sent, have been periodically in the spring and autumn furnished with them; and aid for the most needy among the aged and sick, has also been forwarded for them. Medical treatment is likewise provided for such of them as the Department is informed require it.

## NEW BRUNSWICK.

In this Province the assistance to the various bands has been continued, and in some measure increased. But the local supervision having in times past been committed to the hands of no less than fourteen Commissioners and Agents, and with an Indian population only of between twelve and thirteen hundred, and the system not being susceptible of advantageous results to the Indians, and likewise not admitting of that responsibility being exacted from each, which it was necessary to insist upon, the Province has been divided into two Indian Districts with a salaried Superintendent (who has been required to give security for proper performance of duties) to attend to Indian affairs in each. As respects New Brunswick, it was hoped that more progress than has been exhibited would have been perceptible among the Indians, and that a greater desire for education would have manifested itself; but the correspondence with the late Commissioners and Agents indicates a condition almost of stagnation. To remove this, active, and constant supervision is imperatively called for.

### NOVA SCOTIA.

The measures adopted under sanction of Order in Council to bring about in this Province an improved system, corresponding in some degree with that which has long prevailed in Ontario, promises material benefit to the Indians. And the reports received from the Local Agents have already opened the way for promoting their welfare, and for rendering them less dependent upon periodical compassionate relief than heretofore. The Agents have been given to understand that substantial assistance would be extended to such as would take up the cultivation of land, as a means of support, and which the want of adequate encouragement to carry on seems to have held them back from attempting, except upon the smallest possible scale.

One drawback which the Indians in Nova Scotia, in common with those of New Brunswick, have experienced, and has been disastrous to them, is the practice which seems to have prevailed, almost unchecked, of any white men who chose to do so, assuming possession of portions of their reserves, and then, by exerting a little influence, contriving

before long to have himself placed in the position of a purchaser.

The attention of the officers of Indian Affairs has been directed to the cure of this evil. No white man could be induced to do anything on his property while such insecurity was ever present, and threatening at any hour to dispossess him of it; and, therefore, great allowances should be made for the poor Red men, who are too often begrudged the few limited Reserves which they are permitted to call their own. The issue of the proclamation by which the Legislative enactments for preventing unauthorized occupation of Indian lands have been made applicable to Indian Reserves in Nova Scotia, will, it is trusted, protect them to a very considerable extent in future. And already is there evidence that confidence on the part of the Indians has increased, as respects the management of their affairs.

### BRITISH COLUMBIA.

The very large Indian population of that Province, amounting to not less than 45,000 individuals, a proportion of whom are in various stages of semi-civilization, and another Portion who have advanced but little, if at all, beyond the condition of Indian life, such as

exists where intercourse with white men has been of a description neither to elevate the race, or to have for its object the imparting to individual members of it objects and aims of an order higher than those which influenced and guided them in their pristine condition, presents a wide field for energetic action, for zealous work on an extended scale; and for rendering these Indians, who, in point of numbers are formidable, eventually attached and valuable subjects of the Crown.

In endeavoring to arrive at a knowledge of what has been done for the benefit of the Indians of that new Province of the Dominion, it would seem that the pioneers in the important work of instructing them in the rudiments of education, and in reclaiming them from heathenism, were the Church Missionary Society, and the Society for Propagating the Gospel in Foreign parts. These Societies, which are indentified with the Church of England, have four principal Missions, as the chief centres from which their operations for educating and christianizing the Indians are conducted. The Roman Catholic Church, also, has been actively engaged, through its Missionaries, in instructing and improving the Indians. Among other efforts made for their benefit, is the establishment of an Industrial and Agricultural School, and it would appear that its effort has been to encourage, in some settlements, successful farming, but of course in a limited degree. There may be other religious denominations who have acted in the same praiseworthy manner; but, if so, no report explaining or making known the labors in which they have been engaged has been received at this office. The Indians of British Columbia have, it would seem from an official report, received upwards of 40 reserves, and averaging in contents from 100 to 200 acres.

The work of organization and the introduction of an Indian policy and system, has yet to be commenced; but the Bill about to be brought before Parliament, will, by making the Acts relating to Indian Affairs in other Provinces of the Dominion, applicable to this new province, and by the passage of the additional provisions which it contains, afford an excellent means of conducting Indian Affairs in British Columbia in a manner more consistent with the welfare and interests of the Indians, than from the information which has reached the Department, the description of management heretofore pursued, has apparently admitted of. The complaint has come from more than one quarter that they have been deprived of portions of their reserves, and it is inferred that redress has been, with them, difficult to obtain. The recurrence of such events will be prevented when the Act which has been prepared becomes law, and the boundaries of their Reserves are properly defined.

We must not, however, close our eyes to many difficulties which will have to be met, and many contingencies, at present unforseen, will require to be provided for hereafter.

The great point will be to begin right, and, although, for so extended a region the Local Staff available may not be adequate to the occasion, and the working of the laws and regulations hitherto unknown there may be attended with hindrances and inconveniences which will impede progress, yet the Indians will doubtless soon comprehend that their affairs are to be administered in such a manner that whatever rights and privileges are possessed by people of other origins, will be secured to them; and that on their part, by conforming to the laws enacted for their benefit, they will enable the Government the better to protect their interests.

It is trusted that previously to the period for issuing another official report on Indian Affairs, some progress will have been made in forming plans, and also in carrying them out, for promoting the material welfare of the Indians of British Columbia.

## POPULATIONS.

Upon comparing the population returns with those of the last year for the Provinces of Ontario and Quebec, it will be observed that some bands, more or less numerous, now appear for the first time in the Appendix to the annual report. This is to be accounted for by the fact, that the decennial census has, through the agency of the persons who collected the data for it, disclosed the existence of different parties of Indians, which were unknown to the Visiting Superintendent or other agents of the Department. These parties of Indians not being recipients of annuities or interest money, had no inducements to

report themselves to officers or others connected with Indian Affairs. The population returns to be found in the Appendix exhibit, it will be perceived, as regards most of the bands, an increase and not a diminution in numbers; and, on comparing these with former returns, it will be found to have been continuous. This is doubtless the result of improved habits of life, proper medical treatment when sickness has occurred, better habitations and sufficient clothing, better food, and an ample supply of it. Added to these, may be the restraints their religious instructors inculcates, and the better tone of mind which, in many, is observable. There are now fewer complaints of the commission of crime, and when we do hear of it, it is usually traceable to unsubdued habits, or instances of intemperance. There can be little doubt that the good influences at work, are rendering the Indians better members of society.

With respect to the population returns for Manitoba and the North-West Territories, no census having yet been completed, the computation of their numbers is necessarily

uncertain.

In regard to British Columbia, the information obtained by the Department is very imperfect, and it will be perceived that there are several bands, the population of which was entirely unknown.

It is trusted, that previously to the issue of another Annual Report, such additional information will have been collected as to furnish ample details in connection with all the

important Bands.

It now only remains for me to state, in conclusion, that upon the whole the various superintendencies and agencies of the Department have been satisfactorily conducted, and that the Staff at Head-quarters have given a steady and praisworthy attention to their duties, which, on reference to the proper tabular statement will convincingly prove, have become increasingly onorous, and which entail responsibilities inseparable from the varied and special nature of much of the work to be performed and little understood by those not intimately conversant with them, and demanding an amount of time and attention considerably in excess of any former years.

I have the honor to be, Sir,

Your obedient servant,

WM. SPRAGGE,

D. S. G. A.

Of Officers and Emplo	oyés of the India	n Branch, U endin	ich, Department of the Secre ending the 30th June, 1871	d the Secretary June, 1871.	01 State 10	Of Officers and Employée of the Indian Branch, Department of the Secretary of State for the Frontices, for the Fear ending the 30th June, 1871.
Designation.	Name.	Salary per annum.	When Appointed.	By whom Appointed.	Date of first Appointments to Provincial Service.	REMARKS.
Superintendent General	Hon. Joseph Howe	% cts.	Nil.	Nii.	Nil.	Holds that Office combined with that of Secretary of State for the Provinces.
Deputy Superintendent	. William Spragge	2,100 00	17th Mar., 1862	Govr. in Council	1st Jan., 1829	2,100 00 I7th Mar, 1862 Govr. in Council. 1st Jan., 1829 In Surveyor General's Department.
	Chas. T. Walcot	1,400 00	1st Dec., 1859	1,400 00 1st Dec., 1859 Governor General and O.C., 17th Mar., 1862	Oct, 1854	Oct, 1854 In (rown Land Department.
Corresponding Clerk	. Lawr. Vankoughnet.	1,100 00	1,100 00 13th Feb., 1861	op op	13th Feb., 1861	
:	J. P. M. Lecourt	00 006	10th Apl., 1862	900 00 10th Apl., 1862 Hon. A. Campbell.		
	S. G. Murray	00 008	800 00 1st June, 1866	οp		Appointed by Sir John Colborne Forest Warden, Township of Tyendinega, retired on pension, paid to 18th Feby., 1871.
Clerk and Translator	J. V. DeBoucherville	850 00	1st Jan., 1869	850 00 1st Jan., 1869 Sir E. P. Taché		In Registrar's Branch of Department of Secretary of State for Canada,
Probationary Clerk	Frederick Smith	300 00	Oct., 1870	Hon. Jos. Howe	lst May, 1865	Oct., 1870 Hon. Jus. Howe 1st May, 1865 Appointed Third Class Clerk, at \$400 per annum, 1st October, 1871. O.C., 13th October, 1871.

C. T. WALCOT, Accountant, Indian Affairs.

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, Indian Branch, Ottawa, 25th April, 1872.

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RETURN B.

SCHEDULE of Salaries paid, and Allowances and Payments made to individuals of the Indian Branch, Department of the Secretary of State for the Provinces, during the year ended 30th June, 1871, for Services at the Outposts and Stations.

22	y or wome for one	e riovinces, u	om Sum	year entier	Decievaly of Board for a covarioes, uniting the Jean entied bond that, 1911, 191 Betwies at the Curposes and Buttonias.	or iservices an un	e outland a	and Statelons.
E. L. ca. l Superintendency Division.	Names of Recipients of Payments.	Nature of Office or Service,	Amount Paid.	For what period paid.	Out of what Fund Paid.	Authorities of Appointment.	Date of Appointm't.	Remarks.
£	4 4		00 0205					
Superintendency	W. E. Dartiett	V. D. Bild Collis.	3) 7) CT	31st Mar. 71	33/2 vo 186 April, 70, vo 31st Mar. 71. Ind. Land Mang't Governor General 1st July, 78 Stationed at	Governor General	1st July, '58	Stationed at
Ontario.	A. Deacon	Clerk	292 00	1st April, '70, to 31st Dec '70		2 4	104 Teller 764	Toronto.
	Charles Irvine School Teacher.	School Teacher.	150 00	1st July, '70, to	op on	Supt. General	1st July, 04	00
				31st Mar. 71	31st Mar. 71. Mohawks of the Bay Q. Nominated by Band	Nominated by Band	104 110100	
	Rev. G. A. Anderson	Anderson Missionary	75 00	1st April, '70, to	-	and app d by Dept 1st July, 70	ist July, 70	
41	Rev. T Stanton		350	16th May, '70.	do do	Governor General		
	Miss Lydia Hill School Teacher.	School Teacher.		31st Mar. 71	op op	Supt. General 16th May, 70	16th May, 70	
				31st Mar. 71.		Nominated by Bond		
	qo	do Mohawk R've	15 00	1st April, '70', to	op op	and app'd by Dept 1st April, 70	1st April, '70	
	Geo. Charles Chief	Chief	20 00	30th June, 70.  1st April, 70, to 31st Mar. 71.	30th June, 70.   1st April, 70, to 31st Mar. 71. Chippewas of Snake I'd	op op		
	William Law School Teacher.	School Teacher	20 00	do do	op op	op op	op	
	Miss Eliz. Tilley	:	100 00	op op	Chippewas of Beausolve	op op	ę	
	John Assance	Chief	20 00	op op	op op	op op	op	
	David Assance Interpreter .	Interpreter	25 00	op op	op op	op op	op	
	Thos. Naningishkung Chief	Chief	23 00	op op	Chippewas of Rama	do do	op	
	J. B. Naningishkung Chief and Interp	Chief and Interp	20 00	op cp	op op	op op	qo	
	Rev. J. L. Saunders. For Sci Teacher	For Scil Teacher	20 00	do do	op op	do do	op	
	Dr. H. Corbett Medical Attdt	Medical Attdt	100 00	do do	op op	op op	- අ	

RETURN B.—Continued.

Remarks.	
Date of Appointm't.	1st April, 70 do d
Authorities of Appointment.	and app'd by Band do d
Autl	Nomina and and and do
Out of what Fund paid.	Chippewas of Saugeen.  do do do  do do
Out o	Chippew  do  do  do  do  do  do  do  do  do  d
For what period paid.	100         00         lst April, 70, to 31st March, 71         Chippewas of Saugeen.         Nominated by Band and app'd by Dept do
Amount paid.	100 00 10 00 10 00 10 00 12 50 18 200 00 18 50 00 20 00 20 00 20 00 5 00 5 00 5 00 18 5 00 19 5 00 10
Nature of Office or Service.	waosh  Councillor  Church Sexton  Chief  School Teacher  Surgeon  Interpreter  Chief  School Teacher  Messenger  Ghief  Messenger  Messenger  Ghief
Name of Recipients of Payments.	Eastern John Kadahgegwon. Chief Dontario. Jos. K. James Councillor John George Church Sexton. Gephas Kahbege Interpreter Geo. Hall School Teacher. Doctor Frickleton Surgeon Henry S. Jones Interpreter Geo. A. Tabigwon Chief F. Lamorandere Interpreter John Rice Secretary. John Rice Secretary. John Buodush Ghief John Johnson Chief John Johnson Chief John Sunday, Senr Chief
Local perintendency or Division.	Eastern Ontario. Ontario.

12 00 do do
12 00 do do
48 00 do do
30 00 do do
980 00 [1st April, 70 to
400 00 do do do do do do do Governor in Council
400 00 do do
200 00 do do
200 00 do do
100 00 do do
30 00 1st Oct., '69, to 30th Sep., '70 30 00 do do
7 00   1st April, 70, to 30th Sep., 70.
12 00 do do do
12 00 do do
250 00 1st April, '70, to 31st May, '71.
225 90 do do do
70 00 do do do do
20 00 do to 31st

Western Saperintendency

ned.
ontin
B.—C
JRN
RETT

Local	Names of	Nature of									
Superintendency or Division.	ğ	Office or Service.	Amount paid.	For what period paid.		Out of what Fund paid.	Authorities of Appointment.		Date of Appointm't.	Rem	Remarks.
Western	Chas. Kujoshk	Councillor	10 00	1st Oct., '70, 31st May. '7	to 71. Chippewa	s of Walpele.	Nominated b		and app'd by	the De	the Department.
	John C. Bryson School Representatives of	School Teacher.		1st April, 70, to 31st March, 771 Moravians of Thames. do do	to 71 Moravian	s of Thames.	op			ဝ <del>ှ</del>	မှာ
	late Frilip Jacob	Chief,	95 00	1st April, 70, to 30th Sept., 70.	70. do	op	op	op	අ	qo	op
	Frederick Jacob	:	20 00	1st Oct., '70, to 31st Mar., '71.		ę	op	ę	ę	දි	ę
	Joshua Jacob	Councillor	00 9	do de	<b>o</b> p	ep	op G	ခု	op P	ф	ep.
	C. M. Stonefish	*	00 9	op op	op do	do	ão	qo	<del></del>	op	ф
	Josh. Pheasant		00 9	do de	op —	qo	op.	op	op	op	િક
4	Jos. H. Crowley	School Teacher	250 00 1	1st April, '70, to	to to	Www.dattaaf A m.damdan		-	-5		Ę
	Dr. W. Lambert	Medical Attd	80 00	do do do	do do	op op	9 <b>9</b>	e op	<b>-</b>	9	<del>Q</del>
Grand River	:	V. S. and Comr.	1372 00	op op		Six Nations of G. R. &	Sumt Conoug	•	60, as M +o1		
Superintendency	Superintendency Henry Andrews	Clerk	784 00	do do		range, r und do	Gov. General	:::::::::::::::::::::::::::::::::::::::	1st Jan., 55		
		Medical Attd	1500 00	do do		Six Nations G. R	Nominated by Band		and app'd by		the Department.
	W. McCargo, M.D	::	280 00	do do	op	op	op	 -9	op	op	qo
•	G. H. Johnson	Interpreter	400 00	op op	ф 	do	op	op	op	<b></b>	op
	Jas. McLean	Warden	200 00	do do	op	qo	qo	စု	do	ф	op
<del>(</del>	David Hill.	Caretakor	20 00	do do	op	qo	ф	op	op	о <del>р</del> .	qo
	Geo. King	Chief	100 00	do do		Mississaguas of Credit.	op	ep ep	qo	ф	qo
. —	Jas. Chechock	Messenger	00 02	do do	op	op	qo	do	op	્ક	op
	Thos. Pyne, M.D	Medical Attd	200 00	op op	op	qo	op	op	op	op	op
	James McLean	Warden	100 00	op op	op —	op	op	ę	op —	do	op

ep ep	op op	and the second								<u>۔۔۔</u>	-	dians. Mr. White having left the	school, this Quar- ter's salary was	paid to these ladies.	they having per- formed Mr.	White's duties.		Golden Lake	Indians. Mission Point	Indians. Indians of Maria.
ep -	<del>ှင့်</del>		<u>~.</u> .				<u> </u>			Dead	7. Rive			paid		W —	<u>-</u> -		Indians.	Indians. Indians
op [	op op	18 May, '68,	5 Aug., '63. 1 April, '67.	Governor General 22 Oct., '59	r		Supt. General			-	1 April, '67.	,	8 May, '65.		10 Jan., 70.	ор	O. C., Dec.,	O.C.22 Ap 70 O.C., do		
οp	do do	neral	op op	General	op	[000]	nergal,	General.	qo	op	Supt. General	o <b>j</b>	op	op	op	op	op	<b>-9-9</b>	op	op
op	do do	Supt. Ge	မှာ <b>ဝ</b>	Governor	op	ָל מ	Supr. de	Governor	op	qo	Supt. Ge	op.	용 	<del>စ</del>	op	op	ę	<b>9</b> 9	op	qo
<b>o</b> p	do do	Indian Land Mangt Supt. General	တ <del>ို့</del>	op	op	4		Canada Ind. Fund. Governor General	ф	op	op	야.	op	qo	qo	qo	qo	မှ ဗ	<b>o</b> p	qo
op	do do	  Indian La	op op	op —	<b>o</b> p			ij	d.	op	op		<del>ව</del>	op —	op	op	op	ခုမှ	ор 	op
do	1st May, '70, to 31st May, '71.	op	မှ စ	op	op	ć	to 30th	e, 70	►.	June, 70	, 70	1st April, 70, to 31st May, 71.	g <sub>O</sub>	တို	qo	op	3rd May. 71	31st May, 71 do do	ф	do
op		<b>&amp;</b>	မိ မိ	op	<b>р</b>	- <del>-</del>		June,	Mar.,	J.	Sept	18t A) 31st	<del>8</del>	о <del>р</del> —	유	do	3rd May	d 31st	ę	qo
250 00	229 17	1176 00	715 44 1000 00	300 00	200 00	500 00	225 96	50 83	99 8 96	2	3 3	90,000	00 00Z	100 00	200 00	100 00	7.3 9.3	150 00	150 00	150 00
School Teacher.	Sexton	V. S. and Comr.	Clerk Medical Attd	School Teachers.	and School Teacher	Agent for Indian Land, Sault St. Marrie	R. C. Missionary	;	3	Sohool Poochon			:	:	:	Modinal Attel	•	School Teacher	for " "	for " "
James A. Wood School Teacher.	Alfred A. Jones, Fred: Takwah	W. Plummer	McGregor Ironside. Clerk Thos. Simpson, M. D. Medical Attd Bay I.o. Towney	seaux and Assist	Rev. J. Sims and Mr. Birkett		Lower Canada. Rev. F. Boucher	Rev. F. Marcoux	Rev Jos Manranlt		Sisters Gertrude &	blargaret Mary	Mrs. M. J. Fowell	Simon Assance	E. R. A. Fletcher	Fletcher Washed Atta	Dr Wm Webehom	<del></del>	Rev. Jos. H. Lconard for "	Rev. A. Audet
		Northern	T Carpenne and a Carpena Carpe	1	<u>. <del>11</del> </u>	3	Lower Canada I		<b>!</b> *	45				<i>J</i> 1	HE	• •			<u> </u>	144

Department of the Secretary of State for the Provinces, Indian Branch, Ottawa, 25th April, 1872.

# RETURN C.

STATEMENT of Special Payments, Contingent and Incidental Expenditure by the Indian Branch, Department of the Secretary of State for the Provinces, during the year ending 30th June, 1871, out of Upper Canada Funds.

Station, Superintendency, or Division.	Character of Disbursements.	Amount paid.	Out of what Fund paid.
		\$ cts.	
ead Quarters		400 00	Ind. Land Magt. Fund
	H. Bernard, Salary as Solicitor	400 00	" "
	Travelling Expenses	1,060 29	1 "
	Percentage on Receipts	101 06 270 00	
	Grand Chief Oshaweeno	25 00	46 66
	Medicines	333 33	"
	Advertising	144 39	" "
	Stationery, Printing, &c	61 93	46 46
	Wharf, Manitowaning	473 36	**
	Sundries, Rent, Telegrams, Postages,		
	&c., &c	1,529 37	66 66
	Surveys, Roads	7,019 90	1
	Transfers to other Accounts	151 00	"
	Gratuities	90 '00 402 08	45 66
	Improvements on lot in Anderdon	216 00	66 66
	Blankets	1,300 00	46
estern Superintendency	Medicines, Attendance, Funerals	- <b>,</b>	İ
•	Coffins, &c., per Registration of		
	1 ribe	556 60	Chippewas of Sarnia.
	Schools Books	7 09	Camppenian or source
	Allowances to Chapel Steward and	,	İ
	Messenger	70 00	"
	Pensions	200 00	"
	Surrender paid to the two Wawanoshes	<b>525 00</b>	
	Improvements paid to Abram Camah-		1 4
	Sono	500 00	
	Percentage on land Receipts	5,787 09 719 88	66 66
	110ad Work, and Bridges	713 27	44
	Expenses re-Collection of Timber	40 00	Chippewas of Walpole.
	rercentage on land Receipts	227 00	1
	Distribution	2,611 30	66 66
	rensions	40 00	Chippewas of Thames.
	Coffins	71 00	
	Percentage on land Receipts.	46 58	16 16
	DISCRIPTION	2,669 88	
•	Refunds	136 54	Munsees of Thames.
	If ercentage on land Receipts :	66 68 1,049 31	Moravians "
		5,721 29	44 44
	it ercentage on land Receipts	143 67	Wyandots of Anderdon
	(1/18Gribution	2,576 30	11 9411
	Interest on Investment.	101 91	Wm. Wabbuck.
	4 4	76 43	Jan.es Menace.
	Percentage on land Receipts	127 38	Nancy Maiville.
	Distribution	4 89 )	Pottawattamies of W
ntral and Eastern	1	100 95 }	pole Island.
Superintendency	Vaccination	31 00	Chippewas of Beausole
	1 Tausier,	62 82	Curbeass or resusper
	14 CIUCULADE ON IANA Receints	144 65	££ £6
	Distribution	1,949 72	46 44
	Pensions Roads, Inspection of	40 00	Chippewas of Saugeen.
	tanhecmon or	2,498 65	1 -12

RETURN C .: - Statement of Special Payments, Contingent, &c. - Continued.

Station, Superintendency, or Division.	Character of Disbursements.	Amount paid.	Out of what Fund paid.
Central and Eastern Division	Improvements	\$ ets, 12 50 25 00	Chippewas of Saugeen.
	Refunds		"
	Fishery License	10.00	66
	Percentage on land receipts		"
		<b>'</b>	Chiman
	Pensions Roads, inspection of	102 00 2,498 66	Chippewas of Na was h
	Improvements	12 50	1 "
	Refunds   Transfer	25 00 777 94	"
	Percentage on land receipts	1,177 47	
	Distribution	10,273 30	"
	Ploughs	80 00	Chippewas of Rama.
	Transfer	64 75	""
	Percentage on land receipts	109 03 2,042 83	i.
	Transfer	30 57	Chippewas of Snake Island
	Percentage on land receipts	28 18	••
	Distribution	923 38	"
	Rents paid to individual Indians	2,488 50	Mohawks of the Bay o
	Expenses leasing lands	101 50	Quinte.
	" Forest Bailiff	40 00 60 00	
	Transfer	54 85	"
	Services of Sexton	26 00	"
	Travelling Expenses, S. Green and		
	others	52 50	
	Insurance	39 40 10 00	44
	Gratuity, C. Smart	10 00	
	W. Frizzell	341 08	"
	Percentage on land receipts	311 36	46
	Distribution	6,935 16	••
	Repairs of School House	45 60	Mississaguas, of Alnwick.
	W. H. Eyre, for Searches	18 45	::
	Refund Percentage on land receipt	5 00 83 95	"
•	Distribution	3,800 31	<b>6</b> *
	Percentage on land receipts	1 65	Mississaguas of Scugog.
	Distribution	451 96	,,
	Account repayment of loan to build		
	Church	62 00	Mississaguas of Rice and
	Distribution	2,640 48	Mud Lakes.
	i i		
Grand River Superin-			
rand River Superintendency	Travelling expenses, Simcoe Kerr		
одисцеу	House Rent	125 00	Six Nations of the Grand River.
- sauchcy	House Rent	125 00 350 00 66 49	46
- sauchcy	House Rent	125 00 350 00 66 49 332 35	River.
	House Rent Pensions Expenses Queen's Birthday	125 00 350 00 66 49	River.

Return C.—Statement of Special Payments, Contingent, &c.—Gontinued.

Station,			
Superintendency,	Character of	Amount	Out of what
or	Disbursements.	paid.	Fund paid,
Division.			
Grand River Superin-	G	\$ ets. 249 80	Gir Nations of the Cond
tendency	Contingencies	99 72	Six Nations of the Grand River.
	Transfers	1,017 81	1617.61.
	Transfers	154 39	" "
	Stationery	41 00	14 "
	Law costs, Fagan vs. McLean and re		
	trial of Stewart	350 80	" "
	Expenses re Timber	725 02	1 "
-	Improvements Winterbottam and Anthony	350 00	
	Insurance	12 50	66 66
	Chiefs' board money	800 00	
	Burial Expenses	20 00	"
	Expenses of Delegates	494 57	" "
	Percentage on land Receipts	1,698 05	66 66
	Distribution	40,628 63	
	Pensions	225 00	Mississaguas of the Credit
	Sundries for Tribe	280 27	
	Paints and Painting Parsonage	87 30	
	Contingencies	33 76 50 00	" "
	Gratuities	100 00	46 66
!	Percentage on land Receipts	64 47	"
ST 13 15 15 1	Distribution	4,537 67	"
Northern Superinten-	District of	ŕ	i 1
dency	Distribution	203 20	Ojibewas of Lake Huron
	"	42 20	Shawanega Band. "Chief Dokis & his Band
	"	2,259 87	" of Lake Huron.
		2,086 51	" of Lake Superior.
Cornwall Superinten-	1	-,000 02	1
dency	Chiefs' yearly Allowance	50 00	Iroquois of St. Regis.
	Fuel wood for school	24 00	1 " "
Northern Superinten-	Distribution	2,728 65	! " "
dency	Percentage on land Receipts	271 42	Batchewana Indians.
	1 Tansier	101 50	j " "
	reiunds	19 00	"
Lake Two Mountains	Distribution	202 47	"
Superintendency	Percentage on land Receipts		- a m 35tains
	14 Familiers	6 00	Lake of Two Mountains
		330 00 117 63	Indians.
Albert Anthony		654 87	Albert Anthony.
NE TIBLICIS	II Plamondon Possonts	27 52	Abenakis of St. Francis.
Isle Verte and Vigio	Distribution	264 83	, "
	Transfor	453 50	Amalacites of Isle Verte
Peach Island	Refund	450 02	and Vigio.
Manitoulin Island	1	300 00 130 00	General Fund, P. A.
Gardon Di	I ransier.	7 00	Genl. Fund, Prov. Acc.
Garden River	Percentage on land Receipts	127 91	Garden River Indians.
Caughnawaga Eastern	Distribution	131 86	**
Division	Services of Missionary		1
**********	Distribution		Iroquois of Caughnawaga
	Tansfers	1,787 15	"
Wastern C.	Repairs to roads, &c	38 60 200 00	"
Western Superinten-	1	200 00	1
dency	Education and Board	,346 25	Indians Schools.
	Work Shops.	250 00	46
	48	_	

# RETURN C.—Statement of Special Payments, Contingent, &c.—Continued.

Station, Superintendency, or Division.	Character of . Disbursements.	Amounts paid.	Out of what Fund paid.
Western Superintendency  Lake Huron Indians on Mississagua River  Lake Nipissing  Manitoulin Island		\$ cts. 82 50 92 60 24 75 22 90 287 50 20 00 77 50 151 59 305 43 628 50	Indian Schools.  Lake Huron Indians on Mississagua River. Lake Nipissing Indians.  Ojibewas and Ottawas of Manitoulin Island.
River Desert	Percentage on land receipts	305 43 824 83	River Desert Indians.
Thessalon River	Percentage on land receipts	5 61	Thesalon River Reserve.
White Fish River	Percentage on land receipts	5 62	White Fish River Reserve.
	Percentage on land receipts  Percentage on land receipts		Fort William and, Lake Superior. Nipissingues, Algonquins, and Ouataouais, of the Upper Ottawa.

# RETURN D.

STATEMENT of Sums paid out of the Lower Canada Indian Fund, during the year ended 30th June, 1871.

Sup	Statio erinten r Divis	dency,	Character of Disbursements.	Amoun
юwer	Canad	a	Sundry Roman Catholic Missionaries	\$ ct
do	do	• • • • • • • • • • • • • • • • • • • •	Grant to Maniwaki Road	1,000
do	do		do in aid of Schools and salaries of Teachers	1,512
do	do	•••••	Salaries and services of Medical Attendants	148
do	do		Purchase of Lands in South Algona	156
фo	do		Advertising	<b>2</b> 3
do	do		Gratuities, Karoniahasi and Widow, Nipissing	25
do	dο		Grants to relieve distress	1,990
do	do	•••••	Roman Catholic Missions	500
do	do		Vaccination	565
do	do		J. B. A. Chamberland, professional services	5
do	do	•••••	Services to Durham Lands and Indian Land Quarries	272
фo	do		Repairs to Church, Caughnawaga	500
do	do	•••••	Per centage	104
do	do	•••••	Travelling Expenses	415
do	do		Tribal Expenses, Abenakis of St. Francis	55
do	de	•••••	Seed Grain	2,175
de	de		Peter Basket, expenses 76 Restigouche Indians	25
				\$9,959

Department of the Secretary of State for the Provinces, Indian Brance, Ottawa, April 25th, 1872. E.—Statement of Special Payments, Contingent and Incidental Expenditure, by the Indian Branch, Department of the Secretary of State for the Provinces, during the year ending 30th June, 1871, out of the Nova Scotia and New Brunswick Funds.

Station, Superintendency or Division.	Character of Disbursements.	Amount Paid.	Out of what fund payable.
,,,,,,,,,	Salary, Rev. J. J. O'Leary.  " Rev. J. C. McDevitt. " Chas. Meahan Sundry acets., Supplies, Seeds, and Medicines, G. Thompson. Medical Bills. Plans &c., Dep. Surveyor General Inches. Travelling Expenses Statistics, Indians, Co. Victoria Relief &c., for Indians, Co. Victoria.  " Carlton. " Kent. " York " York " Westmoreland. " Northumberland. " Restigouche. " Gloucester. " Charlotte. " St. John City. Seed Grain. Relief Sick Indians. Blankets Slankets Slankets Travelling Expenses Travelling Expenses Grant; Merigomishe Indians Relief &c., Indians, District No. 1.  " " " " 2. " " 3. " " 4. " " 5. " " " 5. " " " 5. " " " 66. " " " " " 7.	\$ cts, 100 00 250 00 112 50 252 88 40 00 40 00 25 00 25 00 25 00 25 00 25 00 230 00 190 00 190 00 100 00 100 00 100 00 100 00 100 00 167 00 198 50 80 00 100 00 128 50 80 00 128 50 80 00 128 50 80 00 129 50 80 00 150  New Brunswick, Ind.  """""""""""""""""""""""""""""""""""	
_		<b>\$</b> 6,151 98	

Department of the Secretary of State for the Provinces, Indian Branch, Ottawa, 25th April, 1872.

Funds and Commuted Annuities, June, 1871, and the Credit Balance at the date last F.—Statement and Condition of the Indian Fund, showing the Balance at the Credit thereof on the 1st July, 1870, the Receipts and Payments during the year ended 30th June, 1871, and the Credit Balance at the date last cts. Constituting Invested 85288 1129 129 129 129 186,519 137,721 223,352 54,958 48,339 21,949 730 889 1,820 132,396 116,613 96,202 75,038 Balances 622 3,635 41,528 192,766 117,686 520 Credit 35 88848888888 22 46 23 31 31 31 3,430 12,615 9,657 6,345 6,345 11.145 4,341 503 Total. 2,242 2,842 408,42 22,669 9,959 453 24EXPENDITURE. cts. 6383388 8 :8 8 2 By Transfer. . [2] cts. 35 By Warrants. 287 5 6,205,6 6,268 10,834 4,257 501 221 2,155 3,384 11,909 8,938 2,831 2,347 1,083 430 131 4,551 2,204 2,804 2,804 9,959 cts. 17,233 15,264 23,656 5,460 1,615 2,179 2,179 2,179 2,4770 2,267 2,341 20,209 6,804 131 277 43 320 17,007 7,795 13,337 5,595 616 Total. cts. :00 33 88 8 Transfers. 33 <del>60</del> RECEIPTS. cts. Funds: Com-mutation of 421084521 Annuities, Grants, &c. nterest on Invested 10 253 253 253 10,441 10,441 12,248 12,248 12,248 1,334 69 cts. 02742400 22222 229 10,346 -812 ! 7,643 5 999 5 Land, Timber, 520 726 2,714 1,446 1,446 480 6,791 7,484 11,408 2,270 1,090 1,090 2,070 1,279 2,947 1,833 2,41 2,41 60 60 303 01 503 01 503 01 603 51 103 51 103 103 103 103 103 103 103 103 104 103 104 103 105 cts. 2238825 Credit Enlances, 1st July, 1870. 477 846 1,810 122,644 115,163 94,010 73,783 9,895 Mississaguas of the Credit.
Mohawks of the Bay of Quinté.
Mississaguas of Alnwick
Mississaguas of Skugog Abenakis of St. Francis Amalacites of Isle Verte and Viger Batchewana Judians Durham Indians General Fund, Provisional Acc'nt. Garden River Indians...... (b) ppewas of the Thames (b) ppewas of Saugeen.... Lake Huron Indians on Mississaga River Lake St. John Indians Beausoliel Indians ...... roquois of St. Regis ..... Chippewas of Nawash..... Chippewas of Walpole Chippewas of Rama. Chippewas of Sarmia froquois of Caughinawaga..... Moravians of the Thames..... Chief Dookis and his Land ..... Lake Nipissing Indians ..... Chippewas of Sake Island Tribe or Fund. mentioned

-	3,358 66 2,762 48 54,106 138 58 138 54 60.1	44 76 44 76 43 1519 23 1519 23 157 36 157 36 157 36 158 158 157 38 157 36 157 3	1 82	151 59 223 05 393	2,265 47 2,325 38 2,325 38 245	624 82 3,826 60 3,826 60 1,398	3.041 64 2.505 27	101 50 2,586	36 17 00 4,403 84 726 00 557 02 1,283 02 9,310 92	43 17	133 87 100 95 4 89 105 84 9 689	4,647 48 1,429 06 308 90 1,737 96 19,705	150 30 64,759 57 48,596	. 159	59.56	82 42	4,617 03 2,906 30 143 67 3.049 97 51.401	101 92 101 91	0.0 24 5 62 5 62 218		38 314 38 30 40 30 40 283 93 67 67 67	199	A 11 900 41 969 909 70 100 010 010 010 010 010 010 010 010
	2,695 50	1,519 22 2,532 04	35 56	67 62	305 29 33 90		48,094 94	40,076 41	6,190 10 4,037 48	847	86	96.	215 79   17,029	1 35	989 11	508 76 56 13	22 1,931	04	170 89 77 60	-	304 00		\$2,629,899 25   92,007 17
Mississacuss of Rice and Mudi	Lakes Munsees of the Thames	Manace, James.	Manitofilm Island (unceded) Megannattewan and Naiscoutvong	Indian Reserves	Nova Scotia Indiana	Nishiguanga and his Band.	Ojibewas of Lake Huron	Olibewas of Lake Superior Olibewas and Ottawas of Mani-	toulin Island	Clench's deficits	Fottawattamies of Walpole Island	City of the series of the seri	Servent River Passers	Spanish River Indians.	Tetomonais (Chief) and his band .	Thessalon River Reserve	Wyelldotts of Anderdon	White Fish River Bezorve	(Fort) William Band	Nipissingues, Algonguins, and	Opatousis of the Upper Ottawa Hurons of Lorette		Total

C. T. WALCOT, Accountant, Indian Affairs.

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, INDIAN BRANCH, OTTAWA, 25th April, 1872.

Ď.	G.—GOVERNMEN	T in accoun	t with the	G.—Government in account with the Indian Department.	Š
1870. y 1st			June 30th	\$ cts.   1871.   By amount of payments between 1st July, 1870, and 30th June, 1871	\$ cts. 197,301 53
1871. 1e 30th	June 30th To amount of Receipts from 1st July, 1870, to 30th June, 1871		June 30th	June 30th By amount of Balance	2,694,980 30
		\$2,892,281 83			\$2,892,281 83
PARTME	DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, INDIAN BRANCH, OTTAWA, 25th April, 1872.	PROVINCES,		C. T. WALCOT,	
				Acci. Inaidn Affairs.	Affairs.

H.—Statement shewing the number of Acres of Indian lands sold during the year ending 30th June, 1871.

No Acres.	To what Tribe belonging.	Amount of Principal.	Average rate per acre.
7,072 86 230 11,816 50 Town Lots, 200 39 24 and Town Lots 291	Six Nations Indians	1,478 12 115 00 6,171 89 250 00 430 00 600 00	\$ cts. 1 44 17 19 50 52 5 00 3 00 4 00

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, INDIAN BRANCH, OTTAWA, 25th April, 1872.

C. T. WALCOT,
Accountant Indian Affairs.

I.—STATEMENT shewing the quantity of Surveyed Surrendered Indian Lands remaining unsold, with their computed value, on the 30th June, 1871.

Albemarle. Saugeen Peninsula and Owen Sound 17,756 Acres. Amabel	Townships.	Where situated.	Estimated Number of Acres.	Average value per Acre
Billings	Amabel Keppel Half-Mile strip Sarawak Eastnor Lindsay St. Edmund Bidwell Howland Sheguiandah	,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	6,724½ ,,  267 ,,  406 ,,  85 ,,  48,260 ,,  67,310 ,,  65,872 ,,  24,616 ,,  17,570½ ,,  25,612 ,,	\$ cts 2 50 2 50 2 50 2 50 2 50 1 00 1 00 1 00 1 100 1 100
Aweres Batchewaning Bay 21,544 ,, Fenwick , 17,168 , Kars , 10,3281 , Pennefather , 17,894 , Dennis , 3,518 , Herrick , 7,205 , Gisher , 12,241 , Gilley , 13,261 , Haviland , 3,821 , Vankoughnet , 2,800 , Archibald , 2,980 , Archibald , Fort William (Lake Superior) , 20,660 , Tenrel and the superior , 20,660 , Tenrel and the superior , 20,660 , Tenrel and the superior , 20,660 , Tenrel and the superior , 20,660 , Tenrel and the superior , 20,660 , Tenrel and the superior , 20,660 , Tenrel and the superior , 20,660 , Tenrel and the superior , 20,660 , 20,241 , 20,242 , 20,2	Assiginack Campbell Carnarvon Allan Tehkummah Sandfield	, , , , , , , , , , , , , , , , , , ,	. 23,167 ,, 38,959 ,, 36,172 ,, 22,075 ,, 17,888 ,, 24,067 ,,	Agricultural 1 50 cents per a Mineral lands
Miley       13,261         Haviland       3,821         Vankoughnet       2,800         Tupper       2,800         Archibald       2,980         Neebing       Fort William (Lake Superior)       20,660         Transitions       Page of Opinto	Aweres Fenwick Kars Pennefather Dennis Herrick Gisher	Batchewaning Bay	. 21,544 ,, 17,168 ,, 10,328½ ,, 17,894 ,, 3,518 ,, 7,205 ,, 12,241 ,,	
Orford County of Kent	Haviland Vankoughnet Tupper Archibald Neebing Tyendinaga Orford	Fort William (Lake Superior) Bay of Quinte County of Kent	13,261 ,, 3,821 ,, 2,800 ,, 2,800 ,, 2,980 ,, 20,660 ,, 6,929 ,, 215 ,, 20,670 ,, 20,670 ,, 215 ,, 20,670 ,, 215 ,, 215	2 50 4 68 4 00

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, INDIAN BRANCH, OTTAWA, 25th June, 1872. J.—Provision Return for the year ended 30th June, 1871, for Indians of Lower Canada, in lieu of which a money Commutation is received from the Imperial Government through the Commissariat Department of Canada.

Tribe,	Denomination.	Number of Persons.	Amount paid Sterling.	Remarks.
Abenakis of St. Francis	Women half rations	2 2 2	£ s. d. 2 12 3 5 3 3 2 12 3	"
	Total		10 7 9	

C. T. WALCOT,

Accountant of Indian Affairs.

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, INDIAN BRANCH, OTTAWA, 25th April, 1872.

K.—Comparative Statement of the population of the Indian Tribes and Bands throughout Canada, between the years 1870 and 1871.

throughout Canada	i, Deiw	een me	years	10/0 &	nu 1071.
Name of Tribe or Band.	Population in 1870.	Population in 1871.	Increase.	Decrease.	Remarks.
Province of Ontario. Oneidas of the Thames Chippewas and Munsees of the Thames. Moravians of the Thames. Wyandotts of Anderdon Chippewas, Pottawatanies and Ottawas, of Walpole Island Chippewas of Sarnia Do Snake Island Do Rama Do Christian Island Odahwahs and Pottawataines, of Christian Island Mississaguas of Mud, Rice, and Scugog Lakes Mohawks of the Bay of Quinte Mississaguas of Alnwick Ojibways of Sandy Island Chippewas of Saudy Island Chippewas of Saugeen Do Cape Croker Chistian Island Band, on Manitoulin Island Six Nations of the Grand River Mississaguas of the Credit Chippewas of Lake Superior Do Lake Huron Manitoulin Island Indians Carleton County Indians Indians of South Lanark Do North do Do South Renfrew Do North do Do South Nipissing	750 552 128 270 191 39 310 725 203 195 296 342 76 2,869 192 1,502 no retu's do	1,566 21 17 13 79 94 75	5 2 2 2 10 22 3 10 22 8 47 18	49	By death. By emigration.  12 births; 10 immigrant
Do North do  Province of Quebec.  Iroquois of Sault St. Louis  Do St. Regis Nipissings, Algonquins and Iroquois of the Lake of Twe Mountains.  River Desert Indians.  Do Temiscaming Indians Indians of South Pentiac  Do North do  De Hull Township.  Do Picanok  Do Hincks  Do Kagle River  Do Kensington  Io Bouchette  Do Tomasine  Do Kakebouga  Do Bowman  Do Lièvres West  Do Mulgrave  Do St Angelique  Do Petite Nation  Do North Nation  Do North Rouge  Do North Rouge  Do North Rouge	843	312 no retu's 896 416 113 198 68 520 66 21 15 22 1 19 196 92 8 54 20 3 1 44 75 6	53		

# RETURN K .- Continued.

	Name of Tribe or Band.	Populat'n in 1870,	Populat'n in 1871.	Increase.	Decrease.	Remarks.
Indiana	Province of Quebec. of Doncaster		1 8	1		1
Do	Montcalm		12			
Do	Joliette		5			
Dо	Berthier		6			
Do	Richelieu		3			
Dο	Iberville		7			1
Do Do	Mississquoi		8			
Do	Shefford					
Do	South St. Maurice					
Do	North do		175			1
	is of St. Francis	264	273	9		
Do	Bécancour		68		4	1
	of Stanstead		2			]
Do Do	Compton		5 3			1
	Portneuf of Lorette		235		! · · · · · · ·	!
Montag	nais of Point Blew, Chicoutimi,		2.50			
Rober	val, &c	l <b>.</b>	423	1		1
Montagr	nais of the Moisie, Seven Islands,		į		1	ì
	mits and Mingan		1,309			
Amaleci	tes of Viger	91	79		12	
Indiana	of Maria and Restigouche	1,000	no retu's			
THOUSTIN	of Gaspè Basin		84		•••••	
	Province of Neva Scotia.		1			
Indians	of Annapolis		63			
Do	Colchester		31			]
$\mathbf{p}_{\mathbf{o}}$	Cumberland		44	· · · · · · · · · ·		
$\mathbf{D_o}$	Digby	• • • • • • • •	224			
Do	Guysborough					1
$\tilde{\mathbf{D}}_{0}^{0}$	Hants.		168			
$\overline{\mathbf{D}}_{0}$	Kings		61			
Dο	Lunenburg		50			
Do	Picton		125			
$\mathbf{D}^{\circ}$	Queens		83			
Do Do	Shelburne		28	• • • • • • •		
D <sub>0</sub>	AntigonishYarmouth		93 20			
$\vec{\mathbf{D_o}}$	Cape Breton		188			
Do	Inverness		138			
$\mathbf{p}_{\mathbf{o}}$	Richmond		78			
Do	Victor Bossos		69			
,						
Indian -	Province of New Brunswick. of Restigouche		77.4			
Do	Queens		74 37	•••••		
$\mathbf{D_0}$	Sunbury		26			
$\mathbf{p}_{\mathbf{o}}$	Northumberland		436			
$\mathbf{D}_{0}$	Westmoreland		93	•••••		
Do Do	Gloucester		54		· · · · · · · · ]	
Do	Charlotte		49 248	•••••	•••••••	
$\widetilde{\mathbf{D}}_{0}^{0}$	Kent	•••••	248 112		·····i	
$\mathbf{D}^{\mathbf{o}}$	St. John					
$\mathbf{p}_{0}$	Kings					
Do	Gloucester		54			
$\mathbf{D_o}$	Uarleton		21		,	
20	York		159		• • • • • • •	
_	Province of Manitoba.			-	1	
Indiana	of Rainy Lake		386		1	
	Lake of the Woods		346			
Do	do		115			
					,	

# RETURN K .- Continued.

-	Name	of Tribe or Band.	Populat'n in 1870.	Populat'n in 1871.	Increase.	Decrease.	Remarks.
	Desce	ince of Manitoba.	1				
Ind		al Lake		111		1	
I	Do For	t Francis		49		1	
		ns		not giv'n		<b> </b>	
	e Indians e ckfeet do	estimated at		7,000	· · · · · · · · · ·		
Blo		do		4,000 2,000		····	
	igin do	do		3,000		••••	
Lu	rcees do	do	1	200			
	iniboine do	do		500			
	od Crees do			425			
K	M. Assinibo	oine Indians estimated at		225	• • • • • • • •		
	Promina	of British Coumbia,					
Fla		ns estimated at		7,300			
		do do		2,050			
Sim	ilkameen (	do do		500			
		do do	•••••	1,250		• • • • • • • •	
Lill	iset ser Lake In	do do		1,300			·
	ser Lake in lliams Lake		•••••	_		• • • • • • • •	
		lo estimated at		,,			
		do do		"			
Con	nux	do do		100			
		do do		1,500			
		do do	• • • • • • •	2,000	• • • • • • • • •		
( hi	mseau and	Nap Indians estimated at		4,000	• • • • • • •		
Hw	gas and Sti dah			3,000	• • • • • • •	•••••	
Noc	otka Sound	do do		2,000			
Cla	yequot and	do do Barclay Sound Indians		2,000			
Nit	inal Indians	estimated at		1,500	• • • • • • •		
	7	Supert's Land.					
	n. Tndiene of	Osnabugh		350			
19A	Indians of	3		-	••••		
River.	Do	Martin's Falls		300			
<b>~</b> }							
Albany	Do	Long Lake	• • • • • • • •	250	•••••	• • • • • • • •	
当し	Do	Albany		700			
-Q (	, Du	Albany		100	•••••	• • • • • • •	
.: 6	Do	New Brunswick		150			
F	Do	Mattamagamingue		120			
<b>á</b> !	Dо	Flying Post		100			
`9 ₹	Do	Mettachewan		50		• • • • • • • • • • • • • • • • • • • •	
8	Do Do	AbittibiLong Portage Post	•••••	450 50	•••••	••••	
Ř	Do	Moose Factory		420			
£ (	. 20				••••		
ا ځ	Do	Waswanapee		200			
4	•	35.4	1		ļ		
ቂነ	Do	Mistasine	• ••••	150	•••••		
Eastmain, Rupert's River, Moose River,	Do	Rupert's House		400			
윤니		Tanharan Transcritting		100	•••••		
<b>a</b> (	Do	Fort George, Great Whale	j	1	1	]	
7	River.			450			
	Indiana of	Little Whale River	1	50	[		
目	Do	Nitchequon.	1	180			

Indian Branch,

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, OTTAWA, 25th April, 1872.

L.—Statement of the Condition of the various Indian Schools within the Dominion of Canada.

Indian Reserve or Band,	Name of Teacher.	Salary per annum.	From what Funds paid.	No. of Boys.	No, of Girls.	Total No.	Remarks.
PROTIECT OF ONTARIO. Mount Elgin Industrial School	Rovd, James Gray	\$ cts. Not known.	Wesleyan Methodist Missi.nary Society and Indian Friends.	27	13	04	Thirty Indian children are vaid for from Indian Funds
Moravians of the Thames Wandotts of Anderdon Chippewas of Sarnis	J. G. Bryson James Crowley Wm. Marsden	300 00 300 00 300 00	Friends	8 9	17	13	
Walpole IslandJames Cameron	James Cameron	300 00	Fund Fund AM. \$200 Church of England, \$100 Indian	83	8	£	
" Kettle Point	J. Greenbird	300 00	\$150 Indian Funds, \$150 Church of Eng-	;;;	= =	<b>9</b>	
" and Munsees of the Thames Oneidas	the Thames Joseph Fisher Joseph Wancansh Miss Delong	200 00 200 00 200 00	land. Indian Funds	22 t e	26 18	<b>55</b>	
Chippewas of Sangeen		200 00 200 00	Society	28 8	9 12 e	98 1	
Miss Cathy	Miss Cathy	160 00	Wesleyan Mission	9 0	3 4	i ?	
" Mud Lake ", Alawick	George Crook Miss Barry	400 00 200 00	New England Company Wesleyan Mission Society	. 28 %	28 %	48 4	
	L. Sanderson	8 8	Wesleyan Mission Society	14	7	≩	
Colphewas of Cape Croker		200 00	Church of England.	<b>8</b>	ଛ	8	
,, Snake Island	Wm, Law	250 00	Wesleyan Mission Society.	2 ଅ	81	\$	

L.—Statement of the Condition of the various Indian Schools within the Dominion of Canada.—Continued.

Indian Reserve or Band.	Name of Teacher.	Salary per anaum.	From what Funds paid.	No. of Boys.	No. of Girls.	Total No.	Remarks.
PROVINCE OF ONTABIO.—Consinued.		B cts.					
(Heoreine Island	Char Grelle	00 006	Wesleyan Mission Society	15	10	Ħ	
	Miss A, McLean.	200 00	Society \$100 Indian Funds, \$100	15	11	88	
Mohawks of Bay of Quinte	Alexr. Hewitt Chas, Irvine Miss L. Hill	185 00 200 00 166 00	Society Society Indian Funds New England Company \$100 Indian Funds, \$666	22 17 3	844	<b>422</b>	
		,	pany England Com-	13	17	8	
Mississaguas of the Credit on the Grand	Alfred A. Jones	250 00	Indian Funds	19	13	35	1
River Bix Nation Indians, No. 1	-	250 00 320 00	New England Company	83	45	98	~ ~
		388 388 388	<b>.</b>	25;	27	25	and fed of the Co
55.4	George Powles	200 CS		38	17 17	<b>%</b> &	
9	Uharles Jackson	88 88 88		48	25	s s	
	Miss Diamond	800 800 800 800 800		4. 4. -	13	28	
10	Mrs. Beaver	88 88 88	: : :		ឌន	15 E	
	Miss M. Diamond	300 00 300 00	Wesleyan Mission Sc'y. Indian Funds	258	6 ::	84	
Shesheguaning ,,	Miss Andreont     Wm. Barril	300 00	Congregational Society	14.	25 16	30	
	William Stinkon	00 000	New England Scity.	32	25	57	
Continue Kiver Indians	dor Miss J Marein	00 001	Colonial and Continen- tal Church Society Indian Funda	Not 20	stated 25	84	

								Not heard from,	<b>.</b>	6.
8	·		<b>ತ</b> ಣ್ಣ ಕ್ರ	182	109 109	. <del>1</del> 6			:	
13			87 :	75	ឌន	:23 E3			:	
17			48 <b>3</b>	107	51 64	27			:	
170 00 \$150 Indian Funds, \$20 by the Indians		160 00 \$150 Indian fund, \$10 from Bureau of Edu-	cation Indian Funds Roman Catholic Church	75	cation Funds	Indian Funds.  Bureau of Education				150 00 Indian Funds
170 00		160 00	150 00 189 80	341 24 300 00 276 00	150 00	200 00 170 00 124 00				
7 of Miss Ann Connelly		Miss Victoria Lepage	Helen Pritchard Frere Philip George Stee Mathilds and	Elzear Mr. & Mrs. Fletcher Jos. Laurent	Sisters Gertrude and Margaret Mary	Mrs. M. J. Powell Miss L. Dubuc and ren Islands J. G. Vincent				Charles Meaban Frank Bernard
Golden Lake Indians of the County of Reafrew	PROVINCE OF QUEERC.	Minmacs of Restigouche Miss Victoria Lepage	tain Indians.	Leoquois of Caughnawaga	Mayor Desert Indians,	Betriamits Indians Livenuis of St. Regis Hurons of Lorrette Indians of Moisie and Seven Islands	PROTINGS OF NOVA SCOTIA.	Bobool No. 1.	PROTITOR OF NEW BRUNSWICE,	Indians of Tobique

Department of the Secretary of Seas for the Provinces, Indian Branch, Ottama, 25th April, 1872.

# RETURN M.

# STATEMENT.

Number of Letters received in 1870-71	2,114
1869-70	2,023
Increase in 1870-71	91
Number of Letters checked off as answered in 1870-71	
Increase in 1870-71	27
Extra Entries on account of Letters in 1870-71	
Increase in 1870-71	102
Total number of Entries in Letter Register for 1870-71	
Increase in 1870-71	220
Number of Letters written and entered in 1869-70	•
Decrease in 1870-71	154
Number of Reports entered as made in 1869-70	
Decrease in 1870-71	61
Number of Assignments registered under the Act 23 Vic. Cap. 2, during the year 1870-71	
Ingress in 1870.77	9

Department of the Secretary of State for the Provinces, Indian Brance, Ottawa, 25th April, 1872.

# OFFICIAL RETURN

Of the Distribution of the STATUTES OF CANADA, 34 Victoria, transmitted for the information of the House of Commons.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 24th April, 1872.

<sup>[</sup>In accordance with the recommendation of the Joint Committee on Printing, the above Return is not printed.]

Statement of Receipts and Expenditure of Canada, from the 1st July, 1871, to the 31st March, 1872.

STATEMENT of RECEIPTS and EXPENDITURE of Canada, from the 1st July, 1871, Expenditure for the current year, RECEIPTS.

SERVICE.	Receipts to 31st March, 1872.	Estimated Revenue.	Balance.
	e ota	e ota	\$ cts.
Customs. Excise Post Office. Public Works Bill Stamps Casual Ordnance Lands Interest on Investments. Bank Imposts Fines and Forfeitures, including Seizures Premium Discount and Exchange. Mariners' Fund. Harbour Police. Emigration. Steamboat Inspection. Fisheries Cullers. Militia and Defence. Penitentiaries Sundry Special Receipts. Marine Hospitals. Harbour Improvements. Canada Gazettc. Superannuation Fund. Lighthouses and Coast Service.	\$ cts. 6,987,787 45 3,419,592 99 459,461 02 859,946 50 141,506 44 9,034 82 30,962 88 221,898 82 5,384 67 11,610 17 29,963 77 22,326 94 16,886 73 18,569 50 5,590 36 2,868 68 71,455 41 36,664 84 63,876 01 1,269 77 254 50 1,446 10 792 07 30,828 54 2,898 28	\$ cts. 10,000,000 00 4,300,000 00 500,000 00 1,000,000 00 160,000 00 850,000 00	\$ cts. 1,012,212 55 880,407 01 40,538 98 140,053 50 18,493 56
	·		
Tetal Consolidated Fund	14,452,877 26	16,810,000 00	2,357,122 74

to the 31st March, 1872, together with the Estimated Revenue and Authorized and the Balances of the same.

# EXPENDITURE.

Expenditure to 31st March, 1872.   Expenditure to 31st March, 1872.   Expenditure.   Expenditure.   Expenditure.   Expenditure.					
Interest on Public Debt	SERVICE.	to 31st March,	Authorized	Balance.	over
Interest on Public Debt					
Charges of Management	T	1		"	\$ cts.
Marine Hospitals	Charges of Management!	219,121 58 401,500 01 28,755 36 459,884 53 163,596 55 29,550 70 144,150 57 128,846 30 34,830 90 2,871 81 201,148 98	89,059 10 376,180 80 20,000 00 678,974 99 335,466 66 45,348 00 294,631 52 407,198 75 50,100 00 6,470 00 400,493 63	219,090 46 171,870 11 15,797 30 150,480 95 278,352 45 15,269 10 3,598 19 199,344 65	25,319 21
Pensions	Marine Hospitals				
Manitoba Expedition   62,150 72   1,172,100 36   280,999 86   2,024,601 68   1,743,601 82   270,903 69   375,941 00   105,037 31   10	Pensions Superannuation Militia	45,725 44 23,231 56	53,733 87	8,008 43	23,231 56
Public Works and Buildings		· · · · · · · · · · · · · · · · · · ·	1,120,010 15	010,321 10	62.150.72
Customs         352,382 19         525,336 25         172,954 06           Excise         108,964 40         150,100 00         41,135 60           Post Office         50,000 00         50,000 00         50,000 00           Public Works!         639,776 91         858,000 00         218,223 09           Public Works!         554,137 32         904,042 00         349,904 68           Minor Revenues         7,183 46         10,000 00         2,816 54	Public Works and Buildings Ocean and River Steam Service Lighthouses and Coast Service Fisheries Culling Timber Steamboat Inspection Subsidies to Provinces Miscellaneous British Columbia (Excess over Revenue) North West Territories	280,999 86 270,993 69 2339,697 21 57,212 95 56,643 80 6,683 06 2,941,830 38 29,167 55 43,465 36 59,874 02	375,941 00 348,516 00 113,657 14 73,400 00 8,500 00 2,552,130 10 244,900 00	105,037 31 108,818 79 56,444 19 16,756 20 1,816 94 215,732 45 81,534 64	·
108,964 40	Charges on Revenue.				
Total Consolidated Fund 11,620,695 24 18,251,892 60 7,270,416 97 639,219 61	Post Office Public Works	108,964 40 639,776 91 554,137 32	150,100 00 50,000 00 858,000 00 904,042 00	41,135 60   50,000 00   218,223 09   349,904 68	
	Total Consolidated Fund	11,620,695 24	18,251,892 60	7,270,416 97	639,219 61

# RECEIPTS.

SERVICE.	Receipts to 31st March, 1872.
Stock bearing 6 d	\$ cts 40,780 00 262,610 00 1,157,971 74  1,461,361 74  1,071,979 99 25,159 09 200,000 00 644,691 00 200 00 14,000 00 1,726,330 34 89,258 00 30,282 82 4,301 20 41,548 96 176,223 28 976 19 355 54 59,989 36 1,946 92 5,100 00 25,061 14 50,264 29
Total Open Accounts	4,166,768 12

# EXPENDITURE.

SERVICE.	Expenditure to 31st March, 1872.	Estimated Expenditure.	Balance.	
Redemption of Debt	\$ cts. 687,290 10 197,191 92 218,632 34 278,277 38	\$ cts. 1,040,664 15	\$ cts. 353,374 05	
Total Redemption  Bank of Montreal, Advance Account  do Special Deposit Account  Royal Canadian Bank, Special Account Intercolonial Railway Opening of North-West Territory North-West Territory Less Receipts  1,366 94	1,381,391 74 52,967 82 800,000 00 89,198 29 150,000 00 3,718,709 21 207,764 38	6,000,000 00 400,000 00	2,281,290 79 192,235 62	
Pacific Railway Public Works, Chargeable to Capital Province of Canada, Debt Account Ontario and Quebec, Special Accounts Province of Ontario, Debt Account do Quebec, do Ave Brunswick, Debt Account do British Columbia, Crown Agents' Account Indians Widows' Pensions and Uncommuted Stipends Copyright Duties Crown Agents of Colonies Bank of Upper Canada, Advance Account	43,799 58 280,757 64 469,744 96 822 68 10,258 20 1,098,004 09 800,000 00 5,500 00 15,899 91 102,192 40 2,351 76 526 73 62,770 07 16,333 44	} 1,785,800 00	1,035,397 40	
Unpaid Dividends	7,942,946 16		• · · · · · · · · · · · · · · · · · · ·	

EXPENDITURE.

RECAPITULATION.

RECEIPTS.

Balance.	\$ cts. 6,631,197 36	
Authorized Expenditure.	\$ cts. \$ cts. 11,020,095 24 18,251,892 60 1,381,391 74 7,942,946 16	
Expenditure to 31st March, Expenditure.	\$ cts. 11,620,695 24 18,74 1,381,391 74 7,942,946 16	20,945,033 14
Description.	\$ cts. \$	
Balance.	\$ cts. 2,357,122 74	
Estimated Receipts.	\$ cts.	20,081,007 12
Receipts to 31st March, 1872.	\$ cts. 14,452,877 26 1,461,361 74 4,166,768 12	20,081,007 12
Description.	ConsolidatedFFund Loans Open Accounts	

# GENERAL RECAPITULATION.

	Receipts.	Expenditure.	Ercess of Receipts.	Expenditure.
Consolidated Fund Loans and Redemptions Open Accounts	\$ cts. 14,452,877 26 1,461,361 74 4,166,768 12	\$ cts. 11,620,695 24 1,381,391 74 7,942,946 16	\$ cts. 2,832,182 02 79,970 00	\$ cts.
	20,081,007 12	20,081,007 12 20,945,033 14	2,912,152 02	3,776,178 04

# REPORT OF THE COMMISSIONERS

OF THE

# INTERCOLONIAL RAILWAY.

SIR,—I have the honor to submit the Annual Report of the Intercolonial Railway Commissioners.

The Hon.

The Minister of Public Works.

I am, &c.,
A. Walsh,
Chairman.

The Commissioners appointed to construct the Intercolonial Railway, beg to submit their report of the progress of the works since the date of their former report of the 9th March, 1871.

They herewith submit (Appendix "A") a balance sheet, showing the expenditure upon the line up to the 30th March, 1872, and (supplemental sheet B) shewing the expenditure on each principal item to 31st December, 1870, and 30th March, 1872, respectively.

A reference to the figures in two of the columns of the supplemental sheet B, will show the amounts which have been expended upon each item in the fifteen months between the 31st December, 1870, and the 30th of March, 1872.

This latter amount is made up of the following expenditure under different headings shown, viz.: For works and permanent way:

Construction			. \$3,441,590	22		
Rails	\$521,783	68				
Iron Bridges	169,344	96				
Cross ties	92,634	57				
Track-laying and ballasting	49,111	18	832,874	39		
					\$4,274,464	61
Buildings			····	<i>.</i> .	90,203	96
Engineering and survey					,	
Less difference of paymaster				74		
					<b>236,341</b>	36
Legal expenses, land survey	, and land	value	ation		15,438	14
Management						87
Printing, advertising and st						89
Right of way						54
Rolling stock						
Cord wood						

\$5,075,411 18

From this it will be seen that a very large amount of work has been executed during the fifteen months. The statement (Appendix "C") showing the approximate force employed upon the several contracts during the month of July, 1871, will give a fair indication of the force employed during the working season. During the period of the year when heavy snow and great cold was experienced, there has been a much smaller force employed upon many parts of the line; indeed, the working season is short, requiring a large quantity of work to be executed in the space of a few months. There is also attached (Appendix "D") a statement shewing the names of the different contractors upon the twenty-three sections into which the work is divided, the dates upon which the several contracts were executed, the amount of each contract, the sum paid on account of such contract up to the 30th of March, 1872, and the balance in each case which remains to be paid.

All the contracts for these twenty-three sections were let at the date of the last report, on the 9th of March, 1871, and the work has since been prosecuted by the same contractors up to the present time.

The Commissioners will now proceed to give a brief statement of the condition of the works upon each of these contracts.

### No. 1.

This is almost entirely completed, and track has been laid upon it for about three-fourths of its entire length. There is nothing remaining to be done, except the levelling up and dressing of such parts of the work as may have been affected by the past winter; so soon as the weather will permit it will be completed and ballasted to the road crossing at Trois Pistoles, on Section No. 2.

# No. 2.

The work upon this section is completed, with the exception of the heavy clay cuttings at Trois Pistoles, one of the hardest and toughest pieces of work upon the entire line. The works have been in progress in these cuttings during the winter, and there seems to be no reason to doubt that they will be completed throughout early in the coming season. The masonry upon this section is all completed, and the iron work for the bridge across the Trois Pistoles River (five spans of 100 feet) is now in Quebec, and will be erected as soon as navigation opens, and the spring freshets are over.

### No. 5.

The works upon this section have been very vigorously prosecuted up to the present time. The Commissioners have every confidence that the contractors will complete this section so that the track may be laid over it during the coming season.

### No. 8.

The work upon this section has been completed, and taken off the hands of the contractor. Track will be laid over it as soon as No. 5 is completed, and it is expected that there will be no difficulty in completing the whole of the line from Riviere du Loup to the Metapedia Road before the close of the present year.

## No. 13.

This is the heaviest section upon the entire line and is very difficult of access. The organization of the requisite force and plant for a heavy work like this necessarily occupied a considerable time; the progress during the past season was satisfactory. The Centractors promise the most vigorous prosecution of the works during the coming season; but it will probably require some special arrangements in two heavy rock cuttings upon this section to ensure its completion so as to have the track laid over it before the end of next year.

### No. 14.

The greater part of the work on this section has been completed, and there is no doubt that it will be entirely finished before the close of the present year. Track, however, cannot be laid over it until it is approached from either end upon the completion of the sections adjoining it.

### Nos. 17 and 18.

These sections are in the heart of the Metapediac Valley, upon which there is hardly any population, and consequently it has been exceedingly difficult to get labor to them, it being absorbed by the sections in progress upon either side and the supplies have had to be taken from long distances. The work upon these two sections is not however of a very heavy nature, and looking to the magnitude of section 13 upon one side of them, and the heavy bridge across the Restigouche upon the other, there is no great necessity for unduly hurrying the completion of these two sections.

### No. 19.

This section includes the heavy bridge across the Restigouche River, being five spans of 200 feet each. There has been great difficulty in obtaining suitable stone for this important work. The stone in the vicinity having proved, upon careful examination, to be generally unsatisfactory for so heavy a work, it was determined at one time to bring the bulk of it from the granite quarries at Bathurst, but after very extensive explorations, suitable stone has been discovered not far from the bridge site, which will materially facilitate the completion of this work. The remainder of the work upon this section has made satisfactory progress and will be completed before the bridge is finished.

### Nos. 3 and 6.

These sections are in the hands of the same Contractors and have had a considerable amount of work done upon them during the last season. There was great difficulty experienced in finding stone for the structures upon these two sections, great expense was therefore incurred in endeavouring to find suitable quarries, and although a good many had been opened at various times, only a few have been found available for the purpose required. During last Spring, however, very good quarries were opened at various points along the line, from which the necessary quantity of stone has been obtained. This has been placed upon the line in large quantities, a great deal of it has been laid in the various pieces of masonry and there seems to be no reason to doubt the remaining masonry, by the aid of the material which has now been found, will be completed during the present year. There is some very heavy rock work upon No. 3, especially at a point called "Morrisey's Rock," This will in part be tunnelled, and there is no doubt that this work will be completed within the next two or three months at the latest. The grading upon these two sections is in a forward state, and can be completed with reasonable certainty during the present season.

# Nos. 9 and 15.

These two sections are in the hands of the same Contractors, and the same difficulties that have been experienced in legard to 3 and 6, were found to exist on these two sections.

A great deal of work has however now been done upon both, and there seems to be no reason to doubt that the greater bulk of the work will be completed by the end of the present year.

These four sections have been constructed in parts of the country where no public works of any magnitude have ever previously been constructed; the population is not large, and there has consequently been very considerable difficulty in obtaining skilled labor for such works.

#### No. 16.

This section runs almost entirely through unbroken forest and in a country where

there is no population upon the actual line.

There has therefore been great difficulty in getting access to it, and in inducing men to work upon it, whilst work of an easier and more accessible character could be found at other places. During the past winter however, a great deal has been done in the way of providing access to the section, of getting in supplies and providing stone for culverts and bridges. With these preparations, added to the amount of work which has already been done, there will not be much difficulty in completing the great bulk of the work upon this section by the end of the present year.

### No. 10.

This section is in the hands of the Contractor, who completed section 8. A considerable quantity of work has been done upon this section; and with the supplies and and preparations which have been made will be practically completed before the close of the present year.

#### No. 20.

This is a very heavy section, including the bridges over the two branches of the Miramichi river. These bridges were originally intended to consist of 11 spans of 200 feet each.

Serious difficulties, after the contract was let, were encountered in the foundations, it appearing that what was supposed to be rock, was a stratum of gravel and hard pan of varying thickness, and with an intermediate quantity of sand and clay between it and the rock; careful examinations have been made into this question, and a plan has at length been adopted which the chief engineer believes will overcome the difficulties which have been found to exist.

The number of spans has been increased by one extra span of 200 feet, making the total length of iron bridging in the two bridges of the river 2,400 feet. The delay which has taken place owing to the question of foundations, has necessitated an extension of time to the contractors.

It will take the whole of the present and next year to complete the work on these two bridges. The increased cost of the extra span of iron and the increased payment for the piers will be about \$45,000.

### Nos. 21, 22, and 23.

These sections were let at the same time, and the work upon them has been vigorously prosecuted up to the present date. The most difficult, of course, owing to the inaccessible character of the country and the absence of labor upon the line, is the centre one. No. 22.

A large amount of material and supplies have been placed upon these three sections and a considerable force employed during the past winter, and this will enable the great bulk of the work to be completed during the present year. Track laying may be commenced both from Moncton and Miramichi river during the present year, and carried to completion on the opening of the season of 1873.

This carries the line to Moncton, where a Junction is made with the existing European and North American Railway. The line runs for eight miles along that railway to Pansic Junction, from which point to Amherst, a distance of 42 miles, has been already completed, and has been worked by the Government in connection with the European and North American Railway.

#### No. 4.

This commences at Amherst, and is practically completed, there being nothing upon this section to interfere with the laying of track along its whole length. Track laying was commenced last Fall, and about twelve miles has now been laid.

#### No. 7.

This section is also in a very forward state, and by the time the track layers reach it there will be nothing to obstruct them; the whole of the work upon this section will be completed within the next two or three months.

### No. 12.

This section comprises only heavy work which has been vigorously prosecuted up to the present time; with the exception of three of the piers of the Folly river bridge, which are only partially finished; the great bulk of the masonry upon this section is completed, and the earth and rock excavation remaining to be done is not large, and will be completed in ample time for the tracklayers; this carries the line to Truro, where a junction is effected with the existing railway from Pictou to Halifax. Nearly four thousand tons of the rails required between Amherst and Truro have been landed at St. John and Halifax.

Track laying will be resumed in the course of a few days, and the remainder of the rails required to complete the line between Amherst and Truro have been shipped from

England, and are now arriving.

The track laying and ballasting has been let to competent and responsible parties who have already placed two steam shovels in ballast pits at proper and convenient distances upon the line, and the Commissioners have every reason to expect that the railway between St. John and Halifax will be completed and trains running over it during the month of September, of the present year.

The Commissioners confidently anticipate the completion by the end of the year of the following lengths of the Intercolonial Railway, all of which will be in first-class

condition to carry traffic, viz:

Rivière du Loup to Metapediac road	86 <del>]</del>	miles.
Pansic Junction to Amherst	42	,,
Amherst to Truro	$75\frac{1}{2}$	"
Making a total of	204	miles.

#### BRIDGES.

In the last report, it was stated that tenders had been invited for iron bridges for all spans of 60 feet and upwards. When the tenders were received, it was found that rssponsible parties offered to build all the bridges throughout the line upon exceedingly moderate terms, and it was in consequence decided to have the whole of them made of iron. Tenders were received before the late great advance in the price of iron, and there is no doubt if the contracts were to be let now they could not be entered into upon such satisfactory terms.

The same remarks will apply to the rails, which were all purchased at exceedingly

moderate prices, compared with those which are now ruling.

#### ROLLING STOCK.

The following are the contracts entered into up to the present time for rolling stock,

54,822 70

to the above total.

including two engines and twenty-five platform cars, purchased from the Eastern Ex-	. <b>-</b>
tension Railway, viz.:  Engines	8
Management.	
The cost of Management to 36th March, 1872, has amounted to the sum of	
Making the outlay for this purpose during the fifteen months covered by the present Report	7
This includes the salaries of the Commissioners, their Secretary, Accountant, and Clerk, telegraphing, postage, travelling and incidental expenses, and office furniture.	,
Engineering Staff.	
The total amount paid for engineering expenses to the 30th March, 1872, has amounted to	
Shewing that there as been an expenditure during the last fifteen months of	)
Since the date of the last report, considerable reductions have been made in the Engineering Staff, consequent upon the amount of work which has been executed, and the reduction of that remaining to be done. All the work has now of course been finally located and staked out, plans of the various structures have been settled and supplied to the Contractors, thus largely reducing the work to be done by the Engineering Staff. (Appendix "E") contains a comparative statement of Staff organization and expenditure. The aim of the Commissioners has been, and will continue to be, to maintain such a staff only as is consistent with a due regard to efficiency in construction.	, 7
RIGHT OF WAY.	
The cost of Right of Way up to the 30th March, 1872, has been	

making a total of...... \$211,979 45 The amounts yet to be paid for right of way are not large, and will not add materially

of valuation of the lands, and the legal expenses connected with the enquiries into the proper titles of the proprietors of the lands .....

#### MONCTON WORKSHOPS.

### STATION BUILDINGS.

The necessary station buildings for the line between Amherst and Truro, and between Rivière du Loup and the Matepediac road have been contracted for, and also at Campbellton and Newcastle. They include engine-houses at Rivière du Loup, Matapediac road, Campbellton, Newcastle, and Truro.

#### GENERAL REMARKS.

The whole of the works have been executed in a very thorough and substantial manner, and it is believed that there is no railway upon the continent of America upon which the masonry will be superior to, if it equals that upon the Intercolonial.

The Iron Bridging is of the latest and most approved form of construction and is being supplied by two of the most eminent Bridge Building firms in England and the United States, viz:—

The Fairbairn Engineering Company, in England; and the Phœnixville Bridge Company, in Pennsylvania.

The rails will be of steel throughout and are being supplied by some of the best rail makers in England, viz:—

The Barrow Hematite Steel Company, and the Ebbeo Vale Company.

The Contract for the works up to the formation level, the bridging and the rails have all been let upon exceedingly moderate terms and there is no doubt that the Intercolonial when completed will be not only one of the best constructed but cheapest railways ever built upon the continent.

The rolling stock that is being supplied is of the best description. has been contracted for upon moderate and satisfactory terms, and will be found, although moderate in extent, to be capable of performing a very large amount of work.

The keys to the completion of the entire line are the extensive works upon Section

No. 13, and the heavy bridges across the two branches of the Miramichi River.

The Commissioners will see to it that no exertions shall be wanting on their part to Push the whole to completion with the least possible delay, and they have every expectation that the line will be in running order by the end of 1873.

A. WALSH,
ED. B. CHANDLER,
C. J. BRYDGES,
A. W. MCLELAN.

Intercolonial Railway,

Commissioners Office,

OTTAWA, 2nd April, 1872.

# APPENDIX A.

BALANCE SHEET of General Ledger of the Intercolonial Railway, at the 30th March, 1872.

Buildings:- Amherst Station Engineers' Houses Moncton'Station Painsec Junction Station		10,549 15 29,438 23 57,315 67	\$ et
Engineering and Surver:— Amount previous to appointment of Commissioners Amount subsequent to do	1		99,352 35 857,203 16
Legal expenses, land survey and land valuation Management Printing, advertising and stationery			54,823 70 70,645 22 19,214 48
RIGHT OF WAY:— Province of Quebec		72,061 77 39,365 98 45,728 00	157,155 75
ROLLING STOCE:— Locomotives Passenger Cars, 1st Class do do 2nd ,, Postal do , Platform do , Box-freight do , Snow Ploughs , Rolling Stock expenses		6,400 00 3,550 00 2,750 00 125,850 00 115,680 00	403,309 21
WORKS AND PERMANENT WAY:— Construction. Grading and fencing. Metapediac Road Diversion. Brown, Brooks & Ryan, advance secured by chatte mortgage on plant, \$30,000 00; Smith & Pitblado special account, \$70 00 Iron Bridges. Rails, fish-plates, bolts and nuts Cross-ties Tracklaying and ballasting.	9,449 21 17,126 00 30,070 00 169,344 96 537,477 14 95,150 02		403,509 21
Eastern Extension Railway Elliott, Grant & Whitehead, balance of advance on plant		!	6,943,990 44 3,972 00
The Receiver-General, special deposits		••••	21,684 00
PAYMASTERS' BALANCES: W. H. Stevenson H. W. McCann		1,563 79 7,589 71	9,153 50
Cord Wood	<b> </b>		600 00
	1		\$8,641,103 81

## Cr.

The Dominion of Canada  E. Clark, Punchard & Co., balance of purchase of Eastern	the state of the s	8,620,803 81	
Extension Railway.  Geo. & J. Worthington, cial deposit	200.00		
		20,300 00	<b>\$8,641,103</b> 81

# APPENDIX B.

SUPPLEMENTAL SHEET shewing the amount of Expenditure by the Commissioners since their last Report, dated 9th March, 1871, up to the 30th March, 1872.

Service.	Amount per Balance Sheet, 31st December, 1870.	Amount from 31st Decr., 1870, to 30th March, 1872.	Total, as per Balance Sheet at 30th March, 1872.
Works and Permanent Way:— Construction (including "Eastern Extension Railway") Rails Iron Bridging Cross-ties Tracklaying and Ballasting	2,648,491 00 15,693 46 2,515 45	\$ cts. 3,441,590 22 521,783 68 169,344 96 92,634 57 49,111 18	\$ cts. 6,090,081 22 537,477 14 109,344 96 95,150 02 51,937 10
Buildings Engineering and survey Legal expenses, land survey and land valuation Management Printing, Advertising and Stationery Right of Way Rolling Stock Cordwood Elliott, Grant & Whitehead (balance of advance on	613,704 06 39,385 56 45,086 35 15,422 59 100,855 21 30,597 40	4,274,464 61 90,203 96 243,499 10 15,438 14 25,558 87 3,791 89 56,300 54 372,711 81 600 00	6,943,990 44 99,352 35 857,203 16 54,823 70 70,645 22 19,214 48 157,155 75 403,309 21 600 00
plant) The Receiver General (special deposits)  Paymasters' Balances	21,684 00	5,082,568 92 7,157 74 \$5,075,411 18	3,972 00 21,684 00 8,631,950 31 9,153 50 \$8,641,103 81

# APPENDIX C.

# INTERCOLONIAL RAILWAY.

Return, shewing the approximate number of days worked and men employed on the several contract sections during the month of July, 1871.

No. of Division days	T	No. of	A	pproximate	force empl	oyed for mo	nth of Jul	у.
	days Worked.	Foreman and Mechanics.	Laborers.	Boys,	Horses.	Oxen.	Quarrymen	
1 2 5 8 13 14 17 18 19 3 6 9 15 16 10 20 21 22 23 # 7 12	A.B.C.D.E.F.G.H.I.K.L.M.N.O.P.Q.R.S.T.W.X.Y.Z.	26 25 25 26 24 26 26 26 25 26 25 26 26 26 27 26 26 26 26 26 26 26 26 26 26 26 26 26	30 761 2,447 900 2,821 1,521 969 675 1,036 2,336 2,699 2,437 3,620 414 763 1,331 1,381 1,3	75 7,521 16,979 2,520 20,332 11,349 7,216 3,884 3,227 9,231 15,778 9,449 4,944 1,098 3,607 2,346 5,617 4,600 11,416 Nil. 11,266 18,387 14,097	14 Nil. 1,106 Nil. 605 Nil. 1,408 140 269 1,101 203 1,033 98 43 240 141 678 241 953 Nil. 1,054 2,069	16 2,665 3,155 360 5,682 2,906 1,934 701 926 2,140 Nil. 1,926 1,119 194 1,023 168 1,394 501 2,691 Nil. 2,691 7,219 5,692	Nil. "" "" "" "" "" "" "" "" "" 245 30 Nil.	Nil. "" "" 156 Nil, 761 977 639 1,978 Nil. "" 114 Nil. "" 500 2,540

# APPENDIX D.

STATEMENT, shewing the total value of work done on each Section up to 31st March, 1872.

Section.	Present Contractor.	Date of Contract.	Amount of Contract.	Amount paid former Contractors.	Amount paid present Contractors.	Balance due on Contract.
" 23" 3 3 3 3 5 5 5 5 6 6 7 7 8 8 7 9 9 7 10 12 7 14 15 7 18 7 19 20 7 22 1 23 7 23 Ar	G. & J. Worthington do F. X. Berlinguet & Co Smith & Pitblado Alex. McDonell & Co F. X. Berlinguet & Co J. Simpson & Co. J. Simpson & Co. J. Simpson & Co. J. Simpson & Co. Duncan Macdonald Davis, Grant & Sutherland Sumner & Somers W. E. Maedonald & Co. Nielson & McGaw J. B. Bertrand & Co King & Gough S. Parker Tuck Robt. H. McGreevy Thomas Boggs & Co. Brown, Brooks & Ryan Patrick Purcell C. Cummings & Co. Sutherland, Grant & Co. Sutherland, Grant & Co. D:—Value of work done tractors  EDUCT:—Refund for materi Section No. 5 by E. Hay Alex. McDonell & Co	25th May, 1870  """  1st Nov., 1869 26th Oct., 1869 1st Decr., 1870 1st Nov., 1869 25th May, 1870 15th June, 1870 25th May, 1870 15th June, 1870 25th July, 1870 25th July, 1870 15th June, 1870 24th Sept., 1870 """  by former Concock, and sold to	\$ cts. 189,700 00 299,000 00 462,444 00 438,318 00 533,000 00 456,946 00 557,750 00 100,000 00 354,897 00 365,920 00 61,713 00 597,600 00 934,933 00 245,475 00 206,000 00 440,000 00 648,600 00 335,733 00 642,854 00 483,195 00 331,000 00 276,750 00  9,385,078 00 234,443 00  9,619,521 00	28,575 00 46,200 00 48,762 00 53,731 00 30,850 00	\$ cts. 184,000 00 236,000 00 262,000 00 423,000 00 374,000 00 532,000 00 100,000 00 226,000 00 138,000 00 61,713 00 551,000 00 218,000 00 218,000 00 131,000 00 131,000 00 131,000 00 131,000 00 131,000 00 131,000 00 131,000 00 54,400 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00 55,000 00	\$ cts. 5,700 00 63,000 00 200,444 00 15,318 00 159,000 00 230,946 00 25,750 00 134,897 00 227,920 00 46,600 00 550,933 00 99,475 00 145,250 00 152,000 00 345,000 00 517,600 00 264,733 00 544,854 00 370,195 00 260,000 00 150,750 00 4,510,365 00
					<i>_</i>	

# APPEN

List of Engineers and other Staff employed on Sections of the Intercolonial Railway, as per Pay Rolls for January, 1871.

No. of Section.	Names.	Capacity.	Salaries.	Salaries.	Total.
	St. I	District		\$ cts.	\$ cts.
	ĺ	vrence Di <b>s</b> trict.			
Rimouski Office.	A. W. Edmonds	District Engineer Draughtsman Rodman		3,600 00 720 00 600 00	
Section No. 1	L. G. Bell C. McNab	Divisional Engineer Rodman		2,000 00 600 00	
Section No. 2	J. R. Macdonell E. G. Powell A. R. Pinsoneault . Wm. Patterson	Divisional Engineer Rodman ,,, Inspector of Masonry	\$80 per month	2,000 00 600 00 600 00	
Section No. 5	R. McLennan L. Chandler W. McPhilips	Divisional Engineer Assistant Engineer Rodman Inspector of Masonry	•••••	2,000 00 1,100 00 600 00 600 00	
Section No. 8	John Lindsay W. Ireland	Divisional Engineer Rodman	· · · · · · · · · · · · · · · · · · ·	1,800 00 600 00	
Section No. 13	H. J. Cambie W. Murdock J. J. McGee A. Wilson S. Y. Kint J. W. Scott	Divisional Engineer Assistant Engineer Rodman' Inspector of Masonry	\$80 per month	2,000 00 1,100 00 900 00 600 00 480 00	
Section No. 14	Henry Carre J. W. Taylor H. F. Forrest L. N. Rheaume	Divisional Engineer Assistant , Acting ,, Rodman	•	1,700 00 900 00 600 00 480 00	
	Restigo	uche District.			26,480 00
Dalhousie Office.	Marcus Smith Chas, Blackwell	District Engineer		3,600 00 1,800 00 1,100 00 720 00 720 00	
Section No. 17	W. G. Bellairs J. F. Darwall W. E. Tisdale C. Nicholle	Divisional EngineerAssistant ,, Rodman ,,	• • • • • • • • • • • • • • • • • • • •	1,700 00 900 00 480 00 480 00	
Section No. 18	W. G. Thompson . L. B. Hamlin C. H. Morse D. McMillin	Divisional Engineer Assistant Rodman		1,700 00 900 00 480 00 480 00	
	Carrie	d forward	•	\$15,060 00°	\$26,480 00

DIX E.

List of Engineers and other Staff employed on Sections of the Intercolonial Railway, in force at the 1st April, 1872.

No. of Section.	Names.	Capacity.	Salaries.	Salaries.	Total.
	St. Lau	rence District.		\$ ets.	\$ cts
Rimouski Office.	Saml. Hazlewood . Geo. P. Bliss W. B. Hazlewood .	District Engineer Draughtsman Clerk		3,600 00 900 00 600 00	
Sections Nos. 1 and 2	Í	Assistant Engineer	1	1,200 00	
				2	
Section No. 5	J. R. Macdonell J. B. Brophy Wm. Dickinson J. Hunter Y. M. Quigley	Divisional Engineer	\$30 per month	2,000 00 1,200 00 600 00	
	T T Macan	Divisional Engineer Assistant ,, Rodman Inspector of Masonry	<b>١</b>	2,000 00 1,200 00 1,200 00 600 00 600 00	
Section No. 14.	John Lindsay T. D. Taylor J. E. Papillon W. Patterson	Divisional Engineer Assistant ,, Rodman Inspector of Masonry	\$80 per month	2,000 00 1,200 00 600 00	19,500 00
Dalhousie Office.	L. G. Bell	uche District. District Engineer Assistant ,,	· · · · · · · · · · · · · · · · · · ·	3,600 00 1,200 00	
Section No. 17	W. G. Bellairs W. E. Tisdale W. F. Gouin J. W. Imley	Divisional Engineer 2nd Assistant Engineer Rodman	\$80 per month	2,000 00 900 00 600 00	
Section No. 18	Peter Grant L. B. Hamlin G. R. L. Fellows . C. H. Morse	Divisional Engineer Assistant ,, Rodman Inspector Crib Wharf		1,500 00 1,200 00 1,200 00 600 00	
		l forward	r	\$12,800 00	\$19,500 00

List of Engineers and other Staff employed on Sections of the Intercolonial Railway, as per Pay Rolls for January, 1871.—Continued.

No. of Section.	Names.	Capacity.	Salaries.	Salaries,	Total.
-	i	ht forward		\$ cts 15,060 00	\$ cts 26,480 00
Section No. 19	Peter Grant	Divisional Engineer	••••••	1,950 00 600 00	
Section No. 3	H. A. F. McLeod. H. F. Donkin G. R. L. Fellowes. E. J. Hutchinson . Jas. Holmes	Divisional Engineer Assistant ,, Rodman Inspector of Masonry	\$80 per month	2,000 00 1,100 00 600 00 600 00	
	H. N. Ruttan	Divisional Engineer Assistant ,, Rodman ,,	• • • • • • • • • • • • • • • • • • • •	2,000 00 1,100 00 600 00 600 00	
	Chas. Odell F. Bolger W. E. Fish	Divisional Engineer Assistant ,, Rodman Inspector of Masonry		2,000 00 1,100 00 600 00 600 00	
Section No. 15.	P. A. Peterson G. E. McLaughlin Wm. Mann	Divisional Engineer		2,000 00 1,100 00 600 00 600 00	34,810 00
Newcastle Office.	A. L. Light	ichi District. District Engineer		3,600 00 720 00 720 00	
	J. C. Brown	Divisional Engineer Assistant ,, Rodman Inspector of Masonry		2,000 00 900 00 480 00 480 00	
Section No. 16		Divisional Engineer		1,500 00 900 00 480 00 480 00	
Section No. 20	W. R. Smellie Edwin Force	Divisional Engineer Rodman	•••••••••••••••••••••••••••••••••••••••	2,000 00 600 00	
	P. W. St. George	Divisional Engineer		1,500 00 900 00 480 00 480 00	
	Carried	forward		\$18,220 00	\$61,290 00

List of Engineers and other Staff employed on Sections of the Intercolonial Railway, in force at the 1st April, 1872.—Continued.

		,			, the same
No. of Section.	Names.	Capacity.	Salaries.	Salaries.	Total.
	1	ht forward		\$ cts. 12,800 00	\$ cts. 19,500 00
Section No. 19	Peter Grant J. Jellett	Divisional Engineer 2nd Assistant Engineer Inspector of Masonry	\$80 per motnh	1,000 00 900 00	
Section No. 3	H. A. F. McLeod. H. F. Donkin E. J. Hutchinson . W. R. Falls	Divisional Engineer Assistant ,, Rodman		2,000 00 1,200 00 600 00 600 00	
Section No. 6	Ed. Lawson J. B. Hegan H. R. Ruttan James Sutherland.	Divisional Engineer Assistant ,, Inspector of Masonry	\$80 per month	2,000 00 1,200 00 1,200 00	
Section No. 9	Chas. Odell J. T. McMillan	Divisional Engineer Rodman	,	2,000 00 600 00	
Section No. 15.,	P. A. Peterson	Divisional Engineer Rodman Inspector of Masonry	\$80 per month	2,000 00 600 00	99 700 00
!	Miran	ichi District.			28,700 00
Newcastle Office.	A. L. Light	District Engineer	\$80 per month	3,600 00 900 00 600 00	
Section No. 10	W. M. Buck J. C. Brown J. F. Wilsom	Divisional Engineer Assistant ,, Rodman	•••••	2,000 00 1,200 00 600 00 600 00	
Section No. 16	J. W. Fitzgerald G. H. Garden V. Nicholson V. H. Steele	Divisional Engineer Assistant ,, Rodman		2,000 00 1,200 00 600 00 600 00	
Section No. 20	W. R. Smellie	Divisional Engineer Rodman Inspector of Masonry Inspector of Timber		2,000 00 600 00	
Section No. 21	F. J. Lynch J. Cadman J. W. Scott	Divisional Engineer Assistant Rodman Inspector of Masonry		2,000 00 1,200 00 600 00 600 00	
. "		d forward		\$20,900 00	\$48,200 00

List of Engineers and other Staff employed on Sections of the Intercolonial Railway, as per Pay Rolls for January, 1871.—Continued.

No. of Section.	Names.	Capacity.	Salaries,	Salaries.	Total.	
Commission of the Commission o	Brough	it forward		\$ cts. 18,220 00	\$ cts. 61,290 00	
	ì	District Continued.				
Section No. 22	W. J. Crossdale W. Gossip, jun J. A. Dickey M. W. Maynard	Divisional Engineer Assistant ,, Rodman		1,500 00 900 00 480 00 480 00		
Section No. 23		Engineer		3,000 00 900 00 480 00 480 00		
					26,440 00	
	Nova S	cotia District.				
Truro Office ,	W. H. Tremaine H. P. Bell H. A. Gray C. E. Perry	District Engineer		3,600 00 1,100 00 720 00 720 00		
Section No. 11.	J. D. Macdonald	Clerk of Works	\$60 per month			
Section No. 4	J. R. Smith J. A. Creighton	Divisional Engineer Assistant ,, Rodman Inspector of Masonry	· · · · · · · · · · · · · · · · · · ·	2,000 00 1,100 00 600 00 600 00	·	
Section No. 7	P. S. Archibald	Divisional Engineer Assistant ,, Rodman Inspector of Masonry	•••••	2,000 00 1,100 00 600 00 600 00		
Section No. 12	Wm. Hagen	Divisional EngineerAssistant ,, Rodman		2,000 00 1,100 00 600 00 600 09		
·					19,040 00	
Paymaster	W. H. Stevenson . J. H. Hayes A. McDougall H. W. McCann R. B. Cutler	l'aymaster Assistant Paymaster Paymaster Assistant Paymaster		1,200 00 600 00 1,200 00 1,200 00 600 00	106,770 00	
					4,800 00	
*.	Carried	l forward	••••	• • • • • • • • • • • • • • • • • • • •	\$111,570 00	
		16		'	ı	

List of Engineers and other Staff employed on Sections of the Intercolonial Railway, in force at the 1st April, 1872.—Continued.

No. of Section.	Names.	Capacity.	Salaries.	Salaries.	Total.	
	Broug	yht forward		\$ cts. 20,900 00	\$ cts } 48,200 00	
	Miramichi D	istrict.—Continued.				
Section No. 22	Wm. Gossip, jun M. W. Maynard	Divisional Engineer		2,000 00 1,200 00 600 00 600 00		
Section No. 23	E. A. Wilmot J. M. Kinnear A. F. Johnston	Divisional Engineer Assistant ,, Rodman		2,000 00 1,200 00 600 00 600 00		
Moncton Buildings		Inspector of Masonry Inspector			29,700 00	
Amherst Office .	C. Schruber	Cotia District.  District Engineer  Clerk		3,600 00 600 00		
Section No. 4	J. R. Smith	Assistant Engineer		1,200 00		
Section No. 7	T. S. Archibald R. Sutherland	Assistant Engineer Inspector of Masonry	\$80 per month	1,200 00		
Section No. 12	H. A. Gray R. Scott J. McRae J. McPherson			1,200 00 1,200 00		
	•	Fence and Tie Inspector.	!		9,000 00	
Paymaster	H. W. McCann	Paymaster		1,500 00 600 00 1,500 00 600 00	\$86,900 00 4,200 CO	
25		 Carried forward 17		••••	<b>3</b> 91,100 00	

List of Engineers and other Staff employed on Sections of the Intercolonial Railway, as per Pay Rolls for January, 1871.—Continued.

No. of Section.	Names.	Capacity.	Salaries.	Salaries.	Total.	
	Nova Scotia I S. Fleming W. J. Forrest	ct forward		\$ cts. 4,800 00 1,800 00 1,100 00 800 00	\$ cts. 111,570 00	
Add-Amount of 31st M	Supplies to the Stay, 1871amount of Salaries of	off on nine sections of the family of Members of the Enging the on 31st December, 1870	te line, up to the		8,500 00 \$120,070 00 6,370 00 38,000 00 \$164,440 00	

Note.—The above Comparative Statements, based on the Annual Expenditure for Staff and Supplies for the year ending 31st December, 1870, and for Staff for the year commencing 1st April, 1872, shows an annual reduction of \$63,740. The forward state of the works will enable the Commissioners to make additional reductions before the 1st April, 1873; and the annual estimated outlay of \$100,700 will be very considerably reduced.

List of Engineers and other Staff employed on Sections of the Intercolonial Railway, in force at the 1st April, 1872.—Continued.

No. of Section.	Names.	Capacity.	Salaries.	Salaries.	Total.	
4	-	t forward		\$ cts.	\$ ets. 91,100 00	
	S. Fleming	Chief Engineer		4,800 00 1,800 00 1,100 00 1,000 00 900 00	9,600 00	
					\$100,700 00	

# RETURN

To an Address of the House of Commons of the 18th instant; for Copies of all Correspondence, between the Government and all other parties, such as Engineers and Contractors, respecting the Intercolonial Railway Bridge to be constructed across the Miramichi River.

Respectfully submitted,

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF SECRETARY OF STATE, OTTAWA, April 30th, 1872.

### MIRAMICHI BRIDGE.

The Commissioners for the construction of the Intercolonial Railway beg to report to the Governor in Council upon the subject of the bridge across the Miramichi River, at Newcastle.

A report is appended from the Chief Engineer, explaining that the original soundings have been discovered to be erroneous, and that a satisfactory foundation cannot be obtained at the depth originally contemplated.

The Chief Engineer proposes an altered plan for the caissons, which will increase the cost of the work beyond the present contract price, it also involves an extra span of iron of 200 feet, which will cost about \$19,000.

A letter is also appended from the Contractors, offering to perform the extra work shown on the plans for the sum of \$81,322, but not binding themselves to complete the work for that sum.

The Commissioners, in a work of such magnitude and difficulty, and in which such serious errors have already been made by the Engineers, cannot take the responsibility of recommending that the plan now proposed by the Engineer should be adopted.

Looking to the varying thickness of the vein of hard pan upon which the foundations of the piers must rest, and the great depth and quality of the material which lies between the hard pan and the rock, the Commissioners are of opinion that before proceeding with the works, it is desirable to have the professional opinion of eminent Engineers, whose judgment would be universally looked upon as sound, upon a matter of such great importance.

They, therefore, recommend that at least two Engineers of eminence be consulted as

to the whole question of these foundations, and the best course to be pursued.

A. Walsh. C. J. Brydges.

#### CHIEF ENGINEER'S LETTER.

OTTAWA, January 13, 1872.

SIR,—In submitting the plans of the Miramichi Bridges for tenders, I had printed and published all the information in my possession respecting the nature of the works and the character of the rivers, and which was considered necessary to enable intending contractors to form a correct idea of the magnitude and value of the work about to be undertaken.

The information then given was believed to be perfectly correct in every particular,

as far as it went.

On this information tenders were received, and a contract was entered into with Messrs. Brown, Brooks & Ryan to complete Section 20 of the Railway, the chief works on which are the piers, abutments, and approaches of the two bridges across the southwest and nort-west branches of the Miramichi.

The contract sum is \$642,854. The contract was entered into in September, 1870.

The following spring it was discovered that the nature of the material in the beds of the two rivers was different from what it was supposed to be previous to the letting of the contract.

Although the beds of both rivers turned out to be different, that of the south-west branch did not, in the opinion of the undersigned, necessitate any change in the original plan of bridge, or the mode of constructing the foundations of piers and abutments, the contractors were, therefore, directed to proceed with the works on this bridge, and they have during the whole of the past season been engaged thereon.

The bottom of the north-west river proving treacherous, the contractors were

directed to postpone operations until a thorough examination could be made.

Since then a complete series of borings have been sunk in the river bed, by which it would appear that the stratum upon which it was intended to found the piers and abutments, is not rock, as originally supposed, but a bed of gravel of varying thickness, under which there is a great depth of silt before the rock is reached.

The circumstances of the case proving so seriously different to what was originally supposed, it became necessary to reconsider the whole plan of spanning the river; and the undersigned, after giving the subject his best attention, has arrived at the conclusion that

it would be advisable to make the following changes, viz :-

1st. To make the bridge with six spans of 200 feet instead of five, in order to secure the founding of the two abutments on the solid rock which underlies the banks of the river.

2nd. To enlarge the base of the five piers in order to distribute the weight over a greater area of the gravel bed above referred to (this would not have been necessary had the supporting stratum been rock as originally supposed).

I have submitted the revised plan to the contractors, who are now in town, and have requested them to state the terms upon which they will be prepared to carry it into execution.

I enclose the Contractors' reply; they are prepared to carry out the revised plan for the sum of \$81,322, over and above the contract amount.

I have already stated, verbally, to the Commissioners, that in my opinion the work should be satisfactorily completed on the altered plan for a smaller extra price.

I am, &c.,

Your obedient servant,

SANDFORD FLEMING, Chief Engineer.

Ralph Jones, Esq., Secretary.

## Contractors' (Section 20) Letter.

OTTAWA, 13th January, 1872.

Sin,—In reply to ours of yesterday in relation to the changes and extra work required on the bridges of the North-West Miramichi River, in which you state that the Commissioners want to have a distinct understanding, and that they will expect us to name a lump sum for the extra work which is referred to in connection therewith, and for the changes required by the absence of foundations on the plan as originally contracted for at the depths shewn on such plan.

We have examined the new plans which you have prepared, shewing the changes required, and find that they involve very considerable expense as well as risk, and we hesitate to assume the risk of the contingencies which may arise from the altered circumstances, and plans, but would prefer that our original contract should have been adhered to; the Government paying us for any extra work that they call upon us to

perform, as you at present propose to do.

When we took the contract originally, we took it, as you are aware, upon the faith of the borings ascertained, and soundings by pile-driving by your officers, and the plans submitted by you. The work on that basis we have been always ready to do, and as circumstances now require a departure from the original plan, we believe that the fairest way would be, as well for the Government as for ourselves, that as soon as the work was completed, to pay us for the extra work actually performed, this plan would be a safe one for us, would avoid the risk of unforseen contingencies, and be fair to the Government, as they would then only have to pay for the extra work actually done; as, however, the Commissioners are desirous that we should make a specific offer, and as we are anxious, so far as we can with safety, to meet their wishes, we will agree to construct the northwest bridge on the new plan submitted to us for an additional sum of \$81,322 over our original contract price therefor, on the following conditions, viz.:—

lst. That as there must, with such a work, be a degree of uncertainty until the work is completed, if the plans and specifications now submitted require to be departed from, and such departure involves extra cost to us, we shall expect to be compensated

therefor.

2nd. We also wish the privilege of raising the grade across the point, and the masonry on said bridge, to a height not exceeding four feet, at our own expense, should we think it advisable so to do.

We remain, Sir, Your obedient servants,

Brown, Brooks, and Ryan

Sandford Fleming, Esq., Chief Engineer, Intercolonial Railway:

#### ORDER IN COUNCIL.

Copy of a Report of the Committee of the Honourable the Privy Council, approved by His Excellency the Governor General in Council on the 10th January, 1872.

The Committee of Council have had under consideration a Memorandum dated 13th January, 1872, from the Intercolonial Railway Commissioners, on the subject of the Bridge over the Miramichi River at Newcastle, N. B., and on the recommendation of the Hon. the Minister of Public Works, they advise that the suggestion submitted in the said memorandum, to the effect that at least two Engineers of eminence should be con-

sulted as to the whole question, and the best course to be pursued, be approved and acted on.

Certified.

WM. H. LEE,

To the Honorable

The Commissioners

Intercolonial Railway, &c., &c., &c.

Clerk Privy Council.

# APPOINTMENT OF CONSULTING ENGINEERS.

Commissioners Meeting 29th January, 1872.

Resolved,—That Messrs. J. Page and C. S. Gzowski, be appointed to report upon the plans for the foundations of the Miramichi Bridge.

Letters, of which the following is a copy, were then written to Messrs. Page and Gzowski:—

OTTAWA, January 31st, 1872.

SIR,—I beg to inform you, that you have been appointed by the Commissioners for the construction of the Intercolonial, and with the approval of the Government, to consult with Mr. Gzowski, C. E., upon the plans for the foundations of the bridges across the two branches of the Miramichi River.

Difficulties have been met with in the foundations, and before adopting the plans which have latterly been prepared, it is desired that they should be carefully examined

and reported by Mr. Gzowski and yourself.

You are requested to consider the contract made for the piers of this bridge when the original plans were made, and the effect upon the amount of that contract of the altered plans which may ultimately be decided upon.

S. Fleming, Esq., will afford you full information as to the result of the examination of the bed of the river, and shew you the plans of the foundations, piers and super-structure.

It is suggested that you confer with the Contractors, and hear whatever information

they can give you.

You will be good enough to report as to the plan which you consider most desirable to meet the difficulties which have been met with, both with reference to the permanent stability of the bridge, and the cost and time of its construction.

If you can meet Mr. Gzowski and Mr. Fleming next week, in this City (Ottawa), a few days will probably enable you to make your report. Every information you require

will be afforded to you.

I am, Sir,

Your obedient servant,

RALPH JONES,

Secretary.

# Letter addressed to S. Fleming, Chief Engineer.

OTTAWA, February 1st, 1872.

Dear Sir,—I am instructed to hand you copy of a letter which has been addressed to Mr. Page and Mr. Gzowski, requesting them to confer with you, and report upon the plans for the Miramichi Bridge.

I am, dear Sir,

Yours truly,

RALPH JONES, Secretary. The following letter received from Mr. Page, declining to act:-

OTTAWA, 2nd February, 1872.

SIR,—I duly received your letter of the 31st ult., requesting me to consult with Mr-Gzowski, C. E., in reference to certain difficulties which have been met with in the construction of certain bridges over the Miramichi River, Intercolonial Railway.

In reply, I beg to state that my time is fully occupied in the preparation of several important Reports, which must be completed before the meeting of Parliament; the pressure of my official duties has also been considerably increased by the recent and severe

illness of one of my chief assistants.

I regret, therefore, that I am obliged to decline the reference made by the Board of Railway Commissioners, as I feel certain that under the circumstances it would be impossible for me to give the question that careful consideration which its importance requires.

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

> John Page, C. E., Public Works.

Ralph Jones, Esq., Secretary, Intercolonial R

Secretary, Intercolonial Ry. Commissioners, Ottawa.

#### The Commissioners met.

Ordered,—That Samuel Keefer, Esq., C. E., be appointed in place of Mr. Page, and that a similar letter as that written Messrs. Page and Gzowski be written him.

The following letters were received from Messrs. Keefer and Gzowski:-

Brockville, 5th February, 1872.

SIR,—I have the honor to acknowledge the receipt of your letter of the 3rd inst., notifying me of my appointment, in conjunction with Mr. Gzowski, to report upon the plans for the foundations of the bridges over the two branches of the Miramichi River.

I shall be prepared to attend to this duty as soon as the necessary arrangements can be made with Mr. Gzowski for meeting him and Mr. Fleming at Ottawa, I will write to Mr. Gzowski on this subject to-day.

Mr. Brooks, the Contractor, who resides here, is expected home in a day or two, and

can then be called upon to give the necessary information.

I have the honor to be, Sir, Your obedient servant,

SAMUEL KEEFER.

Ralph Jones, Esq.,

Secretary, Intercolonial Ry. Commissioners.

Toronto, February 6th, 1872.

Sir,—I beg to acknowledge receipt of your letter of the 31st ultimo, and to say that I have been in communication with Mr. Samuel Keefer, and arranged to be in Ottawa on Thursday next.

25 - 4

As it is very important for me to return as soon as possible, I shall be much obliged by you having all the information and papers that you propose submitting to us in readiness.

I am, Sir,

Your obedient servant,

G. S. Gzowski.

Ralph Jones, Esq., Secretary, Intercolonial Ry. Commissioners, Ottawa.

### MESSRS. KEEFER AND GZOWSKI'S REPORT AND PLAN.

OTTAWA, February 15th, 1872.

Sir,—In compliance with the request of the Commissioners for the construction of the Intercolonial Railway, as contained in your letters of the 31st January and 3rd February, we have made a careful examination of the contract plans for the bridges to be erected over the two branches of the Miramichi River, and the modifications thereof recently proposed by the Chief Engineer.

We have also seen the sections of the borings lately taken in the bed of the river and have received the explanations and views both of the Engineer and the Contractors respecting the carrying out of the original as well as of the modified plans, and have

now the honor to report thereon for the information of the Commissioners.

#### 1. The Contract Plans.

These plans represent a peculiar form of inverted caisson, made of cribwork, and intended to be sunk through some nineteen (19) feet of silt and sand forming the bed of the river, down to the solid rock which is represented to be at a level varying from forty to fifty feet below the surface of the water.

This caisson is divided into separate chambers, some of which are to be filled with concrete while sinking proceeds, and others after it is sunk, the latter forming the means of communication with the bottom during the process of sinking, through which the material to be excavated from within the cutting edge of the caisson is to be elevated.

When sunk to the bottom, the caisson will thus be entirely filled with concrete, and form a mass of timber and concrete, on which the masonry of the piers will commence at a level of four feet under low-water.

Since these plans, however, were adopted, further examination of the bed of the river by borings and driving of piles, reveal the fact, that what was supposed to be rock, was only a bed of gravel and sand, varying from five and a half  $(5\frac{1}{2})$  to twelve (12) feet in thickness, resting on a deep bed of fine blue sandy clay, as shewn in the sections submitted to us; and that in the north west branch the rock is from ninety-two (92) to one hundred and twenty-seven (127) feet below the datum of high water.

The modifications of this plan before referred to consist in removing the S. E. abutment of the N. W. branch, two hundred (200) feet landward, so as to place it on the solid bank, where it will be founded upon rock, building an additional pier at the place it was intended to occupy, thus adding another span of two hundred (200) feet to the bridge, and in giving more batter to the sides of the caisson, in order to spread the weight over a larger bearing surface.

In the south-west branch two caissons have been partially sunk, though under so many difficulties, that the Contractors were obliged to suspend further operations, until more efficient appliances could be procured for sinking them.

The operation of sinking an inverted caisson, even with the aid of the pneumatic process, is one that requires the utmost care and attention to keep the cutting edges

uniformly free, so that no unequal sinking shall take place. At the Brooklyn caisson of the suspension bridge, now in course of erection across the East River, where this process was conducted in the most thorough manner, and without limitation as to cost, experience has shown, that owing to the difficulty of preserving an uniform bearing at the cutting edge, and to the unequal pressure upon the sides, the caisson was subject to sudden, and (within certain limits) to uncontrollable movements, not entirely to be guarded against, and that when finally sunk it had swerved two feet from its proper position.

In the plans under consideration the sinking will be still more difficult and uncertain. The dredge, or elevator, working perpendicularly in wells of limited dimensions, can only be brought to act in the middle of the chamber, and not at the edges, where it is most wanted to regulate the descent of the caisson. This can only be done by divers working in the dark, groping around the edges, and removing the material from thence towards

the middle of the chamber.

We are, therefore, of opinion that it will be extremely difficult, if not altogether impossible, to sink these caissons to the proper depth, without resorting to the pneumatic process—a process attended with so much expense and delay, that we cannot recommend its adoption.

Moreover, we think it advisable to guard against the marine worm, usually found in tideways, and not to expose any portion of the foundation timbers to its depredations.

The Chief Engineer has communicated to us the particulars of a very satisfactory test which he has applied to the stratum of gravel underlying the bed of the river, to ascertain its supporting power, or ability to sustain the weight of the pier, the superstructure, and the moving load. It consisted in loading an iron rod of three inches diameter, passed through a hollow cylinder, down to the surface of the gravel, with a weight of fourteen hundred pounds (1,400 lbs.), equal to a pressure of two hundred pounds (200 lbs.) to the square inch. This direct test was applied to the thinnest, and consequently the weakest part of the gravel bed, and yet at this point the distribution of such a weight over the entire area of the base of the pier would be many times greater than the entire weight of the structure and its moving load. This fact relieves us of any anxiety we might otherwise have felt as to the possibility of obtaining a reliable foundation short of the solid rock.

Taking then into consideration all the facts which have been communicated to us, and the information we have received on this subject, and basing our recommendations thereon, we find no difficulty in coming to an agreement upon the best plan for meeting the emergency. It consists of the ordinary process of preparing a pile foundation and building upon it, in a direct caisson, the masonry of the pier from the bed of the river, and protecting the base by rip-rap.

2nd. The plan suggested is as follows:-

Two rows of piles, the inner one of square timber,  $12 \times 12$  inches, and the outer ones round, but such as would square  $12 \times 12$  inches, to be driven close together, completely enclosing the space occupied by base of the pier, estimated to cover an area of fourteen hundred and forty-three (1,443) superficial feet. The outer row to be driven first, then two rows of walling pieces,  $6 \times 12$  inches, to be bolted on the inner side of the round piles, one at the bottom of the river, and the other near the surface of the water, to act as guides for driving the square piles.

The piles are to be driven through the black mud and sand, and from two to three feet into the stratum of gravel shown by the borings taken under your Engineer's direction, to exist at an average depth of nineteen (19) feet below the bottom of the river.

Within the space enclosed by this double row of piles, interior piles are to be driven to the same depth (or until refusal), three feet apart from centre to centre in both directions, longitudinally and transversely.

These piles, as well as the square ones forming the sheet piling, or inner lining of the enclosure, are to be cut off level with the bottom of the river. The earth between the heads of the piles for a depth of two feet is to be removed, and the space filled in with concrete, and levelled off flush with their tops.

Upon this foundation so prepared, a caisson is to be placed, built with a double bottom (consisting of two thicknesses of squared timber, laid close together, and at right angles with each other) framed to the required form and dimensions, bolted, caulked, and pitched. On this double bottom there is first to be laid, within the caissons and covering its entire surface, a course of two feet of concrete as a foundation for the masonry, which is to be built with two footing courses, each two feet in thickness. The first course to be of the full width of the caisson, the second course with an offset of one foot on all sides, and from this point upwards with another offset of one foot will start the masonry of the pier with its proper batter.

The outer round piles to be left standing until the pier is built, or until the caisson is firmly bedded on the pile foundation, to serve as guide-piles for holding the caisson in place while afloat and receiving the masonry. When the pier is built the outer round piles to be cut off, and the caisson to be removed as far below the surface of lowest water

as the Engineer may consider necessary.

The piers to be protected by rip-rap extending sufficiently around the base to preserve

them completely from the action of the tide and current.

Our recommendation of this mode of preparing the foundation extends to all the piers of the bridge over the north-west channel, and to the three piers not yet commenced on the south-west branch.

With respect to the piers E. and F. in the latter, we suggest that in as much as the work upon them is now so far advanced, they should be completed on the plan upon which they were commenced, but that great care should be taken in dredging out the inverted caissons, to remove all material from the cutting edges, in order that they may go down to their intended position evenly and level, and when they reach that depth they should be loaded with as many stones as can be placed upon them, and remain so loaded as long as possible, postponing the final completion of the masonry of these two piers to the last.

We consider that this plan can be carried out with certainty as to its results, and with the greatest expedition, that it will afford a safe and reliable foundation at the least expenditure, and that both time and money may be saved by its adoption.

The work at all the piers can be carried on simultaneously, as only simple and inexpensive machinery is required for its execution, which can be multiplied to any

required extent.

The quantity of materials and character of the work to be performed in getting them in place, by this plan, are such in our judgment as should not add to the amount of the contract, but, on the contrary, tend to reduce it. And we think that the Contractors might well afford to complete the whole of the work at their contract price, without any additional charge for the change of plan.

We have the honor to be, Sir,

Your obedient servants,

(Signed,)

SAMUEL KEEFER, C. S. GZOWSKI.

#### CHIEF ENGINEER'S LETTER

OTTAWA, February 22nd, 1872.

Dear Sir,—When I addressed you on the 13th of last month, on the subject of the Miramichi Bridges, doubts were entertained respecting the stability of the foundation strate on which it was proposed to place the piers and abutments of the bridges over the north-west branch of the river. The same doubts did not exist respecting the character of the river bed of the south-west branch.

The Contractors had been directed to proceed with the original contract design on the latter branch, it had in fact during the whole of last summer been under execution, and

had made considerable progress.

It became my duty to point out the course which I considered it most advisable to take with regard to the bridge over the north-west branch; and from the best information then in my possession, I considered that all doubts respecting the supporting power of the foundation strata, and the perfect safety and permanency of the whole structure would be set at rest by the adoption of two changes in the original contract plan. One change was to form an additional span at the south end of the Bridge, instead of a solid embankment, the other was to enlarge the base of the piers, in order to distribute the weight of the masonry and load over a greater area.

The Government and the Commissioners in view of the importance of the question, and desiring to set at rest all fears that might by any one be entertained, chiefly with respect to the stability of the foundation of the bridge, deemed it advisable to consult

other Engineers on the subject. Messrs. Gzowski and Keefer were selected.

With the same object in view I instituted a series of experiments to ascertain by direct pressure the load which the foundation strata in the bed of the river would carry.

The first set of experiments were made at the proposed site of pier B, in the following manner:—

Iron tubes were sunk through the ice, water, and mud, to the bed of gravel at the depth at which the piers were proposed to be founded, viz.: about 52 feet under datum (extreme high water) withir, these tubes iron rods were passed, the object of the tubeing being to prevent friction on the sides of the rods in the material passed through, and thus allow perfectly free action. The rods were then loaded above the surface of the water with different weights, and allowed to remain loaded for different lengths of time. In this manner direct pressure was applied to the foundation stratum in the bed of the river and its supporting power ascertained. The soft material under the gravel bed was tested in a similar manner, and the results of these experiments as reported to me are as follows:—

Tests at site of pier B station 174 × 65.

End of rod 3 inches diameter = 7.06 square inches area.

### Test No. 1. Saturday, 20th January.

On top of gravel, bottom of tubeing 52 feet below datum, point pressure 52.3 below datum, load applied including rods 1,000 pounds, continued till Monday 22nd; time, 42 hours, no settlement.

This pressure equals 142 lbs. per square inch, without settlement.

## Test No. 2. Monday, 22nd January.

On top same gravel, pressure purposely lowered 1 inch, tubeing 52 feet, point pressure 52.4, load applied including rods 1,400 pounds, continued till Tuesday, 23rd January; time 24 hours, no settlement.

This pressure equals 200 lbs. per square inch, without settlement.

Tuesday 23rd. Bored through gravel, gradually changing to sand, 4 feet thick in all, to blue sandy clay, bored into same 2 feet 6 inches.

# Test No. 3. Tuesday, 23rd January.

In blue sandy clay, bottom tubeing 58 feet, point pressure 58 feet 6 inches, load applied including rods 900 pounds, continued till Wednesday 24th; time, 17 hours, without settlement,

This pressure equals 127 lbs. per square inch, without settlement.

# Test No. 4. Wednesday, 24th January.

On same point, load increased to 1,000 pounds, continued till Thursday 25th; time, 24 hours, without settlement.

This pressure equals 142 lbs. per square inch, without settlement.

## Test No. 5. Thursday, 25th January.

Load further increased to 1,400 pounds, this weight settled rod  $\frac{1}{10}$  of a foot, within one hour, continued till Saturday 27th; time, 48 hours, without change.

In this case a settlement took place under a pressure of 200 lbs. per square inch, as

above stated.

When I mention that the maximum pressure upon the base of the pier according to the contract plan does not exceed 24 pounds per square inch, and this includes the weight of the caissons, masonry, iron bridge, superstructure, and the heaviest moving trains, it seems clear that there would be no great risk in founding this particular pier exactly as originally designed, without enlarging the base or altering the form in any way,

Experiments similar to the above have been continued at the sites of all the other piers, but I have not as yet been placed in possession of the exact results. I have learned, however, by telegraph, that so far as the experiments have been tried, they have proved

equally satisfactory.

I do not at all agree with Messrs. Gzowski and Keefer with regard to the difficulty in carrying into execution the original contract plans—with proper plant such as indicated in the information which I published for the guidance of intending contractors, before tenders were received, there would be no serious difficulty in carrying out the original plans in a perfectly satisfactory manner. There certainly cannot possibly be any greater difficulty now, than when the contract was first entered into.

With regard to the alternative plan brought forward for adoption by Messrs. Gzowski and Keefer, while I perceive in it certain merits, I feel at the same time constrained to say that it is open to grave objections, and I could not bring myself to advise the Government to hazard its adoption under the circumstances which exist at the place in question. I consider that the safety and permanency of the whole Bridge would be much better secured by the original contract plan carried into execution without any alteration whatever.

I am, &c., &c., &c.,

(Signed,)

SANDFORD FLEMING,

Chief Engineer.

Ralph Jones, Esq., Secretary.

REPORT OF COMMISSIONERS-HON. ED. B. CHANDLER AND C. J. BRYDGES.

OTTAWA, February 23rd, 1872.

The Commissioners for the construction of the Intercolonial Railway beg to report to the Governor in Conneil upon the subject of the two bridges across the branches of the Miramichi river.

On the 13th January, 1872, the Commissioners reported upon this subject, enclosing a report from the Chief Engineer, and recommended that the whole question of these foundations should be submitted to the professional opinion of two eminent Engineers, and their advice obtained as to the best course to be pursued.

Council approved that recommendation, and Messrs. Samuel Keefer and C. S.

Gzowski were selected.

The Commissioners now beg to enclose a copy of the Report, which they have received from those Engineers, a copy of it has been handed Mr. Fleming, who has addressed the accompanying letter to the Commissioners.

The undersigned recommend that the course proposed by Mr. Keefer and Gzowski be carried out, as they believe it will prove to be the least costly, and enable the work to be completed in a shorter time, than by the plan originally proposed.

(Signed,)

Ed. B. CHANDLER, C. J. BRYDGES.

## REPORT OF A. WALSH, CHAIRMAN.

OTTAWA, February 23rd, 1872.

The plans, specifications, and detailed information submitted to intending Contractors at the time tenders were invited for the construction of the Miramichi Bridges, indicated the depth at which rock would be found upon which to base the caissons.

After the tenders had been received, and a contract entered into with Messrs. Brown, Brooks and Ryan, it was ascertained that what was supposed, and represented to be rock,

was a stratum of sand, and gravel, varying in thickness from five to twelve feet.

The discovery of this error as to the character of this stratum naturally created anxiety as to the sufficiency of the foundations, and to remove all doubt on this subject, the Gommissioners under the authority of an order in Council, passed on the 16th January last, appointed C. S. Gzowski, Esq., C. E., and Samuel Keefer, Esq., C. E., to consult with the Chief Engineer of the Intercolonial Railway and the Contractors for the Bridges, and after such consultation to report their opinion upon the subject.

Messrs. Gzowski and Keefer accepted the appointment, and the result of their enquiries is embodied in their report of date 15th July inst., copy whereof is herewith submitted; in reference to the statements and recommendation contained in that report,

the undersigned has the honor to submit his views to the Governor in Council.

In the Reports of Messrs. Gzowski and Keefer they state, "the Chief Engineer "has communicated to us the particulars of a very satisfactory test which he has applied "to the stratum of gravel underlying the bed of the river, to ascertain its supporting " power, or ability to support the weight of the pier, the superstructure and the moving "load; it consisted in loading an iron rod of three inches diameter, passed through a "hollow cylinder, down to the surface of the gravel, with a weight of fourteen hundred "pounds (1,400 lbs.) equal to a pressure of two hundred pounds (200 lbs.) to the square "inch, this direct test was applied to the thinnest and consequently the weakest part of "the gravel bed, and yet at this point, the distribution of such a weight over the entire " area of the base of the pier, would be many times greater than the entire weight of the " structure, and its moving load."

This fact relieves us of any anxiety we might otherwise have felt, as to the possibility

of obtaining a reliable foundation short of the solid rock.

The Chief Engineer, in a letter of the 22nd February instant, gives the result of various tests applied to the stratum of gravel, and expresses a strong opinion as to the sufficiency of the foundations, and recommends the construction of the bridges upon the original plan.

As both the Chief Engineer and the consulting Engineers have declared the foundation sufficient, that branch of the inquiry is disposed of, and the works may now be prosecuted without further anxiety.

Messrs. Gzowski and Keefer then proceed to the discussion, and recommendation of an entirely different foundation for receiving the masonry to that specified in the contract

of Messrs. Brown, Brooks and Ryan. The documents being all before the Governor in Council, the undersigned deems it unnecessary in this Report to enter into a description either of the contract plan, or of that proposed in substitution, it will only be necessary to say that Messrs. Gzowski and Keefer as already stated, propose to substitute an entirely different mode of construction

to that upon which the contract was let.

Messrs. Gzowski and Keefer describe at some length the difficulty and expense attending the sinking of the caissons in accordance with the contract plans, and without in any way expressing an unfavorable opinion as to the sufficiency of these plans, when faithfully carried out, appear to base their recommendation for a change of plan upon these questions of difficulty and expense; by reference to the documents submitted at the time the tenders were invited, it will be shewn that these difficulties and expenses were fully pointed out to intending contractors, and by reference to the letter of the Chief Engineer accompanying his estimate of the cost of the work, it will appear that a liberal

price was recommended (which recommendation was acted upon) to cover the unusual

and extraordinary expense attending the execution of this contract.

The undersigned therefore submits, that not only have the Contractors not been subjected to unforseen difficulties or expenditure, but on the contrary, were the plans for the construction of these very important works entirely changed (as proposed), it would be quite competent for any or all of these persons who tendered for the work, to claim that, had their tender been invited upon the plan now proposed to be adopted, a very large saving to the country would have been effected.

The undersigned recommends that the Contractors be instructed to proceed with the

earnest and vigorous prosecution of the works in accordance with their contract.

(Signed,)

A. Walsh, Commissioner.

#### ORDER IN COUNCIL.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 26th February, 1872.

On a Report dated 24th February, 1872, from the Hon. the Minister of Public Works, stating that the Intercolonial Railway Commissioners having, under authority of the O. C. of 16th January last, submitted to Messrs. Keefer and Gzowski, Civil Engineers, the question connected with the construction of the Bridge over the Miramichi river, have obtained the opinion of those gentlemen, which opinion is submitted with that of Mr. Fleming, to whom that of Messrs. Keefer and Gzowski had been communicated.

That inasmuch as Messrs. Fleming, Keefer and Gzowski, agree as to the sufficiency of the stratum to support the Bridge, he, the Minister, is of opinion that the original plan under which the contract was awarded to Messrs. Brown, Brooks and Ryan, should be

adhered to.

The Committee concur in the above report, and submit the same for your Excellency's approval.

Certified,

(Signed,)

W. A. Himsworth, Asst. Clerk, Privy Council.

# CHIEF ENGINEER'S LETTER.

OTTAWA, March 5th, 1872.

DEAR SIR,—Referring to my letter to you, dated January 13th, respecting the Miramichi bridges and changes in contract plans which I then suggested.

Referring also to my letter of February 22nd, on the same subject, also to the order in Council passed on the 26th February, as well as the explanations and remarks I had

the honor to make at a recent meeting of the Privy Council.

Notwithstanding the satisfactory nature of the information obtained by the pressure tests referred to in my letter of February 22nd, I am of opinion that in order to secure that safety and durability, so desirable in a structure of so much importance, it would still be wise and prudent to construct the bridge over the north-west branch of the Miramichi with six spans, instead of five; to increase the base of the piers from 24 feet to 30 feet in width, to carry the two abutments to the rock, and found the solid work of the piers on the gravel stratum, without disturbing the latter in any way.

In my letter to you, dated January 13th, I enclosed a communication from the contractors in which they named \$81,322, as the sum they would require in addition to

32

the contract sum to make the proposed alterations. This sum as I stated at the time,

appeared to me greater than necessary.

The contractors are now in town; I have learned from them the difficulties they apprehend in carrying out the changes proposed, particularly with regard to sinking the caissons with a considerably greater batter than originally intended, in order to give the

increased base to the piers.

With the view of meeting these and other difficulties, I have, after duly considering the whole subject, submitted to the contractors a modification in the manner of forming the caissons required in the foundation works of the piers. By this modification, while the permanency of the work is enhanced, the difficulties to be looked for in executing the work are believed to be diminished, thus enabling the contractors to undertake the additional work at a much lower rate than they formerly proposed.

I enclose herewith my letter to the contractors, dated March 1st, and their reply thereto, from these letters it will be seen that the contractors are prepared to carry out the increased work, according to the amended plan, for the sum of \$25,000, additional to

their contract price.

A sketch of the amended plan of pier foundations is attached hereto, and the whole

changes proposed may be generally described as follows, viz.:—

An additional pier to be built so as to give the bridge six span, instead of five. The foundations of all the five piers to be increased from 24 feet to 30 feet in width—the length of each to remain the same as before, viz. 56 feet—open caissons to be employed in forming the piers, instead of close caissons—all the mud and silt on the top of the gravel bed to be dredged out within each caisson, and the space so dredged out to be filled up with concrete and quarry rubble stones, in equal proportions, the latter to be bedded in the concrete and thoroughly incorporated with it, so as to make one solid monolithic mass, the whole length and width of the base of each pier, and in thickness equal to the mean depth of the silt and mud to be dredged. Over this six feet of concrete to be placed, and then the masonry of piers to be built with footings, as shown on the attached plan.

The line A B on the accompanying plan shows the underside of the masonry on the original contract plans; all work above this line to be executed exactly as originally

specified and intended.

On the completion of that portion of the piers under water, all the timber in caissons, etc., to be cut off as close as practicable to the top of the bed of concrete. After all the timber and false works are removed, a quantity of rip-rap, averaging 600 cubic yards to each pier, to be deposited as may be directed and as intended in the original plans and specifications.

The top of the masonry in both piers and abutments to be made as may be directed to suit the iron bridge superstructure now being manufactured by Clarke, Reeves & Co., and the height of both piers and abutments may be raised, not exceeding four feet, should it hereafter appear advisable so to do, in order to equalize the work by reducing the lecutting between this bridge and the south-west bridge.

In the event of the masonry of Piers being raised as referred to above, the same to be done only with the concurrence of the Commissioners and the Chief Engineer, and

without any additional payment being made to, or claimed by the contractors.

The additional price asked by the contractors for executing in a satisfactory manner this amended plan, is so small compared with the magnitude of the work, the importance of securing the permanent stability of the structure and its completion, with as little delay as possible, that I recommend the proposal for favorable consideration.

I have given the whole subject my best consideration, and from the latest and best information received respecting all the difficulties of the case, I am satisfied that the course proposed and recommend is the best, having due regard to economy, safety, and dues 100.

durability.

Ralph Jones, Esq., (Signed,) SANDFORD FLEMING, Chief Engineer,

### CHIEF ENGINEER'S LETTER TO CONTRACTORS.

INTERCOLONIAL RAILWAY, OFFICE OF THE CHIEF ENGINEER, OTTAWA, March 1st, 1872.

GENTLEMEN, -In your letter to me, dated 13th January last, in reference to certain alterations then proposed by me respecting the north-west Miramichi bridge. You were prepared to undertake to carry out the work as proposed, increasing the width of the piers, and making the bridge for six spans instead of five, for the sum of \$81,322. You then, and since, stated to me verbally, that you foresaw great difficulty in sinking the caissons with the increased batter, and hence the apparently large extra price you required to undertake the altered work, you also stated that a greater length of time would be required to finish the work.

I now submit to you a modified plan; an additional pier to be made; the base of all the piers to be increased from 24 feet to 30 feet in width, the length of the piers to remain the same, viz. 56 feet, and to meet any possible difficulties arising from the increased batter, open caissons to be used in forming the piers instead of close caissons all the mud and silt to be dredged out within each caisson, and the space filled up with concrete and rubble stones in equal proportions, over this 6 feet of concrete to be placed, and then the masonry of piers to be started in footings as per plan.

Will you let me know on what terms you will undertake to carry out this modified plan assuming the same responsibilities as were placed upon you by the original contract. Be good enough also to state the least of extension of time you will require to have the

work ready for the iron bridge superstructure.

I am, &c., &c., &c., (Signed,)

SANDFORD FLEMING.

Chief Engineer.

Messrs. Brown, Brooks & Ryan, Contractors.

## LETTER FROM CONTRACTORS TO CHIEF ENGINEER.

OTTAWA, March 4th, 1872.

SIR,-We have considered the question of building the north-west branch of the Miramichi bridge, according to the modifications of the original plan, proposed by you to meet the difficulties of the case.

These modifications embrace an additional pier, so as to give six spans instead of five,

and in order to place the two abutments on the rock.

It also embraces an alteration in the structure and composition of the caissons, and the widening of all the piers at the point where they rest on the gravel pan from 24 feet to 30 feet.

In other respects the essential points of the original designs are to be maintained.

We will undertake to do the work as described in this amended plan to your satisfaction and that of the Commissioners, ready for the superstructure, for the sum of \$25,000 additional to our original contract price.

The time for completing the contract to be extended one season.

We remain, Sir,

Your obedient servants,

Brown, Brooks and Ryan.

(Signed,) Sandford Fleming, Esq., Chief Engineer, Intercolonial Railway, Ottawa.

### REPORT OF A. WALSH, CHAIRMAN.

OTTAWA, March 7th, 1872.

The undersigned has the honor to submit to the Governor in Council, Copies of correspondence in reference to the proposed railway bridges across the north-west branch of the Miramichi river, as under:—

"1st. Letter from Sandford Fleming, Esq., Chief Engineer, to Messrs. Brown,

"Brooks and Ryan, Contractors, dated 1st March inst."

"2nd. Letter from Contractors in reply to above, dated 4th March instant."

"3rd. Letter from the Chief Engineer to Ralph Jones, Secretary, dated 6th March "instant, with accompanying plan."

Upon receipt of these documents, the undersigned communicated with his colleagues,

on the 6th inst., in the following words:-

"Fleming recommends following modifications north-west Miramichi bridge—
"six spans instead of five—foundations of piers thirty feet wide instead of twenty-four
"—open caissons instead of close, and mud and silt to be removed to top of gravel bed,
"and space to bottom river filled with concrete and quarry rubble stone, in equal propor
"tions, to be thoroughly incorporated, making solid mass; over this six feet of concrete,
"and then start masonry; change being substantially, additional span, enlargement of
"foundations; and solid mass concrete and rubble, same depth as old plan."

"Contractors assent to changes, agreeing to carry them out for additional twenty-

"five thousand dollars, and extension time one year."

"By request of Council, I transmit this to you, and other Commissioners, for your opinion, early decision being required."

The following replies were received:-

From the Hon. Mr. CHANDLER:

"I concur in the proposed arrangement about the Miramichi bridges, as suggested "in your telegram of yesterday."

From C. J. BRYDGES, Esq. :-

"Your message received,—I have already expressed my agreement with the changes from five to six spans, on the north-west branch; I cannot take any responsibility in regard to foundations as proposed by Fleming; his present plan is an entire departure from original; if present plan is right, his original plan when he believed rock to be where it was, was clearly wrong; I remain of opinion that the proper course is to make pile foundations as proposed by the Engineers called in; I believe that plan can be finished for contract price now in existence, and done in this year and next. I do not believe the plan now proposed can be completed in the same time, and I see no necessity for paying twenty-five thousand dollars beyond what is requisite. I should fear removal of bed of river to top of gravel bed, and placing of weights proposed of rubble stone and concrete, would be liable to break through seam of gravel; it would be more likely to do so, than piles, which would consolidate present bed of river, and make a much safer foundation. This is my judgement."

From the Hon. Mr. McLELAN :-

"Message received,—I should adhere to five spans, enlarge foundations at base, contracting all possible to point where masonry begins, that value of enlargement be not lost in increased weight; direct chief or section Engineer to estimate difference in cost, open and close caissons, and enlargement of foundations, and require the rate of progress on works to be satisfactory to Government, without naming a year's extension of time."

The undersigned in a Report to the Governor in Council, dated 23rd February last, recommended that the Contractors for this Bridge, should be directed to proceed with the work in accordance with the contract plans, that report was made under the conviction that the tests applied to the stratum of gravel, and the concurrent testimony of Messrs. Fleming, Gzowski and Keefer removed all doubts as to the sufficiency of that stratum,

as a foundation upon which to base the caissons, and that no sufficient reason therefore existed for a departure from the original plan of construction.

The Chief Engineer in his letter of the 5th instant, addressed to the Secretary,

says :---

"Notwithstanding the satisfactory nature of the information obtained by the pressure tests referred to in my letter of February 22nd, I am of opinion, that in order to secure that safety and durability so desirable in a structure of so much importance, it would still be wise and prudent to construct the bridge over the north-west branch of the Miramichi with six spans instead of five; to increase the base of the piers from 24 feet in width to 30 feet, to earry the two abutments to the rock, and found the solid work of the piers on the gravel stratum, without disturbing the latter in any way.

"The additional price asked by the contractors for executing in a satisfactory manner this amended plan, is so small compared with the magnitude of the work, the importance of securing the permanent stability of the structure, and its completion with as little

"delay as possible, that I recommend the proposal for favorable consideration.

"I have given the whole subject my best consideration, and from the latest and best information received, respecting all the difficulties of the case, I am satisfied that the course proposed and recommended is the best, having due regard to economy, safety

" and durability."

The undersigned (although prepared so far as his individual opinion is concerned to re-affirm the recommendation contained in his report of 23rd February last) believing that in a matter of purely engineering character, such as the present, the sole responsibility of the plan upon which the work shall be carried out, should rest upon, and be borne by the chief Engineer; and looking to the small additional cost (compared with the contract price) of carrying out a work of so great magnitude, where the foundations have turned out so entirely different to what was supposed and represented when the contract was let; recommends that the alterations and modifications referred to in the letter of the Chief Engineer (and shewn upon the accompanying plan) be approved and adopted upon the terms and conditions therein set forth.

(Signed,)

A. Walsh, Commissioner.

#### ORDER IN COUNCIL.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 9th March, 1872.

The Committee of Council have had under consideration the memorandum dated 7th March, 1872, from the Chairman of the Commissioners for the construction of the I. C. Railway, submitting copies of the correspondence had between him and the other Commissioners and the Chief Engineer in reference to the proposed railway bridge across the north-west branch of the Miramichi river, and on the recommendation of the Hon. the Minister of Public Works, the Committee advise that the amended plan submitted with the Report of the Chief Engineer of the 5th March instant, be approved and adopted.

Certified.

(Signed,)

WM. H. LEE, Clerk, P. C.

# RETURN

To an Address of the House of Commons, dated 29th April, 1872; For a Statement of all costs and charges connected with the Survey and Management of the Intercolonial Railway, since the date of the last Return made to this House on the subject. up to the present time; shewing in separate sums the amount of travelling and other expenses of the Commissioners including all the expenses of the Commissariat Office since the above date.

By command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, May 1st, 1872.

Intercolonial Railway,
Commissioners' Office,
Ottawa, May 1st, 1872.

S1B,—I have the honor to enclose Return to an Address of the House of Commons, dated the 29th April, 1872, asking for statement of cost and charges connected with the survey and management of the Intercolonial Railway.

I have the honor to be,
Sir,
Your obedient servant,
RALPH JONES,
Secretary.

Hon. J. C. Aikins, Esq., Secretary of State, &c., &c., &c. RETURN to an Address and to an Order of the House of Commons, dated 29th April, 1872, for a "Statement of all cost and charges connected with the "Survey and Management of the Intercolonial Railway, since the date of "the last Return made to this House on the subject up to the present time, "shewing in separate sums the amount of travelling and other expenses of "the Commissioners, including all the expenses of the Commissariat Office "since the above date."

Engineering and Survey,—from the 1872:—	31st December,	1870, to the 30	th March,	s	ets.	\$	cts.
exemen and Laborers' wages			40 91ot	34,0	63-69		
tupplies and provisions to nine se May, 1871, and contingencies salaries of Staff,	from 31st Dec., 18	370, to 30th Ma do.,	ry to 31st urch, 1872. do.	34,4 $174,9$	40 43 94 98	019.40	30.40
Management,—from 31st December	, 1870 to the 30th	March, 1872 :	-			243,49	99 10
alaries,				22,73	80-16		
nspection of Line, travelling expens in July, August and December	er. 1871. and Febr	uarv. 1872			52 20		
elegrams		••••••••••••••••••••••••••••••••••••••		2	75 10   79 35		
Office Furniture	· · · · · · · · · · · · · · · · · · ·				44 80   27 26		
			<u> </u> -			<b>25,</b> 55	58 87

Commissioners' Office, Ottawa, 1st May, 1872.

# RETURN

To an Address of the Senate, dated 7th May, 1872, calling for "Copies of all "papers, letters and documents that have passed between the Government "of the Dominion, the Commissioners of the Intercolonial Railway, and "other persons interested in the following matters, viz.—As to the rent paid "by the said Commissioners for the use of the House, now occupied at New "Castle, by A. L. Light, Esquire, and the Intercolonial Office, stating who "was the owner; 1st, of the said house at the time it was so rented; 2nd, of "the lands taken for the railway station; 3rd, of the old ship yard intended "for water terminus; 4th, of the old Commercial Bank buildings, now "occupied as the Custom House at Newasctle, specifying separately the amount paid yearly for rent, the land damages, and the price paid or to be paid for each of the said premises, and to whom, when, and how?"

By command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 17th May, 1872.

# RETURN

To an Address, and to an Order of the Senate, dated May 7th, 1872, for "Copies

- " of all papers, letters and documents that have passed between the Govern-
- "ment of the Dominion; the Commissioners on the Intercolonial Railway,
- " and other persons interested in the following matters, viz.:"-
- (1.)—As to the rent paid by the said Commissioners for the use of the house now occupied at Newcastle, by A. L. Light, and the Intercolonial Office, stating who was the owner?
- (A.)—The Honorable Peter Mitchell, owner; four hundred dollars per annum for offices and residence of A.L. Light, District Engineer.
  - (2.)—Of the lands taken for the railway station?
  - (A.)—Grounds for station not valued.
  - (3.)—Of the old ship yard intended for water terminus?
  - (A.)—There has been no point selected as yet at Newcastle as a water terminus.

- (4.)—Of the old Commercial Bank building, now occupied as the Custom House at Newcastle, specifying separately the amount paid yearly for rent; the damages and the price paid, or to be paid for each of the said premises, and to whom, when, and how?
- (A.)—There has been no correspondence, as this question does not come under the supervision of the Commissioners.

RALPH JONES,

Secretary.

Intercolonial Railway, Office of the Commissioners, May 13th, 1872.

(No. 14.)

CUSTOMS' DEPARTMENT,

OTTAWA, 16th May, 1872.

Sir,—Adverting to the fourth paragraph of the enclosed Address from the Senate, bearing date the 7th instant, I have the honor to inform you that the old Commercial Bank building, now occupied as the Custom House at Newcastle, N.B., has been rented from Mr. W.H. Tuck, at a yearly rent of \$200 (two hundred dollars), and not purchased.

I have the honor to be, Sir,

Your obedient servant,

R. M. S. BOUCHETTE.

E. Parent, Esquire,
Under Secretary of State of Canada,
Ottawa

# RETURN.

To an Address of the House of Commons, dated 18th April, 1872, for Copies of all Despatches and Correspondence between the Dominion Government, and the Imperial Government, relative to the claims arising from the Fenian Invasion of Canada, and also Copies of all Orders in Council or other documents relating to such claims, and of the account of the Fenian Brotherhood drawn up by Lord Tenterden.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 26th April, 1872.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 2nd June, 1870.

The Committee of the Privy Council feel it their duty to represent to Your Excellency that it is desirable to take the earliest opportunity of acquainting Her Majesty's Secretary of State that it is their intention to urge the Imperial Government to demand reparation from the United States for the losses sustained, and expenses incurred, owing to the late invasion of Canada by citizens of that Republic.

The Committee of Council will be prepared to prove that the Government of the United States have for several weeks been cognizant of the preparations openly made by

citizens of that country for the invasion of Canada.

It was not until the brigands were on the point of entering Canada that the Proclamation of the President of the United States was issued at Washington, and it was some days afterwards before United States troops appeared at the place of action. A proclamation unsupported by troops was obviously under the circumstances wholly ineffectual.

The Committee of Council submit, that if the President's Proclamation had been issued a few weeks sooner, and if troops had been sent to the frontier as might reasonably have been expected, Canada would have been saved a large expenditure of money. The Government of the United States had better means of obtaining information than the Canadian Government had, and yet the latter was able to call out the Militia, and to be prepared to repel the brigands at the several points on the frontier which were threatened.

It is scarcely necessary to remind Her Majesty's Government that when a raid was made from Canada on the United States Town of St. Albans in the year 1864, by Southern American refugees, although it had been projected with great secrecy, and without the knowledge of any Canadian authority, not only was pecuniary compensation promptly and cheerfully made by Canada, but militia were stationed on the frontier to prevent raids, and an Act was passed enabling the Government to expel from Canadian soil any alien violating the neutrality laws.

The Committee of Council are not at present prepared to make a full report specifying the amount of reparation which they will deem it their duty to claim, or the proof which they will offer of the knowledge of the United States' Government that an invasion of Canada was contemplated by American citizens; but they are of opinion that Her Majesty's Government ought to be apprized without delay that there is a general feeling throughout the Dominion, that the United States' Government has not adequately discharged its duty on this occasion, and that Great Britain is bound to protect the subjects of Her Majesty in the Dominion, by demanding adequate reparation for a most grievous wrong.

It may not be out of place on this occasion, to remind Her Majesty's Government that claims on the part of Canada for compensation for expenses and losses caused by the raids and threats of raids of citizens of the United States in the year 1866, and subsequently, were brought under the consideration of Her Majesty's Government on the 29th of December, 1868, by the Honorable Sir George E. Cartier, Baronet, and the Honorable

William Mc Dougall, C.B.

The Committee of Council have to request that Your Excellency will transmit a copy of this Minute without delay to Her Majesty's Government.

Certified,

WM. H. LEE, Clerk, Privy Council.

(Copy—Canada—No. 137.)

Downing Street, 4th June, 1870.

SIR,—I have received the series of telegrams by which you have announced the collection of bodies of armed Fenians on the Southern Frontier of Canada, their irruptions into different parts of the Dominion, their discomfiture, disorganization, and final dispersion.

I regret that the Canadian Government should have been subjected to great expense, and the inhabitants of the frontier to protracted anxiety, from a body of conspirators whose capacity for mischief has proved to be so unequal to their boasts and ostentatious preparations.

I have at the same time sincere pleasure in congratulating your Government on the completeness of their precautions, and the hearty vigor with which, notwithstanding the many previous false alarms, their orders have been executed by the Canadian forces.

Her Majesty's Government have not failed to place before the Government of the United States the inconveniences which Canada was suffering, and likely to suffer from these hostile preparations on her frontier, and to urge them to counteract by all means in their power such movements.

Though they have as yet little official information on the subject, they hope to find that the aid of that Government was loyally given, and they anticipate that the avowed authors of these outrages, who are now said to be in the hands of the United States authorities, will receive such condign punishment as this wanton attack upon the peace of a neighbouring and friendly State deserves.

It is not often in the history of civilized nations that a country has suffered from an attack so gratuitous and unjustifiable as that which has been made unon the Pominion, and I can assure you that the Queen, together with the Parliament and people of this country, cordially sympathize with the annoyance which it has caused and admire the spirit with which it has been repelled.

I have, &c., (Signed.)

GRANVILLE.

Copy of a Report of a Committee of the Honourable the Privy Council, submitted to His Excellency the Governor General, on the 1st July 1870.

The Committee of the Privy Council have had under their consideration a Despatch dated the 4th ultimo, addressed to Your Excelleney by the Right Honorable Earl Granville, Her Majesty's Principal Secretary of State for the Colonies, on the subject of the recent invasion of Canada by armed bands of Citizens of the United States.

The Committee of the Privy Council have already stated their views regarding this outrage, in their Minute of the 2nd ultimo, a copy of which they requested Your Excellency to transmit to the Secretary of State; and the painful duty is now imposed on them of requesting Your Excellency to express to Earl Granville, their unfeigned regret at learning from his Despatch, that Her Majesty's Government, instead of demanding reparation from the Government of the United States, for the grievous outrages to which they have been subjected, have contented themselves with urging that Government to counteract such movements in future by all means in their power; a demand which, no doubt, has already been made on more than one occasion, in 1866, and subsequently without any satisfactory result.

It appears from Earl Granville's despatch that Her Majesty's Government had then received "little official information on the subject" but His Lordship nevertheless expresses a hope that the aid of the United States Government was loyally given, and that the authors of the outrages will receive condign punishment. The Committee of the Privy Council entertain no expectation whatever, that any punishment, calculated to deter the miscrenuts concerned in these outrages from future attempts of a similar kind, will be inflicted on their leaders, the principal of whom, O'Neill, was a leader in the riot of 1866, when he escaped unpunished, And without desiring to convey any imputation whatever on the motives of the United States authorities, they confidently appeal to the fact that the President's Proclamation was not issued in proper time, and that the United States troops were not ordered to the Frontier until it was too late for them to be of any material service. It must be obvious that it would have been much easier to have despatched the United States regular troops to the frontier, than to have called out and armed the Canadian Militia, and yet the former were not at the scene of action while the latter were ready at every point on the frontier that was threatened.

The Committee of the Privy Council, in venturing to remonstrate against the communication described by Earl Granville as having been made to the United States Government on the occasion of the late outrage, would beg to refer to his lordship's own language in which they entirely concur. Earl Granville observes, "it is not often in the "history of civilized nains that a country has suffered from an attack so gratuitous and "unjustifiable as that which has been made on the Dominion." To this the Committee of Council feel it their duty to add, that they believe that there is no precedent in the history of civilized nations for a great power such as Great Britain submitting to such outrages on its loyal subjects without making a demand for adequate reparation.

The Committee of the Privy Council feel it their duty to express very strongly to Your Excellency for the information of Her Majesty's Government the deep sense entertained by the people of the Dominion of all shades of party, that they have not received from Her Majesty's Government that support and protection which, as loyal subjects of Her Majesty, they have a right to claim.

The Committee of the Privy Council gratefully acknowledge the expression of sympathy on the part of the Queen, Parliament and people of the United Kingdom on the occasion of the late invasion of the Dominion. The fact that a much loved member of the Royal Family was in the field with his regiment, tended to intensify the feeling of indignation which universally prevailed throughout the Dominion when the fact of the invasion became known.

The Committee of the Privy Council request that Your Excellency will be good enough to transmit a copy of this Minute to Her Majesty's Principal Secretary of State

for the Colonies.

Certified,

WM. H. LEE, Clerk, Privy Council.

The Governor General to the Secretary of State for the Colonies.

(Copy—No. 146.)

NIAGARA, July 5th 1870.

My Lord,—I have the honor to enclose the copy of a report of a Committee of the July 1st, 1870. Privy Council of the Dominion, in reference to Your Lordship's Despatch of the 4th ulto, No. 137, on the subject of the recent invasion of Canada by armed bands of citizens of the United States.

I transmit this document, not as a Minute of Council, approved in the usual course by the Governor General, but as a statement of opinion on the part of the Ministers who represent the views of the people, and are responsible for the Administration of the

Public Affairs of the Dominion.

For obvious reasons I thought it incumbent upon me to withhold my approval while complying with the request that I should transmit a copy of the minute for Your Lordship's consideration, a course, of which, under all the circumstances, I trust you will be inclined to approve.

I have, &c.,

(Signed,)

JOHN YOUNG.

The Right Honorable

The Earl Granville, K.G., &c., &c., &c.

The Governor General to the Secretary of State for the Colonies.

(Copy-No. 147.)

NIAGARA, July 5th, 1870.

My Lorp, I have the honor to forward, herewith, a memorial which I have

received from the Board of Trade of the City of Ottawa.

The memorial sets forth "a statement of facts connected with the external relations "of Canada to the Government and people of the United States," drawing special attention to the circumstances connected with the recent Fenian raid, and to the action of the American Government in reference thereto, as also to "the refusal to allow Canadian "vessels to pass through the Sault Ste. Marie Canal."

3. The memorialists pray that "this matter may be put before the Imperial Government, in order that satisfaction may be demanded from the United States, a full money compensation for the losses sustained, and security that measures will be at once

"taken to prevent a repetition of those attempts in future."

I have, &c.,

(Signed.)

JOHN YOUNG,

The Right Honorable

The Earl Granville, K.G., &c., &c., &c.

The Secretary of State for the Colonics, to the Governor General.

(Copy—Canada—No. 210.)

DOWNING STREET, August 4th, 1870.

Sir, -I have to acknowledge your Despatch, No. 147, of 5th July, enclosing a memorial which you had received from the Board of Trade of Ottawa, relating to the action of the American Government with reference to the recent Fenian raid.

On the subject I have to refer you to my Despatch, No. 138, of 27th ultimo, informing you of the result of my communication with Mr. Campbell, the Postmaster General

of Canada.

I have, &c.,

(Signed,) KIMBERLEY.

Governor General

The Right Honorable Sir John Young, Bart., G.C.B., G.C.M.G., &c., &c., &c.

The Secretary of State for the Colonies to the Governor General.

(Copy.—Canada.—No. 211.)

DOWNING STREET, August 4th, 1870.

SIR,—I have to acknowledge your Despatch No. 146, of 3rd of July, enclosing a copy of a report of a Committee of the Privy Council of the Dominion, on the subject of the recent Fenian attack upon Canada, which you inform me you transmit not as a minute of Council approved in the usual course, but as a statement of opinion on the part of the Ministers who represent the views of the people, and are responsible for the administration of the public affairs of the Dominion.

I regret to find that the Committee take so unfavorable a view of the conduct of Her Majesty's Government, but I cannot admit the justice of the accusation that the Canadian people have not received from Her Majesty's Government the support and protection,

which, as loyal subjects of Mer Majesty, they have a right to claim.

You will have learnt from my Despatch, No. 198, of the 27th July, the course which Her Majesty's Government are prepared to adopt with respect to the grievances of Canada against the United States.

I have, &c.,

(Signed,) KUMBERLEY.

Governor General

The Right Honorable

Sir John Young, Bart., G.C.B., G.C.M.G.,

&c., &c., &c.

Extract of a Despatch from the Secretary of State for the Colonies to the Governor General.

(Copy—Canada—No. 135.)

Downing Street, 27th July, 1870.

3. Mr. Campbell pressed strongly upon me that a representation should be made to the United States Government with reference to the late Fenian invasion into Canada, which had awakened such just feelings of indignation in the Dominion, and he urged the claims of Canada for reparation for the losses which she has sustained by that invasion.

"Her Majesty's Government have carefully considered what steps it would be advisable to take in this matter, and I have to acquaint you that they are of opinion that in the first instance your Ministers should draw up a full and authentic statement of the facts, and of the claims which they found upon them. This statement should be transmitted by you to Her Majesty's Government, in order that it may be laid by them before the Government of the United States, and I need scarcely say that whilst it should contain everything which is material to the case, it should be a document of such a character as may properly be communicated to the Government of a State with which Her Majesty is on terms of amity."

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 20th August, 1870.

With reference to the Earl of Kimberley's Despatch hereunto annexed to Your Excellency, under date of the 27th July, 1370, the Committee of Council are of opinion that in order to enable them to prepare the full and authentic Statement of their claims on the Government of the United States for compensation for losses sustained by the raids made in Canada by Citizens of the United States in the years 1866 and 1870, it is desirable that they should be apprized of the several communications made to the Government of the United States by Her Majesty's Minister at Washington, on the subject of those several raids, and they therefore recommend that Your Excellency will be pleased to apply to Sir Edward Thornton for such information on the subject as it may be in his power to communicate, and to prevent the possibility of delay, the Committee of Council further recommend that Your Excellency will be also pleased to apply to Her Majesty's Government to instruct Sir Edward Thornton to furnish the required information.

The Committee of Council would further request that Your Excellency will cause to be prepared without delay a statement shewing the dates and particulars of communications made by Your Excellency or your Predecessor, to Her Majesty's Minister at Washington, prior to the raid of 1866, and subsequently on the subject of those raids, and also of all communications made to Your Excellency, either by Sir Edward Thornton or by any of the functionaries of the United States.

Certified.

WM. H. LEF, Clerk, Privy Council.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 25th January, 1871.

(Canada—No. 198.)

The Committee of the Privy Council have had under their consideration that part of the Earl of Kimberley's despatch to Your Excellency, dated 27th July last, in which his Lordship refers to the representations made to him by the Hon. Mr. Campbell on behalf of the Canadian Government, with reference to the invasion of Canada by citizens of the United States in the month of May last. The Earl of Kimberley points out to Your Excellency that, in the opinion of Her Majesty's Government, the Canadian Ministers should, in the first instance, draw up a full and authentic statement of the facts and of the claims which they found upon them, in order that it may be laid before the Government of the United States. On receiving a copy of the Earl of Kimberley's despatch, it was the opinion of the Committee of the Privy Council that it would be desirable, before preparing such a statement as that indicated, that they should have an opportunity of

perusing the correspondence which had taken place between Her Majesty's Minister at Washington and the Government of the United States. They accordingly submitted, through Your Excellency, an application for copies of such correspondence, and their request having been acceded to, they have recently received from Your Excellency a copy of a despatch from Sir Edward Thornton, dated the 13th inst., enclosing a list of correspondence and copies of such letters as had not previously been transmitted to Your Excellency or your predecessor. The Committee of the Privy Council have now the honor to submit a statement such as they think is called for by the Earl of Kimberley, and they venture to assert that if such an organization as that of the Fenian Brotherhood were tolerated in any European State, its avowed object being the invasion of a neighbouring State then at peace with that in which the organization existed, and if the result were the invasion of the neighboring and friendly State, there would be a demand for adequate reparation from the Government which had proved itself unable to restrain its

subjects from such acts of aggression.

The Committee of the Privy Council feel that they would not do full justice to the claims of the Canadian people to Imperial sympathy, and support with reference to the wrongs inflicted upon them were they to fail to remind Her Majesty's Government that the Fenian movement against Canada was avowedly set on foot with the view of revenging the alleged wrongs sustained by Ireland from Great Britain. It has never been pretended that the Fenian brotherhood had any cause of complaint against Canada, but, on the contrary, it has been openly avowed that the objects of the attack on Canada was to aid the cause of the Irish malcontents. The question at issue appears to the Committee of the Privy Council to be, whether a civilized Government is to be held responsible for the acts of a large body of its subjects or citizens committed under the circumstances stated in the accompanying memorandum. The Committee of the Privy Council beg to refer on this occasion to the letter addressed to the Right Hon. Earl Granville, on the 28th December, 1868, by the Hon. Sir George E. Cartier, Bart., and the Hon. William McDougall on the subject of the Fenian raid of 1866, and to the reply thereto, dated 8th January, 1869, which Sir Frederic Rogers was directed by Earl Granville to make thereto.

Certified.

WM. H. LEE, Clerk, Privy Council.

#### Memorandum.

In the month of November, 1863, a congress of persons styling themselves the Fenian Brotherhood, and consisting chiefly of natural born and naturalized citizens of the United States of America, was convened at Chicago, in the State of Illinois. Since that time there has been a regularly organized body, styling itself the Fenian Brotherhood. Its Head Quarters have been in the City of New York. It has had a President, Senate, and House of Delegates, and has occupied buildings on which the Fenian flag has been openly displayed. The Fenian Government has collected a revenue, and has issued bonds and notes; it has had a regularly organized army with prescribed uniforms, and officers regularly commissioned, and sworn. There has been no secrecy about this organization, and no attempt to conceal its object, one of the principal of which has been the conquest of Canada, against the people of which, it is not pretended it has had any cause of complaint. The drilling of the Fenian troops has been carried on in the most open manner, sometimes in the open air, and at other times in halls procured for the purpose.

In the month of August, 1865, the Canadian Government received confidential information that a Fenian expedition against Canada was being organized in the Western States, and from that time forward preparations for an invasion by a large force were active and increasing, and contributions were levied from American citizens to a very large amount. As an instance of the publicity of the proceedings, reference may be made

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to a meeting held on 27th September, 1865, in Mozart Hall, in Cincinnatti, at which Judge Woodruff presided. On that occasion one of the speakers said, according to a report in the Cincinnatti Daily Engineer of 28th September, 1865, "250,000 men with bristling bayonets will be seen battling for the cause of Irish freedom before the snow "of next December."

The same paper reported that after the speaking "it was announced that committees "would be appointed in the various wards who would visit our citizens during the coming "week for the purpose of raising funds for the purchase of rifles to be used by an Irish "army." The same proceedings which took place in Cincinnatti were adopted in many other cities and towns of the United States during the Autumn of 1865 and Winter of 1865-66.

As early as the 14th March, 1865, Her Majesty's Minister at Washington called the attention of the Government of the United States to the fact of the existence of an extensive conspiracy on the part of the so-called Fenian Brotherwood, and pointed out that officers in the service of the United States had taken part in the proceedings of that body. There can be no doubt whatever that the Government of the United States were fully cognizant of the preparations made for the invasion of Canada, which culminated in the Raid of June, 1866. The loss of life and property consequent on that outrage constitute one of the claims for reparation. Although the Government of the United States had been warned of the danger to be apprehended from the Fenians, it took no active measures until Canada had been actually invaded, when it is admitted it displayed considerable activity.

The leader of the invading force was convicted, and sentenced to imprisonment together with other ringleaders, and large quantities of arms were seized by the government of the United States. Unfortunately a very short time elapsed before the Fenian leaders were unconditionally released from prison, and the arms which had been seized restored to them. A Fenian Congress was held in September, 1866, little more than Chicago Evening three months after the raid in Canada, and on that occasion it was Journal, 2nd publicly announced that the Fenians would not be content until Canada Sept., 1866. was invaded again.

From that time forth numerous meetings were held, as well as balls, pic-nics, and other demonstrations, all avowedly with the object of raising funds for the invasion of Canada. At some of these meetings there were imposing military displays of masses of men in Fenian uniforms, officered, armed, and equipped. Gentlemen of high position in the United States attended these meetings, as will appear in the following instance:—

In Chicago, in August, 1866, a pic-nic was held, and it was announced in placards and hand bills that General Logan, Governor Oglesby, and Speaker Colfax, would attend as speakers, and that the Fenian soldiers would parade in the grounds. In the course of a speech delivered on the occasion by Mr. Colfax, Speaker of the House of Representatives, he said, as reported: "I confess I was humiliated that our army was sent "there to act as police officers on the Canadian line. I was humiliated when our army was sent to do the dirty work of spies and detectives against the Fenians."

On the 28th May, 1868, it was stated in the announcement of a "Grand Civil and Military Pic-nic, to take place in New York, that the 4th Regiment Irish Revolutionary Army will parade, and be reviewed by General O'Neill." Drilling was openly carried on in Buffalo, on the Terrace, and in Chicago, on Wabash Avenue.

In November, 1868, a Fenian Congress was held at Philadelphia, at which three Regiments of the Irish Republican Army, numbering fully 2,000, were paraded in line, commanded by Col. William Clingen. There were likewise present, General O'Neill, President of the Fenian Brotherhood, and the following, Staff-General Smolenski, Chief of Staff; Col. John W. Byron, Adjutant General; Col. J. J. Donnelly, Engineers; Major J. O. Leary, of Ordnance; and others.

In 1867, General Barry, of the United States' Army, commanding on the frontier, his head quarters being at Buffalo, had a number of his men tried and convicted of a breach of military discipline by leaving their quarters and joining a Fenian military

display. In a very short period after their sentence, and when their term of imprisonment had scarcely begun, a pardon was granted to the soldiers from headquarters, at Washington, and soon after General Barry was removed from his command. It has been positively asserted by Fenians themselves that they had received assurances from very high quarters that if a demand should be made on the State authorities for troops to aid the regular troops, they need not fear that this would be speedily given. In April, 1870, arrangements had been made for an invasion which were well known to the authorities of the United States, but no steps whatever was taken to prevent it. Fortunately, the Canadian Government ascertained that a raid was in contemplation, and called out a large force at considerable expense, which deterred the leaders for a time. So soon as the Canadian volunteers had been disbanded, the preparations for invasion were renewed, and the raid of May, 1870, took place at a time when it was supposed that Canada was completely off her guard. Great stress is laid on the fact of General O'Neill's arrest by the United States' Marshal, but it must be borne in mind that no attempt was made by the Marshal to prevent the invasion, and that it was after the complete defeat and dispersion of the Fenians, by the Canadian volunteers, that General O'Neill was arrested, as he had been in 1866, to be again tried, convicted, and again pardoned unconditionally.

Both in 1866 and in 1870 the action of the Government of the United States was delayed until it was of no practical value. The object of the Fenians on both occasions was to fortify themselves in an encampment on Canadian soil, after which they expected to receive ample supplies of munitions of war, men, and money from the United States. They were permitted to deposit arms at various depôts on the frontier, and to enter Canadian territory without hindrance, and it was only after their defeat that proceedings were taken against them. In March, 1868, Mr. Thornton, Her Majesty's Minister at Washington, by direction of Lord Stanley, called the attention of the Government of the United States to the Fenian organization for the invasion of Canada, assuring them that Her Majesty's Government did not allow themselves to doubt their willingness to defeat by every legal means in their power any attempt to organize in the United States, and to carry into execution any hostile enterprise against Her Majesty's Dominions in North America. In July, 1869, in consequence of a strong representation from the Governor General of Canada, Mr. Thornton visited Mr. Fish and urged upon him that the Government of the United States should cause the Fenians to be vigilantly watched. It may be admitted that the United States' Government must find considerable difficulty in restraining this formidable band of conspirators, styling themselves the Fenian Brotherhood, and possessing a great amount of political influence in all parts of the United States. It may also be possible that the laws of the United States are inadequate to enable the Government to suppress such organizations as the Fenian Brotherhood. It will hardly be contended, however, by the Government of the United States, that the inadequacy of the laws can be urged as a valid reason for refusing redress for injuries inflicted on a neighbouring and friendly State. In the discrepancies between Great Britain and the United States, with reference to the questions in controversy relating to violations of neutrality during the late civil war, it was always contended by the latter that if the law was not sufficiently stringent it should be made so, and that the violations of neutrality could not be defended on the ground of the insufficiency of the law.

Political reasons must of course have less weight. It may be very unfortunate for the United States' Government that so large a portion of the citizens of that country are either members of an illegal association, banded together to make war on a country with which its Government is on friendly alliance, or are sympathisers with those who are actually members of the conspiracy. This may and ought to be taken into consideration in estimating the extent of the responsibility of the United States, but it cannot be held as invalidating the just claims for compensation for the grievous injuries sustained by Canada from citizens of the United States, for whose conduct the Government of that country is clearly responsible. The issue is a simple one, and it is believed that if it were presented for adjudication to any civilized government in the world, the decision would be that Canada is entitled to compensation for the losses sustained by Her

Majesty's subjects, and the expenses incurred by the Government, owing to the invasions both in 1866 and 1870, by armed forces, organized upon and issuing from the territory of the United States.

The Governor General to the Secretary of State for the Colonies. (Copy—No. 28.)

OTTAWA, January 26th, 1871.

My Lord,—I would beg to refer to the 3rd paragraph of your despatch, No. 198, of July 27th, 1870, in which Your Lordship stated that "Mr. Campbell had pressed strongly upon you that a representation should be made to the United States Government with reference to the late Fenian Invasion into Canada, which had awakened such just feelings of indignation in the Dominion, and that Mr. Campbell urged the claims of Canada for reparation for the losses which she had sustained by that invasion."

Your Lordship further observed that "Her Majesty's Government had carefully considered what steps it would be advisable to take in the matter, and they were of opinion, that in the first instance my Ministers should draw up a full and authentic Statement of the facts, and of the claims which they founded upon them," this Statement you directed me "to transmit to Her Majesty's Government, in order that it might be

laid by them before the Government of the United States."

2. In accordance with these instructions, I duly brought the subject under the consideration of my responsible advisers, and I have the honor to forward herewith, the copy of a Report of the Privy Council of the Dominion, drawn up for the consideration of Her Majesty's Government, and appended to it a Memorandum, prepared as your lordship directed, for presentation to the Government of the United States.

I have, &c., (Signed,)

LISGAR.

The Right Honorable

The Earl of Kimberley, &c.

The Earl of Kimberley to Lord Lisgar.

(Copy—Canada—No. 367.)

DOWNING STREET,

7th March, 1871.

My Lord,—I have the honor to inform your lordship that copies of your Despatch, No. 28, of the 26th January last, and its enclosures respecting the claims of Canada arising out of the Fenian raids on the Dominion have been communicated by Lord Granville to Her Majesty's High Commissioners at Washington.

I have, &c., (Signed,)

KIMBERLEY.

Governor General

The Right Honorable

Lord Lisgar, G.C.B., &c.

(Copy—Canada—No. 445.)

The Secretary of State for the Colonies to the Governor General.

DOWNING STREET,

20th June, 1871.

My Lord,—In accordance with the strong wish expressed by the Dominion Government, that a representation should be made to the United States with reference to the losses inflicted on Canada by the Fenian raids, Her Majesty's Government instructed

the British High Commissioners to bring the claims arising out of those raids before the Joint High Commission.

Your Lordship will observe from the Protocols of Conferences, copies of which were transmitted to you in my Despatch, No. 444, of the 17th inst., that the American Commissioners declined to entertain the proposal made by the British Commissioners to include these claims in the treaty.

Har Majesty's Government were well aware of the serious difficulties in the way of settling this question, and they could not, therefore, feel surprised at this result. At the same time it was with much regret that they acquiesced in the omission of these claims from the general settlement of outstanding questions between Great Britain and the United States.

But it seemed to them evident that the British Commissioners were right in thinking that there was no reasonable probability that by further pressing the point an agreement would be come to upon it with the American Commissioners, and when the choice lay between the settlement of all the other differences between the two countries on terms which Her Majesty's Government believed to be honorable to both, and beneficial alike to Canada and the rest of the empire, and the frustration of all hope of bringing the negotiations to a satisfactory issue, they could not hesitate as to the course which it was their duty to take.

Governor General, (Signed,) KIMBERLEY.
The Right Honorable,
Lord Lisgar, G.C.B., G.C.M.G.,
&c., &c., &c.

Copy of a Report of a Committee of the Honorable, the Privy Council, approved by His Excellency the Governor General in Council, on the 6th November, 1871.

The Committee of Council beg respectfully to draw your Excellency's attention to the fact that John O'Neill, who has been recently arrested by the United States authorities whilst leading a marauding expedition of so called Fenians, into an invasion of the Province of Manitoba, is the same man, who, in 1866, led a similar expedition into the Province of Ontario, near Fort Erie, and a second one in two divisions into the Province of Quebec in 1870.

These plundering and murdering expeditions were promptly repulsed, but not without the loss of valuable lives, and great injury to the country. Both in 1866 and 1870, after the Fenians had been driven back from the frontier by the Canadian Militia, arrests were made amongst them by the authorities of the United States, in which country their organization, arming and drilling, had been openly carried on. The present prisoner O'Neill and some of the others who are now in custody with him, were on each occasion amongst those who were arrested. In 1866 they were discharged without having been prosecuted to conviction, and in 1870, having been tried and sentenced, O'Neill and the others were pardoned and discharged from custody after a very short imprisonment. He and some of the others have now for the third time been arrested on this occasion promptly and before any lives were lost.

The Committee in recalling those circumstances to your Excellency's attention, submit that communication should be had with Her Majesty's Government on the subject with a view to such representation being made to the Government of the United States of the continued crimes of O'Neill, as well as of the other prisoners, as will insure their being prosecuted to conviction, and the infliction of a punishment commensurate with their

repeated offences.

Certified.

WM. H. LEE, Clerk Privy Council.

# RETURN

To an Address of The House of Commons, dated 16th April, 1872; For Copies of all Correspondence with Lieut.-Governor A. G. Archibald, of Manitoba, and Mr. McMicken, Land Commissioner, regarding the Fenian Invasion of Manitoba, and the Intercourse of the said Lieut.-Governor with Louis Riel, the Leader of the Rebellion in the Territory, and one of the men charged with the murder of Thomas Scott.

By Command,

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 26th April, 1872.

(No. 292.)

OTTAWA, April, 1872.

(No. 1,183.

No. 956.

No. 956.

963.

964.

968.

SIR,—I have the honor to transmit to you herewith, in compliance with your Order of Reference of the 17th instant, copies of all the correspondence of record in this Department, on the subject of the recent Fenian Invasion of the Province of Manitoba, as called for by the Address of the House of Commons of the 16th instant.

1 have the honour to be, Sir, Your most Obedient Servant,

> E. A. MEREDITH, Under Secretary of State for the Provinces.

E. Parent, Esq., Under Secretary of State.

(No. 276.)

GOVERNMENT HOUSE, FORT GARRY, Oct. 3rd, 1871.

S18,—I have the honour to acquaint you, for the information of His Excellency the Governor General, that after receiving from Mr. McMicken, on his arrival last evening, the reports connected with the Fenians, the substance of which I have transmitted by 26—1\*

last mail, I thought it desirable, and in this, I had the concurrence, not only of my political advisers, but of Mr. McMicken, and of other leading gentlemen with whom I consulted, to issue the Proclamation in English and French, of which you will find copies enclosed.

Arrangements were made for the immediate distribution of this Proclamation to every parish in the Province, and to-morrow copies will be in the hands of the Members of the Assembly and Council, and posted in public places in each Electoral District.

There has been within the last two days, a great desire on the part of the people

to have some authoritative statement of the facts.

The assumed numbers of the invaders were, of course, greatly exagerated, and the stories become more and more absurd as they became transmitted from mouth to mouth.

It seemed necessary on the one hand to give some check to these, and on the other hand not to conceal the fact that there is sufficient cause of alarm to justify prompt and decided action.

Without any authority to commission officers, I have in the emergency taken the course pointed out in the Proclamation. In a case of this kind we could not be sacri-

ficed to points of form.

Immediately the Proclamation was issued, a meeting of the people of Winnipeg was called by hand bills.—It took place at seven o'clock last evening, and was most harmonious and successful.

It was addressed by Archdeacon McLean, the Rev. Mr. Black, and the Rev. Mr. Young, who spoke of the necessity, in the presence of an invasion, such as was

threatened, of sinking all small differences, and working as one man.

The sentiment met with great acceptance, and men who have hitherto not acted together united cordially in the movement. After the meeting was over, the names of somewhere about two hundred men were enrolled, most of them discharged men of the force sent out here, to be ready for service the moment they were called upon.

The employés of the Hudson's Bay Company, in and about Fort Garry, have enrolled themselves in a company, with Mr. Donald A. Smith at their head, to be drilled

and added to the force, and to be ready for active service at a moment's notice.

We are also organizing mounted scouts to keep ourselves informed of the movements of the enemy, and every thing has been done that could be to initiate a defensive

I have sent to the Minister of Justice from St. Cloud, a cypher telegram, which contains some particulars that I prefer forwarding by that channel.

I have, &c.,
Adams G. Archibald. (Signed),

The Honorable

The Secretary of State for the Provinces, de., de., de.

#### PROCLAMATION.

#### PROVINCE OF MANITOBA,

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, &c., &c., &c. ADAMS GEORGE ARCHIBALD.

(Signed),

To Our Loving Subjects, the Inhabitants of the Province of Manitoba.—Greeting:

Whereas, intelligence has just been received from trustworthy sources, that a band of lawless men, calling themselves Fenians, have assembled on the frontier line of the

United States, at or near Pembina, and that they intend to make a raid into this Province, from a country with which we are at peace, and to commit acts of depredation, pillage, and robbery, and other outrages upon the persons and property of Our Loving Subjects, the Inhabitants of this Province. While not unprepared to meet the emergency with our regular forces, We do hereby warn all Our said Loving Subjects to put themselves in readiness at once to assist in repelling this outrage upon their hearths and We enjoin them immediately to assemble in their respective parishes, and enroll themselves for this purpose; We call upon all Our said Loving Subjects, irrespective of race or religion, or of past local differences, to rally round the flag of Our Common Country. We enjoin them to select the best men of each locality to be officers, whom we shall duly authorize and commission, and we enjoin the officers so elected to put themselves in immediate communication with the Lieut.-Governor of Our said Province. We shall take care that persons possessed of military skill and experience shall be detailed to teach the necessary drill and discipline. All officers and men when called into service shall receive the pay and allowances given to the regular militia. The country need feel no alarm. We are quite able to repel these outlaws if they were numerous. The handful of them who threaten us can give no serious difficulty to brave men who have their homes and families to defend. Rally then, at once. We rely upon the prompt response of all Our People of every origin to this Our Call.

In Testimony whereof, we have caused these Our Letters to be made patent, and the Great Seal of Manitoba to be hereunto affixed: Witness, Our Trusty and Well-beloved, the Honorable Adams George Archibald, Lieut.-Governor of Our Province of Manitoba, Member of Our Privy Council for Canada, &c., &c. At Our Government House, at Fort Garry, this 3rd day of October, in the Year of Our Lord, One thousand eight hundred and seventy-one, and in the thirty-fifth year of Our Reign.

By Command,

(Signed),

Thomas Howard,

Provincial Secretary.

(No. 693.)

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, OTTAWA, 17th October, 1871.

Sir,—I have the honour to acknowledge the receipt of your despatch, No. 276, of the 3rd instant, referring to a previous report transmitted by you in reference to a threatened Fenian Raid into Manitoba, and covering a copy of a Proclamation, &c., issued by you calling upon the inhabitants to enroll themselves to repel the invaders.

Your despatch will receive immediate consideration.

I may add that no previous report from you on the subject of the Fenians has reached this Office.

I have, &c.,

(Signed),

E. A. MEREDITH,

Under Secretary of State.

The Honorable

A. G. Archibald, Lieut.-Governor, Fort Garry. (No. 277)

#### GOVERNMENT HOUSE,

FORT GARRY, October 27th, 1871.

SIR,—I have the honour to acquaint you, for the information of His Excellency the Governor General, with the steps I have taken in respect of the Fenian Invasion.

I shall enter into full details in another despatch, and shall therefore confine this to

a summary.

Up to Saturday the 30th ult., the rumours that reached us in reference to a Fenian Invasion were constantly changing. The detectives and scouts, whom we had sent to the frontier, could not do much more than echo the reports that were coming by every arrival from the East,—Some of these were extravagant in the extreme. The numbers of men on the march were variously put at 1,000, 1,500 2,000, and as high as 2,500. Industrious efforts were made from some quarter to create among the French half-breeds, the belief that a large body of men had been pushed forward towards the frontier.

On Monday, the scouts brought in more precise information; they reported that a

body of men were certainly on the road to Pembina, ready to commence a raid.

On Monday evening, the 2nd inst., Mr. McMicken arrived by an express coach, bringing information which assured us the invasion was at hand. He was quite convinced however, that the number would not exceed 100 to 150; and that whatever danger there might be would be found to be within and not without the country.

On Tuesday, I issued the Proclamation, of which I have already forwarded to you copies; it was hardly published, till the people of Winnipeg, called together by hand-bills, adopted without a dissenting voice, enthusiastic resolutions, and determined to

enrol in the defence of the country.

Next day the other English parishes held similar meetings, and before Friday the 6th instant, the number of men that had come forward, and enrolled themselves as willing to be called into service under the Proclamation had swollen to near 1,000. The utmost enthusiasm prevailed. Besides the persons so enrolled, a considerable number of half-breeds, English and French, volunteered as mounted scouts, and were stationed on the different routes across the prairie, by which an armed force might be expected to pass. These were effectually guarded, and provision made that no body of men could enter from any quarter without being observed.

Late on Thursday night, our scouts brought in word, that a body of raiders had passed the frontier, but the information was not precise as to numbers. They were supposed to be from 50 to 100 strong, with a large body in the rear. This report was confirmed by further accounts, received in the morning of Friday. On that day orders

were issued to advance a body of troops to meet the enemy.

The services of two of the companies organized since Tuesday were accepted, and in three hours after the issue of the order to advance, a force of 200 volunteers including the 80 of the service companies in Fort Garry, with all their arms, ammunition, camp equipage, provisions, and medical stores, and one mountain howitzer, had crossed over and taken up a position on the south side of the Assiniboine, en route for the place where the Fenians were reported to be. The fort having been left garrisoned by a company of fifty of the Hudson Bay Company's officers and servants, who had organized into a volunteer company under the Proclamation. The afternoon was wet and cold, and the mud made the travelling difficult and disagreable, but the spirits of the men were excellent. The alacrity and cheerfulness they displayed was most creditable.

The troops had hardly commenced the march, when intelligence was received that the principal leaders of the movement had been captured by, and were in the custody of

the United State force at Pembina.

It seems that a body of Fenians, numbering 40 or 50, and lead by Generals O'Neil and Donnelly, and Colonel Curley, with the assistance of O'Donoghue, had on the morning of Thursday the 5th instant, marched from a point twelve miles beyond Pembina, towards this Province.

They passed the frontier at about 7 o'clock a.m., and placing a guard over the Custom House, proceeded to the Hudson's Bay Company's Post, where they made prisoners of Mr. Watt, the officer in charge, and Mr. Douglas, custom's clerk under Mr. Bradley. They then proceeded to rifle the post. They had with them three carts laden with arms and ammunition. They had also a double wagon, which they loaded with provisions and supplies, and then commenced to ransack the store, taking clothing of all kinds.

Colonel Wheaton, with about thirty of his troops from the United States Fort, now came on the ground. The moment they appeared in sight the Fenians fled, and the soldiers gave chase, capturing O'Neill, Donnelly, and Curley, and eleven of the privates, with the arms and ammunition remaining in the carts. The prisoners, arms, and ammunition, were all taken to the United States Fort, Colonel Wheaton having first compelled the prisoners to unload the waggon and replace the provisions and goods in the Company's storehouse.

O'Donoghue escaped, and fled down the river bank, crossing over to the East side in

Some French half-breeds following after him, succeeded in springing upon him. They seized a revolver he had stolen from Mr. Watt in the morning, and which he was trying to use; they tied him with ropes, and sent one of their number with word of the capture to Mr. Watt and Mr. Bradley.

These gentlemen fearing that an attempt at rescue might be made if he were sent down here, sent to Colonel Wheaton to ask him to take charge of the prisoner, and on obtaining his consent, they took him to the frontier, and delivered him over to the United States soldiers, to be conducted to the Fort and kept in custody.

Those of the raiders who were not captured, dispersed in every direction on the

arrival of the soldiers.

The scouts who came in last evening report the road clear. There are no suspicious

persons on the way.

The Pembina sympathizers pretend there is still a large body of men near the frontier, and that the movement is not settled yet. This I don't believe, but still, as the men have turned out and begun their march, there is no harm in allowing them to proceed a few miles in the direction of the frontier. So soon as I shall be assured that the danger is over, the forces will return.

There is no evil without its attendant good, and one benefit arising out of this will be the knowledge that when the time comes that Her Majesty requires the men of this country to rally to the support of the Government, the appeal will be promptly met by

the great body of the people.

So far as I have been able to learn, there was in the ranks of the raiders one, and one only, French Metis, while the capture of O'Donoghue was made by a number of French half-breeds, who have never swerved in their attachment to the Crown and to British institutions.

I have, &c., (Signed)

A. J. ARCHIBALD.

The Honorable

The Secretary of State for the Provinces, &c., &c., &c.

(No. 704.)

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, OTTAWA, 24th October, 1871.

SIR,-I have the honour to acknowledge the receipt of your Despatch No. 277 (B), giving a summary report of matters connected with the recent Fenian No. 963. invasion of Manitoba, announcing, inter alia, the loyal and enthusiastic conduct of the inhabitants of the province in answer to your proclamation, the enrolment of about 1,000 volunteers, the advance of a force of 200 to meet the invaders, the seizure by the Fenians of the Hudson's Bay Post and Custom House, the capture of the principal leaders and others of the Fenians by the United States troops, also the capture of O'Donoghue by some French half-breeds, and their delivery of him for safe keeping to the United States troops, and finally the general dispersion of the raiders.

Your despatch will be brought under the early notice of His Excellency, the Governor

General, on his return to the seat of government.

I have, &c., (Signed)

Joseph Howe, Secretary of State.

The Honorable A. G. Archibald, Lieutenant Governor, Fort Garry.

(No. 280.)

GOVERNMENT House, FORT GARRY, October 9th, 1871.

S1R,—In my Despatch No. 277, of the 7th inst., I gave you some details of the Fenian invasion up to the date of that letter.

I omitted to state that so soon as I received, on the evening of the 6th inst., intelligence of the course pursued by Col. Wheaton, I addressed him a letter of thanks, of

which I enclose you a copy.

I was anxious to secure the person of O'Donoghue, and with that view Major Irvine, at my request, addressed to that officer a letter, of which I enclose a copy, stating in substance that the prisoner had been taken on British soil by British subjects, who had handed him over for safe custody, and requesting his restoration to the British authorities.

This letter was delivered by Major Irvine's messenger to Colonel Wheaton, who declined to accede to the request, on the grounds set forth in his reply, of which I enclose a conv.

It was felt to be a great object to obtain possession of O'Donoghue's person. He knows so much about the country and the people that his power of doing mischief far

exceeded that of any other of the party.

The plan adopted by O'Donoghue, as stated by himself to a Faench half-breed, whose co-operation he was soliciting, was to cross the frontier with a body of armed men, taking with him as he came along every man, either as prisoner or confederate, swelling his ranks till he came on to the body of the French population, in the parishes above the Fort. He was persuaded these would join him at once, and aid him in taking and plundering the Fort, when he would be joined by numbers of men from the United States, sufficient to enable him to hold the country.

It appears that conformably with this idea, the arms have been, ever since the middle of summer, deposited on the east side of Red River, within a few yards of the frontier, under a haystack. The night before the raid the arms were moved across to the west side of the river, and put into the cellar of of a house occupied by the widow of Elzéar Goulet (the man who was drowned last autumn near Fort Garry). This house stands on the side of the road leading down the river, within a few feet of the track, and as the men marched towards the frontier, they armed themselves on passing the house.

The rest of the plan failed, as described in my last.

Throughout the whole affair the danger was the uncertainty that existed as to the action of the French Half-breeds. It was evidently O'Donoghue's expectation that they would join him. Those of the French Half-breeds who opposed the Provisional Government were certain of the defection of the sympathisers with Riel in the late movements,

and were constantly bringing reports to prove that these men would side with the enemy. Their holding back was very unfortunate so long as they failed to speak out, O'Donoghue might speculate upon their assistance.

The capture of O'Donoghue and the other leaders did not set the question at rest. The belief among the French Half-breeds was universal that the former would be soon set free by the United States civil authorities. Many of the English shared the same belief. With these leaders free to renew the raid, and the body of the Fenians who were in the vicinity of the frontier prepared for any thing, however desperate, an attack might be organized, with better prospects of success from St. Joe.

This place is 30 miles up the Pembina River. From it roads radiate in all directions towards our settlements. One leads direct to White Horse Plains, striking the Assiniboine about twenty-five miles up from the mouth, and following the crest of a ridge between these two points, on a line nearly parallel with the road from Pembina

to Fort Garry.

Another road leads from St. Joe directly to the portage along the edge of the Pembina Mountain; and other less considerable roads diverge from these main roads, or strike the post road leading down the river in such a manner, that taking St. Joe

as a point of departure, the country may be traversed in every direction.

From St. Joe, therefore, filled with a French Half-breed population, relatives, many of them, of the people of the White Horse Plains, and all of them, as United States citizens, sympathising with any thing that might lead to annexation, it was impossible to consider the danger as past, while the Fenians might gather at this point, distant far from the mounted patrol, and thirty miles remote from even a company of United States infantry.

It was with great pleasure, therefore, that I received on Saturday morning the intelligence that the French Half-breeds had rallied to the support of the Government, irres-

pective of the troubles of 1869 and 1870.

On Sunday about four o'clock, I was waited upon by the Speaker of the Assembly, the Provincial Treasurer, and other representatives of French Half-breed parishes, and informed that a body of these men had assembled at St. Boniface, on the opposite side of the river from Fort Garry, and that they would either come over to the Fort, or remain across the river, as I should judge best; but that they were anxious to see me, to have the opportunity of assuring me personally, that I might count on them in repelling the invasion.

I determined at once to go over, and on crossing the river found two hundred and upwards of French Half-breeds stationed on the bank, of whom about fifty were mounted men. They received me with a "feu de joie," and I was then assured by Mr. Girard that the persons present had assembled under the proclamation to declare their loyalty to the Crown, and their desire to be enrolled and to assist in defending the country. I thanked the men for their cordial response to my appeal, and assured them that should their services be needed they would be called out.

I spent some time in conversing with the crowd, who appeared to be much gratified at the opportunity I had afforded them to personally assure me of their loyalty and devotion to the crown.

Mr. Girard addressed the assemblage, stating, in very eloquent terms, the privileges they enjoyed in being under the British flag. His speech was loudly cheered, and for anything that could be observed, it was impossible to draw any other inference than that the people were most unanimous and enthusiastic, though among the crowd I had reason to believe there were some of the principal leaders of the movement of two years ago; but when this large body of men were coming forward under my proclamation, largely influenced in taking their course, as I had reason to believe, by the leaders in that movement to rally to the support of the Crown in a time of danger, it did not seem to me that that was the moment enquire into the antecedents of any person in the assembly.

I therefore accepted their expression of a desire to defend the country as genuine and sincere, and have no reason to doubt that they will flinch when the hour of danger arrives.

After the dispersion of the marauders on Thursday morning, and the withdrawal of the United States' forces beyond the line, Mr. Bradley, of the Customs', whom I have made a Justice of the Peace, was proceeding under the Proclamation to organize a body of men to defend the Post, when he received a message from Col. Wheaton to disband the men, otherwise he would come and take possession of the Post. Mr. Bradley had no alternative, and therefore proceeded no further.

It seems that Col. Wheaton considers the Post as within the American lines for military purposes, though not for purposes of commerce, as the Custom house is south-

ward of the post, and no objection is made to our collection of customs there.

Last winter we occupied the Post with, as you will recollect, the consent of the United States' Government.

The moment, therefore, we could not re-occupy the Post without incurring the danger of international difficulties, it was useless to march the men over the 30 miles of dreary prairie, which lies beyond the Scratching River. I therefore sent a message to Major Irvine that unless he saw some military objection, that I should think it wise to return to the Fort, and keep up a body of scouts to inform us of any other raid that might be attempted.

He accordingly countermanded his march, and commenced his return. The troops

will reach here to-morrow afternoon.

We shall have to station one company at the portage or the neighbourhood in the meantime, as a body for the population of these parishes to rally round, and shall be able,

in case of necessity, to reinforce them with men and arms from other quarters.

At this moment the leaders of the invasion are undergoing examination before the United States Commissioner, having been handed over by the military to the civil authorities. It is feared they will be discharged. In O'Donoghue's case it is stated upon pretty good authority that if, on examination, it shall appear that he is a British subject, it will be held that he is not liable to be punished under the neutrality laws of the United States.

Under these circumstances I have directed the proper proceedings to be taken under the Ashburton Treaty, to have a warrant issued for his arrest on a charge of robbery, and shall send certified copies to the United States authorities, with a view to have him arrested and detained for extradition.

In the absence of Judge and Crown Officer, I have had to give general directions to the Magistrate, and have desired Mr. Bain, a member of the bar here, to attend the examination of witnesses, and see that the papers are regularly made out, and to make the proper application to the United States authorities at Pembina.

So soon as the result of this application shall appear, I shall acquaint you with it, so as if through it, the extradition of O'Donoghue may be demanded from the United

States authorities.

I have, &c., (Signed,) ADAMS G. ARCHIBALD.

The Honorable

The Secretary of State for the Provinces, &c., &c., &c.

GOVERNMENT HOUSE, FORT CARRY, 6th October, 1871.

MY DEAR COL. WHEATON,—Allow me to take the first opportunity in my power to thank you in Her Majesty's name for the prompitude and vigor with which you have used your position, to crush the wicked invasion recently organized within the Territories of the United States, against the peaceful and friendly inhabitants of this Province.

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I can say no more of such a loyal discharge of international duties, than that it is worthy of the great nation whose Commission you have the honor to bear.

Accept, my dear Col. Wheaton, the assurance of my distinguished personal esteem,

and believe me,

Yours sincerely,

(Signed,)

A. G. ARCHIBALD.

Colonel Wheaton,

Commanding Fort Pembina.

Head Quarters, 6th October, 1871.

SIR,—I understand that William B. O'Donoghue was last evening, the 5th inst., arrested by British subjects in British territory, some six or seven miles this side of the lines, and was carried to the frontier by them, and handed over to you for safe custody.

I have sent a party with this, and will feel obliged if you will send him back to the frontier, to be returned to the custody of the British authorities, who will receive him

there.

I have, &c.,

(Signed.)

A. G. IRVINE.

Major commanding Dominion Forces,

Colonel Wheaton, U. S. A.,

Commanding at Fort Pembina, Dakota.

HEAD QUARTERS, FORT PEMBINA, 8th October, 1871.

SIR,—I have the honor to acknowledge the receipt of your communication of the 6th inst., requesting that I turn over to you one W. B. O'Donoghue, as a British subject, arrested in British territory, carried to the frontier, and handed over to me for safe custody.

In reply, I have the honor to state that W. B. O'Donoghue is not now in the custody of any military officer in the United States. A warrant having been issued for his arrest on the 6th inst. by a United States Commissioner, he was turned over to a United States

Marshall, and is now in the custody of the civil power.

He is charged with the violation of the neutrality laws of the United States, and a preliminary examination in his case is now in progress before the United States Commissioner. I, therefore, have no power to comply with your request. It is presumed that application should be made through the proper channels for his surrender under the extradition laws.

I have, &c., (Signed)

LOYD WHEATON,

Captain of Infantry commanding Post.

(No. 705.)

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, OTTAWA, 24th October, 1871.

Sir,—I have the honor to acknowledge the receipt of your Despatch, No. 280, of the 9th inst., with its enclosures (3) containing details in reference to the recent No. 964.

Fenian invasion of the Province of Manitoba, and reporting that the officer in command of the United States' troops at Pembina, had declined to restore 26—2\*

O'Donoghue to the British authorities, and that you had therefore directed the proper steps to be taken under the Ashburton Treaty with a view to his arrest in the United States on a charge of robbery, and his detention there for extradition to Canada, and announcing the gratifying exhibition of loyalty of the French Half-breeds, irrespective of the troubles of 1869 and 1870.

Your despatch will be brought under the notice of His Excellency the Governor General on his return to the seat of government.

I have, &c., (Signed,)

Joseph Howe, Secretary of State.

The Honorable A. G. Archibald, Lieutenant Governor, Fort Garry.

(No. 283.)

GOVERNMENT HOUSE, FORT GARRY, 13th October, 1871.

SIR,—Since writing my despatch of the 10th inst., enclosing your copy of cypher telegram for the Hon, Sir John A. Macdonald, on the subject of the Fenian raid, I have little to report.

I have issued an address to the people of the Province on the subject of the raid, the contents of which you will see by the copy enclosed. It contains a narrative of the

raid up to date.

My object in issuing this address was partly to prevent misapprehension as to certain matters to which it refers; but it was more especially intended for abroad, and to show that no hopes can be entertained of success in any renewed invasion, based on the supposition of aid from any section of the inhabitants.

The response made to my Proclamation, considering the limited number of our people, is something quite unexampled, and entitles the inhabitants to a public testimony

of my appreciation of their patriotism.

I learn that the Generals O'Neill and Donnelly, and Colonel Curley, left Pembina on Wednesday last by stage for St. Paul. O'Donoghue remains in the neighbourhood of the frontier.

There is in Pembina at this moment nothing beyond the excitement natural in the circumstances.

A Fenian residing near this place, who was with the raiders on the 5th instant, had stolen the horse of a Mr. Watt, the officer of the Hudson's Bay Company, stationed at the Post at Pembina. Mr. Watt went over yesterday to claim the horse, and succeeded in obtaining it, through the assistance of some parties there. On his way home, a friend who accompanied him, and who was carrying a fowling piece, was set upon by the horse thief and five or six confederates, and the gun was taken from him; the stock was broken in the struggle, and the barrel was subsequently discharged at him, fortunately without injury.

Every day furnishes incidents such as these, and it will be some time before the lawlessness of the frontier people will subside. We ought to station a company of soldiers at the Post. This was done last winter, and had the happiest effect. It would do more than any thing else I can conceive to stifle the rowdyism of the neighborhood. The Hudson's Bay Company are most anxious for it; Mr. Spencer, of the Customs, is

arging me to protect his office, situate at the frontier, and near the Post.

Should it be decided to send a company there, it may perhaps be necessary to renew

communication of last winter, with Washington, on the subject.

Colonel Wheaton (Commandant at Pembina), I understand considers the Post main the United States lines, and has led our people there to believe that he would ject to its being re-occupied by a garrison.

I have not in the slightest degree changed my mind as to the necessity of additionators. They might be sent up now as private citizens on the United States railroad but they ought to be here before the winter sets in, if you wish to consider the coursafe.

I have, &c., (Signed,) ADAM G. ARCHIBALD.

The Hon. The Secretary of State for the Provinces, &c., &c.

#### THE MANITOBA GAZETTE.

Published by Authority.

WINNIPEG, FRIDAY, OCTOBER 13, 1871.

To the People of the Province of Manitoba:

In the Name of the Queen, I thank you, one and all, for the promptitude and spirit with which you have rushed to the defence of the country, when called upon by Her Majesty's Proclamation.

From the moment when the rumors of a Fenian raid assumed a character to be relied upon, my great anxiety was, that our people, irrespectively of past differences, should present a united front to the bands of miscreants—the scum of the cities of the United States—who were collecting on our border for purposes of plunder, robbery and murder.

I had the best reason to know that the plans of the marauders were based on the belief that there were divisions in your ranks which would drive a part of the population into their arms.

O'Donoghue, one of the leaders of the gang, assured his companions that, on their arrival at the frontier, they would be joined by a party of our people disaffected to the crown, and ready to aid any invasion.

The events of the past few days have repelled this slander. At this moment, our whole population has assumed an attitude which affords no encouragement to these dastardly marauders.

On Tuesday, the 3rd inst., information reached me, that left no doubt of a raid being at hand.

On Wednesday, I issued a proclamation, calling upon you to assemble and enroll in your various parishes. Copies were distributed all over the Province, and by the evening of Thursday, the people of every English parish had met, had made up, and sent to me lists, shewing 1,000 men, ready at a moment's warning to shoulder their muskets and march to the front.

In the French parishes, meetings were also held, and by the same evening, I was assured, upon unquestionable authority, that my proclamation would meet with a loyal response. I suggested that it should be such as to admit of no misinterpretation, and received the assurance that it would assume a shape entirely satisfactory.

The reports from the front on Thursday left no doubt that the raid was to commence at once, and, next day, orders were given to advance a body of troops towards the frontier.

Major Irvine detailed, with that view, the bulk of the Service Companies in the Fort, two of those organized at Winnipeg, under Captains Mulvey and Kennedy, and a Company of Canadians and half-breed French under Captain de Plainval.

In two hours from the issue of the order, two hundred men, with their accountements, camp equipage and munitions of war, were across the Assiniboine en route for the frontier. The movement was executed in a manner that reflects the highest credit on Major Irvine, the officers of the different corps, and the men.

The march was continued till events occurred to render further advance unnecessary. On Thursday, about noon, Colonel Wheaton, of the U. S. forces stationed at Pembina, with a loyal discharge of international duties, honorable alike to himself and to his country, attacked and dispersed the raiders as they were crossing the frontier, making prisoners of their self-styled Generals, and a number of the privates.

O'Donoghue escaped to this side of the line, but was arrested in the course of the evening by some French half-breeds. During the night, under a mistaken view of what was best to be done, he was taken to the frontier and placed in the same custody as the other prisoners, by parties who acted very naturally under the circumstances, but still, in

a way be regretted.

Meanwhile, the French parishes were completing the arrangements which I had been assured were in contemplation. On the afternoon of the 8th inst., about four o'clock, Mr. Royal, the Speaker of the Assembly; Mr. Girard, the Provincial Treasurer, and several other of the Representatives of the French parishes, waited on me to say that a body of French half-breeds were assembled on the East bank of the Red River, and wished to be permitted to assure me personally of their loyalty, and to proffer their services as soldiers. I went over immediately, in company with Capt. McDonald, the commander at Fort Garry in Major Irvine's absence. I found assembled on the bank 200 able-bodied French Métis; of these fifty were mounted, and a considerable part of the whole body had fire-arms.

The received me with a feu de joie.

Mr. Girard then, in the name of the men assembled—in the name of the French Métis of all the Parishes—expressed, amid loud cheers and much enthusiasm, the loyalty and devotion of the Métis of every origin; and assured me they had rallied to the support of the Crown, and were prepared to do their duty as loyal subjects in repelling any raid that might now, or hereafter, be made on the country.

I thanked the people very cordially for the assurances given in their name, and told them I should take care to make this demonstration of their feelings known to His

Excellency the Governor General.

If among these people there were—and I believe there were—some person whose exceptional position might have led O'Donoghue to look for their support, it only adds to the value of the demonstration, and removes the last hope of the miscreants who have invaded your soil, that they would receive sympathy or aid from any class of the population.

On Monday the troops returned to the Fort, and the volunteers from Winnipeg were

allowed to go to their homes and resume their occupations.

I regret to have to inform you that on the same day, the United States civil authorities at Pembina, to whom Colonel Wheaton was obliged to hand over his prisoners, discharged these marauders, for reasons which I am unable to comprehend, and that one of them, O'Donoghue, still remains in the neighbourhood of Pembina, awaiting an opportunity of renewing the attack. Nevertheless, the raid for the moment is over. If renewed, it will not be immediately. If the Fenians were men actuated by ordinary reason, it would never be renewed. But they are not. They will trade, while they can, upon the simplicity of their dupes, and hope by excitement to replenish their exhausted exchequer. There is nothing in the wickedness or folly of any scheme to prevent their attempting it.

Rest assured I shall watth over your safety. Should danger come, you will be appealed to again, and you will respond like men of courage—of loyalty—of patriotism. The QUEEN relies upon the fidelity of her people of this Province, of every origin.

Adams G. Archibald, Lieutenant-Governor. (No. 709.)

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, OTTAWA, 26th October, 1871.

Sir,—I have the honor to acknowledge the receipt of your Despatch, No. 283, of the 13th inst., enclosing a copy of an address issued by you to the people of the Province of Manitoba, on the subject of the Fenian raid, and, at the same time, recommending the stationing of a company of soldiers at the Hudson Bay Company's Post at Pembina, and repeating your opinion as to the necessity for additional troops in the Province. I have, &c.,
Joseph Howe,

(Signed,)

Secretary of State.

The Honorable

A. G. Archibald,

Lieutenant Governor, Fort Garry.

(No. 723.)

DEPARTMENT OF THE SECRETARY OF STATE FOR THE PROVINCES, OTTAWA, 3rd November, 1871.

No. 968. No. 276, 3rd October, 1871. ,, 277, 7th ,, 280, 9th 

fidential, 8th Oct. 1871.

SIR,—In compliance with the desire of His Excellency the Governor General, expressed in your note to Mr. Under-Secretary Meredith of the 31st ult., I have the honor to transmit to you, herewith, copies of depatches from the Lieutenant Governor of the Province of Manitoba, as noted in the margin, on the subject of the recent Fenian raid in that Province.

I have, &c.,

(Signed,)

Joseph Howe,

Secretary of State.

F. Turville, Esq.,

Governor's Secretary.

The Secretary of State for the Colonics to the Governor General.

Copy—Canada—No. 571.)

DOWNING STREET.

7th December, 1871.

My Lord,—I have to acknowledge the receipt of your Lordship's Despatch, No. 183, of the 8th November, with enclosures relating to the recent attempt by the Fenians to invade the Province of Manitoba.

While Her Majesty's Government deeply regret the continuance of the attacks by these unprincipled marauders, they learn with the highest satisfaction that the appeal to defend the frontier was so promptly and loyally responded to.

I have, &c.,

(Signed,)

KIMBERLEY.

Governor General

The Right Hon. LORD LISGAR, G.C.B.

Department of the Secretary of State for the Provinces.

OTTAWA, 2nd January, 1872.

SIR,—With reference to your Despatch No. 283, of the 13th October last, I have the honor by command of His Excellency the Governor General, to transmit to you, herewith, a copy of a Despatch from the Right Honorable the Secretary of State for the Colonies, expressing the satisfaction of Her Majesty's Government at the prompt and loyal manner in which the appeal to defend the frontier on the occasion of the recent attempted Fenian invasion of the Province of Manitoba was responded to by the Inhabitants of that Province.

May I request that you will have the goodness to cause publicity to be given to this

despatch.

I have, &c.,

(Signed,)

JOSEPH Howe,

Secretary of State.

The Hon. A. G. Archibald, Lieut.-Governor, Fort Garry, Manitoba.

(No. 9.)

GOVERNMENT HOUSE,

FORT GARRY, 18th January, 1872

Sir,—I have the honor to acknowledge the receipt of your Despatch, M. No. 1, under No. 2.

No. 968.

Honorable the Secretary of State for the Colonies, expressing the satisfaction of Her Majesty's Government, at the prompt and loyal manner, in which the appeal to defend the frontier on the occasion of the recent attempted Fenian in asion of the Province of Manitoba, was responded to by the Inhabitants of that Province.

I have, as desired, given instructions to have the correspondence published in the

next Gazette.

I have, &c., (Signed,)

ADAMS J. ARCHIBALD.

The Honorable

The Secretary of State for the Provinces, &c., &c., &c.

# FOURTH ANNUAL REPORT

OF THE

# Directors of Peniteutiaries

OF THE

# DOMINION OF CANADA

FOR THE YEAR 1871.

PRINTED BY ORDER OF PARLIAMENT.



OTTAWA:
PRINTED BY I. B. TAYLOR, 29, 31 AND 33, RIDEAU STREET.

1872.

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# FOURTH ANNUAL REPORT

OF THE

# DIRECTORS OF PENITENTIARIES,

OF THE

# DOMINION OF CANADA.

FOR THE YEAR 1871.

To His Excellency the Right Honorable JOHN, BARON LISGAR, G. C. B., G. C. M. G., &c., &c., Governor General of Canada. &c., &c., &c.,

MAY IT PLEASE YOUR EXCELLENCY:

In accordance with the Act 31st *Victoria*, Cap. 75, the Directors have the honor to submit the Annual Report on the state of the Penitentiaries of the Dominion, subject to their supervision, for the year 1871.

### KINGSTON PENITENTIARY.

One of the most noteworthy facts in connection with this Institution is the large falling off in the number of its inmates. Here, as in the other Penitentiaries of the Dominion, there has been a steady decrease in the number of committals for some years.

The Directors do not flatter themselves that this is entirely, or even mainly, due to the reformatory nature of the improvements introduced, beneficial, as, they may feel assured, they have proved; it would seem rather to be the natural consequence of the increased prosperity of the country, when work and highly remunerative wages are within the reach of all. The number of re-committals has also decreased, and in still greater proportion; on the whole they have had much reason to be pleased with the management of the Institution during the year.

As will be seen on reference to the Warden's Report, the expenditure has exceeded that of the preceding year, notwithstanding the lesser number of convicts. This may, in part, be accounted for from an advance in price of several article which enter largely into consumption, for instance, flour and meat; the increase rate of salaries paid to the officials as hereafter explained; the largely increased use of light found advisable, and the greater consumption of fire-wood.

27 - 1

The three former were absolute and exceptional causes of increase which could not be avoided; the necessity for the latter is a moot question.

The hygienic condition of the prison has been eminently satisfactory, but ten deaths and very few cases of sickness of any magnitude occurred throughout the year. This, the Surgeon, Dr. Dickson, attributes to the improvement in the matter of diet, the increase of out-door labor amongst the convicts, and the better condition of the water. Some changes have also been made to improve the ventilation, which, no doubt, have contributed towards these sanitary results.

The discipline has been in almost all respects satisfactorily maintained; under the attentive and humane management of the present Warden the duties of the convicts have been so performed that the punishments have been fewer than in former years; and it has only been found necessary to resort to such severe punishments as the shot-drill and

cats on a couple occasions.

The various ameliorating privileges obtainable by good conduct have been found productive of the most beneficial results, and the Directors contemplate increasing them still farther.

The introduction of lamps into each cell, in order to afford the prisoners an opportunity of reading from night-fall to nine o'clock,—hours hitherto spent in darkness and idleness—has not only been a charity to these unfortunate men, but has had so soothing an influence that profound quiet and order have taken the place, during those hours, of riotous noises and other disturbances.

The privilege of obtaining, by good conduct, a remission of a portion of their sentence, is still highly appreciated by the convicts, and continues to induce great self-

control and industry amongst them.

As will be seen by the table in connection with this matter, the greater number of the convicts have gained the highest award allowable (five days in each month), the lowest remission gained being 25 days, the highest amounting to 211 days, while, of the 195 who were discharged during the year upon expiration of sentence, but one had failed to obtain any remission.

This will appear the more noteworthy when it is stated that the convict, on any fault, not only fails to obtain the usual remission, but may lose a portion of that gained.

The system of gratuities, which has for some years prevailed in England and Ireland, has been to a certain extent introduced here, and found to work well. It consist in allowing to the convict, in consideration of his increased industry, a certain portion of his earnings, that on his discharge he may have some small fund to live on till he has found a situation, and may have no temptation to resort to criminal means of procuring subsistence.

This provision has been found necessary, as by far the greater proportion of the criminals, at least that portion that resorts to larceny, is drawn from the indigent classes. The possession of a small sum which has enabled the discharged convict to live honestly while seeking employment, and to get away from his former haunts with their corrupt associations, or perhaps start into some petty trade, has been found a very efficacious means of reclamation.

The allowing of gratuities is believed to have also a reformatory influence on the convicts, by replacing the dogged indifference of men working out a punishment, with the interest induced by hope of personal gain, however small, and so helping the formation of habits of industry, self-control, and the feeling of self-respect created by sense of independence.

This system is as yet only in an experimental state, but the Directors hope to see it

fully matured before the close of the year.

The number released by pardon—many of them life prisoners—exceeds that of any former year in the history of the prison. The inquiries instituted into those cases were such as to satisfy Your Excellency that extenuating circumstances were more or less present in all of them; and, as a large number of the applicants for mercy had suffered lengthened imprisonments—extending even in many cases, from 10 to 20 years,—any

effect, apart from the mere object of punishment, may be justly considered to have been attained.

It would be hazarding much to assert a belief that all who partook of the executive clemency were deserving of it from amendment of life, but doubtless many have left the prison improved by the ordeal, who, though unable to condone the acts which caused their imprisonment, are not likely again to trouble society,

During the year several escapes took place, induced, perhaps, by the leniency of the new Warden, in not visiting the earlier mishaps with the punishment due to them; but he has come to discover that officers, as well as the convicts, require to be governed with strictness, and the institution is likely to be saved in future the recurrence of those

discreditable accidents.

An increase in the pay of several of the officers was recommended by the Directors, and sanctioned by Your Excellency in Council. This was found necessary, in view of the largely increased rate of wages prevailing throughout the country, and partly in consequence of their having become entitled from length of service and recognized efficiency, to certain increases prescribed by regulation. But whilst considering the claims of those officers who—though in humble station, are for the most part a deserving class—discharging onerous, disagreeable, and often dangerous duties. The Directors have taken care that the appropriation of the year has not been exceeded.

There has been a large decrease in cash receipts from contract labor, owing to the great reduction in numbers which has taken place in the different shops; but the labor worked by the Prison Authorities has proved more profitable. The industry of the convicts was manifestly most vigorously exercised by the Trade Instructors, and prices

improved.

In view of the approaching close of some of the contracts, the Directors deemed it advisable to warn the contractors of the probable discontinuance of the system of so hiring the convicts' labor, owing to the widely-spreading prejudice prevailing against it, but no decision has yet been arrived at. Should the system come to be abandoned there can be no difficulty in finding abundant and profitable employment for all hands.

Of this fact the Directors feel quite confident, that, under the management of the Prison Officials, the convicts would be better, in a moral and hygienic point of view, than

engaged in the contractors' shops, they can be.

No progress was made during the year towards the construction of the Penal Prison, owing to the deficiency in hands; the labor yielded of necessity to the contractors, and that employed in works performed for the general public having absorbed all available help without undertaking any new works of construction, save the Warden's residence.

The Directors regret being unable to report favorably upon the progress of School matters. The duties were so irregularly performed that it was found necessary to dispense with the services of the Schoolmaster, and no successor has yet been appointed; but the subject of a new arrangement is under consideration by the two Chaplains.

The condition of the Female department has been found throughout the year quite satisfactory, great order and industry have been maintained, and the uniform submission to discipline is attested by the limited number and the lightness of the punishments found necessary, and by the extreme degree of quietude which at all times prevailed.

It is a subject for congratulation that in this department there have been no re-

committals within the last two years.

## PENITENTIARY OF ST. JOHN, N.B.

The inhabitants of this highly favored Province may justly congratulate themselves on the immunity from crime which they happily enjoy.

When it is remembered that with a population approaching 300,000 souls, the Pro-

vince contains but some 30 convicts, the pleasing fact is incontestably furnished that criminality has not taken root here. For the causes of this we need look no farther than to the moral tendencies of the people, and the facilities for finding remunerative employment, which prevail. Where these exist, crime is likely to be at a discount, and such is the happy case here.

A marked improvement has taken place for the past two years in the management of the manufacturing department, and, as a consequence, the labor of the prisoners has

proved more profitable than in former years.

Means, different from those hitherto in practice, have been taken by the Directors to supply raw material, and a considerable saving to the public has been thereby effected. There is room for still further improvement.

The Hybrid principle upon which this prison had been managed before it came under the control of the Dominion Authorities, and under which it must continue for another

year, affects quite injuriously its objects as a convict prison.

Under this system the petty delinquents committed for 30 or 60 days for some acts of vagrancy, and the criminals under a life sentence, convicted of the most heinous offences, are massed together. Such indiscriminate association of the criminal classes renders the maintenance of necessary discipline impossible, and deprives the prison of its deterrent, and consequently of its reformatory influence.

In fulfilling the functions of a common jail it must fail in accomplishing those of a convict prison. It is therefore to be devoutly wished that the separation may be as speedy

as possible.

It is possible it may be found expedient at a future day to unite under one management the penal administration of New Brunswick and Nova Scotia within the one prison—located at Halilax.—thereby bringing the discipline and industries of both into uniformity, and economizing the expense of maintenance proportionally by the union.

A bold attempt at escape was made by one of the convicts, but defeated by the prompt action of the guard. The convict was severely wounded—losing also the re-

mission of time he had gained.

The escape of a life prisoner was effected under circumstances which betrayed great carelessness upon the part of the Prison Authorities. He was arrested in the United States, but managed to excite the sympathy of those having him in charge, and his extradition was not effected.

If the prison is to be retained by the Dominion Government, the construction of a proper surrounding wall must be undertaken at once; the present palisade fence being almost totally worthless. It can hardly be considered a protection against escapes but rather a standing temptation thereto.

At all the visits of the Directors the prison and other portions of the premises were

found quite clean and orderly.

The Directors trust that Your Excellency will be pleased to recommend to Parliament to place at their disposal a small sum for the payment of gratuities to the deserving convicts of this and the Halifax Penitentiary, the trial at Kingston Penitentiary having been found so successful.

# HALIFAX (N.S.) PENITENTIARY.

As has also been remarked of the other Penitentaries under the inspection of the

Board, the falling off in the number of committals has been large here.

In view of the local characteristics which attach to the City of Halifax, especially the military and naval elements of population which it has always, in so large a degree, possessed, the Province of Nova Scotia may be considered as in the enjoyment of a singularly moral reputation.

As may be seen by referring to the earlier reports of the Directors, this prison was in a very primitive condition of management when it passed under control of the Dominion Government.

Since then the officers have acquired considerable knowledge of their duties, and discipline has been fairly maintained; considering the anomalous principle of management which obtains, the prison, like that of St. John, being made to receive alike the lowest and the highest classes of offenders. The new Warden seems disposed to do all in his power to promote the efficiency of the institution.

Within a short time the manufacture of Brooms, which had been found moderately profitable at the St. John Prison, has been initiated here, and with some prospects of

success

Heretofore, the majority of the prisoners were employed at Shoemaking, and being committed under short sentences, but few attained any degree of proficiency; their average earnings therefore did not exceed twenty-five cents a head daily. From the Broom manufactures much better results are anticipated.

In view of the possible expediency of uniting the two Provinces under one penal management, a survey of the prison and grounds at Halifax was ordered by the Dominion Government, and the acting Architect of Penitentiaries was accordingly commissioned to examine into, and report upon, the practicability of so improving that prison as to make it serve the requirements of both Provinces.

That report, with a plan of the alterations and additions proposed, has been submitted to Government with certain modifications, which, for economy and convenience the Directors deemed desirable. The prison, and offices connected therewith, were found on all occasions in a state of thorough cleanness and good order.

#### MANITOBA AND BRITISH COLUMBIA.

As the Directors have not as yet been commissioned by Your Excellency to make arrangements for the management of penal affairs in the recently united Province of Manitoba, no reference to the condition of Penitentiary administration in that province will be found in this report.

The system of penal management which obtained during the regime of the Hudson Bay Company will not now suit the altered relations of that Territory, but doubtless the department of Justice will, ere long, make provision for the introduction of the system

which has been found so beneficial in the other Provinces of the Dominion.

When called upon the Directors shall earnestly address themselves to the duty of organizing the necessary arrangements according to the instructions it may please the Executive to give.

The same remarks may be taken to apply to the Province of British Columbia, concerning its Penitentiary affairs.

#### ROCKWOOD ASYLUM.

A slight reference to this institution will suffice, as the very elaborate report of Dr. Dickson, the Medical Superintendent, conveys the fullest information.

Under his energetic management, several improvements have been introduced which

have much advanced its hygienic condition.

The average number of inmates has but slightly exceeded that of the previous year. Is is to be regretted that there is not more land attached to this institution. The air and exercise attendant on farm work are now understood to be amongst the most efficient aids towards the restoration of the patients, and this species of employment, is also one of the most remunerative at which they could be occupied.

5

There is some land contiguous to the Asylum, which it would be to the advantage of the institution to secure, if obtainable at a moderate price.

As will be seen by Dr. Dickson's report, neither the heating nor the ventilation of

this building is yet quite satisfactory.

The heating of large edifices, as seem by the failures attending many of the most important public buildings throughout this continent, is as yet an unsolved problem; and, in this country, where climatic changes are so rapid and extreme, and the variations in temperature within the twenty-four hours so frequent, it seems almost impossible to arrive at its perfect solution. The Directors, however, hope with Dr. Dickson, that the plans which he proposes for the improvement of both the ventilation and heating, will meet with the success he anticipates for them, and so much to be desired for the efficiency of the institution.

The lighting of this fine building with coal oil lamps is, certainly, neither economical nor safe, but the Directors do not think it advisable to use as a gas house the building erected on its grounds for that purpose, and now converted to other use.

For the lighting of the Penitentiary, and the intended penal prison, the erection of gas works upon the Penitentiary premises is contemplated by the Directors; and for the early carrying out of this design they hope to receive the sanction of the Government. In that event the desire of Dr. Dickson will be accomplished.

Owing to the great reduction in the number of working hands at the Penitentiary the Warden has been unable to afford the labor necessary for the construction of the boundary walls and the fences, which imposes undue responsibility upon the medical superintendent and his officers, while depriving the patients of the advantage of exercise through the grounds which they might enjoy if in a proper state of security.

The advanced state of the Warden's new dwelling will place men at disposal, at the

opening of spring, for completing asylum walls.

The Asylum was found on all occasions in the highest state of regularity and cleanness, and the works of improvement commenced two years before were carried out during the year with unremitting spirit and great taste.

All which is respectfully submitted,

TERENCE J. O'NEILL, JAMES W. KING, F. X. PRIEUR.

#### KINGSTON PENITE NTIARY.

List of Reports, Returns, &c., sent to T. J. O'Neill, Esq., Chairman, &c., 19th February, 1872:—

1. Criminal statistical tables. 2. Punishments, male prison. 3.  $\mathbf{D}_{\mathbf{0}}$ female do. 4. List of convicts recommitted. pardoned.  $\mathbf{D}_{\mathbf{0}}$ do Do do sent to asylum. Do who died. 7. do 8. Movements of convicts. 9. Statement of remission of sentence. 10. Comparative table of criminal statistics. 11. Warden's Report. 12. Surgeon's Report. 13. Protestant Chaplain's Report (Statement of books in Library attached). 14. Roman Catholic do do 15. Matron's do 16. Trade, Mr. Adam's do In lieu of Architect's report. Do do Painter's do 18. Returns from Matron. 19. Do Prison shoe shop. Do Farm. Do Tailor. 20. 21. 22. Do Carpenter (summary) Do Blacksmith do 24. Do Mason do 25. Real Estate. do 26. Stock do 27. Comparative statement of labour, 1870 and 1871. 28. Statement of Revenue. 29.  $\mathbf{Do}$ Expenditure. 30. Do Debts due to the Penitentiary. 31. Claims against  $\mathbf{D}_{\mathbf{0}}$ 32. Do Labour on contracts. JOHN CREIGHTON. Warden.

KINGSTON PENITENTIARY, 19th Februs

19th February, 1872.

No. 1.

RECAPITULATION OF STATISTICAL TABLES FOR 1871.

		Male.	Female.	Total.			Male.	Female.	Total.
RACE	WhiteColouredIndian	206 · 8 2	0	216 8 2	tion	Single	i 61		64
	Total		<b></b>	226		Total			226
COUNTRY	England	20 30 5 128	2 0 6	32 5 134		Abstinent	109 35	7	38
	United States France (A)	21 4	0	21 4		Total			226
	Prince E. Island (B)	$\begin{array}{c c} 2 \\ 1 \end{array}$	0	$\frac{2}{1}$	Length of sentence	1 -	1		ĭ
	Sweden (D)	1	o o	$\frac{1}{4}$		$2\frac{1}{12}$ years	ì		_
	Total	Î	Ĭ	226		2 2 "	1	0	1
A arm		50	••••	52		$\begin{vmatrix} 2 \frac{3}{12} & \cdots \end{vmatrix}$	1	0	1
AGE	15 to 20	60	2	62		$2\frac{6}{12}$ "	1	0	1
	25 to 30	32 33	$\frac{1}{3}$	33 36		$2\frac{8}{12}$ "	1	0	1
	40 to 50   50 to 60	21 9	0 2	21 11		2 "	58	2	60
	60 and upwards	11	0	11		$3\frac{2}{12}$ "	1	0	1
	Total			226		4 "	13	l	
Religion	Catholic	103 67	5 2	108 69		$\frac{4}{12}$ "	1	0	1
	Methodist Presbyterian Baptist	22 19 5	1 1	23 20 6		5 " 6 " 7 " "	28 2 7	0	7
	Total	<b></b>	<b> </b>	226		10 "	7 1 2 1	0	2
Education .	Neither read nor write	64		69		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1	0	
	Read only	16 136		18 139		Life	. 5	0	5
	Total			226					226

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Crimes.	Male.	Female.	Total.	Occupations.	Total.
Larceny and receiving Receiving stolen Goods Stealing money from P. O. Letter. Burglary and Larceny Burglary and Larceny Aiding in a Burglary Cattle Stealing Horse Stealing Sheep Stealing Malicious injury to cattle Robbery Robbery with violence Assault to rob. Accessory to robbery Attempt at Burglary Forgery False pretences Felony Rape Assault to ravish Arson. Embezzlement Possessing Counterfeit Coin Aggravated assault Wounding to do grievous bodily harm Shooting with intent to murder Attempt at murder Manslaughter Murder Murder Massault with intent to disfigure	80 6 3 1 11 25 2 6 22 3 1 6 6 1 3 3 1 1 3 4 4 4 4 4 1 4 4 3 2 4 4 3 2 3 3 3 3 3 1	5 1  1  1  1 1	6 44 111 22 6 6 222 3 1 1 7 7 1 3 3 4 4 4 4 1 5 3 2 2 4 4 4 4 3 3 2 4 4 4 3 3 3 3 3 3 3	Females Printera Labourers Blacksmiths Tailors Saddlers Saddlers Saldors Traders. Soldiers Shoemakers Painters Trunk makers Farmers Clerks Confectioners Brush Makers Carpenters Tinsmiths Finishers Stone Cutters Moulders Butchers Cooks Cabinet Makers Brass Moulders Machinists Engineers Ecclesiastics Merchants Bakers Farriers Students Cigar Makers Coopers Tanners Carvers Chair Makers Carpenters Farriers Students Farriers Students Cigar Makers Coopers Tanners Carvers Chair Makers Furriers Clock Makers Furriers Clock Makers	70 2 91 77 4 2 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total	<b></b>		226		226

No. 2.—Summary of Punishments awarded to Convicts in the Kingston Penitentia y, during the year 1871.

Months.	9 2	January February March April May Juny Juny July Gerphember October Total Total
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No. confined in their own cells.  Days.	- 73	1
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•	.0	4 61
No. who lost remission.  Days.	- 20	(2) (2)
co. who lost mission.  Days.	141	
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read and water.	6 days	
	Men.	C4 C4
Shot drill.	Days.	
Remarks		

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When chained.	Convicts chained.	When taken off.
August 28th September 7th	August 28th.  September 7th  Martin Cabill.  Martin Cabill.  Ath October.	2nd September. 4th October.

No. 3.—Return of Punishments in the Female Department of the Kingston Penitentiary, for the year ending 31st December, 1871.

Months.	Reports not acted upon.	Admonished.	One night hard bed.	bread wate night	Meals of bread and water and night's hard bed.  Days in solitary cell.			Total reports.	Total reported.	Total number of females in prison.	Remarks.	
•	A	¥	ō_	1	2	1	2	3	Ĕ	Ĕ	H	
January February March April May June July August September October November December Totals	1 2 2 2	3  5 1	1 1 2 2	1	1	1 3 7	1 2 1 4	1 1 2	4 2 3  6 6 1 8  8 2 4	4 2 3 6 6 1 8 8 2 4	48 46 46 45 45 46 44 42 41 42 38 38 521	

KINGSTON PENITENTIARY, 3rd January, 1872,

M. LEAHY, Matron.

No. 4.-Nominal List of Convicts Re-committed, and Number of Re-commitments.

	Names.	1st Re-commitment.	2nd Re-commitment.	3rd Re-commitment.	4th Re-commitment.	5th Re-commitment.	6th Re-commitment.	Remarks,
2 3 4 5 6 7	John Brown Thomas Johnson Philip Donnelly James Holland James C. Wall Joseph Ford Pierre Belleau John Buckley	1 1 1 1 1	1			••••	1	
9 10 11 12 13 14 15 16	Chaucey Culbert Cornelius Leary Edward O'Brien Joseph Durand Napoleon Geroux Christopher Bertrand Albert Card Henry Chas. Hill	1 1 1 1	1	1	-			
18 19 20 21 22 23	Moses Tucker James Kelly William Larkin Paul Thomas George Jones James Kerr James Wooderaw William B. Chisholm Charles Laudreville	1 1 1 1 1	•••••	1	1			
		17	4	2	1		1	

No. 5.—Nominal List of Convicts "Pardoned" during the year, with Crime, and place where Convicted.

***		place where Convicted.	
	Names.	Crime.	Place where Convicted.
1	George Smith	Herse Stealing	Norfolk.
2	John Nichols	Murder	Brant.
3	William Curry	Highway Robbery	,, -
4 5	James Carroll	Murder	Montreel
6	John Hope		Northumberland and D.
7	Edmond Duconda	Shooting with intent	Montreal.
8	Thomas Madden	Felony	Bedford.
9	William Douglas	Murder	Wentworth.
10	Louis Larue	Felony	Radford
$\begin{array}{c} 11 \\ 12 \end{array}$	Charles Brossard	Horse Stealing Obtaining P. O. letter under false pretences. Horse Stealing	Frontenac.
13	William H. Lee	Horse Stealing	Montreal.
14	Jean B. Longpré	Felony Rape Larceny	Lambton.
15	Charles Toussaint	Rape	St. Francis.
16 17	Thomas Swanten	Manelauchten	Montreal,
18	John Davis	Manslaughter	Rrant
19	Robert Renwick	44	Huron.
20	G. T. Rathburn	Horse Stealing and Larceny	Leeds and Grenville.
21	Robert B. Lynch	Lawless Aggressions Burglary and Larceny Assault and Robbery Wounding with intent	York.
$\frac{22}{23}$	Victor (Lucalin	Assault and Robberry	Ouebec
24	John Hendrick	Wounding with intent	Lennox and Addington.
25	Joseph Winthorn	Forgery	Ontario.
26	Patrick O'Neill	Woulding with intent. Forgery Felony Larceny Burglary and Robbery Lawless Aggressions Murder. Attempt at Asson and Price Breech	York.
27	Andrew Kirk	Larceny	Northumberland and D.
28 29	William Haydan	Durgiary and Robbery	Lampton.
30	William McLean	Murder.	Northumberland and D.
31	Henry Martin	Attempt at Arson and Prison Breach	Bedford.
32	Anthony Gordon	Attempt at Arson and Prison Breach	Northumberland and D.
33	Robert G. Camp	Rape	Wentworth.
34 35	Philip Stephens	Larceny	York.
36	Sarah Bliss	Conspiracy	Elgin.
37	John Gallagher	Conspiracy Felony	York.
38	George Cook	Larceny	Frontenac.
39	George Poulette	Receiving Stolen Money	Oxford.
40 41	Felix Guilbeault	Receiving Stolen Money Larceny	Montreal.
46)	[Thomas School	II awless Aggregations	Trans.
43	Isham Shanklin	Larceny and Receiving Receiving Stolen Goods Felony	Elgin.
44	James Anderson	Receiving Stolen Goods	Northumberland and D.
47	David Williamson	Larceny	Lennex and Addington.
48	Samuel S. Allen	Larceny Rape	Northumberland and D.
49	Pierre Legaré	Larceny  Manslaughter  Robbons	Montreal.
50	John O'Toole	Manslauchter	Frontenae
51 52	Guilliaume Carreau	Robbery	Onebec
53	James McGarry	Murder Felony Sodomy	Wellington.
54	Daniel Quinn	Felony	York.
55	George Smith	Sodomy	Frontenac.
56 57	James Armstrong	Felony Larceny and Stabbing	Corleton
58	Jacob Nill	Murder	York.
59	Robert Revels	<b>"</b>	"
60	Patrick McGrath	Felony	1
61 62	Duncan McRaeJohn McConnell.	Procuring Abortion Manslaughter	Northumberland and D.
63	Patrick Norton	Felony	Halton.
64	John W. Blanchard	Cattle Stealing	Bedford.
65	Edward Wicklow	Murder	Wellington.
66	Joseph C. Tisdale		Elgin.
67	Francis Gilchen	Inflicting Grievous Bodily Harm	Quebec.
-		12	

No. 6.—Nominal List of Convicts who have become Insane, during the year 1871, with their present state.

	Names.	Present State.
1 2 3 .4 5 6 7 8 9 10	Maurice Blake Martin Cahill Denis Price Louis Langlois William Reed Thomas Oldfield James Black Hannah O'Connor	Improved.  Returned to Penitentiary.  No change Hopelesely demented No improvement Improved No improvement. Very much improved. No better.

KINGSTON PENITENTIARY, 31st December, 1871.

No. 7.—Nominal List of Convicts who have Died; with Crime, and place of Conviction.

Names.	Crime.	Place of Conviction.		
2 Amos Kelly 3 Edwin Peters 4 John I. Chucker 5 Charles Medley 6 George Hogg 7 Peter Hughes 8 Robert Caswell 9 Charles Rice 10 Alanzon Swazie	Arson Cattle stealing Manslaughter Murder Sodomy Felony Arson Larceny Forgery	Ottawa York Northumberland and Durham Grey Essex Frontenac Stormont, Dundas and Glengarry Grey Montreal Norfolk, (Suicide) Three Rivers		

KINGSTON PENITENTIARY, 31st December, 1871.

No. 8.—MOVEMENTS of Convicts in the Kingston Penitentiary, from midnight of 31st December, 1870, until midnight of 31st December, 1871.

Description.	Males.	Females.	Total.	Males.	Femaler.	Total.
Remaining at midnight, 31st December, 1870  Admitted since:— From County Jails, Rockwood Asylum	216	10	2296 5	638 221	48 10	686 231
Discharged since:  By expiration of sentence.  Pardon Sent to Rockwood Asylum Suicide. Death Escape Removed to Reformatory. by order of court.	10 1 10 5	18 1 1	195 67 11 1 10 5	859	58	917
,, by order of court				269	20	289
Remaining at midnight, 31st December, 1871	• • • • • • •		••••	590	38	628

KINGSTON PENITENTIARY, 31st December, 1871.

RETURN of the Number of Convicts employed in the several Departments of the Kingston Penitentiary, on the 30th day of December, 1871, and the number of days' work performed therein during the year.

Department.	Men.	Days.	Remarks.
Mason: Stonecutters Masons. Quarries Labourers Railway Carpenter Tailor Blacksmith Prison shoe shop Steward's and wings Bakery Woodyard Wash house Drying room Stables and bucket ground. North Lodge Farm Hospital: Patients Orderlies Cabinet shop Foundry Contract shoe shop Female	51 17 49 15 1 38 32 20 7 36 6 19 8 29 12 1 9	11,484 5,714 13,222 5,133 306 11,846 8,421½ 5,261 2,175½ 9,007 2,005½ 4,098 2,321 5,766½ 3,005 312 2,845 9,903 1,976 13,776½ 21,120½ 33,391½ 12,714	
	613	185,864	

N.B.—The fifteen convicts unaccounted for by the departments are composed of old men, unable to work, convalescents, and prisoners variously employed, but of whose time no record is kept; as, for instance, mess-man, printer, front-yard-man, &c., and also, of new arrivals who have not yet been assigned to any employment.

No. 9.—Statement of "Remission of Sentence," earned by convicts discharged from the Kingston Penitentiary, in 1871:—

	1	Convict	averaged	**** **********************************	25	days.
	1	,,	,,	•••••••••••••••••••••••••••••••••••••••	32	29
	2	,,	,,		41 <u>1</u>	,,
	4	,,	,,	• • • • • • • • • • • • • • • • • • • •	56	,,
_	18	,,	<b>59</b>		$65\frac{1}{2}$	,,
-	15	"	,,	••••••	<b>75</b>	,,
1	11	,,	,,	***************************************	82	"
	6	,,	,,	***************************************	$95\frac{5}{6}$	29.
-	6	,,	"	•••••	$105\frac{1}{3}$	,,
_	6	**	**	•••••	$114\frac{9}{13}$	,,
-	29	**	,,	•••••••••••••••••••••••••••••••••••••••	$129\frac{1}{2}$	,,
	5	,,	**	•••••••••••••••••••••••••••••••••••••••	$135\frac{1}{5}$	,,
	5	,,	**	***************************************	$145\frac{3}{5}$	,,
	6	,,	,,		1511	,,
	$\frac{7}{2}$	22	"		1661	"
	7 7	"	**	•••••••••••••••••••••••••••••••••••••••	1764	"
	5	"	"		1844	"
,	2	,,	<b>"</b>	•••••••••••••••••••••••••••••••••••••••	193	,,
3	1	"	"	••••••••••••	203	"
	_	,,,	. ,,	***************************************	211	"
				ays gained		25
						211
				ischarged (not including pardons)	• • • • • • • •	195
	Nu	mber wh	o earned	remission		194

No. 10.—Comparative Table of Criminal Statistics, for the year 1870-71.

Kingston Penitentiary.

		~ <del>~~~~~</del>	
Description.	1870.	1871.	Remarks.
Number received from County Jails	196	226	
,, Asylum		5	
Discharged by expiration of sentence		195	
Pardoned	28	67	İ
Sent to Lunatic Asylum		11	
Suicides	1	1	1
Deaths	12	10	İ
Escaped		5	1
Removed by Order of Court	1		1
Punished—Bread and water	540	352	•
Without beds	10	16	į
Dark cells	226	332	1
Solitary cells	11	40	
Catted	9	3	1
Lashes inflicted		35	
Chained	6	2	1
Admonished	183	628	{
Debarred school.	46	27	!
Confined to their cells	• • • • • • • • • • • • • • • • • • • •	22 5	1
Deprived of part of remission	• • • • • • • • • • • • • • • • • • • •		}
,, lights		17	
Shot drill	86	2	
Number of days shot drill	198	2	
Without supper	18	1 -	
Deprived of white bread	1		
,, meat	î	J	
Number in prison on 31st December	686	628	
Number of days' work performed	*114,8173		*Contracts not include
Number of convicts discharged who earned remission .	153	194	Contracts not include
	17	i	
Smallest number of days gained	2	25	
Greatest , , ,	$16\overline{2}$	211	
Recommitments	28	25	
Revenue	\$ cts. 48,324 31 104,905 43	\$ cts. 40,975 15 110,362 49	

# No. 11.—REPORT OF THE WARDEN OF THE KINGSTON PENITENTIARY, FOR THE YEAR ENDING 31st DECEMBER, 1871.

Kingston Penitentiary, 6th February, 1872.

T. J. O'Neill, Esq., Chairman, Directors of Penitentiaries, &c.

Sir, -I have the honor to submit this my First Report, on affairs pertaining te the the Kingston Penitentiary, for the year ending 31st December, 1871.

His Excellency, Lord Lisgar, Governor General, appointed me Warden, on the 31st December, 1870, and I assumed the duties of the office on Tuesday, 3rd January, 1871.

On entering the dining hall of the Institution at noon on that day, I introduced myself to the convicts, and briefly assured them that I would endeavour, by God's help, to exercise a kindly moral influence amongst them, and use my best exertions to promote their comfort and improvement. That, in order to obtain any degree of success in that direction, they must all aid me, and that the best way to render me assistance was to obey the rules of the prison, and those who were placed over them; that they should do this from principle, not from fear of punishment. That I hoped the keeper and guards would treat them fairly, and that the most insignificant convict in the prison would obtain justice at my hands, and always find me ready to redress any real grievance.

As I had not the experience of my predecessor in prison matters to commence with, I set about to acquire a knowledge of my duties, which I soon found to be sufficiently arduous to test the physical and mental powers of any man. I looked upon the convicts as sent to the Penitentiary not only for punishment but for reform. Many of these unfortunates never received any moral or religious training, and have been raised up in poverty and vice, wholly neglected by society until they committed some offence against it. And about fifteen per cent. of them are only half-witted, and scarcely responsible for their actions.

To secure that influence over the convicts which I desired, I found that it was necessary to obtain their confidence by invariably just treatment. Though often-times called upon to admonish and punish them, I felt that this should be done in such a way as to repress that which is evil, and to excite the good that is in them; and when punishment is necessary, that it should be inflicted in such a way as not to excite sympathy. The feeling that one carries to a convict, that feeling you will surely awaken If you are gentle with him he will soon become ashamed of his irritableness and excitabilities. When men are to be corrected or rebuked, and the proper effect is desired, they must be made to feel that they deserve the punishment, and that it is inflicted more in pity than in anger. Few even of the worst criminals have lost all faith, and hope, and aspiration, and a yearning at times for things more pure and true; and these attributes can be stimulated to increased action. The convict still possesses some elements of self-sacrifice, and I have found that many of the most uncontrollable prisoners in the Kingston Penitentiary have endeavored to restrain their passions, and have become much more obedient to the rules, since they began to look upon me as their friend rather than as their hard task-master, and the officers under me, as a parcel of Petty task-masters. To stir up men's evil feelings, and to excite the lower part of their nature, only makes them reckless, hardened demons; whilst these same men under different treatment may at least be human. They become ashamed of their bad conduct and strive to do better in the prison, and when they leave it, instead of harboring feelings of revenge against those who have been placed over them, as well as against society at large, they become softened, repentant, and resolve to do better in the future than in the Past., These, I have no doubt, are the honest purposes of many who leave the Institution, and those good resolutions are only broken when the intoxicating cup is again placed to the lips, and reason becomes dethroned.

Whilst, to the best of my ability, governing the convicts in this Institution by

uniformly kind and manly treatment, I have been invariably firm, ruling them by a consistent discipline, requiring a punctual and prompt obedience of all orders and rules.

Good results are already shown by this mode of treatment. The prisoners are less irritable, and appear to be much more contented, and if I may use the word, happy—than when I assumed office. In this state of mind they work better, and are more healthy than ever before. They feel that I take a personal interest in them, and many say they are ashamed to do anything to displease me. So that if I have hard and irksome work, there is some compensation in the thought that some six hundred of our fellow-creatures are less miserable than when I came amongst them.

The discipline which I desire to enforce is not strict repression, but rather to teach, improve, and hence reform the convict. I am happy to say that my views on this point are fully carried out by the matron, who so ably manages the Female Department of this

Penitentiary.

The Directors have authorized and initiated many great improvements in the prison

during the last year.

The rations of the convicts are good in quality, and sufficient in quantity. It has not been easy to give variety in the cooking, but the steam apparatus now provided will soon obviate that difficulty. I regularly inspect the beef, flour and potatoes, and am satisfied they are of the quality contracted for. The proper dieting, cleanliness and clothing of convicts is very important. They preserve health, promote industry, and tend very much to keep up discipline. If a convict's physical comforts are neglected, you cannot convince him that you have any great concern for his moral welfare. He may listen to good advice, but it will all pass for idle talk if he is fed on bad food, clothed with indifferent garments, confined in a dark cell from the time he quits work in the evening until rising time next morning, made to sleep on a hard bed with insufficient covering, and forced to breathe a foul, cold atmosphere. Under these circumstances he will rise in the morning, languid, unrefreshed, moody, and filled with discontent and anger toward everybody and everything around him. He will perform as little labor as possible, and will be very frequently on the sick list—or try to be there.

This, I am informed, was very much the case a few years ago, but it is all changed now. The convicts have not that fretted scowl upon their countenances which they formally had, and in most cases go about their day's work very much as men do outside

who are amply paid for their labor.

The granting of a light by the Directors to each convict who has been three months without a report for bad conduct, is a great boon highly appreciated. Many are thus enabled to study and read in their cells from half past five until nine, p.m., who were kept in darkness previously.

All the convicts in the prison are taken out for an hour's walk around the yard every Sunday. Formerly only the most advanced class of good conduct men were allowed this privilege. As this exercise is undoubtedly healthful, the favor has been extended to all.

The gratuity for good conduct and industry, also initiated this year by the Directors,

works well; it undoubtedly promotes both of these objects very materially.

The results of the labor of the convicts will compare favourably with those of other years. Much of the water front of the Penitentiary lot has been protected by crib work constructed during the year. Formerly the loose stones and earth filled in along the water's edge, were washed away by storms and high water. This is now prevented, and as the cribbing has been placed in deep water, the prison wharfage accommodation has been greatly increased. I trust further appropriations will be made to complete this work.

The stone department of the Institution is the most important and profitable branch of industry we have. Both dressed and undressed stone meets with ready sale in the western sections of Ontario. There are three regular quarry gangs, of 14 to 18 men each, constantly employed in the prison quarries, the stone from which is carried by tramway, either to the edge of the Penitentiary dock, and loaded into vessels, or into the stone-eatter's shop, when required for dressing.

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All pertaining to this branch of prison industry is most efficiently managed by Mr. Trade Instructor Painter, who, with Mr. Adams over the carpenter department, Mr. Stewart over the blacksmith's and machinery, and Mr. Gemmill over the tailoring department, form a very efficient and superior staff of trade instructors.

The outside working gangs are more expensive to guard, but their labor is more

profitable and healthful than that of men who work inside the walls.

The cash returns from the three con ract branches of industry are not so large as

formerly, because fewer men have been employed in them.

The contract system is greatly inveighed against in many quarters, and with my one year's experience I feel somewhat diffident about expressing a decided opinion. Of one thing there is no doubt, the convicts not employed in contract shops are more healthy and robust than those confined there. The same, however, may be said of men in some positions who are not convicts.

It is only fair to say that the contractors do not attempt to oppress their employés in any way. The prisoners can easily perform all the work required of them, and many earn considerable sums by over-work. The supervision too of these men is, as I have said, less expen ive than the cure of gangs outside, because one officer can guard and control fifty men in a room more easily than half a dozen men, frequently somewhat scattered, outside. In all self-sustaining Penitentiaries I think the contract system must prevail; and where the labor of the convicts is concentrated on one or two contracts the profits will be greater, chiefly because the cost of supervision will be less. I do not think, however, that the revenue desired from the labor of convicts is of so much importance as their judicious treatment and improvement.

The contracts now existing here will soon expire, and an opportunity will be afforded to make a change, if it is considered expedient to do so. If the contract system is abolished, there will be no difficulty, within a brief period, of finding profitable employment for the men, and if it is continued, a higher price should be obtained for their labor; because wages have advanced at least 30 per cent. outside, and supplies of all kinds have

advanced in the same ratio since these contracts were entered into.

The past year, in consequence of long continued drouth, during mid-summer, was unfavorable to agriculture, yet the supply of excellent vegetables from the farm and garden has been much greater than ever before. The wise policy of the Directors in providing for a more liberal supply of manure will no doubt further improve the root crops—so important in promoting the health of the convicts.

In an institution such as this, the actual cash returns may not appear large, as compared with the cost of maintenance and construction, but when it is remembered that Rockwood Lunatic Asylum—surpassed by no building of its kind on this Continent—with all the Penitentiary buildings and boundary walls, &c., have been constructed by

convict labor, the results are highly satisfactory.

The school connected with the institution, I regret to say, has not been in a prosperous state. I hope ere long to see a new re-organization and more efficiency.

The remission of five days per month, authorized by the Penitentiary Act, to convicts whose conduct and industry rank number one, is a great incentive to good behaviour. This remission and the hope of pardon encourages many to persevere in well doing in the face of great discouragements.

The number of men pardoned in 1871 is larger than usual. The Directors and others have, no doubt, been directing the attention of the Government to many cases where long sentence (in several instances over twenty years) had sufficiently condoned

the offences for which the convicts were imprisoned.

I think a deliberate murderer should in all cases suffer death for his crime, but where there are mitigating circumstances sufficient to justify the Executive in sparing life, then hope might be given that a lengthened imprisonment of, say twelve years, and invariable good conduct might in time lead to release. As a rule, short sentences produce the best effect on the minds and morals of prisoners.

Punishments have been fewer and much less severe during the past year, than ever

before in the history of the institution; and it is conceded by those who are in a position to make comparisons, that the discipline of the Kingston Penitentiary never was better than it is now.

Five convicts escaped during the year:—Oscar Byrnes, from Rockwood Asylum; John Hannah, from an outside gang; and Greenbury Steele, colored; Benjamin Wilson, colored; and Richard Neligan, white, from the hospital. Steele and Nelligan gained admission to the hospital by pretending to be sick, and Wilson, being the barber, visited that part of the institution almost daily, to shave, and thus had an opportunity of carrying in a false key, an iron bar, and other appliances, which were no doubt concealed in Steele's bed. Wilson then feigned sickness himself. The three were locked up in adjoining cells, and on the first stormy night afterwards, Steele opened his own and their cells with his false key, rigged in an ingenious way, and then with the iron bar sprung one of the window barriers and escaped. When outside, they stole a boat and escaped to the State of New York before day-light next morning. Steele and Wilson are again in goal at Boston, Mass., on a charge of burglary. A short clause in the Extradition Act, providing for an exchange of escaped convicts would prove advantageous on both sides of the line. Another colored convict, named Isaac Johnson, attempted to escape in September last, but was recaptured when about two miles from the prison, where some of the officers had surrounded him in a swamp. He was tried for the offence at last Assizes, and sentenced to three months' additional imprisonment here, which, with the loss of six months remission Johnson had gained, is equal to nine months.

I have practiced as much economy in prison management as I thought consistent with efficiency. When I assumed office there was much to improve and repair, particularly in the blacksmith's department. By a humane order of the Board, I was instructed to procure long boots for men working in snow and wet outside, which involved an immediate outlay of \$400. The additional cost for lamps and oil is a considerable item, but of great benefit.

I have been somewhat more liberal than my predecessors to convicts going out, keeping, however, much within the maximum amount fixed by Act of Parliament. In this liberality I have only been carrying out the gratuity principle. The clothing now given to discharged convicts is much more varied, of a little better quality and neatly fitted and made. Formally a suit of discharged convict's clothing was as good as a label on the man's back—"Just turned out of the Penitentiary." Nearly always the same from year's end to year's end, without much attempt at a fit, either as to size or shape.

I submit herewith the statistical returns required by law. To those who have not time to analyze these tables, it may be interesting to see, almost at a glance, a brief statement of the cash cost for maintenance of the institution, and earnings of the convicts

during the past year, as follows:

STATEMENT of Expenditure at the Kingston Penitentiary, for the year ending 31st December, 1871.

Disbursements in 1871 Increase of officers' salaries, from July to December, paid in 1872   Claims against Penitentiary, December 31, 1871	\$ ets. 112,254 09 2,313 75 6,318 99	\$ cts.
Less—	0,316 33	120,886 8
Amount charged in above for material for Rockwood Buildings  Amount charged in above for Penitentiary construction (for material).	2,604 95 8,628 30	
Amount charged in above for recapture of convicts Smith and Mann, 1870	1,709 9 <b>3</b> 1,156 12	
do do repayment of bones and leather sold in 1870	300 00	
Amount charged in above for purchase of horses not fairly charge- able to maintenance	425 40	17,148 2
Net cost of Maintenance for 1871	· • • • • • • • • • • • • • • • • • • •	\$103,738 5

General Summary of value of labor performed and material furnished by the several Departments of the Kingston Penitentiary, for the year 1871.

Name of	Custon	n Work.	Rock	wood.	Penite	entiary.	Total.
Department.	Material.	Labour.	Material.	Labour.	Material.	Labour.	Total.
Mason Carpenter Blacksmith Female Prison shoe Tailor Farm Total	971 50 31 44 31 41 1,089 50	11,237 27 1,448 78 <u>1</u> 120 14	355 631 245 731	367 773	1,667 68½ 3,596 35 634 31	8,951 03 4,149 33 2,614 83 828 05	\$ cts. 24,189 77 15,663 81\$ 5,588 74\$ 1,582 79 3,105 67\$ 6,542 60 1,772 31 58,445 70\$

# GENERAL SUMMARY of value of labor performed, &c.—Continued.

	Average No. Employed.	No. of Days' Work.	Rate.	
			Per cent.	\$ ets.
Bakery	6	2,006	40	802 40
Wash-house	7	2,321	40	928 40
Stable and yard	10	3,005	30	901 50
Wood sawyers, pilers and carriers	13	4,098	25	1,024 50
Steward-In dining hall, kitchen, cellars, wings and dormitories,	1 1			
whitewashers, lampmen, &c. Drying and mending rooms (aged and invalids)	31	9,355	20	1,871 00
Drying and mending rooms (aged and invalids)	23	$5,766\frac{1}{2}$	10	576 65
Hospital Orderlies	1 6	1,976	30	592 80
Assistants to storekeeper, steward and trade instructors	5 2	1,550	40	620 00
Hall Orderlies	1 2 1	730	40	292 00
Assistants in gardens	2	620	40	248 00
Female (household work, cooking, nursing, &c)	15	4,672	20	934 00
I.abour on shoe contract.  do c binet do  do lock do				12,916 70 4,606 88 8,448 20
				\$93,208 734
			ı	

The more prominent works upon which much of this material and labor have been expended are:—

First—The Warden's residence, which occupies a commanding position on the Penitentiary grounds, immediately opposite the main entrance to the prison. The greater portion of the stone used in the construction of this building is from the prison quarries, and all the labor in each department has been performed by the convicts.

Second—The South wharf and pier (previously referred to as being a work of necessity, in order to protect the prison property). These measure 410 feet in length

by 22 feet in height, giving a face of 9,020 feet, 25 feet wide.

Third—The West wharf extension, which was required to give greater facilities for depositing stone, by extending the tram railway, and also for loading vessels directly from the stone trucks. The aggregate construction upon this work is 4,408 superficial feet.

The tram railway has been further extended into the Quarries to afford increased facilities for bringing out stone and also debris for filling in at the wharves.

Many necessary works of construction of minor importance have received attention, as well as the necessary repairs required in this large Institution.

A photograph gallery has been put up; an earth house erected; a fire-proof roof placed over the engine house; circular saw placed in yard to cut prison fire-wood; stone-flagged floors put into cabinet shop, engine house and new bakery; pointing prison walls,

&c., &c.
I subjoin reports from Messrs. Painter and Adams, who have been acting Architects since Mr. Horsey left.

In conclusion, I have to express my thanks to the deputy warden, chief keeper, and other officers of the Institution, for the valuable assistance they have given me in its management.

I have the honor to be, Sir,
Your obedient servant,
JOHN CREIGHTON,
Warden.

#### No. 12.—SURGEON'S REPORT.

KINGSTON PENITENTIARY, 20th January, 1872.

Gentlemen,—I beg leave to present my Annual Report of the Kingston Penitentiary, for the year 1871.

The hygienic condition of the Institution, for the past year, has been satisfactory.

Although the cases of Typhoid Fever admitted to hospital were more numerous than in the preceding year, yet, the type was much milder, and out of ninety-six convicts admitted to hospital labouring under this disease during the year, only two of them died of it.

The improved hygienic condition of the prison of late years, may be attributed to several cause; such as the removal of several sources of contamination of both the water and air within and around the Institution; the precautionary measures adopted to lessen the noxious influences of certain agencies that could not be removed altogether; the diminished number of prisoners confined within the walls; the greater variety of the dietary; the larger relative number of convicts employed at out-door work, and the consequently smaller number confined within the workshops.

There are several matters of an interesting nature, relative to the effects produced on the mental condition of the convicts, by the discipline and confinement in the prison, from its opening in 1835, to 31st December, 18.1, which will be found in my Asylum Report for the year. It will be there seen that over one and half per cent. of all convicts sent to the Penitentiary became insane. The customary way, however, of framing statistics of that sort is to base the calculation on the population; I have therefore shown in one of the tables attached to the Asylum Report, that only a little over one-half of one per cent. of the annual population became insane.

The usual tables will be found appended; they have been carefully prepared by the

excellent hospital overseer, Mr. Halliday.

I have the honor to be, Gentlemen, Your most obedient servant,

> JOHN R. DICKSON, M.D., F.R.C.S.E,, Surgeon, Kingston Penitentiary.

Messrs. O'Neill, King, & Prieur, Inspectors of Penitentiaries, Dominion of Canada.

ANNUAL RETURN of Cases treated in the Hospital, Kingston Penitentiary, for the year 1871.

Disease.	Remained.	Admitted,	Discharged.	Died,	Remaining.
Apoplexy Ascites Asthma Boils Bronchitis Burns Cancer Cholerine Chorea Colic	i	9 1 1 1 3 12 2 5 4	10 1 1 1 3 12 2 5 1 4 1 8 1 3 42	1 1 1	1

# ANNUAL RETURN of Cases treated in the Hospital, &c.—Continued.

Disease.	Remained.	Admitted.	Discharged.	Died,	Remaining.
Debility Diabetes Diarrhœa Dysentery Dyspepsia Eczema Epilepsy Erysipelas Febricula Fever, Intermittent Fever, Typhoid Fistula in Ano Fracture Frost Bite Gastritis Hæmoptysis Hemorthoids Heart Disease Hepatitis Hemnia Hysteria Influenza Jaundice Lumbago Malingering Mania Melancholia Neuralgia Onyxia Ophthalmia Orchitis Pharyngitis Pharyngitis Phthisis Pleurodynia Poorigo Psoriasis Rheumatism Scabies Sciatica Scrofula Sprain Stomatitis Stye Syeosis Synovitis Syphilis Tomsilitis Torticollis Tumour Ulcer	2 1 1 1 6 2 2 12 2 2 3 1	8 1 28 6 4 1 4 10 93 6 6 96 1 2 2 1 1 3 1 2 7 8 8 1 2 2 2 32 5 1 6 15 1 1 1 22 10	8 1 28 7 5 1 1 5 10 94 5 5 2 1 1 3 1 1 1 1 1 6 3 1 1 1 1 1 1 1 5 1 1 1 1 1 1 1 5 1		1
Whitlow Wounds	i	5 44	5 45		
Total	43	652	663	10	22
Suicide				1	

John R. Dickson, M.D., F.R.C.S.E., Surgeon, Kingston Penitentiary.

ANNUAL RETURN of Deaths in Hospital, Kingston Penitentiary, for the year 1871.

27—4 27	Kame,	Age.	<b>Disease.</b>	When admitted.	Died.	Country.	No. of days in Hospital.	Remarks.
-	1 Dudley Gillman	64	Typhoid Fever	26th January, 1871	Typhoid Fever 26th January, 1871 2nd February, 1871 United States	United States	2	
64	2 Amos Kelly	23	Spinal Abscess	Spinal Abscess 30th December, 1870 7th February, 1871	7th February, 1871	:	39	Negro.
ಣ	3 Edwin Peters	83	Typhoid Fever	13th March, 1871	Typhoid Fever 13th March, 1871 26th March, 1871 Ontario	Ontario	13	
4	4 John J. Chuckee	25	Scrofula	Scrofula 22nd June, 1871 18th July, 1871	18th July, 1871	:	26	
10	5 Charley Medley	23	:	3rd June, 1871 10th August, 1871	10th August, 1871		89	•
•	George Hogg	22	Debility	26th October, 1870	Debility 26th October, 1870 26th August, 1871 England	England	304	
<b>∠</b> 25	7 Peter Hughes	ಜ	:	29th November, 1869	29th November, 1869 13th September, 1871 Ireland	[reland	653	
∞	8 Robert Caswell	88	Ascites	25th August, 1871	Ascites 25th August, 1871 5th October, 1871	:	41	
6	9 Charles Rice	31	Phthisis	31st October, 1871	Phthisis 31st October, 1871 5th November, 1871 Outstio	Ontario	9	
97	10 Charles Godbout	15	Apoplexy	21st December, 1871	Apoplexy 21st December, 1871 23rd December, 1871 Quebec	Quebec	63	
	Alansom Swazze	23	Committed suicide by	hanging	Committed suicide by hanging 20th January, 1871 Ontario	Ontario		

JOHN R. DICKSON, M.D., F.R.C.S.E., Surgeon, Kingston Penitentiary.

STATEMENT of Accidents to Convicts in Kingston Penitentiary, for the year 1871.

Hange of Accident,   Hange   Cause of Accident,   Control   Control   Control   Control   Control   Cause of Accident,   Cause of Accident,   Cause of Accident,   Cause of Accident,   Cause of Accident,   Cause of Accident,   Cause of Accident,   Cause of Accident,   Cause of Accident,   Cause of Accident   Cause of Accide							
By planing machine       36         By fall of stone       17         By planing machine       16         By planing machine       16         By of cular saw       15         By circular saw       30         Crushed by fall of stone       18         By fall of stone       86         Caught by wheel of waggon whilst unloading stone       55         By stroke of axe whilst splitting wood       21         By slip of chisel       21	Date.	Names.	Where Employed.	Nature of Accident.		ni sysh to oV Hospital,	Ветагка.
By fall of stone       17         By explosion of hot metal       31         By planing machine       16         By hog       15         By circular saw       30         Crushed by fall of stone       18         By fall of stone       86         Caught by wheel of waggon whilst unloading stone       55         By stroke of axe whilst splitting wood       21         By stroke of insel       21	Jan. 9	William Grinness	Cabinet shop	Loss of first joint of left thumb	By planing machine	98	
By explosion of hot metal       31         By planing machine	20	Peter Almonte	Stone shed	Contused wound of third finger, left hand.	By fall of stone	17	
ift hand       By planing machine       16         By hog       15         inger, left       By circular saw       30         left hand       Crushed by fall of stone       18         left hand       Crushed by fall of stone       86         joint       By fall of stone       86         joint       Caught by wheel of waggon whilst unloading stone       55         vral artery       By stroke of axe whilst splitting wood       21         ting wood       21         By slip of chisel       10	March 5	Henry J. Smith	Foundry	Burn of lip, cheek and left eye, causing disfigurement of the latter	By explosion of hot metal	31	
By hog       15         By circular saw       30         Crushed by fall of stone       18         By fall of stone       86         Caught by wheel of waggon whilst unloading stone       55         By stroke of axe whilst splitting wood       21         By slip of chisel       21	6	Robert McCrudden	Cabinet shop	Incised wound of index finger, left hand .	By planing machine	16	
Crushed by fall of stone 18  By fall of stone 86  Caught by wheel of waggon whilst unloading stone 55  By stroke of axe whilst splitting wood 21  By slip of chisel 10	April 15	Thomas Allen	Piggery	Bite on right hip	By hog	15	
left hand.       Crushed by fall of stone       18          By fall of stone       86         joint       Caught by wheel of waggon whilst unloading stone       55         oral artery       By stroke of axe whilst splitting wood       21         was yell of chisel       21		Jacob Hobson	Foundry	Amputation of first joint, third finger, left hand	By circular saw	99	
joint Caught by wheel of waggon whilst unloading stone 55 real artery By stroke of axe whilst splitting wood 10 By slip of chisel 10	27		Quarry	Contused wound of third finger, left hand.	Crushed by fall of stone	18	
joint Caught by wheel of waggon whilst unloading stone 55 oral artery By stroke of axe whilst splitting wood 21	Oct. 7	Daniel McRae	Stone shed	Fracture of left ankle joint	By fall of stone		Still in hospital.
whilst unloading stone 55  oral artery  By stroke of axe whilst split- ting wood	Nov. 23	Moses Tucker		Fracture of left leg above ankle joint	Caught by wheel of waggon		ı
ting wood	27	W. B. Brown	Stone shed	Incised wound of left thigh (femoral artery	whilst unloading stone	33	•
By slip of chisel	Ť:				ting wood	~ 지	
	Dec. 11	B. A. Barnard	Cabinet shop	Incised wound of left wrist	By slip of chisel	91	:

JOHN R. DICKSON, M.D., F.R.C.S.E., Surgeon, Kingston Penitentiary.

#### No. 13.—PROTESTANT CHAPLAIN'S REPORT.

CHAPLAIN'S OFFICE, December 31st, 1871.

To the Directors of Penitentiaries, &c., &c.

Gentlemen,—I do not think it necessary, at this time, to report to you so fully as I have been accustomed to do, especially as I did not resume my duties until more than half the year had passed away. I believe the more spiritual work here had been faithfully done in my absence by my curates, the Rev. Messrs. Bousfield and Plees. I feel it my duty to bear witness to the sincerity and devotion of those gentlemen.

Since my return, as far as health and circumstances admitted, I have applied myself to the same work, in preaching to them the Word of God, in personal conversation and instruction; in visiting the sick, and in prayer. The seed has been sown among them, and

I hope it may bring forth fruit in its season.

The public services are animated and interesting, and attract hearers and worshippers from beyond the walls. During these services perfect order always prevails. The singing of the choir is much admired, and its numbers are largely increasing.

On Christmas, at the celebration of the Holy Communion, fifty prisoners came

forward and communicated.

The Directors will observe, from the enclosed returns, that the books in the library are duly appreciated, and read by most of the convicts able to read. The library has many choice books, full of useful and moral instruction, and so destitute of sectarianism and religious controversy, that they would be quite suitable for a general Library. As, however, many of them are out of repair, an addition of three hundred or four hundred volumes is much required. Four hundred dollars would supply this needed service. I hope also that \$80 may be granted for the purpose of buying Bibles, prayer books, hymn books and catechisms for the year.

All that is necessary to say concerning the School has been stated in my quarterly

reports.

All which is respectfully submitted.

I have the honor to be, Gentlemen,
Your obedient servant,
PANNIPAL MULKINS.

#### STATEMENT OF THE LIBRARY.

Whole number of books in the Library	1,026
Added during the year, none	
Number of prisoners who read the books	252
Appropriation for books during the year 1871, as well as 1870.	
Number of issues of books	3.690

P.S.—Although no grants have been made in the last two years for the library, the Directors have readily granted adequate sums for religions, and it is only right to add, that grants for the Library were not absolutely necessary in the last two years, yet the library could have been made far more attractive and acceptable by the addition of new books.

#### No. 14.—ROMAN CATHOLIC CHAPLAIN'S REPORT.

Roman Catholic Library Report, for the year ending 31st December, 1871.

Number of volumes in Library	412
Number added during the year	24

Number of convicts who used books.	186
Appropriation outlay for Library	<b>\$</b> 18.5 <b>0</b>
Number of issues during the year	3,213

W. J. KEILTY,

Assistant Chaplain.

To T. J. O'Neill, Esq.,

Chairman of Board of Directors,
Kingston Penitentary.

I have the honor to submit, for your consideration, the Annual Report of the Catholic Chaplain of Kingston Penitentiary, for the year of grace ending December 31st, 1871.

Service is strictly carried out according to the prescriptions of the Catholic Ritual. The Holy Sacrifice of Mass is offered up each Sunday morning, and the Psalms of David chanted each Sunday afternoon. Catholic convicts are thus enabled to profit by every sæcred ordinance of their religion. Happy and blessed effects must be expected therefrom, especially as the prisoners invariably assist at Divine Service, with all becoming respect and gravity. In fact, the great majority, I am sure, frequent the House of God to pray,—very few, it any, to scoff.

Moreover, the religious training of convicts is carefully superintended as a great means of reformation. Instruction upon points of doctrine and principles of morality is imparted all Sundays and Thursdays throughout the year. The men have thus ample opportunity to know what they should believe and practice if they wish through Christ to raise themselves to the standard of good Christians. Fruit, and abundant fruit, under God must be expected from those instructions, as the convicts on their side are remarkable for the attention they invariably give.

Another feature which deserves consideration is the desire they manifest for reading. This desire is encouraged as much as possible, and their reading carefully superintended. Only such books as are warranted by the highest standards are placed within their reach. This christianized enlightenment must have its due influence upon the minds of men who in the past were a prey to ignorance and its accompanying vices—men, the majority of whom were misguided and unfortunate rather than criminal and vicious.

I cannot speak in too high terms of the gentleman whom the Government appointed to the responsible position of Warden, and who rules the institution with so much prudence and ability. He is always discreet, just and merciful in his relations with the prisoners. He possesses the entire confidence of the latter, who respect him and look upon him as a model man. This influence of the Warden redounds to the good and benefit of every department connected with Kingston Penitentiary. The men in general are well disposed, and it is only consistent with common sense to suppose that men well disposed will attend service and listen to religious instruction with far more relish than otherwise, and with much greater profit to themselves and society.

In conclusion, I would wish to state that there are at present two hundred and sixty-three (263) men and twenty-one (21) women under my pastoral charge in Kingston Penitentiary. Deaths do not occur frequently—on an average six or seven per annum. In their illness the poor convicts are always most carefully attended by a priest and die fortified by the sacraments of the Church.

All of which is respectfully submitted.

W. J. KEILTY,

Assistant Chaplain.

#### No. 15.—MATRON'S REPORT.

KINGSTON: PENITENTIARY, (FEMALE DEPARTMENT,) January 3rd, 1872.

To the Directors of Penitentiaries, &c., &c., &c.

Gentlemen,—On reviewing the condition of this Department at the close of the year 1871, it affords me great satisfaction in being able to report to you that everything in connection herawith has progressed in the most gratifying manner—with an average of seven convicts more than in the previous year, the reports for breach of discipline have been less in number than in that year, and of a much less serious nature. I have also great pleasure in being able to state, that not one of the females discharged during the past two years has been recommitted.

The earnings of the convicts, as shown in the labor returns, amount to \$1,560.20, the

cash receipts to \$684.40, being 244.39 in excess of last year.

I am, Gentlemen,

Your obedient servant,

MARY LEAHY, Matron.

#### No. 16.—TRADE INSTRUCTOR ADAMS' REPORT.

KINGSTON PENITENTIARY, 9th February, 1872.

SIR,—I have the honor to submit, for your information, a Report upon the position of certain works in course of construction, and completed during the year 1871, so far as the work appertaining to the branch of service under my supervision is concerned, viz. :—the West Wharf extension, say,upon the old projecting portion of 118 feet, two faces, three feet have been added to its height, making 354 feet. Upon the receding portion made in 1869, there have been added to its height four feet, extending 252 feet in length = 1,008 feet (together with the tram-railway thereon.)

Upon the further extension of the same face, there have been added 375 feet in length and 8 feet in height, making 3,000 feet, of 12 feet wide—making in the aggregate 4,408 superficial feet. The cost of material for which amounts to \$1,453 93 (exclusive

of labor.)

The South wharf and pier have been constructed, which measure a line of 410 feet by 22 feet in height, giving a face of 9,020 feet (25 feet wide). The cost of material

for which amounts to \$1,851 98 (exclusive of labor).

The Warden's new house has been erected in the course of the year; the woodwork upon which, up to 31st October, cost \$1,510 32, comprising doors, sashes, flooring and out-houses, and the tin-work and roofing costs \$488 89, thus forming an expenditure for material only of \$1,999 21 (exclusive of labor).

An earth-house has also been constructed in connection with the farm, the cost of

which, for wood-work, to 31st December, 1871, is \$70 83.

In consequence of a fire occurring in the engine-house, off the carpenters' shop, destroying the roof, it was deemed expedient to restore it in a more secure manner, and consequently it has been roofed entirely with metal and brick-work; the cost and supervision of this work having been chiefly borne by this Department, it becomes necessary for me to report the cost of material employed in its construction, the same amounting to \$89 38½ up to 31st December, 1871 (exclusive of labor). This work, I may add, is not completed.

The railroad has been extended 530 feet, the estimated cost of which is \$67 68

per 100 feet, forming an aggregate of \$358 70 (labor included).

It was deemed advisable, for precautionary measures, to establish a photographing gallery, which has been constructed by this Department, and its cost has been (completed) \$59 37½ (exclusive of labor). It was also deemed advisable to construct a wood-saw shed with circular saw, in connection with the machinery in the carpenters' shop, to cut the firewood required for prison use, and in furtherance of this object there has been expended, up to 31st December, for material only, \$3 21. This work was not completed on 31st December, 1871.

Several other improvements in this Institution of minor import have been executed in the course of the year; and a note of their cost included in the statement or summary

of the year returned by this Department under their respective heads.

I may add that the return of receipts for the year for "Custom" work, independent of the "Lunatic Asylum," amounts to \$2,420 28, giving an average for the labor bestowed thereon of  $65\frac{1}{2}$  cents per diem for each prisoner employed thereon; this is in addition to the prison and Rockwood work, and the general aggregate of all work will

give an average to each prisoner of 53.35 cents per diem.

I might add here that the cost of labor in constructing the wharves has been estimated (as well as for the other works) at 50 cents per diem, which is the uniform rate. This course is adopted from the fact of other Departmental gangs of laborers having been employed on the work at the same time; but in a work of this magnitude, the proper mode of estimating its value have been at the customary rate per lineal foot of timber employed, which would have materially increased the "estimated amount" of labor gains.

The addition of the foregoing works will increase the value of the real estate of this

Institution in the aggregate sum of \$7,720 06, as per following abstract:

Description of Work.	Value of Material.	Value of Labour.	Total Value.
West Wharf Extension South Wharf Warden's New House Earth House Engine House Roof Railroad Extension	\$ cts. 1,453 93 1,851 98 1,999 21 70 83 89 38½	\$ cts. 91 50 826 75 784 44 49 00 26 50	\$ cts. 1,545 43 2,678 73 2,783 65 119 83 115 884 358 76
Photographing Gallery Wood-Saw and Shed	$\begin{array}{c} 59 & 37\frac{1}{2} \\ 3 & 21 \end{array}$	30 00 25 25	89 37½ 28 46
Totals	5,528 92	1,833 44	7,720 06

I have the honor to be, Sir,
Your most obedient servant,
JAMES ADAMS,
Carpenter and Trade Instructor.

To John Creighton, Esq., Warden, Kingston Penitentiary.

# No. 17.-TRADE INSTRUCTOR PAINTER'S REPORT.

Kingston Penitentiary, 14th February, 1872.

SIR,—I beg to submit the following Report on the progress and position of the several works executed by the Mason Department, during the year ending 31st December, 1871.

As will be seen by detailed return already submitted, the most important work performed during the past year by this Department has been the erection of a Warden's residence, built of uncoursed or "broken" pitch-faced ashlar, with sunk margin quoins; the windows and other dressings being of Ohio sandstone, moulded and wrought; the chimney tops being of Prescott white brick, capped with Ohio stone. The greater portion of the material used being of home production, consequently the labor of the Institution has been brought largely into use in its construction.

The material purchased has been Ohio stone for dressings; bricks for partitions,

chimney breasts, flues and tops, and sand, the whole costing \$1,073 12.

The estimated value of material and labor is \$4,893 99.

The work next in importance is the continuation of West wharf to the line of street, and the construction of wharf along South front, the filling required for which has utilized the refuse stone and debris of the quarries. The value of this crib and wharf filling is \$2,703 65.

The extension of Tram-railway along West Wharf, and the necessary following of

quarries as they recede, is found to be of the value of \$300 00.

Cabinet Engine house having been without floor (save the primitive one of earth), a

floor of stone flagging has been laid of the value of \$54.44.

Dining hall cellar, the wooden floor of which being in a very decayed state, it was thought advisable to lay a permanent and durable one of flagging. A large quantity was placed there (a considerable portion of which is now laid), valued at \$640 00.

The pointing of penal prison walls was commenced, but work of a more urgent nature stayed its further progress, so that a small portion only was done worth, \$46 50.

The foregoing constitutes the permanent improvements made during the past year. The value of general repairs, white-washing, and jobbing (not being additions to real estate) is \$1,062 22.

A detailed statement is also given in returns, shewing the value and quantity of Custom work, stone, &c., sold during the past year. Aggregates are as follows, viz.:—

Cut stone	 •••••	\$5,493	69
Rough do	 	4,471	49
Lime	 •	1,944	43
Broken stone	 	467	91
Labor on vessels	 	215	40

It is gratifying to be enabled to state, that the proceeds of the past year exceed that of any previous year; and while here, I may be excused for giving a comparative statement of the past three years, or for the time I have had the honor of serving the Institution, viz.:—

1869	produced		\$4,749	00	
1870					
1871	"	•••••	12,592	00	
While the preced	ding six ve	ears averaged	2,590	00	
Out of which de	educt payn	ears averagednent for quarrying stone	1,116	00	
	Leaving l	out	1,474	00	net.

I am, Sir,

Your very obedient servant,
THOMAS PAINTER,
Mason Instructor.

To John Creighton, Esq., Warden.

# No. 18.—FEMALE DEPARTMENT, STATISTICS.

Contract Shoe Shop	8 39	70 15
Male and Female Prison	828	
Total	,560	20

GENERAL STATISTICS.

94 o 0 27—5	Knitting and sewing.	Household work,	Washing and Ironing.	Cooking.	Nursing.	Total No. of working days.	Sick	Punish- ment.	Total No. of women.	Total No. on house- hold work.	Daily No. of applicants for medical treatment.	No. of Catholics.	No. of Protes- tants.	Total No. of women.
January 688  Rebruary 715  March 775  May 696  April 721  June 696  August 673  August 673  September 618  November 648  December 658  Trivals 868	688 7175 7175 7175 7175 721 721 721 673 673 673 673 673 673 673 673 673 673	211 177 177 221 223 238 238 198 186 181 181	122 96 98 113 137 137 137 128 128 128 128 128 128 128 128 128 128	284742225255	842488828888	1,099 1,060 1,1960 1,1969 1,1154 1,061 1,036 1,0	11 24 25 11 8 8 0 12 25 25 25 25 25 25 25 25 25 25 25 25 25	H 44470 00 00   Q	1,1214 1,1114 1,1166 1,166 1,166 1,072 1,032 1,033 1,033 1,034 1,0	411 345 415 415 415 415 415 415 387 387 387 387 387 387 387 468	2408 3468 3468 3486 2533 2638 2638 2638 2638 1153 1153	898 784 888 810 810 825 761 761 744 709 630 630 630 630 630	550 516 516 558 558 570 570 530 533 533 533 533 650 650 650 650 650 650 650 650 650 650	1,448 1,300 1,300 1,300 1,300 1,331 1,220 1,120 1,140

No. 19.—MATERIAL Used and Work done in Shoe and Saddler's Departments, from 1st January to 31st December, 1871.

		(		
	No. pairs boots and shoes made.	Value of stock.	Cost of making.	Actual value.
Boots, coarse, made. do discharge, " do footed, " do gaiters, pegged., do do sewed " Balmorals, men's " Cobourgs " Canvas slippers " Leather shoes " Boots, females" " Shoes " Slippers " Boots and shoes repaired " Total Shoe Shop Department Harness made, sets		\$ cts. 311 50 203 50 61 60 24 30 6 00 12 00 269 10 235 40 100 00 17 85 5 40 6 30 377 25 1,630 20 31 41	\$ cts. 213 60 137 50 44 00 18 00 4 50 6 00 234 00 235 40 75 00 6 80 2 2 25 3 30 377 25	\$ cts. 525 10 341 00 105 60 42 30 10 50 18 00 503 10 470 80 175 00 24 65 7 65 9 60 754 50
Repairing for stables	• • • • • • • • • • • •	27 60 9 88	$\begin{array}{cccc} 27 & 10\frac{1}{2} \\ 9 & 88 \end{array}$	$   \begin{array}{ccc}     54 & 70\frac{1}{2} \\     19 & 76   \end{array} $
Grand total for both		\$1,699 09	1,406 581	3,105 67½

No. of men in shop,.....7

Kindly submitted to John Creighton, Esq., Warden, Kingston Penitentiary,

By Thos. H. Wardell,

Trade Instructor.

Kingston Penitentiary, January 5th, 1872.

No. 20.—Statement of Income and Expenditure of the Kingston Penitentiary Farm, for the year ending 31st

UR.					CR.
Seeds and Implements and Manure Account Horse labor, 218 days, per day. Man's wages for attending pigs, per year. Pigs, feed from Dining Hall, per year. Convict labor on Farm, number of days 2,845, per day. Small Potatoes, 170 bushels from farm, used in Tiggery, per bushel. Two Guard's pay, for one year each, per year. Four Cords of Wood for piggery, per cord. 5 5	\$ cts. 218 2 50 2,845 0 40 170 0 25 170 0 25 170 0 25 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ cts. 634 31 545 00 288 00 100 00 1,138 00 20 00 20 00	Beets, 600 bushels, per bushel. Carrots, 261 bushels, per bushel. Cabbages, 14,000 heads, per head Cabbages, 14,000 heads, per head Cantifiowers, 228 heads, per head Cautifiowers, 228 heads, per head Cautifiowers, 228 heads, per head Cautifiowers, 228 heads, per head Potatoes, 1,270 bushels, per bushel Potatoes, 1,270 bushels, per bushel Pork, dead and live weight, per lb Celery, 1,100 heads, per head Summer Sarory, 44 bunches, per bunch Summer Sarory, 44 bunches, per bunch Curants, 80 quarts, per ton Curants, 80 quarts, per quart Leeks, 300 bunches, per bunch Cabbage Plants, 14,600, per hundred.	6 648. 0 648. 0 10 10 10 10 10 10 10 10 10 10 10 10 10	\$ cts. 300 cts. 300 cts. 300 cts. 1174 450 00 525 80 525 80 525 80 125 80 125 80 110 00 1110 00 18 80 18 90 18 90 18 90 18 90 18 90
			Income Account.  Expenditure Account.		\$4,607 64 3,567 81
Expenditure Account		\$3,567 81	Credit Balance	1	\$1,039 83
				_	

ANGUS SHAW, Farmer and Gardener.

No. 21.—Annual Return of Work done at Tailor Department, Kingston Penitentiary, 1871.

nber of		Labor Value.			
	Description,	Rate.	Amount.		
Pairs	Officers' Uniform :— Dress Coats Undress Coats Over Coats Vests Pants Caps	\$ cts 2 00 1 00 2 00 0 50 0 50 0 25	\$ cts. 24 00 50 00 94 00 32 50 48 50 10 25		
l'airs	Civilian :— Coats Vests Pants Over Coats	1 50 0 50 0 50 2 00	70 50 15 00 17 00 10 00		
Pairs	Prison Work, Woollen:— Jackets Pants Vests Caps Stocks Conduct badges Mitts	0 75 0 40 0 50 0 12½ 0 05 0 05 0 05	68 25 164 00 46 50 39 25 10 00 3 20 31 00		
	Prison Work, Linen:  Jackets  Pants  Vests  Belts  Aprons, Canvas  Over Coats for towers  Leggings  Discharge Suits  Discharge Over Coats  Pants (single)  Barber's cloths  Signal Flags  Coats dyed	0 40 0 25 0 20 0 121 0 05 3 00 1 00 2 50 1 50 0 50 0 30 0 30	37 20 135 50 140 60 8 87½ 15 85 27 00 5 00 602 50 15 00 1 89 1 50 2 70		
	Totals		\$994 11½ *\$1,728 06½		
Days	Shrinking and rolling linen and cloth Splicing ropes Making carpets Assorting Rags At church Photograph gallery Machine Changing room Messenger Mending Cutting	0 40 0 40 0 40 0 40 0 40 0 40 0 40 0 40	3 20 5 60 8 80 4 60 10 40 20 40 194 00 329 20 123 20 123 60 141,485 00		
	Pairs Pairs Pairs Pairs Pairs Pairs  Pairs  Pairs  Pairs  Pairs  Pairs  Pairs  Pairs  Pairs  Pairs	Officers' Uniform: Dress Coats Undress Coats Over Coats Vests Pairs Pants Caps  Civilian: Coats Vests Pairs: Pants Over Coats  Prison Work, Woollen: Jackets Pants Caps Stocks Caps Stocks Conduct badges Pairs Pairs Prison Work, Linen: Jackets Pairs Pairs Prison Work, Linen: Jackets Pairs Pairs Stocks Conduct badges Pairs Discharge Suits Discharge Suits Discharge Suits Discharge Suits Signal Flags Coats dyed  Totals  Totals  Days Shrinking and rolling linen and cloth Splicing ropes Making carpets Assorting Rags A	Officers' Uniform :		

<sup>\* 4,709</sup> days.=\$1,728 06\frac{1}{2} + 3,712\frac{1}{2} days at 40 cents.=\$1,485 00

Wm. Condon, 59 days making 16 pair prison pants, at 40c (unwell) 18 days making 27 pair stocks, at 5c		
,, , 12 ,, 20 ,, mitts, ,,		
89	<b>\$</b> 9	15
Average, $10\frac{1}{4}$ cents. (71 days nothing.)  Pierre Collin, $11\frac{1}{2}$ days making 6 linen vests, at $20c$ Unwell. Average, $10\frac{1}{2}$ cents. ( $9\frac{1}{2}$ days nothing).	\$ 1	20
George Potters, 30 days making 2 pair linen pants, at 25c	. 0	50
,, 2 linen jackets, at 40c		80
", vests, at 20c	. 3	00
Average, 14½ cents. (50 days nothing.) Robert English and Richard Chrysler, 40 days making 10	\$3	30
linen vests, at 20c	\$ 2	<b>0</b> 0
Two linen aprons, at bc		10
17 pair linen pants, at 25c	4	25
Two linen jackets, at 40c.		80
Average, $17\frac{7}{8}$ cents.	\$7	15

### No. 22.—CARPENTER'S DEPARTMENT.

ABSTRACT, shewing value of Material and Labor employed in the year 1871.

For what account.	Value of Materials.	Value of Labour.	Totals.
Custom work Lunatic Asylum Rockwood building Penitentiary work Totals	\$ cts.	\$ cts.	\$ cts.
	971 50	1,448 78½	2,420 28½
	104 36	230 58	334 94
	251 271	491 88	743 15½
	8,016 104	4,149 33	12,165 43½
	\$9,343 241	6,320 57½	15,663 81¾

JAMES ADAMS,

Kingston Penitentiary, 7th February, 1872.

Carpenter Trade Instructor.

No. 23.—General Summary of Work done in Blacksmith Department, Kingston Penitentiary, for the year ending 31st December, 1871.

Work performed.	Value of Labor.	Value of Material	Total Value.	Remarks.
For Rockwood Buildings Custom work Kingston Penitentiary	\$ cts. 367 77½ 120 14 2,614 83	\$ cts. 245 73\frac{1}{2} 31 44 2,208 82\frac{1}{2}	\$ cts. 613 51 151 58 4,823 684	
Grand Total	\$3,102 74½	2,486 00	5,588 741	

R. M. STEWART, Trade Instructor.

### No. 24.—MASON DEPARTMENT.

ABSTRACT, shewing value of Labor and Cost of Purchased Material, for year 1871.

'Description of Work.	Labour.	Material.	Total.
Custom work	\$ cts. 11,237 27 7,888 26 1,062 77 543 30 1,028 40 \$21,760 00		\$ cts. 12,593 92 8,961 38 1,062 77 543 30 1,028 40 24,189 77

General Summary, shewing total earnings of each gang in Mason Department, Kingston Penitentiary, for year ending 30th December, 1871.

		La	bour.			m 1		
			Total.			Total.	Total.	Total.
Stonecutting Shop.	\$	cts.	\$ cts.	\$ ct	ts.	\$ cts.	\$ cts.	\$ cts.
Custom work for outside Warden's house. Penitentiary repairs Rockwood Asylum Stock	3,658 1,149 522 98 329	95 02 10	5,758 20	1,835 00 704 30 195 20 28 55 141 45	0	2,904 56	5,493 69 1,854 25 717 22 126 65 470 95	8,662 76
Building Gangs.			,					
Keeper Burgess	2,270 703		2,973 62	1,688 56 246 13	- 1	1,934 69	3,958 58 949 73	4,908 31
Railroad			3,274 55	ļ			· · · · · · · · · · · · · · · · · · ·	3,274 55
Quarries.								
Keeper Carter do Elsmers Guard Fitzgibbon. do Bryson.	2,516 2,638 2,087 2,297	75 95	9,540 73		••			9,540 73
Limekiln.								
Holland	<b></b>	• • • •	349 60	1,699 75	5	1,699 75		2,049 35
			\$21,896 70			6,539 00		\$28,435 70

No. 25.—Summary of Real Estate of Kingston Penitentiary, as on 31st day of December, 1871.

	S cts
Land	
North Lodge	16,822 17
West Lodge	
Main boundary walls and towers	
Walls of female prison and Deputy Warden's yards	2,920 38
Walls of gardens	1.984 40
Rotunda and dome	10.579 47
North wing, main centre block	55,285 69
East and west wings, main centre block	122.172 08
Dast and west wings, main centre block	64.899 85
South wing, main centre block.	67,456 32
South workshops and additions	
Dining hall buildings and kitchen	
Hospital buildings	25,155 75
East workshops, storehouse, &c	22,285 78
West workshops, and engine house.	18,103 37
Wash-house, smith's shops, &c.	2,951 40
Stable and coach-house	3,699 21
Grading and forming land	4,249 03
Sewers and drains	13,940 75
Dry earth shed at south wall.	119 83
Water supply, tanks, pipes and cisterns	8,332 01
Wharves and breakwater	12.648 19
Stone cottages and stuble' corner Palace and King Streets	1.500 00
Two frame dwellings, we <sup>s</sup> t of prison	600 00
Dwart Walls, enclosing warden's plot	4,870 30
Warden's house	7,790 04
Solitary prison yard walls and stone cut for lodge	9,588 15
Farmhouse and outhouses	900 00
Barn	3.726 67
Piggery, &c.	1,352 45
Limekiln and limehouse	778 00
Slaughter-house	582 77
Pram realistate	7,034 23
Tram railway.	1,623 42
Dry kiln	1,025 42
Total	\$601,273 80
	•

# No. 26.—Summary of Department Stock, 30th December, 1871.

		S cts.
Armoury	1	3,309 63
Accountant's office	$\tilde{3}$	260 56
Architect's office	ă	50 05
Blacksmith's shop	3 4 • 5	8,053 00
Bakery	12	547 42
Carpenter shop	14	4,013 22
Cabinet shop		240 24
Chapel, Roman Catholic		826 98
Chapel, Protestant		
Chiapel, Fruestant	25	603 29
Chief Keeper's office		23 55
Deputy Warden's office Foundry.	25 26	19 40
Foundry	26 27	367 85
Farm		2,246 85
Female prison	29	2,329 14
Hospital	37	1,711 08
Mason department	42	8,912 34
Mess room	49	59 35
North lodge Oakum shop and Point woodyard	50	250 14
Oakum shop and Point woodyard	52	2,889 30
Photograph gallery	53	100 00
Real estate	54	601,273 80
Shoe shop, contract	55	311 92
School room	56	214 45
Shoe shop and saddlery, prison	57	624 07
Steward's department	60	11,764 85
Storekeeper's department	67	8,109 06
Tailor shop	72	2.777 95
Warden and keeper's hall.	75	367 35
Warden and director's offices	76	313 75
Woodyard in prison	77	75 45
	•••	
	į	\$662,646 04
D O'D		

P. O'DONNELL, THOS. M'CARTHY, Valuators.

No. 27.—Comparative Statement of "Labor Account" for Labor engaged in the management of the Kingston Penitentiary, for the years 1870 and 1871.

			1870.			1	871.	
Departments.	Average No. of Men.	Days.	Rate.	Value.	Average No. of Men.	Days.	Rate.	Value.
Bakery Wash-house Stable and Yard Wood Sawyers, Pilers, and Carriers Steward's Department, in dining hall, kitchen, cellar, dormitories and wings, white washers,	9 13**	1550 1814 2665 4201	40 30	\$ cts. 620 00 725 60 799 50 1,050 25	7 10	2006 2321 3005 4098	cts. 40 40 30 25	\$ cts 802 40 928 40 901 50 1,024 50
lamp-men, &c	25	8021 5678	]	1,604 21 567 80		9355	20	1,871 00
invalids	7	2555	30	766 50		5766 <u>1</u> 1976	10 30	576 65 592 80
Instructors	4	1240	40	496 00	5	1550	40	620 00
Female Department	<b> </b>	••••		6,636 86	15	4672	 20	7,217 25 700 80
Hall Orderlies					2 2	730 <b>620</b>	40 40	7,918 05 292 00 248 00
	10							<b>8</b> 8,458 05

No. 28. REVENUE.

The Dominion of Canada in Account with the Kingston Penitentiary. Dr. Cr

1871.		\$ cts.	1871.	_	<b>\$</b> ets.
Jan. 31 Feb. 32 Mar. 31 April 30 May 31 June 30 July 31 Aug. 31 Sept. 30 Oct. 31 Nov. 30 Dec. 30	To Drafts remitted this :	3,039 12 1,746 59 4,975 55 2,583 35 3,446 74 4,256 43 3,602 94 4,877 01 3,884 03 3,817 31 2,411 85 2,929 23	Dec. 30.	By Moveables ,, Rents , Matron's Work Shop , Shoe Shop ,, Biacksmith Shop , Uniforms , Convict Laber , Contingencies , Cabinet Shop , Iron works Shop , Carpenter's Shop , Clothing , Salaries refunded , Farms and Gardens , Saddler's Shop , Tailor's Shop , Prison Shoe Shop , Barrels , Oakum , Ration (for Hides & Skins) , Mason's Department	22 87 58 60 663 42 14,040 75 228 20 256 85 242 09 2 27 3,488 03 4,410 89 2,256 02 907 41 542 73 202 50 566 35 116 56 9 08 10 05 38 70 1,237 68 11,584 10

D. McIntosh,
Accountant.

Kingston Penitentiary, 30th December, 1871,

No. 29.

## EXPENDITURE.

The Dominion of Canada in Account with the Kingston Penitentiary. Dr.

							, , , , , , , ,	==
1070				107	1			a+~
1870.		*	cts	. 187	ı.		1 0 0	cts.
				-				
Dec 9	To Balance		45 81	Jon	17	By Warrant to pay accounts	2,937	40
1871.	10 Dalance	1		Feb.	i			10
Dec. 3			28 30	)		January	3,740	
9	Chairman's p apartments	rivate	63 <b>0</b> 0	,,	$\frac{1}{24}$		133 4,876	
., 3	0 Salaries	43.4	90 27	Marc		Penitentiary officer pay list for	ł	
., 3	Carpenter shop		77 98			February	3,674	
" 9	Blacksmith shop Tailor shop		13 06 44 06	1 "	23	Rockwood ,, ,, ,, Warrant to pay law costs	191 622	70
3	0 Matron's worksh	100	$\frac{11}{13} \frac{00}{23}$		23	accounts	4,835	
,, 3	Uniform account	t	3 38 2 67	April	. 1	Penitentiary officer pay list for	1	^-
	O Armoury		$\begin{array}{ccc} 2 & 67 \\ 31 & 00 \end{array}$		1	March	3,651 133	
	0 Shoes 0 Clothing	6.3	84 19	1 "	1	Rockwood ,, ,, ,, Warrant to pay accounts	1,249	
,, 3	0 Fuel	7,0	95 04	١,,	1	1	400	
	O Tobacco	3	66 OO	May	1		0.700	20
″ 🤄	Whiskey and Al Store		$72 \ 72 \ 08 \ 35$	1	1	April	3,728 133	
., 3	O Contingencies		88 33		3		1,000	
,, 3	0 Stable	2,7	56 52	٠,,	19	Warrant to pay accounts	10,711	68
,, 3 3			41 35 02 60		1		3,628	29
3			20 00		1	May Rockwood	133	
<u>"`</u> `3	Suspense		6 99		ī	Warrant to pay accounts	8,749	
3, 3			15 00	1 ,,	<b>3</b> 0	Penitentiary officers pay list for		cc
,, 3 3	0 Freight and char 0 Protestant Chape		40 61 13 80	1	30	June	3,555 133	32
., 3	Kitchen		71 25	July	11	Rockwood ,, ,, ,, Accountable warrant	1,000	
,, 3	9 Saddler's shop	2	59 62	,,,	31	Warrant to pay accounts	7,377	65
,, 3 ,, 3			04 95 74 18	Aug.	1	Penitentiary officer pay list for	9 560	11
., 3			6 50	1	1	July	3,568 133	
,, 3	Postages	10	5 50	"	$2\overline{1}$	Warrant to pay accounts	4,260	
	Printing and adv			Sept.	1	Penitentiary officer pay list for	9.010	14
,, 3 3			32 90 31 92	1	1	August	3,618 133	
,, 3		32	5 71	"	25	Warrant to pay accounts	6,415	
,, 30	Light	1,11	3 74	Oct.	1	Penitentiary officer pay list for	-	
,, 30 30			9 94 7 96	İ	1	September	3,580 3 13 <b>3</b> 3	
", 30			4 70	,,	$1\overline{2}$	Warrant to pay disbursements.	772 5	98
,, 30	Rations	19,11		1 ′′	23	accounts	3,767	90
30	Convict trave	ellingl	7 00	Nov.	1	Penitentiary officer pay list for		
77 90		2,30	7 00 8 81		1	October	3,569 ( 133 3	32
,, 30	Law costs	1.15	6 12	Dec.	i	Penitentiary officer pay list for		
,, 30		64	4 31	1	•	November	3,574 2	22
, 30 . 30		1,08	4 20 2 00	,,	1 15	Rockwood ,, ,, Warrant to pay accounts	133 3 5.461 5	
,, 30	Brushes		2 00 5 50		20		2,821 4	
,, 30	Petty cash	78	8 00		30	Penitentiary officer pay list for	•	
	Balance	99	3 01	l	30	December	3,492 8 133 3	11
		\$112,30	1 29	"	30	Rockwood ,, ,,	199 0	
		,				i e e e e e e e e e e e e e e e e e e e	112,301 2	9
		ŀ		1871.		Pr. Polones	<b>\$</b> 993 0	<u>-</u>
				100.	1	By Balance	<b>⊕</b>	
		<u>.</u>			•			

D. McIntosh,

Accountant.

No. 30.

STATEMENT of Debts owing the Kingston Penitentiary, as on 31st December, 1870, and as on 30th December, 1871.

		1870.	1871.	Total	l <b>.</b>
\$ cts.		\$ ets.	. S ets.	8	cts,
	William Ford, jun		47 50		
	Rockwood Lunatic Asylum		569 24		
41 48	*Cameron and Mudie	• • • • • • • • • • • • • • • • • • • •	47 99	j	
	Corporation of Portsmouth				
	John Flanigan		47 55		
	Captain Cooper			1	
	*Dr. Betts			1	
	*Donnelly		115 06	1	
	Davis and MacRae		199 50	İ	
	H. Corby & Son.		11 30	Į	
	Thomas Overend.		106 42	Ī	
	C. E. Britton*B. M. Baker	••••	57 45	1	
	*E. R. Weich & Son.		440 80	1	
	Mrs. Wilson.		13 16	İ	
	*James Swift & Co		15 00 25 00		
	N. L. Steiner		94 55		
	J. H. Henderson & Co		10 70		
	Kelly & Howard.		16 81	1	
	Lindsay Jail.	• • • • • • • • • • • • •	289 00	1	
	*Kingston Gas Co.		300 00	ĺ	
	*J. Noble		22 89	i	
	A. Chown		31 50	j	
	*R. M. Horsey		15 45	Ì	
	*McKelvey and Birch		10 53	l	
	*George Newland		104 71	Ĭ	
	*Kingston General Hospital		19 80	ĺ	
	Carruthers & Co.		25 60	l	
	James Gibson		15 00	l	
	C. Bounsall		22 40	1	
	*John Bowey	. <b></b>	28 08	1	
	*George Chaffey & Son	<i></i>	121 00	ĺ	
3 05	*Petty debts		58 94	i	
	Bad and doubtful debts	. <b></b>	7 25	!	
	Old petty debts	210 43		•	
	Old bad and doubtful debts	559 36	<i></i>	!	
	*James Nimmo	39 50		f	
	Andrew Brooks	18 00			
A	Herkimer Hamilton	<b>18 20</b>			
252 37	*W. C. Evans		2,669 27		
383 07	*S. T. Drennan	2,100 05	1,221 53		
890 20	*Thos. M. Thompson	68 75	1,788 38		
	-  -		<del></del> _	l	
	1	<b>\$4,</b> 554 77	<b>\$</b> 8,797 39	\$13,352	16

<sup>\*</sup> Since paid.

D. McIntosh, Accountant.

No. 31.—Statement of Claims against the Kingston Penitentiary, as on 30th December, 1871.

	\$	ct
I. Morrison	1,451	. 30
S. Hobart	78	85
ohn Cunningham	34	l 91
Muckleston & Co		
aron Smith		8
oyd Caldwell		
ohnson Day		
Villiam Reid		
lichael Quinn		
Chown & Sons		Į (
hos. McAuley & Co		
V. McRossie		
7. C. Evans	22	
ingston Post Office	1 15	
Livingston		
ataraqui Cemetery Co	10	
ames Neish		
ames Shannon		
& R. White	12	
raser & George		
ohn Lovel		
Pavidson & Doran		
hompson & Dodd	15	5 9
	90 210	_
	\$6,318	•

D. McIntosh, Accountant.

KINGSTON PENITENTIARY, 30th December, 1871.

#### No. 32.

# STATEMENT OF LABOR PERFORMED BY CONVICTS EMPLOYED UNDER CONTRACT FOR 1871.

1st. Cabinet Work.—Contract entered into with Samuel T. Drennan, on the 23rd day of July, 1865, for the space of five years, for the labor of 50 convicts; 13,162½ days at 35 cts. per day = \$4,606.88.

2nd. MALLEABLE IRON WORKS.—Contract entered into with Messrs. Thompson, Knox & Co., on the 20th day of September, 1364, (transferred to Mr. W. W. C. Evans, on the 2nd day of January, 1366,) for the space of five years, for the labor of 250 convicts, subsequently reduced to 160 convicts with consent of the Inspectors, as per minute of 28th September, 1865; 21,102½ days, work performed, at 40 cts. per day = \$8,448.20.

3rd. Shoemaktrg.—Contract entered into with Messrs. Thomas M. Thomson, T. J. Claxton, and G. Offord, on the 1st day of August, 1868, for the space of four years, for the labor of 100 convicts; 32,291\frac{3}{2} days, at 40 cts. per day = \$12,916,70.

## ROCKWOOD ASYLUM.

## MEDICAL SUPERINTENDENT'S REPORT.

ROCKWOOD ASYLUM, KINGSTON, 13th January, 1872.

GENTLEMEN,—The time has arrived for me to present another Annual Report on

matters connected with this Asylum, and I apply myself to that duty cheerfully.

By the kind permission of the Honorable the Postmaster General, who was at that time acting for the Honorable the Minister of Justice, I had the great pleasure and profit, during the past summer, of attending the Annual Meeting of Superintendents of Asylums of the United States and Canada. If our Government were aware of the vast importance of the discussions that arise at those annual gatherings, and of the real amount of good that results from them, they would make ample provisions for the Superintendents of our Asylums to attend them, instead of expecting them to request permission to do so.

In the United States the people are well aware of the benefits that have already resulted from the annual conferences of so many gentlemen who make insanity and its treatment a special study, and provision is there made, not only for their Superintendents to that assembly, but, they also provide the necessary funds to enable them to do so.

The statistical tables we have been accustomed to publish in Canada hitherto have been rather meagre; and, with a view of contributing somewhat to the general desire for more extensive information about our Asylums and their management, I have this year prepared an extended series of them, although doing so has entailed a vast amount of labor. When these tables have been prepared, however, they can readily be extended from year to year by adding the operations of each succeeding one.

An immense amount of useful information will readily be derived from extended tables of this sort; as by comparing similar ones from a large number of Asylums, we will be able to gain a more thorough knowledge of the different phases presented by the

mysterious disease to which they refer.

Most Asylums publish more numerous tables than I have now prepared, but Rockwood is peculiarly constituted and governed, it therefore requires some of a special kind

only adapted to itself, without which, however, its history would be incomplete.

I respectfully request that I may be furnished with at least one hundred and fifty copies of this Report, stitched in covers by itself, to enable me to exchange with those gentlemen who kindly furnish me with theirs. Such a request will no doubt appear strange to Superintendents of Asylums in the United States, many of whom are supplied with 2,000 to 3,000 copies of their own Reports for distribution.

A great many people feel a good deal of repugnance to lunatic asylums, and this has a most prejudicial effect, as it often prevents them, when their friends are seized with insanity, taking advantage of the best and most hopeful mode of treatment, which can nowhere else be so efficiently afforded. This feeling is in a great measure attributable to the Part that the public are not made sufficiently acquainted with the working of those institutions, and always associate them in their own minds with dungeons, handcuffs, manacles, and all other modes of restraint and torture which have long since been discarded in Asylum management. Although Rockwood Asylum is, by law, declared to be part and Parcel of the Kingston Penitentiary, yet, it is not in any sense a punitive institution, and not more than a tenth of its present inmates are convicts.

If the friends of our patients would witness our monthly dancing parties, they would see the utmost decorum maintained, and the utmost enjoyment depicted on every countenance; or if they would visit our church on a Sabbath afternoon, they would see how devoutly our patients enter into and enjoy the exercises, and hear how sweetly they sing; or if they could have seen them at our last Christmas dinner, how astonished they would have been to witness with what propriety such a large number of patients conducted themselves.

For the information of the friends of our patients, I here insert the description of our Christmas dinner, copied from the "Kingston Daily News."

"We were highly delighted on visiting Rockwood Asylum. On entering the outer hall we observed the walls and ceiling beautifully ornamented with evergreens and artificial flowers, the latter made by the patients. But on passing into the main hall and the corridors branching east and west from it, we found all these apartments most tastefully decorated. There were eight tables spread in the main hall, and one very long one in each of the two corridors, making an aggregate length of tables of three hundred and forty-eight feet. The attendants and several of the patients were busily employed placing splendidly cooked viands on the tables, which were well covered in exceedingly neat and tasteful order with turkeys, goese, fowls, roast beef, plum pudding, and all other things in keeping for a choice Christmas dinner. Three hundred and nineteen (319) patients sat down at these tables, and conducted themselves in such an orderly and decorous manner as might well put to the blush many persons of reputedly sound mind, who sit down at public dinners in other places. The patients sang in excellent style that beautiful old Christmas Anthem, "Hark, the herald angels sing," a lady playing the accompaniment on the parlor organ, after which, a blessing being invoked, dinner commenced, and it was really refreshing to see how the patients enjoyed themselves. Dinner being finished, the crgan was again put in requisition, and the patients sang several pieces of sacred music in charming style, with a great deal of feeling and pathos. Several soles were rendered by the patients; one of them sang, beautifully, "Mary at the Saviour's Tomb." Another one sang equally well the hymn commencing with the words, "Holy, Holy, Holy, Lord God Almighty." A duet was sweetly and tastefully sung by two female patients.

"There were several ladies and gentlemen present, both from Kingston and Toronto, and many of them said they could scarcely imagine that they were in the midst of so many lunatics, as they were so very orderly and so thoroughly under the control of the officers

of the Asylum.

"The visitors and the patients enjoyed themselves very much for a few hours after dinner. Tea was then served, after which, a patient chanted very nicely, "The Prodigal Son." The evening hymn was then sung, and the Rev. Mr. Dobbs wound up the proceedings by asking the Divine blessing; the patients in the most orderly manner then retired."

No greater evidence of an advanced civilization can possibly be afforded than that furnished of late years in the management of well-conducted Asylums, by the great improvements introduced for treating the insane. What anklets, hand-cuffs, shackles, straight-jackets and the lash failed to accomplish in years gone by, we now see fully effected by kindness and sympathy, producing altered thoughts by presenting pleasing pictures to

the mind, and thus dispel the morbid gloom that reigns there.

By the kind recommendation of the Board of Directors, Parliament voted a sum of money to purchase some books and articles of amusement for the patients. I have procured a nice lot of books to form the nucleus of a library, to which, I hope to make additions from time to time; I have also procured a good magic lantern and dissolving view apparatus, with a selection of slides, which will no doubt amuse the patients very much, and tend to enliven the dreary winter evenings. I also hope to obtain other kinds of amusements, and I will endeavor to procure some suitable pictures to ornament the walls, and thus make a more pleasing prospect than our naked walls now precent.

The new boiler has been procured, and I hope it will soon be in position and in working order; this additional boiler will, no doubt, tend to improve the ventilation, as the four boilers will enable the engineer to have at command a sufficient head of steam at all times to heat the coils of pipes in the north-eastern and north-western towers, and thus maintain a steady exhausting power on the foul air shafts terminating there, which he

has not been able to do hitherto.

The increased number of boilers, however, will not remedy the unequal distribution of heat throughout the building. To do so, it will be absolutely essential to have steam pipes placed in the coldest dormitories to heat them by direct radiation. With that object in view, I have instructed the architects to procure a sufficient quantity of inch pipe to do so, and they have taken the necessary steps to carry out my instructions.

With the view of affording evidence of the unequal distribution of heat, I required the keepers and nurses, in their respective wards, to mark the exact temperature in each corridor and associated dormitory at eight o'clock, a.m.; twelve o'clock, noon; and four o'clock, p.m., daily, during the month of December.

The examination of those sheets show that the associated dormitories averaged throughout the month, thirty (30) degrees lower temperature than the corridors to

which they respectively belong.

The impropriety must be at once apparent to every one, of compelling helpless invalids to retire for the night to rooms thirty degrees colder than those in which they spend their day; and the faulty ventilation increases their discomfort and danger, because the keepers are compelled at times to block up the mouths of the exhaust flues, to protect the patients from the injurious consequences of allowing the cold down drafts that blow through them.

As the full number of boilers has now been procured, which Mr. Garth estimated would be sufficient for the purpose of heating and ventilating the building in its present condition, he should be requested to devise a remedy for the existing defects, and that remedy to my mind is perfectly plain, as it would be to any person who has paid much

attention to, and thoroughly studied the subject of forced ventilation.

I think it is a sad pity to continue to light this magnificent building with coal oil, as no matter how carefully managed it is neither a safe nor a suitable light for a Lunatic Asylum, and I have in some lamps substituted olive oil for it. As a gas house was built and pipes laid all through the House some time ago, it is to be regretted that the orginal intention of manufacturing gas on the premises for our own use has been abandoned.

Our out door works and improvements were carried on last summer with as much vigor as during the two preceding ones, and with what results will be at once apparent from the following extract from the excellent Report of Mr. Langmuir, the Inspector of Asylums for the Province of Ontario. When writing of the desirability of the Province purchasing Rockwood Asylum from the Dominion, he reported: "That all the works per"formed during the past three years on the grounds of Rockwood Asylum, through which "a barren common has been converted into highly ornamental grounds, with beautiful "Parterres, walks and terraces, has been done by the Ontario patients."

Not only have those beautiful surface improvements been made to which Mr. Langmuir refers, but we have quarried the outcropping rocks down to several feet below the surface, and refilled the space with rubble stone, and such a top dressing of borrowed earth as has converted what Mr. Langmuir calls a "barren common," into fruitful soil.

During the past year (1871), I have had patients performing the work of stone masons, bricklayers, carpenters, painters, quarrymen and labourers. I therefore take an honest pride in reporting that all the works and improvements to which Mr. Langmuir refers have not cost the country one shilling, as I have not employed any labor for the different improvements I have effected other than that which the patients afforded. I never force a patient however to work against his will, nor do I ever allow any of them to over work themselves. They usually work about seven hours a day, and in addition to the three ordinary meals, every man in all working parties is furnished with a pint of good warm coffee and a crust of bread at three o'clock daily. But, intoxicating beverages are not allowed under any circumstances. I am too well aware of the horrid curse habits of intemperance entail on those who indulge their appetites in that way, to allow poor people of enfeebled minds to be drenched with such stuff.

I think it is now full time that special Asylums should be established for that form of insanity known as methomania, where poor drunkards would be treated, as that form of insanity is one of the greatest misfortunes that ever befel any human being, as it not only renders its poor victims pitiable objects to behold, but it entails untold misery on their household and descendants. Some laws should be enacted in our Dominion to provide for the care-taking of poor drunkards, and protect them from injuring themselves or others, as they are, without any manner of doubt, lunatics with strong suicidal and homicidal propensities while laboring under their periodic paroxysms, which evince them

selves at regularly recurring intervals as other form of recurrent mania do.

The only effectual way to deal with a confirmed drunkard is to treat him as we do those laboring under other forms of insanity, and Asylums established for that purpose are the only places where such cases could be treated satisfactorily.

It will be necessary to make a sort of running commentary on the appended tables, as

many of them appear for the first time in this report.

No. 1. Is the customary table furnished in all our Annual Reports, shewing the movements of the patients for the year, it explains itself.

No. 2. Is one of the new series of tables and gives the entire admissions, discharges,

and deaths since the opening of the Asylum on 25th June, 1855.

- No. 3. Gives the counties from which all patients were received, except the convicts. This is a very interesting table, as it shows that the benefits conferred by this Asylum have not been of a local character, but have extended to every county in the Province of Ontario.
- No. 4. Gives the former residence of all patients living in the house on the 31st of December, 1871.

No. 5. Gives similar information to that embraced in No. 4, but merely in reference to those patients for whose maintenance the Province of Ontario is charged.

No. 6. Gives the form of disease and complications in those admitted, recovered, and died, from the opening of the Asylum, and of those remaining in the house on 31st December, 1871.

No. 7. Gives the operations of the Asylum, year by year, from the commencement to 31st December, 1871. This is a very important table for reference, and gives the whole details of the Asylum for nearly sixteen years.

No. 8. Is the customary obituary table for the year.

No. 9. Gives the causes of death from the opening of the Asylum.

No. 10. Gives the expenditure and average for the year 1871.

The remaining tables in the series refer to criminal lunatics, and as the Asylum was originally intended for lunatics of that class, I give detailed statistics of their movements.

It would be a very interesting investigation to discover the number of patients of this class whose lunacy could be traced to the discipline to which they had been subjected in the Penitentiary, and to draw a distinction between those who showed the first symptoms of aberration of mind during their incarceration, and those who labored under insanity at the time they committed the crimes of which they had been convicted. It would also be very desirable to know in how many individual cases the plea of insanity had been urged at their trials, such information, however, is not furnished by the records of the Penitentiary, nor have I any means of acquiring it. It would be manifestly unjust to attribute every case of insanity that occurs in the prison, to the treatment which the convict has received there. He may have been laboring under a hereditary taint, and in all human probablity the disease would have become devoloped in any locality, or under any circumstances in which the convict might have been placed; with the view, however, of investigating this matter approximately, I have framed several tables having special reference to this class.

No. 11. Of the series is the first one devoted to convicts. It shows the number of criminal lunatics sent from the Provincial Penitentiary to the Provincial Lunatic Asylum of Toronto before Rockwood Asylum was opened, and gives certain details in

There were in all twenty-one patients sent to Toronto; sixteen men and five women: of these, five men and two women were sent from Toronto to Rockwood Asylum, and four men and two women were returned to the Penitentiary.

No. 12. Gives the number of criminal lunatics that were received into Rockwood Asylum from the Penitentiary, from the 25th of June, 1855, to the 31st of December, 1871, and shows how they were disposed of.

During the stated period one hundred and twenty-two men and nine women were received, of these, thirty-four men and four women recovered and were discharged at the expiration of their sentences. Thirty-four men recovered, whose sentences had not The remaining five tables were carefully prepared by the steward, the matron having furnished the information in reference to her department.

expired, and they were returned to the Penitentiary. Thirteen men and two women died, and forty-one men and three women remained in the Asylum on the 31st Decem-

ber, 1871.

Of those remaining at the last date, the sentences of seventeen men and two women had expired, and they can not therefore be returned to the Penitentiary again; so, on the 31st of December, 1871, we had only twenty-four male convicts and one female over whom the Penitentiary can exercise any control, and it can only do so, if they become restored to a sound state of mind again.

Tables 13 and 14 interest the Asylum authorities in a pecuniary point of view. The former gives a list of the convicts whose maintenance has been charged to the Province of Ontario since the expiration of their respective sentences, all of those convicts having been convicted at Courts held in Ontario. It will be seen, on looking at this table, that the Province of Ontario has been required to pay for the maintenance of some of those

people as far back as from 1858.

I refer to this matter particularly, because, several convicts who were sent to the Penitentiary from the Province of Quebec, were declared to be insane, and were transferred from the Penitentiary to this Asylum, but since the expiration of those convicts' sentences, the Province of Quebec has not paid anything towards their maintenance. I think this is manifestly unjust, and Quebec should be required to pay for the maintenance of those lunatics or else be required to remove them to one of her own asylums.

No. 14, Gives the number of convict lunatics from the Province of Quebec; the date of expiration of sentence in each case, and the amount chargeable to Quebec for the maintenance of these lunatics, based on the rates that are paid by the Province of

Ontario.

No. 15, Gives a list of the crimes of which the convict lunatics were convicted.

No. 16, Shows the number of lunatics sent to Rockwood Asylum from the Provincial Penitentiary, from the 25th of June, 1855, to the 31st of December, 1871; also the per centage of convicts that were found to be insane in the Penitentiary during that time, basing the calculation on the population of the Penitentiary.

This is a very interesting table, and the personal knowledge I possess of the history of all convicts who became insane since 1851, enabled me to prepare this table with a great

deal of accuracy.

In 1851 I had the honor to be appointed a Commissioner in lunacy, with special reference to criminal lunatics confined in the Penitentiary, so that these who were declared to be insane since that date, came under my personal observation.

This table reveals the fact, that a little over a half of one per cent. of the convict population of the Penitentiary became insane during the past fifteen years and six

months.

No. 17, Shows the per centage of convicts that became insane in the Penitentiary, from 1st June, 1835, to 31st December, 1871, embracing a period of nearly thirty-six years. This calculation is based on the number of convicts admitted to the Penitentiary during the above period, and not on the population. It reveals the startling fact, that of all the convicts admitted to the Penitentiary since it was first opened to the present time,

over one and a half per cent. of them became insane.

These figures, however, dwindle into insignificance when compared with some prisons in the United States, when they were conducted on the solitary plan; for instance, the State Prison of Rhode Island, where we find that the inspectors, in their Annual Report for 1842 or '43, stated, that "of the thirty-seven convicts who have been committed to the prison, six have become insane, several others have at times exhibited slight symptoms of derangement," we have the melancholy spectacle presented of over sixteen per cent. of the convicts committed to a prison becoming insane, we must bear in mind, however, that the prison was at that time conducted on the solitary system, and that system was soon thereafter abolished there.

No. 18, Gives the officers and salaries.

No. 19, Shows the division of the labour, and the number of days' work performed in the year.

No. 20, Shows the quantity of out-dcor work achieved.

No. 21, Shows the amount of work performed in the tailors' and shoemakers' shops.

No. 22, Shows the quantity of produce of all kinds raised on the premises. No. 23, Shows the quantity of work performed by the female patients.

I regret the length to which I have been obliged to extend this Report, but I could not present it in any more condensed form and embrace all the matters I considered it essential to put on record.

The exceedingly low figure that each patient has cost the country for the year just closed, as shown in table No. 10, must not to be taken as a basis on which to calculate the cost of maintenance of patients in an Institution of this sort. There were several favorable circumstances combined to bring the cost of each patient so low as \$109 $\frac{39}{100}$  for the year. All our contracts were taken at exceedingly moderate rates; indeed, some of them very low; then we were able to manufacture and repair everything that was required to be worn in the building, by our own inmates, so that the expenditure of the past year must not form any criterion in estimating for the future.

I have the honor to be, Gentlemen,

Your most obedient servant, JOHN R. DICKSON, M.D.,

Member Royal College Surgeons, England, Member Royal College Physicians, London, Fellow Royal College Surgeons, Edinburgh, Medical Superintendent, Rockwood Asylum, Kingston.

Messrs. O'Neill, King & Prieur,
Directors of Penitentiaries, Dominion of Canada.

TABLE No. 1.

SHEWING movement of Patients in Rockwood Asylum during the year 1871.

·	<u> </u>									
In Asylum on 1st January, 1871 Ontario patients admitted during the ye Admitted for the first time during ti Those who had been in other asylun Kingston Penitentiary patients admitted From the Province of Ontario do do Quebec	10 1	120 30 3 1	33 40 4 4 8 3							
Total under treatment of	236	154	390							
Discharced.	Males.	Females.	Total.							
Recovered	18 10	4 8 1	22 18 1							
Discharged died, and transferred	28	13	41							
demaining in Asylum, 31st December, 18	208	141	349							
Average number of resid	212.99	127.46	340.45							

No. 2.

Shewing the Admissions, Discharges and Deaths, from the opening of the Asylum, 25th June, 1855, to 31st December, 1871.

				Males.	Females.	Total.
Warrant patients and others from Countable No. 3. Convict Lunatics from the Penitentiary. Patients from Toronto Asylum. do Malden Asylum. Convict from Penetanguishene Reformato Military.  Total number of admissions.	122 17	193 9 12 5 219	548 131 29 5 1 5			
Discharges,						
Recovered						
Total discharges and deaths				292	78	370
Remaining in Asylum, 31st December, 187	71			208	141	349
Average residents during 16 years and 6 m	onths		<b></b>	83.28	36.75	113.92
SUMMARY OF TOTAL A	DMISSION	S.				
Per centage of cases recovered	<b></b>	• · · · · · · · · · · ·		33.04 24.04 41.06	16.43 19.17 64.38	28.08 22.80 48.53

No. 3
PREVIOUS residence of all Patients admitted since the Asylum was opened.

				,			
	Males.	Females.	Total.		Males,	Females.	Total.
Algoma Distr	1	1	2	Brought forward  Northumberland and Durham	201 9	102 11	303 20
Countics.		_	_	Ontario Oxford Peel	$\begin{array}{c c} 12 & \\ 14 & \\ 7 & \end{array}$	8 2 1	20 16 8
Brant	6 3 27	4 1 17	10 4 44	Perth	$\begin{bmatrix} 7 \\ 6 \\ 3 \end{bmatrix}$	7 4 4	14 10 7
Elgin Fssex Grontenac	$\begin{array}{c} 2 \\ 2 \\ 41 \end{array}$	$\begin{array}{c} 1\\1\\26\end{array}$	3 3 67	Prince Edward	6 6 6	2 5 3	8 11 9
Hrey	6 1	3 4 0	9 10 1	Stormont, Dundas and Glengarry Victoria Waterloo	$\begin{bmatrix} 22 \\ 3 \\ 10 \\ 6 \end{bmatrix}$	$egin{array}{c c} 10 & \\ 5 & \\ 4 & \\ 2 & \end{array}$	32 8 14 8
Hastings	23 5 2 11	8 4 0 2	31 9 2 13	Welland   Wellington   Wentworth   York	2 11 24	3 3 17	5 14 41
Lankton Lanark Leeds and Grenville Lennox and Addington	19 16 8	13 5 4	$\begin{array}{c c} & 13 \\ & 32 \\ & 21 \\ & 12 \end{array}$	Provincial Penitentiary Toronto Asylum Malden Asylum	122 17 0	9 12 5	131 29 5
Lincoln Miàdlesex Norfolk	9 7 6	2 3 3	11 10 9	Penetanguishene Reformatory . Military	1 5	0	1 5
Carried forward	201	102	303	Total	500	219	719

No. 4.

Previous residence of all Patients in the Asylum on 31st December, 1871.

	Males.	Females.	Total.	<u> </u>	Males.	Females.	Total.
Counties.				Brought forward	86	72	158
Brant Bruce Carlton Elgin Essex Frontenac Grey Haldimand Halton Hastings Huron Kent Lambton Lanark Leeds and Grenville Lennox and Addington Lincoln Middlesex Norfolk Northumberland and Durhum  Carried forward.	5 4 5 4 1	4 1 12 1 1 14 3 0 6 6 2 2 2 4 2 2 0 10	4 22 2 3 28 5 3 1 15 4 2 6 12 7	Ontario Oxford Peel Peel Perth Petth Peterborough Prescott and Russell Prince Edward Renfrew Simcoe Stormont, Dundas and Glengarry Victoria Waterloo Welland Wellington Wentworth York Provincial Penitentiary Toronto Asylum Malden Asylum Penetanguishene Reformatory	2 5 1 1	5 0 1 5 1 2 2 3 3 8 2 2 2 2 2 2 3 14 4 3 6 5 0	12 6 5 5 4 3 5 8 5 20 4 7 3 3 8 8 3 4 4 10 5 1 10 10 10 10 10 10 10 10 10 10 10 10 1

#### No. 5.

SHEWING the number of Patients in the Asylum on the 31st day of December, 1871, whose maintenance is charged to the Province of Ontario, and their previous place of abode.

County Brant.  do Bruce do Carlton do Elgin do Essex Frontenac. do Grey do Haldimand do Halton do Hastings do Huron do Kent do Lamark do Leeds and Grenville do Lennox and Addington do Middlesex do Norfolk do Northumberland and Durham  Carried forward	4 22 2 3 3 28 5 5 1 15 4 2 6 12 7 9	Brought forward  County Ontario do Oxford do Peel do Perth do Peterborough do Prescott and Russell do Prince Edward do Renfrew do Simcoe do Stormont, Dundas and Glengarry do Victoria do Waterloo do Welland do Wellington do York Penitentiary Toronto Asylum Malden Asylum Penetanguishene Reformatory	15 1 1 2 2 31 1 1 1
--	-------------------------------------	---	------------------------------------

No. 6. Form of Disease in those Admitted, Recovered, Died and Remaining.

		D	uring :	1871.					th Ju			to	Males.			
Form of Insanity.	Admi	itted.	Recovered Died.		Admitted Recover		vered	Died.		Eloped, 1		main Dec.	ing 1871.			
	м.	F.	М.	F.	М.	F.	М.	F.	м.	F.	М.	F.	_	м.	F.	Total.
Acute Mania Chronic Epileptic "Puerperal"	5 8 1	12 5 1	8 5	3	3 6 	5 2 	184 111 36	77 69 10	75 23	20 6	33 43 16	17 17 3	1 1 	75 44 20	40 46 7	115 90 27
Melancholia Dementia	2 2 2	9 3 3	4	••••	1	1	80 53 20 8	25 22 12	35 27 4	3 2 2	9 10 3 8	1 2 2	1	36 15 13	21 18 8	57 33 21
Idiots. Monomania Totals	1  21	1  34	18	4	10	8	500	219	3 167	36	122	 42	3	1 208	1 141	5 1 349

## Complications in those Admitted.

	Male.	Female.
Epileptic Paralytic Idiotic Suicidal Homicidal Periodical Hereditary  Totals	35 10 2 37 81 78 39	9 2 2 2 22 27 16 11

Of the above Homicidal Cases twelve of the men actually committed murder, and three of the men and one of the women committed manslaughter.

No. 7

:040000415::05:180088 OPERATIONS of the Asylum, year by year, from 25th June, 1855, to 31st December, 1871, with Average and Per Centage Per Centage of Deaths on average number of H 74.628411978880017 Residents. 8 69 4 26 4 21 7 77 7 77 3 07 2 08 111 35 111 36 F 25.20 26.20 27.20 27.20 27.20 27.20 28 X, H Per Centage Recoveries on Admissions. 27 · 27 33 · 33 66.66 66.66 12.05 5.01 15.51 15.78 11.78 Ŀ **586683786878686** Ä :8244588884882882888 Ŧ. 25.00 Average Number of Residents. :828841842408484 Ē 93953453586388354586 203 - 126 - Ħ Remaining, 31st December, in each E of Recoveries and Deaths. year. 00222222222222222 F Ä E. 2 Dead. :000mmnammoadus 드 \$ . 125659968989898989 Σį 83 -1 Ħ Stationary **C**3 Ē Discharged. ij 10 H \$ Improved F 001000000000 10 Ä 3 H 59 Recovered. F 0088000088404864 83 Ä 8 H 85<u>5</u>28888888888888888 Admitted. 0050044488008588 Ä Year. 

No. 8.

OBITUARY Table for the year 1871.

Proximate cause of Death. Paresis. Exhaustion. Exhaustion. Exhaustion Exhaustion Epilepsy. Erysipelas. Phthisis. Exhaustion Epilepsy. Paralysis. Phthisis. Phthisis. Masturbation
Not given
Epilepsy
Not given Not given ..... Loss of property ... Assigned cause frregular habits. of Insanity. Acute mania. Four year.

Epileptic mania. Several years. Seven years ..... Four years ..... Eighteen years ...... Duration of Insanity. hirty-one years.... Fifteen months ..... Twelve years ..... Epileptic mania. Acute mania.... Chronic mania... Chronic mania... Acute mania ... Chronic mania.. Acute mania.... Form of Insanity. \$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$ Date of Death. 1871 do 1889 April 1871 do 1889 May 1869 May 1869 July 1887 do 1887 June 1887 do 1889 July 1889 do 1889 do 1889 do 1889 do 1889 do Date of Admission. July March Aug. March Nov. Feb.
Aug.
Jan.
July
Jan.
June
Nov. Jan. April May Jan. Age. 345945454545455455 363114564577388545453 Single Single Single Single Single Single Single Single Married Single... Male .... Male.... Male.... Male... Female... Female... Female... emale... female. emale. Sex. Register number. 1222426789011224251111 122242578901122425111 Number of destha.

No. 9.

Causes of Deaths since opening of the Asylum.

	Male.	Female.	Total.
Ce rebral Diseases.  Apoplexy and Peralysis Epilepsy. Paresis Exhaustion from Acute Mania.	25 14 8 4	24	27 14 8 8
Thoracic Diseases.  Inflammation of the Lungs Pulmonary Consumption Disease of Heart	2 35 4	22	2 57 4
Abdominal Diseases.  Inflammation of the Kidneys and Bladder Ascites Fever Dysentery Erysipelas Strangulated Hernia Suicide General Debility of Old Age	1 6 3 6 3 1 1 9	3 1 7	1 9 4 13 3 1 1 12
	122	42	164

## No. 10.

Shews the expenditure for the year 1871, and the average annual cost of each patient.

S cts   S ct				
Flour			\$	cts
Food { Groceries.				
Vegetables				
Salaries and wages				
Salaries and wages	Vegetaboles			
Salaries and wages	Guidries	243 /6	15 000	10
Material for clothing       1,184 3         Fuel and lights       8,557 0         Medicines       320 0         Furniture       281 6         Laundry       212 6         Fodder       400 0         Repairs       904 1         Capital account       293 4         Incidentals       547 0         Difference of stock between 31st December, 1870, and 31st December, 1871       \$40,519 7         Total amount charged against 1871       \$40,519 7         Deductions:       \$ cts.         Repairs       904 13         Fodder       400 00         Capital account       293 42         \$ per month each, charged 18 keepers for board       1,728 00	Islamics and wasses			
Fuel and lights       8,557 0         Medicines       320 0         Furniture       281 6         Laundry       212 6         Fodder       400 0         Repairs       904 1         Capital account       293 4         Incidentals       547 0         Difference of stock between 31st December, 1870, and 31st December, 1871       814 2         *40,519 7         Total amount charged against 1871       \$ cts.         Repairs       904 13         Fodder       400 00         Capital account       293 42         \$ per month each, charged 18 keepers for board       1,728 00				
Medicines       320 0         Furniture       281 6         Laundry       212 6         Fodder       400 0         Repairs       904 1         Capital account       293 4         Incidentals       547 0         Difference of stock between 31st December, 1870, and 31st December, 1871       814 2         **A0,519 7         Total amount charged against 1871       \$ cts.         Repairs       904 13         Fodder       400 00         Capital account       293 42         *3 per month each, charged 18 keepers for board       1,728 00				
Furniture 281 6 Laundry 212 6 Fodder 2016 7 Fodder 2017 2018 2018 6 Repairs 2018 1 Capital account 293 4 Incidentals 547 0 Difference of stock between 31st December, 1870, and 31st December, 1871 840,519 7  Total amount charged against 1871 \$40,519 7  Deductions:— \$ cts. Repairs 904 13 Fodder 400 00 Capital account 293 42 \$8 per month each, charged 18 keepers for board 1,728 00				
Laundry				
Fodder				
Repairs       904 1         Capital account       293 4         Incidentals       547 0         Difference of stock between 31st December, 1870, and 31st December, 1871       814 2         \$40,519 7         Total amount charged against 1871       \$ cts.         Repairs       904 13         Fodder       400 00         Capital account       293 42         \$8 per month each, charged 18 keepers for board       1,728 00	Fodder			
Total amount charged against 1871   \$40,519 7   \$40,	Sepairs			
Total amount charged against 1871   \$40,519 7   \$40,	Capital account			
Deductions :   \$ cts.   Repairs   \$ 293 42 \$ \$ per month each, charged 18 keepers for board.   \$ 1,728 00   \$ 1,728 00	ncidentals			
\$40,519 7   \$40,	Difference of stock between 31st December, 1870, and 31st December, 1871		814	20
Total amount charged against 1871	, , , , , , , , , , , , , , , , , , , ,	-		
Deductions:       \$ cts.         Repairs       904 13         Fodder       400 00         Capital account       293 42         \$\$ per month each, charged 18 keepers for board.       1,728 00		1	<b>\$40</b> ,519	78
Repairs       904 13         Fodder       400 00         Capital account       293 42         \$8 per month each, charged 18 keepers for board       1,728 00	Total amount charged against 1871		\$40,519	78
Repairs       904 13         Fodder       400 00         Capital account       293 42         \$3 per month each, charged 18 keepers for board       1,728 00	1			
Repairs       904 13         Fodder       400 00         Capital account       293 42         \$8 per month each, charged 18 keepers for board       1,728 00	Deductions:	\$ cts.		
Capital account         293 42           \$8 per month each, charged 18 keepers for board         1,728 00	Repairs			
Capital account       293 42         \$8 per month each, charged 18 keepers for board       1,728 00         3 325 5       3 325 5		400 00		
\$8 per month each, charged 18 keepers for board	Capital account	293 42		
3 325 5	\$8 per month each, charged 18 keepers for board	728 00		
0,020 0			3,325	55
\$37,194 2		]	\$37,194	23
Average cost for each patient for the year	Average cost for each patient for the year	1	\$109	39

No. 11.

CRIMINAL LUNATICS sent from the Provincial Penitentiary to the Toronto
Asylum previous to opening Rockwood Asylum.

No.	_ Sex.	Crime.	When sent.	Results as far as known.
1 2 3 4 4 5 6 6 7 7 8 9 10 11 12 12 13 14 15 16 17 18 19 20 20 21	J. B. M. J. J. M. C. G. M. W. W. M. J. S. M. R. B. F. G. M. F. J. Y. M. G. F. M. J. A. L. F. J. A. K. M.	Larceny Rape ,, Murder Felony Murder Horse stealing Larceny Murder Obtaining goods falsely. Larceny Forgery	2nd December, 1851.  ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	Pardoned, 12th August, 1853.  Returned to Penitentiary.  "Returned to Penitentiary.

## No. 12.

A TABLE shewing the number of Criminal Lunatics that were received in Rockwood Asylum from the Provincial Penitentiary, from 25th June, 1855, to 31st December, 1871, and how they were disposed of.

Year.	A	dmit	ted.	D	ischa	rg :d.		eturn nitent			Die	d.	R 31st	emai Dec 187	ember,
1855. 1856. 1857. 1858. 1859. 1860. 1861. 1862. 1863. 1864. 1865. 1866. 1867. 1868. 1869. 1870.	1 5 6 10 15 7 7 7 9 10 4 5 6 2 7 9 10	F	T.  9 16 77 11 15 8 77 9 11 4 5 6 2 8 11 11 131	M. 2 3 8 1 3 6 6 2 1 2 1 34	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	T. 2 4 3 3 8 6 6 3 1 2 1	M. 1 1 2 6 3 2 2 5 1 2 2 2 1 1 2 2 2 3 4	F.	T. 1 26 3 22 21 11 22 34	M. 4 1 2 1 1 1 1 1 1 1 1 1 1	1 	1 1 1 1 2 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	M. 2 1 1 2 3 1 1 2 1 3 1 1 2 1 5 7 8 41	F	T. 21 11 22 33 11 21 11 22 15 99

No. 13.

List of Convicts whose Maintenance has been charged to the Province of Ontario, since the expiration of their sentences.

Asylum number.	Sex.	Crime.	Sentence expired.
, 26	Fémale Male , , , , , , , , , , , , , , , , , , ,	Larceny ,,, Arson Larceny Murder Misdemeanor Assault with intent Obstructing railway Arson Larceny Highway robbery Arson Larceny	14th April, 1538. 19th February, 1860. 1st July, 1864. 14th November, 1866. 15th December, 1860. 25th August, 1864. 15th March, 1870. 6th May, 1870. 11th September, 1870. 29th April, 1870. 11th September, 1871. 14th October, 1867.

No. 14.

A RETURN shewing the number of Criminal Lunatics received into Kingston Penitentiary from the Province of Quebec, and thence sent to Rockwood Asylum, whose Maintenance should be charged to the Province of Quebec, since the termination of their respective sentences.

Asylum No.		Expiration of Sentence.	Т	lime charged	l.	Anio	unt due.
144   I 213   H 184   J 224   J 303   J	L. B B. A J. D J. DeL.	26th June, 1860	Years. 11 5 5 1 2	Months. 6 9 0 2 1 8	Days. 5 25 15 5 8 21	Rate. \$143	\$ cts. 1,646 45 832 00 720 85 740 77 158 04 389 53 \$4,487 64

The above rate is a similar amount to that paid by the Ontario Government for their Patients; one hundred and forty-three dollars per annum.

# No. 15. Crimes of which Convict Lunatics had been found guilty.

Arson Attempt to murder Attempt to rape Assault to kill Assault and robbery Burglary Burglary and horse stealing Cattle stealing , wounding Forgery Felony Horse stealing. Highway Robbery Larceny ,, in church	10 3 5 9 1 6 1 2 1 3 4 4 4 1 1 48 2	Murder Manslaughter Misdemeanour Obtaining goods falsely ,,, money falsely Obstructing railways Prison breaking and horse stealing Robbery Rape Receiving stolen goods Robbing and wounding Sheep stealing Stealing a horse and buggy Common assault Total	12 4 1 2 1 2 1 2 10 1 1 1 1 2
---	---	--	--

No. 16.

Convicts who were declared to be Insane in the Provincial Penitentiary, and were thence sent to Rockwood Asylum; giving the yearly population of the Penitentiary, and the per centage of the whole declared to be Insane.

Year.	Population of Penitentiary.	Convicts sent to Rockwood Asylum.	Per centage of Convicts sent to Asylum.	Re-admission to this Asylum.	Convicts who had been in Toronto Asylum.	Known to have been insane previous to conviction.
1855 1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870	707 832 907 1,038 1,039 1,012 1,007 1,070 993 1,005 1,044 1,113 1,129 1,004 909 912	9 1 6 7 11 15 8 7 9 11 4 5 6 2 8 11 11	1,270 0,120 0,661 0,674 1,063 1,443 0,790 0,695 0,841 1,107 0,398 0,479 0,539 0,177 0,796 1,210 1,206	1 1 1 1 1 1 2 1 3	5	1 1 1 1 1 1 1 1 2 5

Total admissions from 1855 to 1871, both years included.  Deduct re-admissions	131
,, oon to be the second of the	32
Convicts who became insane in the Penitentiary	99
Per centage of Convicts who became insane in 15 years and 6 months	0.531

#### No. 17

Shews the per centage of convicts who became insane in the Provincial Penitentiary, from the 1st June, 1835, to the 31st December, 1871. The calculation based on the admissions, and not on the population.

Total number of convicts admitted to the Provincial Penitentiary from 1835 to 1871 inclusive  Deduct the re-commitments for same period	7,850 574
Actual number of convicts to form basis of calculation	7,276
Total number of convict lunatics sent to Rockwood Asylum from Provincial Penitentiary, from 25th June, 1855, to 31st December, 1871	131
Deduct re-admissions to Rockwood Asylum	32
Convict lunatics sent to Toronto Asylum, table No. 11	99 21
Fotal number of convicts who became insane in the Penitentiary	120

It will be seen above that a little over one-and-a-half per cent of all convicts sent to the Penitentiary since it was established, became insane.

No. 18. Officers, Attendants, and others employed.

Yearly.   Monthly.	Position.	Salaries a	nd Wages.	Deductions.
Medical Superintendent         2,000 00         160 00         4 per cent. for Superannuation Fund.           Accountant         875 00         70 00           Steward         500 00         41 66           Store Keeper         500 00         41 66           Chief Engineer         700 00         58 33           2nd Engineer         400 00         33 33           Gardener and Gate Keeper         400 00         33 33           With house free.         Without board.           Cook         360 60         22 00           I Carpenter, doing duty as keeper also         400 00         25 33           1 Porter         400 00         25 33         ","           1 Keeper         400 00         25 33         ","           1 Keepers, at \$360 per year each         5,040 00         308 00         ","         ","           1 Night Watch         320 00         26 66         Without board.         Without board.           Without board         Without board.         ","         ","	LOGICAL	Yearly.	Monthly.	
	Accountant Steward Store Keeper Chief Engineer 2nd Engineer Gardener and Gate Keeper Baker Cook 1 Carpenter, doing duty as keeper also 1 Porter 1 Keeper 14 Keepers, at \$360 per year each 1 Night Watch Matron 2 Laundry Maids, at \$120 each	2,600 00 875 00 500 00 500 00 700 00 400 00 400 00 400 00 400 00 400 00 400 00 5,040 00 320 00 320 00 240 00	160 00 70 00 41 66 41 66 58 33 33 33 33 33 22 00 25 33 25 33 308 00 26 66 25 00 20 00	4 per cent, for Superannuation Fund. With board and lodging. Without board. With house free. Without board. \$8 per month for board. """"""""""""""""""""""""""""""""""""

 Average number of Patients
 Male. 212.99
 Female. 127.46
 Total. 340.45

No. 19.

MALES.—Employment of Patients during the year 1871. Number of days and parts of days' Labour.

l'	ar no	01	cray i	) 11.11°	ıoou	er tome					أستجانه		
Sphere of Occupation.	January.	February.	March.	April.	May.	June,	July.	August,	September.	October.	November.	December.	Total.
Carpenters Engine House Farm Roads—preparing metal for Garden and Manure Heap. Jobbing Stables. Tailors' Shop Shoemakers' Shop Painting Quarry. Kitchen Laundry Masons and Assistants Whitewashers Wood Yard  Total	71 93 14 187 120 120 54 107  108 135  71 1097	722 84 322 1688 1200 1200 48 1366  14  96 1200  222 72 1104	52 108  24 104 130  78	90 200 182 120 120 60 130 24 22  104 125 91	24 18 108 135 135 16 54	100 120 94 60 58 56 25 120 100 135 123	93 246 90 120 120 62 58 54 8 124 108 135 104	90 123 130 60  54 11 116 108 125 116 20 71	90 109 96 100 64 62  54 16 118 108 125 135	93 336  100 62 60  56 10 122 108 135 145	290 140 60 40 56  120 130 74 	130 10 104	1095 2121 1284 1401 1023 701 769 434 165 600 1296 1560 923
	1	\TT	END.	ANTS	S.								
Accompanying labour	90	174	183	282	227	215	228	209	209	216	194	192	2419
FEMALE PATIENTS.													
Laundry Making in Sewing Room Repairing in Sewing Room Total	73 218 151 442	73 218 152 443	74 219 150 443	75 222 152 449	75 218 153 446	74 219 150 443	75 217 148 440	75 218 156 449	74 219 158 451	73 217 140 430	73 218 160 451	75 217 158 450	889 2620 1828 5337

## No. 20. RETURN of Works done in 1871.

Description.	Height.	Lineal.
Carpenters.  Topping stone wall with slat-rail fence Building board fence enclosure Remodelling and repairing sheds. Making 5 large gates Sundries repairs	7.0+	82
Painters.  General worksquare feet		. 33,260
Masons.  Building stone wall enclosure	9. 0	
Quarry.  From under a acre of rocky surface land, making same arable; stone building material Cubic yds.  Levelling and grading yard.  Macadamising Avenues and roads.		

## No. 21. RETURN of Works done in 1871.

Description.	Made.	Repaired.
Tailors' Shop.  Mens' coats, summer tweed.  1 \( \) \( \) winter cloth.  Trowsers, summer tweed.  Do. winter cloth.	82 46	
Vests do. Jackets. Shoemakers' Shop. Canvas shoes pair	50 56 9	47 24
Boots, Goburg	9	100 76

No. 22. FARM and Garden Produce.

Description.		Quant	ities.		Valu	1e.
Potatoes. Parsnips. Tomatoes. Onions. Carrots. Beets. Beets. Beans. Apples. Peas in pod. Cabbage. Lettuce. Currants. Pork fed on Drimises. Live Hogs, Food.	10 ,, 10 ,, 1,500 heads 84 baskets 96 quarts	@ '' '' '' '' '' '' '' '' '' '' '' '' ''		\$0 49 0 50 1 00 1 50 0 40 1 00 0 60 0 20 0 10 0 20 0 07 6 00	332 25 25 27 40 25 30 6 2 150	00 00 00 00 20 00 00 00 80 72 10

No. 23.
WORK performed by Female Patients.

Articles made.	No.	Articles repaired.	No.
Aprons, females.  cooks.  Bedticks Chemise Caps Caps Drawers, pairs Dresses, cotton  stuff. Jackets Night gowns Petticoats Pillow slips Pillow ticks Shirts, white cotton  fronts and collars. Socks, wool, pairs  cotton " Stockings, cotton, pairs Smocks, blouses Towels	51 3 121 78 59 7 92 198 72 6 8 344 2	Bed ticks Bunk ticks Blankets. Counterpanes Drawers, pairs Jackets Pillow ticks , slips. Shirts, flannel , cotton. Socks, pairs Sheets Socks, marked Stockings, footed	167 14 14 53 165 24 88 63 1,098 407 1,788 64 282 87

## ST. JOHN PENITENTIARY.

WARDEN'S REPORT,

January 16th, 1872.

To the Chairman and Directors of Penitentiaries:-

GENTLEMEN,—There was a very small stock of manufactured articles on hand at the close of 1870;—the number of male prisoners then only sixty, soon went down to a daily average of fifty during the year 1871, which closed as it began, with sixty males all told. With this small number of prisoners, not one half the demand for prison wares could be supplied; and, in consequence, importation commenced early in the season and the market was soon overstocked with imported to the exclusion of prison articles, when ready. The sale of brooms particularly, almost ceased for some time, and is still very dull, with a large stock on hand; an article too, that does not improve with age.

Over one half the small daily average of prisoners, given above, were of the vagrant class; a well understood detriment to making the best show of productiveness from the labour of a given number of prisoners so composed. There were 193 commitments, male and female, to the prison in 1871, and 150 of this number are for terms under three months. This should account in some measure for what may appear an insufficient show

of manufactures for the labour spent in their production.

Table No. 8, shows a profit on manufactures of \$6,196 33. This gives over 62½cts. per day for the labour employed thereon. In Table No. 3, the labour charged "maintenance" would, applied to manufacturers, produce the same or a better result per day for the whole number. It is only fair therefore to set down the total earnings by labour, for the year, at \$8,616 59. This is for an average of fifty prisoners per day, for the year, as aforesaid; one half of whom are of the class above described, and certainly not the sort to contribute most towards paying prison expenses. But, the Warden feels confident that he can do better even with these, if allowed the chance in the way he has prescribed.

The general health of the inmates during the year has been very good, there was one death near the close—Patrick Haggerty, between fifty and sixty years of age, admitted on the 26th October, died on the 26th December,—a poor emaciated, sallow, bloodless, inebriate, with heart disease, and with hardly breath enough on admission, it would seem,

to last for twenty four hours.

There was also one escape within the year; with the circumstances of which the Directors are acquainted—Patrick Slavin, on the 18th of September, after nearly fourteen

years imprisonment.

A daring attempt was made by convict James McCarron, on the 1st day of August, and cleverly frustrated by a shot from the nearest guard (Godsoe). The Convict in the act of going over the picket fence received two "buck shots," one in the left arm, the other in the right side of the back. These effectually checked his progress at the time, and remain with him yet; but he is quite well, and neither complains of, nor appears to suffer any inconvenience, from the lodgement, in his person, of these small missives.

There is little to complain of in the conduct of prisoners during the year; and pun-

ishment—anything deserving the name, but rarely inflicted.

Respectfully submitted,

by, Gentlemen, Your obedient servant,

JOHN QUINTON,

T. J. O'Neill Esq.,

Warden.

Table No. 1.
Prisoners, Convict and others, in St. John Penitentiary, on the 1st of January, 1871 Admitted, discharged; and remaining at the close of the year:—
Males, 60 Females, 19
Males, 108
Discharged:—       103         Males, by expiration of sentence       1         ,, Escaped       1         ,, Died       1         Females, by expiration of sentence       93         ————————————————————————————————————
Remaining 31st December, 1871:—       ————————————————————————————————————
Table No. 2.
Daily average of prisoners of all classes:—
Males, 50 Females, 21
Table No. 3.
Employment of male prisoners, all classes during 1871:—
9923 days on Account of Manufactures; 3895 days Maintenance.
Table No. 4.
Convicts,—Sentence two years and upwards, in St. John Penitentiary, 1st January, 1871:—Admitted, and discharged; and remaining at its close:—
Males, 32 Females, 3
Admitted: —       1         Males, 10       Females, 1         11       —         46
Discharged:—       Males, by expiration of sentence       12         ,, Pardon       3         ,, Escape       1
Remaining, 31st December, 1871:—
Table No. 5.
Daily average of Convicts during 1871:—
Males, 24 Females, 3 <sup>3</sup> / <sub>5</sub> 27 <sup>3</sup> / <sub>5</sub>

#### TABLE No. 6.

A NOMINAL list of Convicts in Prison on the 1st of January, 1872; ages, sentence, and expiration of same. In reference to tables No. 4 and 5.

Name.	Age.	Sentence.	Sentence $\epsilon$ pires,
Smith, Sámuel A Hall, Sarah	65 ,,	7 years	With his natural life.  May 16th, 1273. September 27th, 1875. May 27th, 1873. June 26th, 1872.  July 27th, 1873.  "28th, 1872. August 15th, 1872. September 17th, 1872.  "17th, 1872. October 31st, 1882.  "31st, 1882.  "31st, 1882.  "31st, 1882.  April 27th, 1875.  "27th, 1874.  "37th, 1874.  "47th, 1874.  "57th, 1874.  "19th, 1873.  July 18th, 1873.  "19th, 1874.  "21st, 1877. October 30th, 1874.  "21st, 1877. October 30th, 1874.
Cook, Annie	32 ,, 22 ,, 31 ,,	$\begin{bmatrix} 2 & \cdots & \cdots \\ 2 & \cdots & \cdots \\ 2 & \cdots & \cdots \end{bmatrix}$	,, 10th, 1872. ,, 21st, 1872. April 27th, 1873.

 $<sup>\</sup>stackrel{*}{N}$  With this mark are colored persons. N.B.—The two "life" prisoners have been recommended for executive elemency.

#### TABLE No. 7.

Convicts—In reference to Tables 4, 5, and 6—place of birth, religious profession, and education.

### Place of Birth.

England, 1; Ireland, 4; Seotland, 2; Dominion of Canada, 22; United States, 1..... 30

#### Religious Profession.

#### Education

## TABLE No. 8.

STATEMENT of Manufactures, St. John Penitentiary, from 1st January to 31st December, 1871.

	\$	cts.	\$	cts.
Inventory of stock on hand 31st December, 1871, at the Penitentiary and warehouse	13,082		30,537	7 <b>13</b>
Expended for material for manufactures from January 1st to December 31st, 1871  Inventory of stock on hand at the Penitentiary and warehouse, December 31st, 1870  Balance in favor of manufactures, to 31st December, 1871	18,909 5,431	l 73		
	\$30,537	7 13	\$30,537	7 13

Particulars of Expenditure for Manufactures, from January 1st, to December 31st, 1871.

	\$ ct
Lath-yarn	19 0
Tacks and twine	548 7
Paint and cil	1.111 2
Lumber	4,208 1
Broom-corn	
Machinary oil and halting	
Machinery oil and belting Machinery and repairs	174 7
Hardware for manufactures	44 7
Wire and sixets	
Wire and rivets Hoop-iron	503 0
Brimstone	28 6
Proportion of salaries	1.050 0
Fuel—wood, 166 cords	780 2
	\$18,909 0

#### Table No. 9.

Particulars of Inventory.—Stock for manufacturing, and manufactured articles on hand, at the Penitentiary and warehouse, on the 31st December, 1871.

aw material :	\$ c
Lumber—pine and spruce, at cost	2,312
	196
41 cwt., § noop-iron—54.50 19 cwt., ‡ ,, 10 cwt., 1-in. ,, \$4.00	91
10 cwt., 1-in, \$4.00	40
227 lbs. hoop rivets—12½ cts	28
58 m 14-oz tacks—9 ets	5
575 lbs dry white lead—8½ cts.	48
51 galls, paint oil—85 cts.	43
112 calls, varnish—85 cts.	95
46 galls turnentine—90 cts	41
102 lbs. paint drier—10 cts	10
100 lbs, black paint—8 cts	8
117 ths whiting—1 ct.	1
53 lbs   glue16 cts	8
45 gals. machinery oil -50 cts	22
1 ream flint naner—\$5.00	5
55 lbs. lath yarn—16 cts	8
2 sides lacing leather—\$4.00	8
6 lbs Prussian blue (drv)—80 ets	4
400 doz pail bails (made up)	28
400 doz. pail bails (made up) 4½ bales broom-corn (945 lbs.)—5½ cts.	51
300 doz. broom handles18 ets	54
583 lbs. broom-wire—16 cts	93
14 lbs. Hungarian nails—11 cts	1
159 lbs. brimstone—4 cts	$\hat{6}$
978 lbs. twine—27 cts	264
85 tons coal for manufactures—\$5.30	450
Construction of the control of the c	100
99 doz. No. 1 brooms -\$3.50	346
362 , 2 , \$3.25	1,176
4774 " 9 " 99 00	1.422
609 tubs, three sizes	323
6 doz. pails—\$1.90	11
t the warehouse:—	
307 doz. brooms	1,003
130 <sub>3</sub> ,, pails—\$1.90	248
1008 ,, pans—wi .vv	64
123 tubs, five sizes.  Raw material:393 bales broom-corn (82,866 lbs.)5\frac{1}{2} cts	4,557
NAW Material : 350 Daies Droom-corn (02,000 ids.) 03 Cts	
]	\$13,082

## Table No. 10. Monthly sales of manufactures in 1871.

January February March April May June	1,384 55   August 2,085 85   Septemb 3,000 70   October 2,916 90   Novemb	oeroer	1,153 66 425 65 705 20 655 40
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#### PROTESTANT CHAPLAIN'S REPORT.

St. John, New Brunswick, January 20th, 1872.

To the Directors of Penitentiaries.

GENTLEMEN, -Since the date of my last Report, nothing has occurred of such

importance as to need special reference.

I have regularly discharged the duties of my office, conducting Divine Worship every Sunday and Wednesday. The Sunday School has been attended to, and also the Day School. Mr. Patchell has done his work well as teacher, and more interest has been

taken by the pupils than formerly.

I do not know that our plans are susceptible of much improvement. The men have sufficient opportunities of acquiring religous and secular knowledge, suited to their circumstances. And my earnest endeavour is so to appeal to their consciences and hearts as to convince them that sin is foolish as well as criminal; and that obedience to law, divine and human, is the only sure way to happiness and honor.

I think the general tone of feeling and conduct in this Penitentiary is very much

better than it was formerly. There is only one Protestant on the sick list.

I am, gentlemen,

Very respectfully yours,

GEORGE SCHOFIELD, Protestant Chaplain St. John Penitentiary.

#### ROMAN CATHOLIC CHAPLAIN'S REPORT.

St. John, New Brunswick, March 11th, 1872.

To T. J. O'Neill, Esq., Chairman of the Board of Directors.

Sir,—As the law makes it an important part of the duty of Chaplains of Penitentaries to furnish an annual report of the moral and religious condition of the prisoners trusted to their care, I now endeavour to acquit myself of that duty for the year eighteen hundred and seventy-one.

The Roman Catholic Chaplain has, as in the past years, devoted to the Roman Catholic prisoners all the instruction, care and attention which they required; he has had Divine Service in their chapel once every Sunday during the year, and has performed

other religious duties during the week, when necessary.

I may here repeat what I said in last year's report a: regards the pious deportment of the prisoners, at Divine Worship; that I always observed in them a deep respect for religion and reverence for its ministers. To this there is but one exception, the notorious McCarron, who appears to be incorrigible. He, however, should not be called a Roman Catholic, as he sneers and scoffs at all religion, and denies there is a God, or a future state. This desperate character was recommitted to the Penitentiary over a year ago, having been found guilty of robberies and sacrilege. It is not long since he finished his term of ten years in the Penitentiary for manslaughter. He now thinks every hand is against him, and his hand, therefore, is against every man.

The number of Roman Catholic prisoners admitted into the St. John Penitentiary in the year 1871, was one hundred and thirty-eight, seventy males and sixty-eight females. The average number during that year was thirty-three males and twelve females. This number may appear large, but it will be otherwise when it is known that the establishment is at the same time a jail and a penitentiary, and that persons are sent there for the most trevial offences, as well as for henious crimes. Several of the prisoners were very young boys, and for such it was intended to serve as a reformatory. The number of recommitments during the year was fifty-six:—males, twenty-six; females, thirty.

Seventy-six were natives of Ireland, sixty-two were natives of the Dominion of Canada,

One hundred and fifteen were committed for drunkenness, and of these, sixty-six were females, and forty-nine were males. Fifteen for stealing:—males, thirteen; females, two. One for forgery, one for robbery, and two for assault.

Forty-four could read, and twenty-three could read and write. Of those who could read, all knew their prayers, and had a good knowledge of the catechism. The others who could not read, many of them knew some prayers but had little knowledge of the christian doctrine. These unfortunate prisoners generally deplored their loss of liberty and loss of character; yet how strange it is that so many of them so soon relapse into their former disorders, and are recommitted so often. The number of commitments for drunkenness is large, and indeed they generally acknowledge, and that openly, that their other faults have their origin in intemperance.

The books and reading matter are very useful and beneficial, especially on Sundays, when the prisoners have no other occupation. I do not now remember the number of volumes in the collection, but the number is not large, and I would therefore recommend that some more works be added. The prisoners have an hour or more every evening which they might occupy in reading, during the summer months, but in winter, owing to the situation of the lamps being distant from the cells, to many of them reading at night is impossible.

Î have not yet introduced singing at Divine Service in the Penitentiary, for the reason that I think I would not succeed. Bad music or singing is no help to devotion, and when we cannot sing well it it is much better to worship God in silence.

I have the honor to be, Sir,

Your obedient servant,

THOMAS CONNOLLY, Chaplain.

#### SCHOOLMASTER'S REPORT.

St. John Penitentiary, January 20th, 1872.

To the Directors of Penitentiaries.

Gentlemen,—I beg to submit my annual report relating to the educational department of this institution for the year 1871.

The average daily attendance at school is fifteen, and the branches taught were rudimentary—reading, writing, and arithmetic.

Respectfully submitted.

E. M. PATCHELL, Chief Keeper, &c.

#### MATRON'S REPORT.

St. John Penitentiary,
(Female Drpartment,)
January 10th, 1872.

To the Directors, &c., &c.,

Gentlemen,—There was, on the 1st day of January, 1871, in this department, nineteen prisoners, eight of whom were convicts, the rest short time prisoners. During the year, eighty-three were admitted, one only of them a convict. The daily average for the year was about nineteen, and the number at the close of the year fourteen, of which four are convicts. I have had no occasion to punish during the year. Prisoners' conduct generally good

and their industry creditable.

The employment during the year as usual—wool dyeing, spinning yarn, and weaving cloth for prison clothing; knitting and sewing, that is, knitting socks and stockings, and mittens, for prison use, and making and mending prison clothing, doing all the prison washing and cooking, and the female prison house home work.

Female prisoners have their share in the religious instruction provided for the

institution.

Your obedient servant, &c., &c.,

CATHARINE KEEFFE, Matron.

#### SURGEON'S REPORT.

ST. JOHN PENITENTIARY,

31st December, 1871.

Sig.—In presenting the annual report of the sanitary condition of the St. John Penitentiary, for the year ending 31st December, 1871, I am happy to say that the year has been one very favorable to the health of the institution. The year has gone round without either endemic or epidemic disease showing itself, and the general character of disease has been of mild and tractable nature. Fever has been of very favorable type. Had a few days at the end of the year passed by, we should have had a year without a death, but just four days before the end of the year, the old man, Rafferty, who had been ill for years before coming to the Penitentiary, with consumption, died; he had been here over six months, and I told him of his position when he first entered. He never did any work, but behaved well during his imprisonment.

There are remaining five or six cases of consumption of old standing, who will be an expense to the prison. These cases were never fit for hard labor. Four ran away from the asylum, hospital and almshouse; one with limbs frozen: they will be a trouble and a charge where proper hospital ward is wanting. Very few surgical accidents from machinery have occurred. Total number of male cases treated were seventy-four, and females twelve. The prison has been conducted as usual, and I believe the inmates have been treated with kindness by the officers of the place, and I have pleasure in saying that I have always received the ready aid and help of all those on duty in the institution.

I have the honor to be,

Your obedient servant,

Thomas S. Wetmore, M.S.,

Surgeon, St. John Penitentiary,

New Brunswick.

1st January, 1872.

To the Chairman of

Board of Directors of Penitentiaries.

## HALIFAX PENITENTIARY.

#### WARDEN'S REPORT.

HALIFAX PENITENTIARY,

Sir.—In submitting to you my second Annual Report, I am happy to inform you that during the past year the affairs of this prison have progressed in a very favorable manner. The system which I adopted at the outset, of kindness and concilitation has been so productive of good that I am encouraged to proceed in my present course, believing it to be the best, the only true way of reclaiming those upon whom coercion and harshness lad hitherto been tried in vain,—I did not flatter myself that my plan would succeed with all. Even under the most favourable circumstances kindness will be repaid with ingrattude, and leniency abused; but such cases, for the honor of humanity are exceptional, and

10-27

my charge, as a whole, has not been worse than the average, in this respect. Among the prisoners there may be one or two, perhaps, upon whom kindness seem to be thrown away, and any irregularity which has occurred among the others has been clearly traced to their influence. Happily, however, the well-disposed, which embrace nine-tenths of the whole, now understand the evil motives of those who tempted them to an infringement

of discipline only to betray.

During the year there have been one escape and one attempt to break prison. The first mentioned occurred in the person of a recently imprisoned convict who made his escape from the hayfield, but was found, a few hours afterwards by his guard, concealed in the adjacent woods. The attempt to break prison was discovered in time to prevent much mischief, and steps were immediately taken to prevent similar escapades in that direction. The "evil spirit" of the prison was apparent in both the foregoing offences; the delinquents were duly punished by suspension of certain privileges, among the most cherished of which were the loss of cell lamp, and the use of the general library.

Speaking of the Library—it is a source of much rational amusement and instruction, and the few volumes therein have been read and re-read many times over. The books are changed every week, and all who can read, and by good conduct have earned the privilege, gladly avail themselves of it. A fresh supply of books would be very

acceptable indeed, and most gratefully received.

During the year past two convicts and one prisoner have died. The Sanitary condition of the convicts will be shewn by the accompanying Report of the Medical Officer, and their moral and educational progress by the Reports of the Chaplains and Schoolmaster.

The fitting up of the Protestant Chapel and the building of a new wharf are the chief works which have been performed within the past twelve months.

Preparations, on a limited scale, have been made for the manufacture of Corn brooms.

Additional accommodation will be required for this branch of prison industry.

As hitherto, the chief earnings of the institution have been confined to the contract work done in the shoemaking department.

I would beg to call the attention of the Board of Directors to the present unsafe condition of the outer wall of the prison.

I experience great convenience from now having all of the books of the Penitentiary

kept in my office and under my immediate supervision,

I have also pleasure in stating that the officers of the prison, generally, have been

The real analysis in the discharge of their memoration lattice

attentive and regular in the discharge of their respective duties.

Hoping that the above, with the several accompanying Schedules and Reports will be sufficiently comprehensive and satisfactory.

I have the honor to be, Sir,

Your obedient servant, ROBERT DONKIN,

Warden.

T. J. O'Neill, Esq., Chairman of Directors, &c., Ottawa.

Number of Convicts employed in the various Departments, on 30th December, 1871:

Shoemakers, 15; Blacksmiths, 2; Carpenters, 1; Tailors, 3; Masons, 1; Dining,

Kitchen and Washhouse, 7; Farm, Wood-cutting &c., 11; Matron's Department 1:

—Total, 41.

Return shewing number of days' work in the several departments during the year 1871:—
Shoemakers, 5,100; Blacksmiths, 300; Carpenters, 600; Masons, 610; Tailors, 620; Dining hall, Kitchen and Wash-house, 1,975; Farm, Wood-cutting, Oakum-picking and other work, 3,365;—Total 12,670.

Number of days of Remission earned by convicts during 1871 :--

January, 102; February, 91½; March, 99; April, 102; May, 107; June, 105; July, 102; August, 95; September, 95; October, 95; November, 95; December, 99:
—Total 1,187½.

## NUMBER and description of Punishment for 1871.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Admonished Confined to cell Loss of privi-						1	<u>í</u>	• • • • • • • • • • • • • • • • • • •		1		•••••	3 1
leges Dark cells	· · · · · · · · · · · · · · · · · · ·					2	•••••					$-\frac{3}{4}$	$\frac{3}{3}$

MOVEMENT of Prisoners, Halifax Penitentiary, from 1st January till 31st December, 1871.

	Com	Commen prisoners.			Convicts		
	Under 16.	Over 16.	Total.	Under 16.	Over 16,	Total.	Total.
Remaining at midnight, 31st December, 1870, Males Remaining at midnight, 31st December, 1870, Females Admitted from county gaols, Males Court martial, Males Court martial, Males		z			35 6 1	42	46 8 1
Departures.		<u> </u>					64
By expiration of sentence, Male  Death, Male Female  Female  Order of Commanding Officer, Males		1			2	8	••••••
Remaining at midnight, 31st December, 1871, Males Remaining at midnight, 31st December, 1871, Females		7			33 1 ——————————————————————————————————		24 49 1

## Nominal List of Convicts re-committed during 1871.

Name.	No, of Commitments,	Crime.
Thomas Lonergan	Three	Larceny and false pretences

## STATEMENT of Convicts received during 1871.

	Male.	Female.	Total.
Race.			
White	17	1	18
Nationality.			
England . Sootland . Ireland . Wales . Nova Scotia	5 4 3 1 4	1	18
Religion.			
Church of England	8 3 5 1	1	18
Education,			
Could read and write on entering	13 4	. 1	18
Age.			
From 15 to 20	2 6 7 2	1	18
Length of Sentence.			
42 days	1 4 1 3 1 1 4 1 1	1	18
76	•	-	

## STATEMENT of Convicts received during 1871.—Continued.

	Male.	Female.	Total.
Crimes.  Habitual drunkenness	0 1	1	
Trades.			18
Carpenters. Bakers Hammerman Masons. Blacksmiths Laborers.	2 1 2 1 10	1	
Laborers.	10	1	18

## ABSTRACT of Inventory of Halifax Penitentiary, 1871.

	8	cts.
Furniture in Warden's apartments	196	70
Walt Drigon turniture hadding to	1.009	
remate		30
OOK house		86
ring room.		58
Adala Loom	293	
) MCG	270	
Hospital		õò
		80
	147	
Medicines.	100	
Tuel	402	
lacksmith's demostrate		07
Blacksmith's department		55
hoema ban'a		
(appront)	105	
Asson's		16
arm to		50
ichool hooten 37	440	
chool books and apparatus	20	
veneral library Wash-house	<b>3</b> 5	
Wash-house Blocks and tookle winch shein to		00
Blocks and tackle, winch, chain, &c.	49	00
In Store.		
Othing and I the second		
Tovisions 224 53		
undries, including broom corn, handles, leather, findings, tools, &c 1,032 00		
_	\$5,700	
Architect's Estimate	92,562	50
	<b>89</b> 6,263	92

#### PROTESTANT CHAPLAIN'S REPORT.

Halifax Penitentiary, December 30 th, 1871.

To the Chairman of Board of Directors of Asylums, Penitentiaries, &c., &c.

Sir,—The year that has just come to a close, like all preceding ones, has been more or less eventful to all the human family, and has been marked by vicissitudes of a solemn and interesting character. This remark will apply in a limited degree to our affairs at the Penitentiary. Some of the convicts who were under my Pastoral care at the commencement of this year having served out their term of imprisonment have obtained freedom, and others, convicted of crimes against the laws of their country, have come in their place.

It is highly satisfactory to me to state that the prisoners committed to my spiritual instruction conduct themselves in an orderly manner, and pay devout attention to the

ordinances appointed for Divine worship with which they are favored.

Within the last six months two of the prisoners have died, one of them was over sixty years of age, the other was in the prime of life. They were carefully attended to by me in their illness, to the final close, and I performed the funeral service at their interment.

The number of Protestant prisoners is at present twenty seven (27), nineteen (19) of whom are whites and eight (8) colored.

Divine service is conducted every Sabbath morning, and on Wednesday at one p.m. When the prisoners are sick I regularly visit them.

Mr. Cotton, our Schoolmaster, I am happy to say, performs the duties of his office faithfully.

I have the honor to be, Sir,

Your obedient servant,

HENRY POPE,

Chaplain.

T. J. O'Neill, Esq., Chairman of Directors.

#### ROMAN CATHOLIC CHAPLAIN'S REPORT.

Halifax, N. S., January, 22nd, 1872.

To the Chairman of the Board of Directors.

Sir,—I beg to report that the number of Convicts under my charge, 31st December, 1871, is thirteen.

Number	Admitted during the year	6
"	Discharged	6
••	Died	1

It gives me pleasure to state that the conduct of the Convicts has been satisfactory, and that in general, they have shown a disposition to avail themselves of the religious advantages afforded them.

I am, Sir,
Your obedient Servant,
THOMAS J. DALY,
Catholic Chaplain.

#### SCHOOLMASTER'S REPORT.

### HALIFAX PENITENTIARY,

1st January, 1872.

Sir,—In submitting this, my eighth Annual Report, I am happy to inform you that during the past year, the Pupils under my charge generally, have made very considerable

progress. For the most part they have been obedient, orderly and attentive.

Since a daily school has been ordered by Messrs. the Directors, the progress has been proportionately steady and satisfactory. I am also much indebted to the support of the Warden, and the encouragement of the Chaplains for the pleasure which I experience in the performance of my Schoolroom duties.

As a part of my duty as Schoolmaster, I have attended to the issue of books from the General Library. This is done weekly, and since the 1st January, 1871, there have

been 852 issues, which have pretty well ventilated our little stock of books.

There are at present on the School Register:—

White		24
Coloured	0 10tai	
Of these, Can read, write and cipher	10	
" " Can read and write a little	9	
" " Cannot	5—Total	24.

With many thanks for your past kindness and encouragement, which I hope to make myself more worthy of,

I have the honor to be, Sir,

Your obedient Servant.

JNO. F. COTTON,

Schoolmaster.

T. J. O'Neill, Esq., Chairman of Directors.

#### SURGEON'S REPORT.

HALIFAX PENITENTIARY,

December 31st 1871.

To T. J. O'Neill, Esq., Chairman of Board of Directors.

SIR,—In framing my report for the year just closed, I find little of interest to communicate, beyond what was contained in my half-yearly reports, dated March 23rd, 1871,

and September 18th 1871, respectively.

The sanitary condition of the Prison, compares favorably with that of the preceding year; the number requiring prescription in 1870, was two hundred and seventy-eight, while in 1871, the whole number prescribed for was two hundred and forty-four, the number of Hospital cases is rather larger than in last year, being thirteen in 1871, against

The mortality has been greater during the past year, than in any one year since the institution was opened for the reception of prisoners in 1844; three out of the six deaths which have occurred since that time, took place during 1871. No. 784 died of tubercular consumption, in April; No. 625 died of Peritonitis, resulting from impacted gall-stones, in July; and No. 685 died of Cerebral Meningitis, in October. The other Hospital Cases were: No. 663, Hæmoptysis; No. 745, Epileptiform Convulsions; No. 759, Rheumatism; No. 579, Asthma; No. 735, Synovitis of knee joint; No. 728, Cardiac disease; No. 729, Chronic Gastritis; No. 616, old Gunshot wound; No. 725, Ischuria; No. 594, Phlebitis. The other cases requiring prescription, which were treated in their cells, were cases of quinsy, catarrh, rheumatic pains, contusions, cramps, indigestion, cutaneous affections, diarrhosa and dysentery.

79

As regards the hygienic condition of the prison, I have no suggestion to make, except to reiterate the one made in my last annual report, that some better system of ventilation should be introduced into the Shoemakers' shop; I think this will be obvious to the Directors upon personal inspection.

I have much pleasure in bearing testimony to the efficient working of the Institution under the able management of the newly appointed Warden, Mr. Donkin, to whom I am personally indebted for faithfully carrying out my directions as regards the sick.

I have the honor to be, Your obedient Servant, R. S. BLACK, M.D., L.R.C.S.E.

#### MATRON'S REPORT.

Halifax Penitentiary, 1st January, 1872.

SIR,—I am happy to inform you that the affairs in my department of this institution have progressed comfortably during the past year. I have only one prisoner under my charge, she having been committed in June last, and is employed daily in various useful avocations connected with the prison.

I have the honor to be, Sir,
Your obedient Servant,
ELIZA DONKIN,
Matron.

T. J. O'Neill, Esq., Chairman of Directors.

#### SURVEYOR'S REPORT.

## ESTIMATE on Penitentiary for 1871.

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	\$	cts.	\$	ct
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an Walle	166	00	90,000	) 00
ew Walls		00		
athing House		00		
nprovement to Grounds	400	00		
ggery	. 40	00		
äble		00		
ew floor, Broom Factory		5 00		
ew board partition	. 12	2 00	1 000	
Jamen's moofing on Proom Factors	8/	1 00	1,323	, 0
Varren's roofing on Broom Factory		00		
arpenter's shop		00		
ew cover, draw well in yard	20	00		
ire clothes lines	10	00	}	
lastering Broom Factory	35	5 00	j	
himney to do	. 17	7 00	03.0	
lastering Protestant Chapel	26	2 50	614	5 50
ulpit for do		00		
ushions do	- 1	00		
enches do		5 00		
arpet do		3 00		
ew floor do	) 19	9 00		
locks for cells	. 410	00		1 50 ) 00
lastering Catholic Chapel		3 00	1	
ew floor to do		7 00	,	
ew partitions do wo windows and 1 door do		1 50		
ltar, \$30; carpet, \$8		3 00	ì	
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George Blaiklock,
Government Contractor and Surveyor.

Halifax, January 23, 1872.

# RETURN

To an Address of the House of Commons, dated 22nd April, 1872; For copies of all correspondence relative to the appointment of a Commissioner or Commissioners for the Indians in Northumberland, N.B., shewing whether said appointments have been made, the salary attached to such Commission, and the duties imposed on the Officer, and whether anything has been done towards the education or other relief of said Indians, as are there resident.

By command.

JOSEPH HOWE, for Secretary of State,

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 29th April, 1872.

#### LISGAR,—

The Governor General transmits, for the information of the House of Commons, certain correspondence, with the award of the arbitrators, on the claims of the Government of Nova Scotia, in connection with the Provincial Buildings at Halifax.

GOVERNMENT HOUSE.

OTTAWA, 30th April, 1872.

#### FINANCE DEPARTMENT,

OTTAWA, June 22nd, 1872.

Sir,—Your letter of yesterday's date, addressed to the Hon. the Secretary of State for the Provinces, having been transferred to me as Minister of Finance, I have the honour to state that the Canadian Government, in the despatch to which your letter is a reply, desired to carry out the authority given them by the Supply Bill of last Session. Beyond that Act the Government have no power to go, but they are willing that the arbitration shall put the most liberal construction on the language of the Statute. With respect to the stipulation that the Local Government shall retain at a nominal rent the use of the rooms now occupied by the Crown Land Department in the building and as a museum, I have to say that the Government cannot agree to any such stipulation as a necessary preliminary to arbitration; they have no desire to put your Government to any inconvenience, and will agree to allow you to retain the use of the museum and draughting-room during pleasure, but liable to be resumed on six months' notice.

(Signed,)

I have, &c., F. Hincks,

Minister of Finance.

The Hon. W. B. Vail, Ottawa.

> GOVERNMENT HOUSE, HALIFAX, NOVA SCOTIA, July 11th, 1871.

No. 24. With reference to previous correspondence on the same subject, I have the honor to transmit a copy of a Minute of my Executive Council in reply to a letter addressed by the Minister of Finance to the Provincial Secretary, while that gentleman was in Ottawa, relative to the proposed arbitration on the disputed right to the new Provincial Building.

I have the honor to be, Sir, Your obedient servant,

HASTINGS DOYLE.

The Honorable
The Secretary of State
For the Provinces.

Copy of a Minute submitted to the Lieutenant-Governor of Nova Scotia by the Executive Council, dated 10th July, 1871.

The Council have had under consideration the letter of Sir Francis Hincks, addressed to the Provincial Secretary, under date the 22nd June, and are quite prepared, as they had long desired, to have the matter in dispute in relation to the buildings settled by arbitration; but they cannot consent to such submission except upon the express understanding that the money deducted under the name of interest from the subsidy payable to Nova Scotia, shall be paid to the Provincial Government in the event of the award being in favour of the Province.

The Honorable the Finance Minister states, in referring to the resolution, that "beyond that Act the Government have no power to go, but they are willing that the arbitrators should put the most liberal construction on the language of the Statute." The Council are informed that before the vote was taken on the resolution, Sir Francis Hincks stated most explicitly in Parliament that the amount withheld from the subsidy due Nova Scotia should follow the award. When this point is yielded by the Dominion Government as a preliminary to the arbitration, and they further agree to the use by the Provincial Government of the museum, and of the room now used as a draughting-room by the Crown Land Department, the Provincial Government will be prepared to accede to the request of Sir Francis Hincks, in his letter of the 27th April, addressed to His Excellency the Governor-General, approved in Council on the 18th April, 1871, and appoint an arbitrator to act with one to be named by the Dominion Government; and when the umpire has been agreed upon and the three arbitrators have consented to act and to decide within six months of the date of their appointment, the building shall then le made available for the purposes indicated in the resolution.

(Signed,)

WILLIAM ANNAND, W. B. VAIL, HENRY W. SMITH, WILLIAM GARVIE, C. P. FLYNN, JOHN FERGUSON, ROBERT ROBERTSON.

Halifax, 10th July, 1871.

(No. 437.)

Office, Secretary of State for the Provinces, Ottawa, 15th July, 1871.

No. 822. SIR,—I have the honor to acknowledge the receipt of your Despatch, No. 24, of the 11th instant, transmitting, with reference to previous correspondence on the subject, a copy of a Minute of your Executive Council, relative to the proposed arbitration on the disputed right to the new Provincial Building.

I have, &c., (Signed,)

JOSEPH HOWE.

Lieutenant-General,

Sir Hastings Doyle, K.C.M.G., Lieutenant-Governor, Halifax.

On the minute of the Honorable the Executive Council of the Province of Nova Scotia, transmitted in the despatch of His Excellency, Sir Hastings Doyle, dated the 11th instant, the undersigned has the honor to report that it has already been clearly explained to the Government of Nova Scotia that it is not in the power of the Dominion Government to agree to pay to Nova Scotia any sum beyond that voted by Parliament. In

explaining to Mr. Vail as the undersigned did in his letter of the 22nd ultimo, that the Dominion Government was willing that the arbitrators should put the most liberal construction on the language of the statute, the object was to leave the arbitrators as unfettered as possible in their deliberations on all claims in relation to the new Provincial Building submitted by the Government of Nova Scotia, whether covered by the vote of Parliament or not. Should the arbitrators award Nova Scotia any amount beyond the Parliamentary vote, it obviously could only be paid after the sanction of Parliament had been obtained; that with regard to the joint occupation of the building by the two Governments, the Minister of Finance can only express his regret that the proposal made in his letter of the 22nd June, should not be considered satisfactory. It seems impossible that the Dominion Government can give a right of occupation to the Nova Scotian Government to any part of the building; and as no compensation is to be given for the rooms claimed, and as no claim to these rooms was made until recently, the undersigned cannot but regret that such an obstacle should be interposed to a settlement of the question in controversy between the two Governments. The undersigned feels bound to notice the assertion in the Minute of the Executive Council of Nova Scotia that "Sir Francis Hincks stated most explicitly in Parliament that the amount withheld from the subsidy due Nova Scotia should follow the award." The undersigned must express his surprise and regret that the Executive Council of Nova Scotia should have inserted such a statement on no authority beyond "the Council are informed." When the Honorable Mr. Vail, who visited Ottawa with a view to the settlement of the matter in controversy, was aware that he, Sir Francis Hincks, denied the accuracy of the report which Mr. Vail informed him was founded on a telegraphic message from Mr. Jones, the member for Halifax, which message, when produced by Mr. Vail, did not bear out, in the opinion of the undersigned, the construction placed upon it. The undersigned has taken pains to ascertain the opinions of gentlemen on both sides of the House present at the discussion, which have confirmed him in his own opinion that he could not have stated what it is alleged in the Minute of the Executive Council he did state, but he may point out that it is quite unnecessary to enter on a controversial discussion of what he actually did say, as he had no authority whatever to commit the Dominion Government to pay one dollar beyond what was sanctioned by Parliament. The whole is respectfully submitted.

. Hincks,
Minister of Finance.

29th July, 1871.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor-General in Council, 31st July, 1871.

On the Minute of the Honorable the Executive Council of the Province of Nova Scotia, transmitted in the despatch of His Excellency Sir Hastings Doyle, dated the 11th instant, on claims in relation to the new Provincial Building, submitted by the Government of Nova Scotia.

The Honorable the Minister of Finance, to whom said Minute was referred, reports that it had already been clearly explained to the Government of Nova Scotia that it is not in the power of the Dominion Government to agree to pay to Nova Scotia any sum beyond that voted by Parliament. In explaining to Mr. Vail as he, the Minister of Finance did in his letter of the 22nd ult., that the Dominion Government was willing that the arbitrators should put the most liberal construction on the language of the statute, the object was to leave the arbitrators as unfettered as possible in their deliberations on all claims in relation to the new Provincial Building submitted by the Government of Nova Scotia, whether covered by the vote of Parliament or not.

That should the arbitrators award Nova Scotia any amount beyond the Parliamentary vote it obviously could only be paid after the sanction of Parliament had been obtained,—that with regard to the joint occupation of the building by the two Governments the Minister of Finance can only express his regret that the proposal made in his letter of

22nd June should not be considered satisfactory. That it seems impossible that the Dominion Government can give a right of occupation to the Nova Scotia Government to any part of the building, and as no compensation is to be given for the rooms claimed, and as no claim to those rooms was made un il recently, the Minister of Finance stated that he cannot but regret that such an obstacle should be interposed to a settlement of the question in controversy between the two Governments. That he feels bound to notice the assertion in the Minute of the Executive Council of Nova Scotia, that "Sir Francis Hincks stated most explicitly in Parliament that the amount withheld from the subsidy due Nova Scotia should follow the award," that he must express his surpise and regret that the Executive Council of Nova Scotia should have inserted such a statement on no authority beyond "the Council are informed,"-when the Honorable Mr. Vail, who visited Ottawa with a view to the settlement of the matter in controversy was aware that he, Sir Francis Hineks, denied the accuracy of the report which Mr. Vail informed him was founded on a telegraphic message from Mr. Jones, the member for Halifax, which message when produced by Mr. Vail did not bear out, in the opinion of the Minister of Finance, the construction placed upon it. That he, the Minister of Finance had taken pains to ascertain the opinions of gentlemen on both sides of the House present at the discussion, which have confirmed him in his own opinion that he could not have stated what it is alleged in the Minute of the Executive Council he did state, but he adds that he may point out that it is quite unnecessary to enter upon a controversial discussion of what he actually did say, as he had no authority whatever to commit the Dominion Government to pay one dollar beyond what was sanctioned by Parliament.

The Committee concur in the Report of the Minister of Finance, and submit the same for Your Excellency's approval,—and if sanctioned, they suggest that a copy of this Order in Council be transmitted to the Lieutenant-Governor of Nova Scotia.

Certified.

W. H. LEE, Clerk, Privy Council.

(No. 504.)

Office, Secretary of State eor the Provinces, Ottawa, 4th August, 1871.

No. 822. SIR,—Adverting to your Despatch No. 24, of the 11th ult., and to previous correspondence on the subject, I have the honor to transmit to you herewith, for the information of your Government, a copy of an Order of His Excellency the Governor 31st July, 1871. General in Council, on the Minute of Your Executive Council, a copy of which accompanied your despatch, on claims in relation to the New Provincial Building submitted by the Government of Nova Scotia.

I have, &c., (Signed,) JOSEPH HOWE.

Lieut.-General

Sir Hastings Doyle, K.C.M.G., Lieut.-Governor, Halifax.

> GOVERNMENT HOUSE, HALIFAX, NOVA SCOTIA, August 31st, 1871.

No. 32.

SIR,—I have the honor to transmit to you a copy of a minute of my Executive Council, dated 24th August, concerning the New Provincial Building, in reply to the minute of the Privy Council of Canada, which was transmitted to me in your despatch of the 4th instant.

At the request of my Government, I submitted a copy of this Minute to the Finance Minister of Canada, who was at that time staying here. The reply which Sir Francis

Hincks made to that minute will more properly be communicated to His Excellency the B.—24th Aug., Governor General through another channel; yet, in order that this correspondence may be complete, I transmit a copy of it herewith.

To this memorandum my Council made a reply, a copy of which is also enclosed C.—25th Aug., 1871.

D.—30th Aug., 1871.

F. Hincks, on behalf of the Dominion Government, and by the Honorable W. B. Vail, on behalf of that of Nova Scotia, recording the names of the gentleman whom each Government has nominated as arbitrator, and also providing for the appointment of an umpire, should the two arbitrators be unable to agree upon any person for that position.

I have much pleasure in requesting you to submit to His Excellency the Governor General these several documents, which I trust may be considered as finally bringing to a close a controversy which has already been prolonged to an inordinate length, and as providing for the satisfactory adjustment of a difficulty that has for some time caused em-

barrassment to the two Governments interested in this question.

I have the honor to be, Sir,

Your obedient servant.

HASTINGS DOYLE

Copy of a Minute of Council, passed the 24th day of August, 1871.

The Council have had under consideration the Report of a Committee of the Honorable the Privy Council of the Dominion of Canada, dated at Ottawa, the 31st day of July, 1871, in reference to the Minute of this Council, on the subject of the new Provincial Building in Halifax.

In reply to that Report, the Council feel called upon to make the following observations:

The Report does not in itself appear to explain so fully and so clearly as the Council could wish, the precise range of arbitration, especially on financial matters relative to the new Provincial Building, to which the Government at Ottawa assents. It is with a sincere and earnest desire for the speedy settlement of this question that the Council now requests a more explicit statement.

In the Report referred to occurs the following paragraph:—

"In explaining to Mr. Vail, as he, the Minister of Finance did in his letter of the 22nd ult., that the Dominica Government was willing that the arbitrators should put the most liberal construction on the language of the statute, the object was to leave arbitrators as unfettered as possible in their deliberations on all claims in relation to the new Provincial Buildings submitted to the Government of Nova Scotia, whether convened by the vote of Parliament or not."

The Council hope that they are warranted in believing that the Dominion Government are prepared to submit "all claims" financial or otherwise, so entirely and absolutely to the proposed arbitrators that, in the event of an award authorizing the payment to Nova Scotia of a sum larger than the amount mentioned in the Resolution passed by the House of Commons last Session, the Dominion Government will not only accept such award but will also take the necessary steps to make it effectual by obtaining from the Dominion Parliament any such excess over the sum already voted, and making early payment of the same to the Government of Nova Scotia.

If this is clearly understood the Council will feel warranted in expecting with satisfaction the immediate commencement of the arbitration, and speedy disposal of this

question.

As regards the references at the close of the Report to statements alleged to have been made by the Honorable the Provincial Secretary of Nova Scotia while recently at Ottawa, the Council regret that such references are considered desirable, as the Honorable Secretary informs the Council that he certainly did not make such statements, and that

these could only be attributed to him through some unaccountable mistake, for which he is not responsible.

The Council trust that no matters of this kind may be introduced to interfere with an early settlement of the new Provincial Building question, which would be not only just to Nova Scotia, but in any case beneficial to the public interest at large.

Certified.

W. B. VAIL, Clerk of Council.

(Copy—B.)

The undersigned Minister of Finance, having had communication of a Minute of Council, passed on the 24th instant by the Lieutenant-Governor and Executive Council of

Nova Scotia, has the honor to submit the following observations thereon.

The undersigned begs most cordially to respond to the expression in the Minute of a sincere and earnest desire for the speedy settlement of the question in controversy with regard to the new Provincial Building between the Government of the Dominion and the Government of Nova Scotia. He has no hesitation in assuring the Government of Nova Scotia, that, in consenting that all money claims, whether relating to the said Building which have been preferred by the Government of Nova Scotia, including not only the sum named in the resolution of the House of Commons, but also the amount deducted by the Dominion Government from the Nova Scotia subsidy should be referred to arbitration, it was intended by the Dominion Government to give full effect to the award of the arbitrators to whom these claims are to be referred with as little delay as the possible necessity of a reference to Parliament may cause. The undersigned trusts that, if he calls attention to a word in the Minutes which he thinks susceptible of a construction that might lean to misunderstanding, his doing so will be attributed solely to an anxious desire to avoid the possibility of such misunderstanding. The word is "otherwise." As the only claims which the undersigned feels that he has any authority to deal with are "financial," he hopes that such claims alone are contemplated by the Minute of Council as subjects of reference. With regard to the reference to the conversation which took place at Ottawa, between the Honorable Mr. Vane and himself, the undersigned has to express his regret that, through inadvertence, he stated in his report to the Privy Council that Mr. Vail had stated that the telegram,—a copy of which he shewed to the undersigned,—was sent by Mr. Jones, M.P., for Halifax. This the undersigned admits was a mistake. He had a distinct recollection of being shewn the telegram, but it was from others and not from Mr. Vail that he learned that it had been sent by Mr. Jones. The undersigned has no doubt now that this was a mistake, and he therefore regrets that Mr. Jones's name was introduced into the Minute, and more especially that Mr. Vail should have been given as an authority.

The undersigned responds to the desire expressed in the Minute of Council, that no matter of this kind should be allowed to interfere with the early settlement of the

Provincial Building question.

(Signed,)

FRANCIS HINCKS.

HALIFAX,

August 24th, 1871.

(C.)

Copy of a Minute of Council passed the 25th day of August, 1871.

The Council have had under consideration a communication from the Minister of Finance, dated August 24th, on behalf of the Privy Council of the Dominion of Canada, in reference to a Minute of this Council bearing the same date, on the subject of the new Provincial Building controversy between the Dominion and Nova Scotia Governments.

The Council recognizes with satisfaction the complete concession of that comprehensive basis and scope of arbitration which the Government of Nova Scotia have always felt it

their duty to require.

In view of the ready and unqualified assent to the claims of this Government given in the Honorable Finance Minister's communication, the Council feel now that the negotiations on this subject are so far satisfactorily advanced that the appointment of arbitrators between the two Governments comes up for immediate consideration, and the Council therefore trust that they may hear from the Government at Ottawa as soon as possible on this point.

As regards the distinction made in the communication between claims financial "and otherwise," the Council have to state that they do no tmean to embarrass the final settlement of the question by pressing any other claims than those already now included in the

basis of arbitration by mutual consent.

The Council gladly receive the personal explanations of the Honorable Finance Minister, and are gratified at the renewed assurance of a desire to end the new Provincial Building controversy, early, equitably, and on its own merits.

Certified.

W. B. VAIL, Provincial Secretary and Clerk of Council.

(Copy—D.)

Memorandum of a Conference between Sir Francis Hincks, Finance Minister of Canada, representing the Dominion Government, and the Executive Council of Nova Scotia, on the new Provincial Building Question.

It is agreed that the new Provincial Building question be submitted immediately to the following gentlemen as arbitrators:-

John Boyd, Esq., of St. John, N.B., representing the Dominion Government. James Duffees, Esq., Halifax, representing the Government of Nova Scotia.

It is agreed that the preliminary duty of the arbitrators now appointed shall be the choice of an umpire, and the two Governments shall agree to and accept whatever selection these arbitrators shall make.

It is further agreed that in the event of the arbitrators being unable to unite in the selection of an umpire, the two Governments, unless some subsequent agreement is made between them, shall take up the names of John Liversey, Esq., of Londonderry, Nova Scotia, and W. R. T. Clench, Telegraph Superintendent of St. John, and shall choose one of those named by lot, and that the gentleman so selected shall be considered and accepted by the Government as umpire between the arbitrators on this question.

Dated at HALIFAX, N. S., August 30th 1871.

> SIGNED, in duplicate, On behalf of the Government of the Dominion of Canada, (Signed)

F. HINCKS,

W. B. VAIL, Provincial Secretary.

(No. 41.)

GOVERNMENT HOUSE,

HALIFAX, November 13th, 1871. Sir.—I have the honor to state, for the information of His Excellency the Governor General, that the three arbitrators to whom the dispute in reference to the new Provincial Building was, by consent of the Dominion and Provincial Governments referred, met in this city on the 8th, 9th, 10th, and 11th days of this month, and that, having heard arguments and statements on both sides of the question at issue, they on Saturday last, agreed upon an award, of which I now have the honor to enclose a certified copy.

I have, &c.,
(Signed) HASTINGS DOYLE.

The Honorable Secretary of State For the Provinces.

(Copy.)

The arbitrators appointed by the Government of the Dominion at Canada, and the Government of the Province of Nova Scotia, under the terms of agreemeent entered into between Sir Francis Hincks of the one part and Honorable W. B. Vail of the other part, for the purpose of taking into consideration "all money claims whatever relating to the new Provincial Building which have been preferred by the Government of Nova Scotia, including not only the sum named in the Resolution of the House of Commons, but also the amounts deducted by the Dominion Government from the Nova Scotia subsidy."

Having met in the City of Halifax, in the Province of Nova Scotia, on the eighth and three following days of this present month of November, and having heard the very able arguments of Counsel, the Honorable William Garvie, for Nova Scotia, and W. H. Tuck, Esq., for the Dominion, the arbitrators, looking at the wide scope granted them under the above authority from Sir Francis Hincks for and on behalf of the Dominion Government, to take into consideration a large and generous view of the financial position of the new Provincial Building, have preferred to ignore the claim made for sixty six thousand three hundred and eighty-five dollars, and the withheld amount of subsidy, and to base their decision on the claim for joint ownership and occupation of the building as well as for other claims which have been presented, and as it has been clearly shewn that a portion of the building was intended for departments connected with the Local Government, and also a Provincial Museum, &c., they are therefore of opinion that allowance should be made for this portion of the building as though it had been separate and distinct, (in which case it would have been handed over to the Local Government without question), and they therefore adjudge that the Dominion Government do pay to the Local Government the sum of seventy thousand dollars, as the value \$70,000. of such portion of the building, and a further sum of ten thousand dollars \$10,000. for interest on the same to date, and that this be in full of all demands, of the Local Government upon the Dominion Government for the Provincial Building

The arbitrators indulge the hope that the harmony and good feeling which prevailed in all their deliberations may be extended throughout the entire Province, and that the settlement of the dispute will lead to a harmonious working of the Governments, both Local and General.

The fees to follow the award.

Dated in Halifax, Nova Scotia, the 11th day of November, in the year of Our Lord one thousand eight hundred and seventy-one.

(Signed,) JOHN BOYD, For Dominion of Canada. JAMES B. DUFFEES, For Province of Nova Scotia. ...... \$4,000. I fully concur in the above award. WILLIAM HEARD. (Signed,) Umpire. A true copy. (Signed,) W. B. VAIL, Provincial Secretary. 29-2 8

# RETURN

To an Address of the House of Commons, dated 17th April, 1872; For a Return of the Official Report or Reports relative to the death by an accident, on the Government Railway between Windsor and Halifax, of Albert Trider, an employé on the road; especially the proceedings on the Coroner's inquest, and the findings of the Jury; and also a Return of all accidents on the road, and of all damage to person or property by such accidents during the past year, and of the causes of such accidents.

By command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 1st May, 1872.

### **GEOLOGICAL SURVEY OF CANADA.**

ALFRED R. C. SELWYN, F.G.S., DIRECTOR.

# REPORT OF PROGRESS

FOR

1871-72.



### Montreal:

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#### MAPS AND DRAWING OF FURNACE.

A map accompanies the Report of Mr. Richardson, illustrating the distribution of the coal-fields of the east coast of Vancouver Island.

Mr. Vennor's Report also contains a map showing the course of the auriferous zone in Marmora, and a drawing of the Dunstan revolving cylinder furnace.

#### **GEOLOGICAL SURVEY OF CANADA.**

# REPORTS

07

# EXPLORATION AND SURVEYS.

1871-72.

# SUMMARY REPORT

OF

# GEOLOGICAL INVESTIGATIONS,

BT

MR. ALFRED R. C. SELWYN;

ADDRESSED TO

#### THE HONORABLE JOSEPH HOWE, M.P.,

SECRETARY OF STATE FOR THE PROVINCES.

#### Montreal, 20th May, 1872.

SIR,—I have the honor to transmit to you herewith, for the information Reports 1871. of His Excellency the Governor in Council, the undermentioned Reports relating to the investigations made by the Geological Survey during the past year.

- 1. Journal and Report of preliminary Explorations in British Columbia, by Mr. Alfred R. C. Selwyn.
- 2. Report on the Coal-fields of the East Coast of Vancouver Island, with a map of their distribution, by Mr. James Richardson.
- 3. Report of progress in Exploration and Surveys of country between Lake Superior and the Albany River, by Mr. Robert Bell.
- Preliminary Report of Exploration and Surveys in the country between Lake St. John and Lake Mistassini, by Mr. Walter McOuat.
- 5. Progress Report of Exploration and Surveys in the Counties of Leeds, Frontenac and Lanark, in the Province of Ontario, with a plan of the Township of Marmora, showing the position of the worked Gold Mines, and the course of the Auriferous Zone, by Mr. H. G. Vennor.
- Report of progress in Geological Investigations in New Brunswick, by Professor L. W. Bailey.
- Summary of Statistics of Mines and Mineral Produce of the Dominion, prepared from Official Returns and other sources, by Mr. Charles Robb.

Progress of Geo-

GEOLOGICAL EXPLORATIONS.—The general progress of the Geological logical Explora- Survey during the past year has been satisfactory, and besides the investigations and surveys, of which the particulars are given in the above named Reports, exploration has been continued in Nova Scotia by Mr. Scott Barlow.

Survey of Springhill Coal-field.

In my Summary Report dated May, 1871, I stated that the survey of the Springhill Coal-field, Cumberland County, Nova Scotia, commenced by Mr. Scott Barlow on the 6th September, had progressed satisfactorily, and the facts then ascertained were briefly stated.

Last spring, Mr. Barlow was directed to continue this survey, and to extend it as far as possible over the whole space embracing the productive With this view, he directed his operations so as to include the northern outcrop, and to acquire a knowledge of the general structure of the whole field; but having no map on a scale sufficiently large for practical purposes, it was considered essential that the roads, rivers and streams running through the district should be carefully measured, and all the details of the rock exposures faithfully recorded.

He commenced his operations by surveying the roads running south to the Maccan River, then those running in an easterly direction to the postroad between Truro and Amherst; and afterwards followed the post-road in a north-westerly direction, to Styles' mine on the north outcrop, thence in a westerly direction to the Little Forks (now called Athol), and from that to the Scotia mine at Maccan River, on the road to the South Joggins.

He measured in all about eighty miles of roads, rivers, streams and lines Measurements He measured in all about eighty miles of roads, rivers, streams and miles by Mr. S. Bar through the woods, and registered the strike, dip and mineral character of low. Eight miles of the distance mentioned every rock exposure met with. were measured by theodolite and chain, and the remainder by prismatic About one third of the measurements were made in compass and chain. the woods under great difficulties, in consequence of the unevenness of the ground, and a thick growth of underbrush, which necessitated a great deal of chopping. The area included in the measurements may be about sixty square miles.

Pits and bor-

The positions of all pits and borings sunk by parties exploring for coal were accurately determined, the facts disclosed by these carefully recorded, and any plans, sections or documents, with other information that might be of value, were collected and copied: specimens of the rocks and fossils were procured, and these materials are now all in the Geological Survey Office in Montreal. The last month of the season was spent in proving the outcrops of some of the coal seams by borings, and by sinking small pits in positions where the work of the proprietors appeared to be deficient, but where a small outlay of the funds of the Survey seemed likely to determine points of importance. A heavy fall of snow on the 25th

November, interrupted these operations before Mr. Barlow had satisfied himself with regard to several of them.

Of the extent and value of the coal-seams, it would be premature to say Extent and value of the coal-more than is stated in my Summary Report of last year, until more facts seams. are ascertained and put together, and a map is constructed to shew the relation of one part to another. Sir William Logan made a personal visit to the Cumberland coal-field in the middle of July, and informs me that Mr-Barlow was doing his work remarkably well; he considers that the proprietors of the area where the chief explorations of the district were in progress were fortunate in the employment of Mr. John Anderson, an intelligent practical miner, who has gained his experience in Scotland and in Nova Scotia; but that his skill is much interfered with by his destitution of proper instruments. He had been very obliging in giving Mr. Barlow all the information in his power.

In the area above referred to (one of the "Black" areas), under Mr. Anderson's superintendence, what appears to be a valuable group of coal outerop of seams, has been traced on the south outcrop from a slope on the eleven-feet seam (which is one of the group) for about twenty-five chains to the northeastward, where they are interrupted by some irregularity or disturbance. But, in a bearing N. 10°. E. from this point, and at a distance of about twenty-three chains, what is considered by Mr. Anderson to be the eleven-Eleven-feet feet seam of the same group has been met with and traced for about forty. two chains on the strike; when, according to Mr. Anderson's view, there is another turn carrying the seam to the north-westward. In this bearing he has traced the outcrop for about a quarter of a mile. Beyond this, in about the same bearing, at a distance of about fourteen chains, he has met with two seams, but he is undecided whether either of them is the eleven-feet seam.

The position where his work has been suspended is about one and three-quarter miles from the Intercolonial railroad, across the measures; but where the seam would intersect the line of the railroad on the strike, were the search carried further, is a matter of great doubt. Two turns have already occurred in it, and there may be more. The object of the borings object of bormade by Mr. Barlow, which were on two transverse lines, one on each side Mr. Barlow. of the first disturbance mentioned, and about thirty-two chains apart, was to determine whether the seams on the opposite sides of this disturbance were really the same. This he expected to do by probing down to each seam of each group in succession, and thus ascertaining that the thicknesses of the seams and the distances between them were the same in both localities; than which there could be no better proof. He was however not able to complete the necessary work last autumn, but it is proposed to do so this season, and likewise to prosecute the general exploration and survey of this important coal-field.

13

Laurentian limestone bands of the Lièvre, Petite Nation and Rouge Rivers.

Map of the Eastern Townships.

Mr. James Lowe has further advanced the work, which he has been engaged upon for several seasons, of tracing and mapping the distribution of the Laurentian limestone bands on the upper waters of the Lièvre, Petite Nation and Rouge Rivers.

Mr. Robert Barlow has made considerable progress during the year

towards the completion of the map of the Eastern Townships, which is being engraved in London in four sheets, on a scale of four miles to one inch. This map embraces a large region extending on both sides of the St. Lawrence from Montreal to Quebec, and, it is hoped, will be ready for publication Mr. Arthur Webster made measurements last season of nearly seven hundred miles of roads, which were required for the map on the north

Investigations and labours Mr. Billings.

Mr. Billings, in addition to his ordinary labors connected with the arrangement of the collections in the Museum, has been occupied chiefly in the investigation of the fauna of the Lower Potsdam rocks; and also with the fossils of the Guelph formation. Some portion of his time has been devoted to the study of the collections made in British Columbia. Some of the results of his investigations have been published in the Canadian Naturalist, and others will shortly appear.

side of the St. Lawrence between Montreal and Three Rivers.

collections.

On the 22nd of August Mr. Billings left Montreal, accompanied by Mr. Palæontological Weston, and proceeded to Bic for the purpose of collecting fossils. A number of localities between Bic and the Chaudière were examined, and 500 specimens have been secured which are available for the purpose of the Museum and for scientific investigation. Mr. Billings states that a further collection from the Straits of Belle Isle is required for comparison. As the Lower Potsdam group is there exposed on a large scale, and in an undisturbed condition, that locality is the best known for ascertaining the facts required to work out the palæontology of this formation.

> At Hespeler, in the Guelph formation, Mr. Weston, during three visits to the locality, made a valuable collection of 280 specimens, among which is a new genus of great interest, which Mr. Billings has briefly described in the Canadian Naturalist of December last, under the name of Monomerella.

> Another important collection was made for the Survey by Mr. DeCewin the Waterlime formation in the township of Bertie, county of Haldimand. This consists of sixteen specimens of Eurypterus remipes; some of them in a fine state of preservation.

> A collection of 280 specimens of Trenton and Black River fossils from Blue Point, Lake St. John, was made by Mr. McOuat. And about 100 specimens were presented to the Museum by Major Grant, of Hamilton, chiefly from the Clinton group.

Saurian fossil toot-prints.

A very fine series of Saurian fossil foot-prints, from the Carboniferous rocks of Cumberland County, Nova Scotia, was secured for the Geological They have been examined and described Museum by Mr. Scott Barlow.

by Dr. Dawson, who considers them to be of a new species, which he has named Sauropus unguifer. Dr. Dawson's description of these interesting fossils will appear in one of the scientific periodicals.\* Altogether, there have been about 1,200 specimens added to the collection during the year.

A very valuable addition has likewise been made during the past year, through the kind and gratuitous labors of Dr. Dawson, to the palæontological Report by Dr. publications of the Survey; being a Report illustrated with twenty plates, on Dawson. the fossil Land Plants of the Devonian and Upper Silurian formations of Canada.

Dr. T. Sterry Hunt spent a part of last summer with Professor Bailey in Labours of Dr. During the Hunt. further geological examinations in Southern New Brunswick. winter he has attended to the printing of the volume of Reports for 1870-71, just issued, and he has also devoted a part of his time to examining some of the specimens of rocks and minerals collected by the different exploring By far the greater part of his time has, however, been occupied in correspondence and consultation with persons from all parts of the Dominion and elsewhere, who apply to him for information upon all subjects connected with economic geology, mineralogy and mining industry.

This plan of giving gratuitous information and advice personally, to every one who applies for it, at any hour and on any day in the week, though doubtless advantageous to the public, is very unsatisfactory to the officer concerned, who has nothing to shew for his time, thus often uselessly consumed and taken away from what are more properly his official duties as chemist and mineralogist to the Survey.

As a rule all such applications should be made by letter; one day only in the week should be set apart to receive visitors and to attend to personal enquiries, such as cannot well be made or answered in writing, a register being kept of all consultations and enquiries, whether personal or by correspondence, which would be a record of the time which has thus been devoted to the public.

> I have the honor to be, Sir.

> > Your obedient servant, ALFRED R. C. SELWYN.

Geological Magazine for June, 1872, Vol. IX, No. 6.

# JOURNAL AND REPORT

Q.H

### PRELIMINARY EXPLORATIONS

IN

#### BRITISH COLUMBIA,

BY

MR. ALFRED R. C. SELWYN;

ADDRESSED TO

THE HONORABLE JOSEPH HOWE, M.P.,

SECRETARY OF STATE FOR THE PROVINCES.

GEOLOGICAL SURVEY OFFICE,

MONTREAL, May, 1872.

Sir,—I have the honor to submit the accompanying Journal and Reports

Geological Ex. of the preliminary Geological Exploration which I made in British Columbia

ploration in
British Columbia Last summer, assisted by Mr. James Richardson of the Geological Staff, in
bia. Journal
and Reports.

pursuance of the authority conveyed to me by your letter of the 20th

June, 1871, as follows:

OTTAWA, 20th June, 1871.

Sir,—By my letter of the 9th inst. you were authorized to organize and equip a party for the purpose of making a preliminary Geological Exploration this summer in British Columbia, on the understanding that cost of Exploration the said party should not exceed \$6,000 for the year. You were likewise authorized to accompany the party yourself, and you were informed that instructions as to the objects to which your attention should mainly be directed, and as to the portions of British Columbia which it is most desirable you should first examine, would be communicated to you in due course.

I now have the honor to acknowledge the receipt of your letter of the 10th inst. in reply, in which you point out the desirability of the second on the party being a competent geological observer, accustomed to travel in the woods, and, in an emergency, capable of carrying on the exploration, and taking charge of the party.

Having had this, and the other subjects above referred to, under consideration, the following further instructions are now transmitted for your guidance

Instructions.

You are authorized to take with you to British Columbia, as assistant and second on the party, Mr. James Richardson of the Geological Staff. You will vourself return to Montreal at the close of the season, but should you think it desirable that more extended observations should be made, more particularly of the Coal-fields on the coast, than your own time will admit of, you may make arrangements for Mr. Richardson to continue the investigation till the end of the year, or for such period beyond the date of your own departure as you may consider advisable.

As regards the portion of the country which it is most desirable that you country to be should first examine, you must in a great measure be guided by your examined. own judgment, and by information obtained on the spot. But it is of course desirable and important that as much as possible should be ascertained respecting the general geological features and the useful minerals which may be found on and in proximity to the several lines which will be explored by the engineering parties, and on one or other of which the future Pacific railroad will be located.

With a view to secure accurate illustrations of the physical features Photographic ilof the country and of other objects of interest which may be met with lustrations. during the exploration, you are authorized to make arrangements with Mr. Notman, of Montreal, for a photographic artist to accompany the expedition, on the understanding that he is paid and equipped by Mr. Notman; his travelling expenses only being paid by the Government. Of these, one half will, in accordance with your arrangement with the engineer in chief, Mr. Fleming, be made chargeable to the Pacific Railroad Exploration Fund and the other to the appropriation for geological purposes in British Columbia. Considering the lengthened experience both of yourself and of Mr. Richardson in explorations of the kind you are now undertaking, it is not thought necessary to instruct you more particularly as to the various subjects in addition to those appertaining especially to geology, to which your attention should be directed, such as Subjects to the nature of the soil, the vegetation, the quality and kind of timber, the which attention distribution of plants and animals, the character of the climate, &c., &c., on rected. all of which interesting and valuable information may no doubt be gathered.

You will proceed as early as possible, via San Francisco, to Victoria. Route. There you will engage men and secure all necessary supplies and equipment. And you will place yourself in communication with the gentlemen named in the margin,\* who have been instructed by Mr. Fleming to afford you all the assistance and information in their power, with a view to facilitate and promote the special object of your exploration, and fromwhom you will likewise ascertain all particulars respecting the routes on which operations will be conducted.

<sup>\*</sup> Mr. John Trutch; Mr. Walter Moberly; Mr. R. McLennan; Mr. George Watt, Commissary and Paymaster.

Return route

It is presumed that you will return to Canada via San Francisco; but should you think it advisable with a view to scientific objects or from any other cause, that you should cross the Rocky Mountains and return by the valley of the Saskatchewan, you are at liberty to do so. In the event of your returning by the latter route, it is desirable that you should obtain as much information as time and circumstances will permit in reference to the Coal deposits on the Saskatchewan, and also to the Gold-fields supposed to exist on the eastern slope of the Rocky Mountains, and more particularly near the sources of the head waters of the North Saskatchewan.

> I have the honor to be, Sir.

> > Your Obedient Servant,

(Signed)

JOSEPH HOWE,

Secretary of State for the Provinces.

Alfred R. C. Selwyn, Esq., Director Geological Survey, Montreal.

plies and equip-

Our departure from Montreal was unfortunately deferred till too late in the season; and the unexpected delays we were subjected to on the journey to Victoria, with the further unavoidable delay there and at Kamloops, occasioned by the difficulty experienced in procuring men and the necessary Difficulty expe-occasioned by the difficulty experienced in procuring men and the necessary rienced in procuring men, supplies and equipment for the expedition, and likewise in making arrangements for their transport, together with the obstructions subsequently encountered in penetrating the dense and pathless forest and jungle which prevail almost unbroken, except by swamps and rivers, for more than 150 miles on the line of route travelled from Kamloops to the Leather Pass in the Rocky mountains, are causes which, I regret to say, have combined with others to render the result of our exploration less than might reasonably be expected, and than I had myself anticipated. general knowledge, however, which the season's operations have enabled us to acquire of the physical character of the country, the distribution in it of the various formations, the facilities for travel in the several districts, and of other minor matters will prove valuable in prosecuting the more extended and detailed investigations which I hope the Geological Survey will be able to accomplish in future seasons in this interesting though little known Province of the Dominion.

the Geological

The facts which have been ascertained relating to the geological structure and mineral resources of the country, though comparatively few, mineral resour-oss of the coun- and scattered over a region of between five hundred and six hundred miles in length,—therefore necessarily at present disconnected,—are some of them new and exceedingly interesting, and when followed out will, I believe,

throw much light on the age of the crystalline rocks, and on the geological distribution of gold in North-western America, as well as of the productive Coal-fields, and of the many other valuable minerals which are known to be widely distributed throughout the country, but which require to be located, and their actual extent and workable value accurately determined. The Collections of collections which were made during the expedition contain a number of rocks and fossils. interesting specimens of rocks and fossils from the different formations; but for the purpose of study, and for the accurate determination of their relations, larger and more complete collections will be required, some of which we shall be able to secure next season. To the zeal and perseverance, often under the most unfavorable circumstances, of Messrs. Baltzly and Hammond, of Mr. Notman's staff, are due the very beautiful and Photographs. interesting photographic illustrations of the route from Yale to the Leather Pass, a complete set of which, comprising 36 views 8 × 10 and 84 stereoscopic views, is transmitted herewith.

#### Journal of Expedition.

We left Montreal on the afternoon of the 26th June, and reached San Departure from Francisco, without accident or delay, on the 3rd July. From information Montreal. before leaving Canada, we supposed that the steamer for Victoria would not leave San Francisco till the 5th July; on our arrival there we found however, much to our disappointment, that she had sailed a few hours before, and that fourteen or fifteen days would elapse before the departure of the next steamer for Victoria. Under these circumstances, I thought it advisable to proceed by a steamer which would leave on the 6th for Portland in Oregon, whence, I was informed, we would find no difficulty in reaching Victoria, either by steamer direct, or overland, via Olympia, and Puget Sound; the latter route involving a journey of about ninety miles by stage from Monticello on the Cowlitz River to Olympia situated at the head of Puget Sound. We accordingly left San Francisco san Francisco for Portland on the 6th July. On Sunday the 9th we reached Astoria, oregon. at the mouth of the Columbia River, and, on Monday evening the 10th, arrived at Portland, situated on the Willamette River, twelve miles above its junction with the Columbia, and one hundred miles above Astoria. Here we were destined to be again disappointed and delayed. There was no certainty when a steamer would leave for Victoria, and it therefore became necessary to arrange for proceeding via Olympia. The steamer thence to Victoria, calling at the various settlements on Puget Sound, leaves Puget Sound. on Mondays and Thursdays only, at 4 a. m., and as the trip by river steamer from Portland to Monticello, and thence by stage, would occupy the greater part of three days, it was impossible to catch the following Thursday's steamer; we therefore remained at Portland till Thursday,

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and reached Olympia by the route above named on the afternoon of

Selection of route.

Arrival at Vic- Sunday the 10th July; arriving in Victoria per steamer North Pacific toria. on the following Monday at 8 p. m., having been three weeks on the journey from Montreal. The officers mentioned in your letter of instructions, connected with the Pacific Railroad Exploration Survey, who preceded us from Canada, had not left Victoria when we arrived there, and were still occupied perfecting their arrangements, purchasing supplies and hiring men. I immediately placed myself in communication with Mr. Walter Moberly and Mr. McClennan, and having carefully considered the several routes which they informed me were to be examined by the Engineering parties, I deemed it best to select for our operations the one which was to be followed by Mr. McClennan, from Kamloops up the North branch of the Thompson River to Tête Jaune Cache on the upper Fraser, and thence through the Leather Pass to Jasper House; hoping to be able to return by a route which was to be explored and opened from Richfield on the Cariboo gold-field to Tête Jaune Cache, by another of the railroad survey parties under Mr. Mahood. route appeared to offer a much wider and more promising field for geological investigations than that which was to be followed by Mr. Walter Moberly, from Hope on the Fraser via Similkameen, Fort Colville, the Kootenay River and the Columbia to Howse Pass; as well as facilities for returning later in the season, afforded by the waggon-I was further road 378 miles in length from Cariboo to Yale. influenced in making this selection by the fact that a considerable part of Previous Explothe latter route had already been explored by the geologist attached to the British and North American Boundary Commission, as well as by Dr. James Hector, in connection with Capt. Palliser's exploration of the passes

rations.

of the Rocky Mountains, and other portions of the British territory in North-west America, extending over four years, from 1857 to 1860; whereas the geological features on the former had never before been reported on or examined.

Outfit.

As we had brought no camp equipments with us from Canada, everything of this nature had to be purchased before leaving Victoria, as well as the provisions, which would be required from the time we left the waggon-road between Yale and Cariboo, until our return to it at the close of the season-System of tran-Beyond the limits of the waggon-road the system of transport, except upon the lakes, where boats or canoes can sometimes be hired, is almost entirely confined to "packing;" either Indians, mules, or horses being used. As Indian load is about 100 lbs., that of a horse about 250 lbs., and for a mule from 250 lbs. to 400 lbs. Indians are therefore not often employed when the quantity of material exceeds a few hundred pounds, or the road to be Our material amounted to

about 3,600 lbs., and therefore fifteen horses were required to transport it. 20

travelled is passable for horses or mules.

These we were informed we should find no difficulty in purchasing at Kamloops.

Our preparations in Victoria were completed on Monday, 24th July, and the next morning we embarked on board the steamer Enterprise for New Embark for New Westm Westminster, situated at the mouth of the Fraser River, and ninety-five ster. miles from Victoria, and arrived there the same evening at 6 p. m., our party, consisting of Mr. James Richardson of the Geological Staff, Mr. Baltzly, photographic artist, Mr. Hammond, assistant, and James Deans, hired in Victoria as general assistant. Early the following morning we started in the stern-wheel river steamer Lillooet for Yale, ninety miles above New Westminster, and at the head of navigation on the Fraser. For about fifty miles, or to the mouth of Harrison River, there is not much current, but thence to Yale the rise is very rapid, and the current so strong that the steamer frequently could not make more than from three to four miles an hour. At 9 p. m., we reached Hope, twelve miles below Yale. Here the Hope. party under Mr. Walter Moberly, with their supplies, were landed, to commence next morning, by the passage of the Hope Mountain, nearly 6,000 feet above the sea, their journey of 450 miles to Howse Pass, in the Rocky Mountains.

The intricacy of the channel, and the strength of the current made it impossible for the steamer to proceed up the river with safety after dark, and we therefore lay moored to the bank till daylight, when a fresh start was made, and Yale reached at 8 a. m. on Thursday the 27th July. A rale. dense fog had hung upon the hills since daybreak, and, shortly after our arrival, it commenced raining heavily. Towards the afternoon, the weather having partially cleared up, Mr. Baltzly availed himself of the opportunity to secure some photographic views. I spent the greater part of the day in endeavoring to find some means of transport. Barnard's stage-waggons were already all engaged for the conveyance of the supplies for the railroad survey parties, and neither teams nor pack-animals were to be had. I was therefore obliged to be satisfied with a promise from Mr. Barnard to forward our supplies and equipment as soon as he could secure teams. In the meantime, not wishing to remain in Yale, I engaged four Indian packers at one dollar per diem each, to carry the photographic Hire Indian apparatus, a couple of tents, and some blankets and provisions; and at packers. seven a. m., on the 28th July, we started on foot for Lytton, fifty-seven miles above Yale.

For the purpose of fixing our geological observations, Mr. Richardson paced and took compass bearings along the road. At 4 p.m. we reached the suspension bridge, thirteen miles from Yale, by which the waggon-road crosses to the left bank of the Fraser, and here we made our first camp First camp in in British Columbia, on the only level space to be found by the roadside, bis.

about 100 yards from the east end of the bridge. The next morning we

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Roston Bar.

Toward mid-day it became intensely hot, and two of started at seven. our Indians showed signs of distress; they had to halt frequently to rest. and did not make more than two miles an hour. Boston Bar, twenty-six miles from Yale, one of the road-side inns which occur at intervals of seven or eight miles, was reached at one p.m. The thermometer then stood at 80° in the shade and at 105° in the sun. The two Indians were now completely knocked up, and declined to proceed. The chief of the party. however, after a considerable time spent in discussion with his friends, at length informed us that he could procure a horse that would carry the packs, which would enable us to travel faster, and that we were not to pay him more than we had agreed upon at Yale. We gladly consented to this arrangement; the horse, or Indian pony, was brought out, the packs arranged and lashed on a very primitive kind of pack-saddle, and our march resumed. At 7 p.m. we camped at Butchers Flat, thirty-one and a half miles from Yale, on the edge of a dry, stony, gravel terrace, thinly clothed with pine trees, and sloping at an angle of thirty-two degrees down to the swift and turbid waters of the Fraser from about 100 feet above it.

Butchers Flat.

30th July.—To-day being Sunday we did not move camp. In the afternoon I ascended the hills to the east. At 3 p.m. at the camp the barometer registered 29.14 and the thermometer 99° in the shade. At the highest point to which I ascended the barometer reading was 26.87, the horizontal distance, east of the camp, being probably not more than two and On the opposite side of the river the hills rise even more a half miles. abruptly to heights where snow lies in patches, apparently, throughout the year, being probably not less than 7,000 feet above the sea.

31st July.-4 a.m., barometer 29.27, thermometer 67°. Starting at 6.30 a.m. we reached the Mountain House (Boothroyd's) at 8.15., five miles from our camp on Butchers Flat. The road rises rapidly the greater part of the distance, the barometer reading at Boothroyd's being 28.32. Thence to the Forty-two Mile House, six miles further, is a descent nearly equal to the previous rise, the barometer at the latter registering 29.22. Two miles more brought us to the summit Jackass Moun- of Jackass Mountain, barometer 28.64. This is the most elevated part of the road between Yale and Lytton, where we arrived at 6 p.m., tired and foot-sore, having walked 27 miles, over a very rough and dusty road, the temperature throughout the day being between 70° and 90° Fahrenheit.

1st August was passed in fruitless endeavors to hire fresh Indians of other means of transport. None could be procured, and it seemed un-The following certain when we should be able to continue our journey. morning, however, I learnt that one of Barnard's stage-waggons, which had taken up supplies for the railroad survey parties, had arrived at Lytton

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during the night, on its return to Yale. I at once telegraphed a request to Mr. Barnard that he would instruct the driver, instead of continuing his journey to Yale, to take our party on to Cache Creek. This he consented to, and the same evening we reached Spence's Bridge, formerly Cook's Ferry, twenty-three miles from Lytton up the valley of the Thompson, having stopped at some interesting points to take photographs, and to examine the rocks.

The waggon-road between Lytton and Spence's Bridge has been laid waggon-road out in such a manner as to make it apparently unnecessarily hilly and cir-between Lytton and Spence's cuitous. It follows the left bank of the Thompson, in some places at a Bridge. considerable distance removed, and several hundred feet above the water, while in others it is close on the margin of the river, and only a few feet The old trail seems to be more direct, and to offer better gradients, though perhaps involving a greater amount of cutting and grading. This part of the valley is narrow, and very precipitous, especially on the west side, where the rocks rise in almost perpendicular cliffs from the edge of the water to a height of eight hundred or a thousand feet, presenting magnificent sections of the stratification. Approaching Spence's Bridge a marked Spence's Bridge. change occurs in the character of the country. The hills are lower and less precipitous, better grassed, and less thickly timbered. The quality of the soil is greatly improved, and there are considerable areas of cultivable soil. land. Along the valley of the Fraser and the Thompson to Spence's Bridge there is scarcely any land suitable for farms, and that which is capable of cultivation for gardens occurs only in very limited patches, either on the gravel terraces, or on the narrow alluvial flats which occasionally border the river. The largest, if not the only farm under cultivation between the points above named, is that of the Messrs. Boothroyd, at the Mountain House, where there are a few hundred acres of tolerably level land with a light sandy loam soil. From below Hope to Lytton, the character of the val-valley of the ley of the Fraser, and of that of its tributary the Thompson, is little Hope to Lytton. else than a deep gorge or cavity cut obliquely through the eastern flank of the Cascade Mountains, which rise on both sides in precipitous ridges almost from the water's edge to heights of from 2,000 to 7,000 feet. ridges are for the most part pretty thickly clothed with varieties of pine and fir. Except an occasional birch, no hard wood timber trees were obser-timber. Occasionally, for considerable distances, narrow gravel terraces border the river, and, where they occur, the level surface of the terrace has gravel terraces been taken advantage of in constructing the road. From its often passing from the level of one terrace, to that of a higher or lower one, many short steep pitches occur, and as numerous steep transverse gullies and ravines have been scooped in the terraces by the brooks and storm waters from the hills, the curves and windings in the road, to preserve a tolerably level course, are correspondingly numerous, and sometimes occur to such an

China Bluff, below Boston Bar, and at Jackass Mountain, the road has been

extent as nearly to double the direct distances.

In some places, as at

cut for many miles out of the almost perpendicular walls of rock, or carried round them on strongly constructed timber scaffolding, supported ted on the projecting ledges; the river foaming and eddying along in its rocky bed, sometimes as much as 800 feet below. At Spence's Bridge, the Thompson is 213 yards wide, with a powerful and rapid current. The bridge is a not very substantial wooden structure, by which the waggonroad crosses to the west, or right bank, about one mile below the confluence of the Nicola River. The waters of Nicola Lake empty through this stream, and it likewise drains a large section of country, lying to the eastward of Lytton and southward from Kamloops, which is stated to be one of the finest grazing and farming districts in British Columbia. I had not an opportunity of visiting the Nicola valley, but a part of it, where a seam of coal has been discovered, was examined by Mr. Richard-Country of a similar character borders the road for the greater part of the eighty-three miles between Spence's Bridge and Fort Kamloops. The soil is of the richest description, and there are already in this dis-

Nicola River.

Rich soil.

Cache Creek.

some Indian huts. It is situated on the Bonaparte River, about five miles above its junction with the Thompson, which it reaches by an impassable wall-sided canon, cut apparently by its own waters, through the gravel terrace deposits of the main valley. From Cache Creek a branch road has Savona's Ferry, been constructed twenty-three miles to Savona's Ferry, where we arrived on the 5th August. This is the eastern terminus of the waggon-road, and is situated at the out-flow of the Thompson River from Kamloops Lake.

Cache Creek, which we reached on the 3rd August, is thirty-three miles from Spence's Bridge and 110 miles from Yale. The settlement consists of the ordinary road-side inn and store combined, a blacksmith's shop and

trict quite a number of large and well cultivated farms.

A few years ago the Hudson Bay Company built a fine and commodious stern-wheel steamboat at Kamloops, which ran for some time from the terminus of the road above mentioned, through Kamloops Lake and up the South Thompson River, to the eastern end of Great Shushwap Lake, a distance of 115 miles. This vessel is now lying idle opposite the Post at Kamloops, and the only means of transport eastward from Savona's, at present, is either by small open boats and canoes, or by pack-horses on the trails which run up the valley on either side of the lake.

Kamloops.

Kamloops is a few miles up the river, at the east end of the lake, twenty-three miles distant from Savona's Ferry, and opposite the junction of the north and south branches of the Thompson. This was the final starting point for the parties which were to explore the Leather Pass in the Rocky Mountains, and the Eagle Pass through the Gold Range, from Shushwap Lake to the Columbia River. Here the nack trains had to be

Coal.

organized, and the supplies concentrated. I arrived at Kamloops on the Arrival at Kam 6th of August, with Mr. Walter Moberly, having left Savona's Ferry the previous evening in a small canoe with two Indians. August the other members of our party reached Kamloops, but our supplies were still on the road, and did not arrive for several days; while from the difficulties met with in purchasing the required number of packanimals and their equipments, and in hiring men, we were not able to complete our preparations until the 18th of August. On the 19th we commenced our journey to the Rocky Mountains.

During our stay at Kamloops, from the 9th to the 18th of August, the greater part of my own time was occupied in attending to the preparations above referred to. A few geological observations were, however, made in the neighborhood, both by Mr. Richardson and myself, and Mr. Baltzly secured a number of excellent and characteristic photographs of the scenery.

With a view to secure information over as large an extent of the coun-Plan of Explotry as possible, in the short time at our disposal, I considered it advisable to separate from Mr. Richardson at Kamloops, and while I turned my attention to the valley of the North Thompson and the Leather Pass, that he should make independent explorations, first of a part of the South Thompson Valley, and afterwards along the line of the waggon-road from Cache Creek to Cariboo, and, later in the season, devote whatever time remained at his disposal to investigations in the coal-fields of Vancouver Island.

Leaving Kamloops, as above stated, on the 19th August, the Geological Departure from Survey party consisted of eight persons, with fifteen horses carrying camp Kamloops, equipments, photographic instruments and material, and provisions for rather more than two months, together amounting to about 3,600 lbs.

The second division of the Railroad Survey parties had preceded us by a few days with a strong party of axe-men to clear the trail, and we therefore anticipated but little difficulty, and expected to be able to travel at an average speed of from eight to ten miles a day.

The valley of the North Thompson for seventy-five miles above Kam-Valley of the North Thompson for seventy-five miles above Kam-Valley of the loops, or to Clearwater, though rarely reaching a width of two miles between son to Clearwathe base of the hills on either side, and probably not averaging more than one mile, nevertheless presents some considerable areas of fine farming land, on flats, either quite open, or lightly timbered with pine and fir, and elevated above the river from five to thirty or forty feet. The finest and most Good farming extensive of these, nearly a mile in width, is between fifty and fifty-seven miles above Kamloops, at and below the Red Pine Indian Reserve. this area, and generally on these flats, the grass is most luxuriant, and in many parts would cut at the rate of from one to two tons of hay to the acre. The last farm up the valley is only fifteen miles above Kamloops, beyond which there are no white settlers.

Camp at The Little Fort.

On Thursday, 24th August, we camped on a fine flat above The Little Fort, an old and now deserted Hudson Bay Company's trading post, fiftyfive miles above Kamloops. At the head of this flat, the first considerable stream from the west joins the North Thompson, issuing from a wide valley trending to the north-west, and which at first appears to be the main valley.

Pass to Lake La It affords a pass from the valley of the Thompson to Lake La Hache The Thompson makes on the waggon-road, about fifty-five miles distant. here a sharp short bend to the eastward, and passes in its upward course round the foot of a rocky bluff rising into a high conical shaped hill, which, seen from the south, appears almost to block up the valley; the hills on the east side also closing in upon the river, form a canon

Passage of Assi-or gorge for nearly five miles, terminated by the Assiniboine Bluff niboine Bluff. described in The North-west Passage by Land (Milton and Cheadle) p. 310, and which here completely bars the further passage along the The railroad party had cleared and graded a zig-zag trail up this bluff, so steep and narrow, however, that the horses, even when relieved of their loads, traversed it with considerable difficulty and The rise being, according to barometric observation, about 490 feet in 550 yards. Fortunately, some Indians, who were living on the flat where we camped the previous night, brought their canoes up the river to our aid, and transported our baggage round the base of the bluff, a distance of not more than four hundred yards. Having thus surmounted this obstruction without accident, we proceeded on our way, and at 6 p.m. camped about four miles higher up, on a small low flat on the edge of the river, covered with coarse grass, bushes and burnt timber, and which appeared to have been flooded quite recently. A thunder storm had been approaching for some hours, and before we got our tents pitched heavy rain commenced falling; the barometer registering at 9 p.m., 28.63.

26th August.—Started at 6 a. m., closely following the bank of the river, the grass and bushes very wet from the rain which fell last night. Overtake pack. Thursday evening we overtook one of the pack-trains which had started from Kamloops several days in advance, and this morning, at three and a half miles from our camp we passed another, already ten or eleven days on Here the hills again closed on the river, and the trail became very bad, continuing so for the next eight miles. Steep pitches, rocky sidings, thick timber and boggy springs, and the path so narrow that the horses could not pass one another. At four p. m., eleven miles from our last night's camp, the three pack-trains, numbering some fifty or sixty animals, arrived at a spot where the precipitous character of the hills on the east bank, rising almost perpendicularly from the edge of the water, made it necessary to cross to the opposite side. At this point, one mile above the junction of Clearwater, the North Thompson is nearly three hundred yards wide, with a deep channel, and a powerful, rapid current. And now a busy

and exciting scene commenced. One by one the animals were led forward Crossing of the to a small space which had been cleared on the brink of the river, and some into a small boat which had been sent up the river from Kamloops, and some into Indian canoes, and ferried, load after load, to the opposite shore. This work finished, the animals in three separate bands, with their respective bell-horses leading, were, after much yelling, pelting and vociferating by the packers and their Indian assistants, forced into the water, and at once struck out for the opposite bank. Some of them, apparently accustomed to the work, made a straight course, while others abandoned themselves to the current and were carried a long distance down the stream, narrowly escaping a watery grave. By dusk, animals and cargo were all safely landed, and our tents pitched about one hundred feet above the water on a narrow gravel and sand terrace, up the steep face of which a zig-zag path had been graded only a few hours before our arrival.

Sunday, 27th August.—We did not move camp. Towards dusk rain commenced falling, and continued during the night.

Monday, 28th August.—To-day we travelled only six miles and a half, and camped at mid-day on the left bank of Raft River, about one mile Raft River. above its confluence with the Thompson, on a well grassed flat, pretty thickly covered with willow and alder bushes. Raft River is a fine clear stream, from two to three feet deep, and about 150 yards wide; at about a mile above our camp it issues from a rocky gorge, making several picturesque cascades in its course towards the flat. The advance party under Mr. Cascades. McClennan had left this camp in the morning. In the afternoon I rode ahead and overtook them at thirteen miles, within two miles of where the river resumes its north and south course. From Clearwater upwards, the general course of the river, for rather more than twenty miles, is a few degrees to the south of east. I returned to our camp at Raft River the same night, and on the following day, 29th August, we camped on the ground where I had left the advance party the previous evening.

30th August.—A little rain fell during the night, and at daybreak the hills were hidden in fog. Five of our horses were missing this morning. Horses missing. After hunting for them for sometime through the wet scrub, I found four, and drove them into camp; leaving the men to find the one still missing, I went on to examine the trail, and, at nine and a half miles, overtook Mr. McClennan and the clearing party, grading and clearing the path up a overtake elear-steep gravel bench. In the last nine and a half miles a great deal of similar work had been done, and a large amount of clearing of logs and brush had been necessary to make the road passable for the pack-trains.

As far as our camp of the 29th August, the country had been tolerably slow progress. open, and our progress satisfactory, but thenceforward obstructions and difficulties of all kinds increased rapidly. Including two Sundays, on which

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the geological party did not move camp, we had been twelve days on the road from Kamloops, and had travelled ninety-five miles. To day we made nine and three-quarter miles, and camped on a gravel bench on the margin of the river, about one hundred feet above the water, and about threequarters of a mile below the junction of Mad River; barometric observations making the height here about 1,550 feet above the sea.

Mad River.

31st August.—Started early, and after crossing Mad River, about five chains above its confluence with the Thompson, soon overtook the railroad party, all hands hard at work, clearing the track and grading the steep banks which had to be traversed. At about five miles and three-quarters above Mad River, after having crossed several small creeks, we came to a small stream, on the other side of which the obscure path we had been following through the forest apparently ended, or was lost in an open grassy flat, which our Indian guide told us was known as "The Little The Little Pad-Paddock " and that on it was the last good feed for many miles up the

valley. Having spent nearly an hour here, in searching in every direction for the blazed trees marking the continuation of the trail, we at length found them in the thick forest on the hill, on the far side of the flat. We then proceeded, clearing the road for a little less than two miles further, when we struck another strong shallow brook from the left. Beyond this Thick forest and the forest became so thick, and was so encumbered with fallen timber, that

fallen timber.

the task of cutting a road through it in any reasonable time seemed almost Our Indian guide now informed us that there was a good trail over the mountains, starting from the right bank of Mad River, always used by the Indians when travelling with horses to Jasper House, in order to avoid the rocks and canons which he said were now immediately in front of us, and extended up the river for not less than twenty miles, and which it would be impossible for us to pass without crossing and re-crossing the river, at least three times; this it was impossible to do without cances, and we therefore decided to retrace our steps to Mad River. Having come to

Decide to re-

trace our steps this decision, we returned to the "Little Paddock" and encamped. flat here is about 300 yards wide, and extends up the creek on a bearing N. 56° W. for a considerable distance. It is pretty thickly covered with bushes and clumps of willow, alder, hazel and elder, with a few scattered poplar and pine trees. The soil is a rich, dark, sandy loam, and is well covered with grass between the bushes. The course up the main valley is N. 71° E. magnetic.

Tuesday, 1st September. -5.30 a.m., barometer 28.10. Started at Commence the seven a.m., and at 10 a.m. re-crossed Mad River, and commenced the ascent of the mountains. The only evidence of any trail or path except that which we made ourselves, was an occasional blazed tree: the ascent was very steep, the forest thick and as much as ever encumbered with fallen timber. At one and one-half miles up, the barometer reading

was 26.87, indicating a rise in that distance of about 1,150 feet. As there was a small spring and fair picking for the horses, we encamped here, the axe-men continuing to clear the trail ahead.

Saturday, 2nd September.—Started at 8 a.m., and paced 3,200 yards up trail, taking bearings; passed the clearing party, and went ahead with McClennan for about two and a half miles, blazing the trail to guide the axe-men. Found the country getting worse, much clearing required, and Difficult counciten very boggy. The men had opened the trail for about three and a half miles from camp. Decided on working to-morrow to try and cut through to the good grass which was said to be ahead, and which the animals, already beginning to show the effects of hard work and bad feed, Animals beginning to show the effects of hard work and bad feed, and bad and badly grassed country we were now in, and of the snow coming before feed.

all the supplies could be brought over this mountain road, made it absolutely necessary that no time should be lost. The barometer reading this evening at 3,200 yards up the trail was 25.72, and at camp below at 9 p.m., 26.80, indicating a rise of about 1,000 feet.

Sunday, 3rd September.—6 A.M., barometer 26.93. At 7.30 I went ahead with the axe party, leaving instructions for our camp to follow on Monday morning. At five miles and 380 yards we emerged from the forest into a small alpine prairie, and camped at 3.30 p.m., beside a clear mountain brook, which we had crossed lower down and followed up for about 1,000 yards; barometer 24.17, shewing a rise from camp of about 2,610 feet. At 4 p.m., commenced raining and rained all night.

4th September.—6 a.m., Barometer 24.05. Cold and foggy. I went ahead two miles with the axe party, clearing and marking the trail, then returned to last night's camp of second party, and paced forward two and three-quarter miles. Our train arrived at 4 o'clock. Several small mountain lakes were passed to day, and a large glacier was seen in the mountains to Glacier. the east, on the other side of the Thompson valley; 9 p.m., barometer 23.75.

Tuesday, 5th September.—Started early, and at five hundred yards forward reached the water-shed to the north; barometer 23.72, indicating Height of land the highest elevation yet reached. Till about mid-day we travelled in reached. a nearly north course over swampy and moss-covered meadows, along a rather flat water-shed crossing the heads of the eastern waters. We then turned more easterly, and descended a steep, thickly wooded hill, full of swampy measurings, which made the ground even more soft and boggy than it was in the meadows on the summit. At about four miles and three-quarters from our camp we overtook the clearing party, and owing to the numerous soft places, which had to be logged or covered with branches before the pack animals could cross them with safety, only about three and one-half miles of trail were cleared to-day, and this evening we were all camped within half a mile of each other.

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A. 1872

The following morning, Wednesday, the 6th September, I went ahead for about two miles through rather thick forest, when the country again opened into long meadows, bordered and separated from each other by woods and narrow belts of timber. An old Indian winter-camp was passed here, the trees around it all chopped off at about eight to nine feet from the ground, indicating the depth of snow. The branches of the trees are very short and much bent downwards, the tops often little better than The grass on the meadows, which all partake more or less of bare poles. the character of swamps, was already brown from the effects of frost, and afforded poor nourishment for the horses, after working hard throughout the day. The nights are cold and generally frosty. To-day we travelled five miles, and camped about 4 p. m. on the border of a stream, running partly from a chain of small lakes, and partly from the low wooded hills and swamps to the westward. This, we imagined, was the source of Source of Mad Mad River. 9 p.m., barometer 24.06. (See photograph No. 69,964).

Thursday, 7th September.—A sharp frost last night; ice on the pools, and the grass all frozen stiff. 7 a.m., barometer 24.17. missing, having straved into the woods where the frost is less severe than on the open meadows. Crossing the stream, a short distance above our camp, our course was nearly north magnetic, along the east side of two lakes emptying into it, the first nine hundred yards, and the second one thousand and fifty yards in length, with an interval of five hundred and seventy yards, the average breadth being less than one-quarter of a mile, Seven hundred and eighty yards further a flat water-shed was reached, (barometer 24.07,) falling towards another small lake, 1,050 yards beyond which, on a small brook, was the last night's camp of the clearing party. At 9 a.m., barometer 24.27. Following down the right bank of this brook, we came, at 900 yards, to a fine grassy meadow, trending E. 20° N. and W. 20° S., four hundred yards wide, sloping rather steeply from both sides down to a strong stream running through the centre of the meadow, on a course W. 25° S., and which we thought, from its course, must be

Source of Rart one of the main sources of Raft River. We travelled nearly five miles further on a general northerly course, passing over undulating forest country, with occasional rocky ridges interspersed with small swampy meadows. At about one and a half miles beyond the Raft River meadow, we passed a height of land, barometer 23.91, being a rise of more than two hundred feet from our last night's camp. Thence there was a gradual, though not constant, descent to our camp, nearly three miles and a half This evening the railroad and geological parties, and the three pack-trains, are all camped together in rather thick forest, as usual inter spersed with open swampy meadows.

Friday, 8th September. -- Barometer at camp 8 a.m., 25.06; cold and clear-Sharp frost last night, and the horses all looked very miserable. The axe-party

Sharp frost.

started early, clearing the trail on a north-north-westerly course. I followed at ten a.m., pacing and taking bearings. At 2,400 yards crossed a strong brook in a deep, narrow gulley, falling to the N. E.; barometer in the bed 24.77, and on the bank 24.73. A steep, thickly-timbered range was now in front, and the trail was taken up it, the hill rising on the right involving a course, as I thought, too much to the westward. In a distance of 2,700 yards we had ascended more than seven hundred feet, the barometer registering 23.93, and at 800 yards further we found ourselves on open, open grassy grassy hills, barometer 23.80, overlooking a large, deep valley to the north, while beyond were steep rocky ranges of snow-clad mountains. We were now nearly 1,000 feet above our camp of last night, and not less than 5,700 feet above sea level. The valley in front of us we supposed to be that of Blue River, the first large tributary of the Thompson, above the canons of Murchison's Rapids, to avoid which we had come over the mountains. As we had to cross Blue River at its junction with the Thompson, it was now necessary to seek the shortest and best route to that point. We accordingly turned east, descending about 150 feet on to a flat swampy saddle, from which the water ran north down a narrow gulley towards Blue Valley of Blue River valley, and on the other side into a small lake, and thence southerly River. towards a stream which we had crossed this morning. As there was no certainty of finding good feed further on, we considered it advisable to make our camp here. The clearing party, however, went ahead to clear the trail down the gulley above mentioned, returning to this camp in the evening. None of the pack-trains had yet arrived, and while looking round to find a dry camping ground, I discovered marks which had been put up Find marks by an Indian hunter who had passed us several days before, and had pro-rection of the mised our guide that he would blaze some trees and put up marks at this trail. Point, to indicate the direction we ought to follow. From these it appeared that our course lay altogether to the eastward of that taken down the gulley by the clearing party. Ascending a small hill about three-quarters of a mile north-east of the camp, we obtained a magnificent view of the surround- Fine view. ing country from north-east to north, north-west and west. In the latter direction, at about fifteen miles distant, a large sized lake was observed, lying apparently towards the head of the valley, which we supposed to be Large lake. that of Blue River. The apparent distance and the direction of the lake would, however, place it very close to the valley of Clearwater River, into which it may perhaps discharge. The beautiful views of the Selkirk Moun-views of the tains, though they fail to do justice to the reality, still afford a good idea tains. of the grandly picturesque character of the scenery, and the rugged outline of the ice and snow-covered peaks, as seen from this point. 9th September.—Barometer at camp, 6 a.m., 23.99. This morning the clearing party started in the direction indicated by the marks found last even-

ing, the course lying about N.E. magnetic. After crossing the heads of sev-

Descent to the Valley of the Thompson. eral small brooks, all running to the left, through grassy and boggy gullies, we soon entered the thick forest, the trail falling rapidly towards the valley of the Thompson. The scrub and the fallen timber were so thick, and the descent in places so steep, that after working hard all day, we only cleared 9,400 yards. We were now in a thick forest of large timber, hemlock, spruce, fir and cedar; no grass anywhere, the ground thickly covered with moss. The clearing party camped here, and some of the cargo was also brought on and deposited. I returned up the mountain, and the animals were all sent back for feed, as there was not a blade of grass in the forest below. On this account I sent back instructions in the morning for our party not to move. At the camp of the clearing party, the barometer stood at 26.27, and at our camp, at 9 p.m., 24.35; indicating a difference of about 1,900 feet in a distance by the trail of 6,400 yards, and nearly half of this fall was in the last 1,400 yards, the barometer rising in that distance from 25.03 to 26.02.

Frosty weather.

Sunday, 10th September, 6 a.m.—Barometer 24.35. A sharp white frost last night. Fine bright day, cloudless sky. Did not move camp; the animals are enjoying themselves in the good feed and bright sunshine. We are now 143½ miles from Kamloops, and have been twenty-two days on the road, thus averaging only six and a half miles a day throughout, and since commencing the traverse of the mountain only three and five-eighths miles per day.

11th September.—6:30 a.m., barometer 24.32. Fine clear frosty morning; started at 8 a.m., with two men to repair bad places on the trail down the mountain. At noon reached camp of clearing party; sent the men back, and went on till I overtook the axe party. Trail bearing too much to the eastward. At 3,774 yards crossed a small creek running eastward in a flat-bottomed gulley, with steep banks of reddish sand. A short distance beyond this we came to the edge of another flat-bottomed gulley, too wide to be bridged, and too boggy for the horses to traverse. As it was late in the day, we returned to the small creek we had just crossed and camped. 9. p.m., barometer 27.32; probably about 2,400 feet above the sea, and about 2,700 feet below our last camp.

Swampy ground. 12th September.—6 a.m., barometer 27.47. At 8.30 a.m. started to look for the best course to avoid the swampy ground which stopped our progress last evening. In about half a mile came upon a small creek, at its junction with the Thompson, with soft muddy banks, but with very little water. This creek issues from large swampy meadows, covered with coarse long grass, and bordered by thick willow scrub. These meadows extend a considerable distance up the valley, and the latter apparently branches in several directions, and must receive the waters of a number of the small brooks which we crossed yesterday on the descent from the mountain, much of their water being absorbed in the swampy flats. In order to get

the pack-trains safely over this creek, a substantial bridge had to be erect-Wild-goose Creek camp. ed. This work, and clearing the trail to a suitable camping ground, about one-quarter of a mile beyond the bridge, occupied the whole afternoon. At dusk all the pack-trains arrived and camped. We named this Wild-goose Creek camp, from the circumstance of a number of wild-geese frequenting the swampy meadows above mentioned. 9 p.m. barometer 27.46, about ten feet above the river.

13th September.—The whole party occupied to-day clearing and grading the trail, partly through thick forest encumbered with huge fallen trees and dense under-growth, or along steep hill sides, on which the old forest had been burnt, and was replaced by a growth of sapling spruce, pine and cotton-wood from five to twenty feet high, so thick as to form, in some places, an almost impenetrable wall on either side of the narrow path which we cleared through it. At 4,125 yards from Wild-goose Creek camp, we came to the base of a steep rocky hill, descending abruptly to the water's edge, and extending for 474 yards to the crossing of Blue river, about 130 yards above its confluence with the Thompson.

Thursday 14th September. - 6 a.m., barometer at Wild-goose Creek Blue River bluff. camp 27.52; heavy rain. All hands at work to-day clearing and grading the trail round Blue River bluff.

15th September.—Trail round bluff finished, and cleared 3,078 yards beyond Blue River. Heavy rain in the afternoon; very wet in the scrub. Did not return to our camp on Wild-goose Creek this evening.

16th Saturday.—Cleared 3,490 yards, crossing two small creeks, both of which had to be bridged, and passed a large tributary coming in on the Opposite side from the east, and which, from the turbid character of its water, we named Muddy River. Heavy rain fell this evening, lasting from four to eight p.m., and making everything wet and uncomfortable. I had not moved our camp from Wild-goose creek, as there was better feed there for the horses than any we had met with beyond. 9 p.m., barometer at camp 27.32.

17th, Sunday.—Did not move camp. 6 a.m., barometer 27.50; 2 p.m. <sup>27.52</sup>; 9 p.m. 27.57.

18th, Monday.—6 a.m., barometer 27.61. At 9 a.m. left Wild-goose creek, where our camp had been stationed since Tuesday 12th, and travelled a little more than four and one-quarter miles to the camping ground, from which the clearing party had started this morning. This camp is due west, magnetic, from the valley from which issues Muddy River. Our progress Unsatisfactory during the past week has been most unsatisfactory, it having taken five progress. days to make only four and a quarter miles of trail, the whole of it being through dense forests, alternating with boggy creeks and steep sideling hills. The country becomes more difficult as we proceed, and there is now no chance of our being able to reach Jasper House this season. We have Short rations. only six weeks provisions left, on a much reduced scale.

Sunday, 24th September.—Canoe camp, 6 a.m., barometer 26.64; cold

Autumnal rains. miles.

Snow on the hills.

and clear. During the past week we have only made seven and a half miles. The autumnal rains seem to have set in, and the leaves are falling rapidly. Wednesday, Thursday and Friday, it rained almost incessantly, and snowed on the hills; every one wet and uncomfortable, and the animals suffering severely from cold, wet nights and want of food. Barometer 9 p. m., 27.52. The snow on the hills has melted a good deal to-day, and there has been a light breeze from the north. The absence of wind along the valley, even enough to shake the wet off the bushes and trees, is

very remarkable. Indeed, since leaving Kamloops, we have experienced

nothing approaching a breeze, either in the valley or crossing the mountain.

Absence of wind.

25th September.—6 a. m., barometer 27.51. Started at 8.45 a. m.; at 10.30 it commenced raining and rained incessantly to 9 p.m. Moved camp to-day to end of trail, 12,030 yards, a little more than six and three-quarter miles. This camp is about one-quarter of a mile from the river, and from fifty to sixty feet above it. At 7,593 yards above Canoe camp, we crossed a river from the left, which, when full, must be a powerful torrent. It has several channels and a wide stony bed. Now the water is only about twenty feet wide and eighteen inches deep. Many of the pebbles and boulders in its bed are of a white coarsely-crystalline limestone—we therefore named it Limestone River—with others of gneiss, mica schist and quartz. The banks are everywhere low and flat.

Limestone River.

26th September.—6 a. m., barometer 27.26. Fine day. Did not move camp; all hands clearing trail, made 3,624 yards. Forest thicker than ever. 9 p. m., barometer 27.00; at 9.15 commenced raining.

27th September.—6 a. m., barometer 27.01. At 6,745 yards overtook clearing party, and cleared 916 yards further. At 4.30 p. m., camped in a thick willow scrub on river bank. Train arrived at 5 p. m.; only a few light showers to-day; passed a fine waterfall on the opposite side of the river; weather too dull for photography.

Fine waterfall.

28th September.—6 a.m., barometer 27.21; foggy and showery. Started at 8.30, and worked clearing trail till 4 p. m. Cleared 3,260 yards, and returned to camp. Mr. Baltzly went down the river to take photographs of waterfall; weather too dull. At 9 p. m., barometer 27.37.

30th September.—6 a. m., barometer 27.41. Our train which was sent back yesterday to assist in bringing up supplies for the railroad survey party did not return last night, and we shall not be able to move camp to-day. Took the canoe up the river to 1,300 yards above Slaughter Camp, then returned to camp by trail, 9 p. m., barometer 27.47. Train returned at dusk.

Reach Slaughter Camp.

1st October.—Fine morning; 6 a. m., barometer 27.60. Started at 10 a. m., and left instructions for camp to follow. Paced from where we left canoe last evening 6,570 yards forward, to where I overtook clearing party grading the trail along a thickly timbered siding, sloping steeply

to the water's edge. As there was no prospect of the trail being completed before dark, I turned back to meet our train, and camped at 5 p. m. on a sandy flat at the edge of the water, along which the trail passed, to avoid a large swamp immediately to the rear, around the border of which our starving animals were able to find a little coarse grass. To-day, wanting to go a short distance off the trail, I tied the horse I was leading Horse eats my to a tree, and laid my note book, with some loose sheets of paper, on which were notes of the past three days, and a rough sketch of the river from below Garnet-creek Falls camp, on a mossy bank at the foot of the tree. When I returned the book was pushed off the bank, and the sheets of paper had disappeared. After searching a long time for them in vain, I concluded that the horse must have eaten them. To test this I offered him a blank page from the book, which he at once greedily devoured, thus fully confirming my suspicions. 9 a. m., barometer 27.62. 10 p. m. raining steadily.

2nd October.—6 a. m., barometer 27.54. Rained all night and still raining. Paced from bluff where I turned back yesterday 3,630 yards to the North West Fork where I found the railroad party encamped, the men all busy clearing and grading the trail ahead round a steep bluff, to reach the crossing place. We are now opposite the Island in the river described, page 273, North West Passage by Land, (Milton and Cheadle), to avoid which we ought to cross lower down, near the junction of the Albreda Lake tributary, which we have to follow up. The main river, or north-west branch, here has three channels, forming a small and a large island. It has been raining all day, and the river is rising fast. Heavy rain. 9 p. m., barometer 27.44. A good deal of thunder in the distance.

3rd October.—Wet all night, and still raining. 6 a.m. barometer 27.21. Decided to move back and to make the crossing below the islands. Heavy rain all day, with thunder and lightning; clearing the trail up the opposite bank to the junction of the Albreda Lake branch. One of our Indians returned to-day to our Sunday night's camp, to try to get two horses back which had crossed the river there with their packs. For this purpose, he made a small raft, and succeeded in getting the horses, but could not bring the packs across, the raft being unmanageable in the swift current; will have to go down again to-morrow with a canoe. This afternoon we find bark canoe found a fine bark canoe cached, belonging, we supposed, to some Indian who is hunting in the mountains. It will be very useful in crossing our cargo. We also found the tree and inscription referring to the guide, André Cardinal, North-West Passage by Land, p. 271. 9 p.m., barometer 27.21.

4th Ociober.—6 a.m., barometer 27.48. Fine morning. One of our one of our horses was dead this morning. Last evening all the animals were driven horses dies. over the river on to the island, as there was no feed for them around our

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camp, and this one was swept by the current against a steep part of the bank, and was so long in the water that he got chilled, and was unable to recover. He was already quite knocked up and useless, being barely able to carry an empty saddle. At 9.30 I started, with our Indian guide and a half-breed, down the river in the bark canoe found yesterday, to get the cargo above mentioned. In one hour and twenty minutes we had got it all safely across, and it then took us four hours hard work, poling, paddling and tracking, often up to the middle in the water, to get back to our camp at the crossing. Our train—ten horses—went back to-day to help bring up railroad supplies from our last Sunday's camp: rest of party clearing trail, and helping to build large canoe to take cargo over.

Crossing the North-west branch of the Thompson.

5th October.—6 a.m., barometer 27.47. After breakfast we lashed our two canoes together, and commenced crossing the supplies, camp equipage, etc., of the whole party. At 11 a.m. everything was safely across to the east bank, following which, for 460 yards, we came to the junction of the North or Albreda Lake branch, which we were able to ford without unloading the horses, and after recording the date of our crossing on trees, along side that of André Cardinal, we proceeded, following the right bank of this branch for 2,715 yards, when we camped. Day tolerably fine; only a few showers; fog low on the mountains; road swampy and bad; no feed for the horses.

Indian grave, and cottonwood canoo. Friday, 6th October.—6 a.m., barometer 27.25; showery. Worked all day clearing trail. At 300 yards above our camp we found a newly made grave and a good cotton-wood canoe. We made 4,550 yards to-day, and camped at 4.30 p.m. on the edge of a swampy flat covered with long withered grass, and, in some places, by a recent deposit of sand and silt, brought down from the neighboring hills by storm waters. Our packtrain did not come up this evening, the horses having all strayed back to the crossing.

7th October.—6 a.m., barometer 27.17. Started at 7 a.m. and made 5,500 yards. At 3,139 yards, after having crossed three streams coming from the north-westward, and passed a high gravel terrace about 200 feet above the river, we crossed to the east bank, just above a steep rocky gorge; thence, following that bank pretty closely for 2,361 yards further, we camped at 5 p.m. at the confluence of a strong stream, about 50 links wide, coming in from the eastward. 9 p.m., barometer 27.08. The railroad party camped 540 yards further, at the confluence of another strong stream, likewise coming from the hills to the eastward.

Sunday, 8th October.—Did not move camp. We found to-day that the main stream also turned to the eastward, a short distance beyond our camp. It had all the appearance of a mountain torrent fed by glacier water. We therefore decided to cross it, and to seek for the trail more towards the west side of the valley. At a short distance we struck a

stream of quite a different character, evidently fed by swamp water, and full of pools and beaver dams. This we concluded must be the Albreda Albreda Lake branch of the Lake branch, and accordingly determined to follow it to-morrow. there was no improvement in the character of the country, and no prospect of our making more rapid progress through the interminable succession of swamps, bogs, and brush, I decided to start early on Monday, with one horse and an Indian, and make a push for Tête Jaune Cache, to ascertain, as quickly as possible, whether the party from Cariboo, under Mr. Mahood, had arrived there, and whether we would be able to return by their trail. It was also very important to ascertain whether we could find grass for our animals. They were daily getting weaker, and without improved feed it was evident they would soon all perish. 9th October.—Started at 8.30 a.m. with La Rue, and one pack-Start with one horse and In-

horse, carrying blankets, a tarpaulin, and provisions for four days.

very difficult to find the trail. It runs mostly along gravel benches and steep, rocky side-hills, and through occasional belts of young, unburnt,

We dian guide, La Rue, for Tête followed up the east bank of the stream found yesterday, and after Jaune Cache.

crossing two long, open, swampy meadows, came into burnt forest. Swampy meadows and burnt Here the old blazed trees were nearly all destroyed by fires, and it was forest.

running through swampy flats, and forming long lake-like expansions, the uppermost of which is Albreda Lake. At 2.30 p.m we gained the summit Albreda Lake. opposite Albreda Lake, and, a little further to the right, a considerable

The stream is left a considerable distance to the west,

valley running into the hills on the west, its upward course being about S. 20° W. magnetic. A short distance further we observed below us, on the left, a strong stream running to West 28° North magnetic. also very nearly the course we had been following up the valley from our camp of the 7th and 8th October, the position of which was marked by a precipitous gap in the range to the east of it, distinctly visible from where We now were. A short distance further we descended to the level of the stream, which is about one chain wide, and from eighteen inches to two feet deep; fine clear water running swiftly over a sandy and gravelly bed, and bordered by flats covered with bushes and abundance of good feed, consisting chiefly of rather coarse grass and a species of vetch. Not knowing whether we should find grass further on, and our horse being much in want of a good feed, we encamped on the edge of the stream at 3.30 p.m. Barometer 27.04. I thought we had travelled about eight miles; subsequent pacing, however, proved the distance to be rather more than eleven miles.

10th October. - 6 a.m., barometer 27.02. Fine; slight frost. Started at 7 a.m., course down the valley W. 12° N. At 8 a.m., we observed, a short distance ahead, the smoke of a camp fire, which turned out to be that of a Shushwap Indian family, consisting of the man, his wife and two Meet an Indian family.

Cache broken into by a wolverine.

children. They were on a hunting expedition, but did not appear to have been very successful. Their camp was at the base of a pile of rocks in which they had made a cache. This had been broken into by a wolverine, and, a few minutes before our arrival, the Indian had succeeded in shooting the depredator. Through the medium of my Indian, I learnt that we could reach Tête Jaune Cache on the following day, that the trail was good and that there was plenty of grass at intervals. We are now in a tolerably open country, rocky hills on the right, flanked by irregular gravel benches intersected by gullies; young poplars and spruce, in patches; nearly all the old timber burnt. Our Indian acquaintance accompanied us for about three miles down the valley to show us the trail, which, to us, was almost invisible, but which he seemed to follow through a maze of fallen logs, as easily as I could a cleared waggon-road. (See Photographs Nos. 69,991 and 69,992, the first looking towards Albreda Lake and down the valley of the Thompson.) At 10 a.m., having shewn us the general direction we had to follow, he left us to examine his beaver traps on the river below. I gave him a note which he promised to deliver the same evening to Mr. McClennan, informing him of the improved character of the country, and that I expected to reach Tête Jaune Cache the following day. This, I knew, would be most welcome news to him, and to the whole party.

Gravel benches.

was about thirty feet above the river flat, and thinly clothed with small pine trees and aspen, the trail gradually trending to the right, and across the shoulders of the benches which here encircle the base of the fine massive mountain, in which the snow-clad range dividing the waters of the North Mount Thompson from those of Canoe River and the Columbia terminates. noon we had reached, by several steep ascents, the level of the highest terrace, the barometer on the top reading 26.77; course forward north magnetic, across a wide sandy flat, openly timbered with pine, to the top of the des. cent from the terrace towards Canoe River, which latter we reached at 1. 30 p. m.; barometer at the water's edge 27.22, showing the terrace from which we had just descended to be nearly four hundred feet above the river. The crossing of Canoe River was not as formidable an operation as we had expected from the account given of it in the North-West Passage by Land, (pages 265 and 266). We were fortunate in finding the water low, and only about two hundred feet wide. From the flat near the crossing

We were now travelling along the edge of one of the gravel benches, which

Canoe River.

80n.

Camp River valley and Albreda Lake. S. 15° E. Mount Thompson. ..... E. 40° S. Down centre Canoe River valley.....E. 18° 20' S. On Peak above Fraser River pass.....W. 46° 25' N. On the Cache..... .....W. 36° 35' N. 15 miles.

the following bearings were taken :--

Leaving the left bank of Canoe River the trail crosses a small ana-branch, then about seventy or eighty yards of boggy ground, thickly timbered, and then ascends by a steep zig-zag path, about one hundred feet, to a terrace or wide sandy plateau, which it crosses in a very indirect course towards the south-west corner of Cranberry Lake. This plateau is Cranberry Lake mostly covered with a thick growth of young pine and spruce. All the old timber is burnt, and either remains standing as bare poles, or lies cumbering and obstructing the trail. Following for about one mile along the west shore of Cranberry Lake through thick poplar, willow and alder coppice, we encamped at 4 p. m., having been travelling nine hours. edge of the terrace above Canoe River there is, I think, a slight fall towards the lake, the southern end of which is likewise bounded by an abrupt terrace slope of from thirty to fifty feet high, and there is probably not more Difference of lethan fifteen or twenty feet difference between the level of the water of River and Cran-Canoe River and that of Cranberry Lake: the latter being the higher berry Lake. Canoe River and that of Cranberry Lake; the latter being the higher. The lake has probably an extreme length of about two and a half or three miles, by a breadth in the west part of about one mile. It appears to be very shallow; there are several small islands in it, and over nearly the whole of it the tops of reeds or swamp grass stand above the water. The soil on the west side of the lake is either peaty or a sandy loam, and soil. is thickly covered with a species of light feathery grass, standing about one foot high, and now quite brown and useless as fodder. The character and appearance of the lake and the surrounding country are well shown in the photographs 70,009 and 70,010. On the lake shore, 5 p. m., barometer 27.05, quite a strong breeze blowing, the first we have experienced since leaving Kamloops; 10 p.m., raining slightly; 1 a.m., calm, barometer 27. 19; rain ceased.

11th October.—Started at 7.15 a.m., barometer 27.23, sharp frost, clear and calsn, course along lake shore N. W. magnetic. At 8 a.m. we missed the trail, and came upon a small clear stream, three feet deep, Beaver Brook and about four feet wide, flowing to the north-west. This brook, which from the outlet of the abundant and precent traces of beaver along its banks, I named Beaver Brook, is the outlet of Cranberry Lake. After searching here nearly two hours for the trail, we at length discovered it on the east side of Beaver Brook, bearing towards the base of the eastern hills. In about one and one-half miles, through pine forest, generally tolerably open and good travelling, the ground quite flat and the soil very poor and sandy, we came to the bank of a rapid mountain stream flowing over a stony bed; the water now only from forty to fifty feet wide, and about eighteen inches deep. This stream has all the appearance of being sometimes quite a selwyn River.

short distance below where we crossed it, it makes a sharp bend to the

Mr. McClennan subsequently named it Selwyn River.

north-west, and receiving the waters of Cranberry Lake, through Beaver Brook, passes down the valley to join the Fraser below Tête Jaune Cache, about thirteen miles from Cranberry Lake. The four photographs, Nos. 70,001 to 70,004 show the character of the scenery at Selwyn River looking Scenery at Sel-down the valley. In No. 70,004, on the right, is a cliff section of a gravel wyn River. terrace with the river at its base. Leaving Selwyn River the trail keeps a tolerably direct course down the valley and along the base of the hills on the

Cache: after crossing it, Selwyn River is not again seen from the trail, as its course is quite on the opposite side of the valley, which is here nearly three miles wide. For three or four miles before reaching the Cache, the ground Sandy pine-rid- along which the trail passes, consists almost entirely of sandy ridges, thinly clothed with pine, and also a few spruce, juniper, and small blue-berry bushes; while, here and there, are tufts of dry wiry grass. We reached the banks of the Fraser at 3.45 p. m., and were much disappointed at finding no Cache: no traces of the party traces of the party from Cariboo; barometer 27.25. from Cariboo.

east side, crossing, in the first five or six miles, several small brooks, after which no running water was met with till we reached the Fraser at the

ges.

12th October.—6 a.m., barometer 27.85. Fine, clear and calm. A very sharp frost last night. From the Cache, Mount Thompson bears E. 31° S.: down the valley of the Fraser the bearing is W. 10° N., and up it into the pass E. 33° N. Having satisfied myself that the Cariboo party had not reached the Cache, and that I should have to return by the valley of the Thompson, I determined to hasten back to meet Mr. McClennan, in order that he might decide on the best course to pursue for the safety of his packtrains, and have an opportunity of stopping them at Canoe River, where the grass was much better than at the Cache. Starting at 7.40 a.m., we reached Selwyn River at noon, and Canoe River at 3.30 p.m., and crossing it, we camped on the right bank. 8.30 p.m., barometer 27.46.

13th October.—6 a.m., barometer 27.10. Strong breeze from south-east. Started at 7.45, and at 10 a.m. met railroad party, grading the trail up the steep terrace bank which I had passed at noon, on the 10th, a little less than four miles from Canoe River crossing. In the photographic view, Panoramic view No. 70,006, the terraces over which the trail passes from Canoe River to above Canoe reach the valley of Camp River are well seen, immediately below the gap in the mountains, out of which one of the main sources of Camp River issues. The four views, 70,007, 70,005, 70,006, 70,008, if placed together from left to right, give very nearly a panoramic view of the ranges as seen from the bank above Canoe River crossing; on the left, looking down the valley of Canoe River; on the right, up it to the glaciers from which it takes its rise, but which in the picture are hidden by clouds; and, in the left centre, the grand and massive Mount Thompson, with the wooded

from the terrace

terraces mantling round its base. In the two first, to the left, Canoe River is seen in the foreground, and in the third, a lagoon, the river being hidden by the trees in the foreground. This evening, we encamped on the edge of this lagoon, and the half-starved mules and horses seemed to appreciate the good feed in which they now found themselves.

Saturday, 14th October.—It is now evidently quite impossible to reach Jasper House this season, and as the country where we now are appears to be better suited for winter quarters than either Cranberry Lake or Tête Winter quarters. Jaune Cache, Mr. McClennan has selected for this purpose a sheltered site on the banks of Camp River, about four or five miles above its junction with Canoe River, and where there is abundance of timber, both for fuel, and for the construction of the buildings, which will be required for the men and for storing the supplies. Thence along the course of the valley to where we are now encamped, there appears also to be sufficient grass for the support of such of the animals as we may be compelled to leave here To-day we determined to make an attempt to reach the for the winter. summit of the Leather Pass, with a small party lightly equipped, and decided Leather Pass. to start early on Monday morning. From the information given us by the Shushwap Indian, whom I met on the 10th, and who had remained with our party, we calculated on being able to reach the summit of the pass, and to return to our camp on Canoe River in eight days; the Indian who knew the country acting as our guide.

16th October. -- 6 a.m., barometer 27.48; fine, clear and frosty; thermometer during the night 26°. Mr. McClennan, myself, Mr. Baltzly, Mr. Hammond, with Philip our Indian packer, LaRue, the Indian who accompanied me to the Cache, and the Shushwap Indian, "Jem," as guide, constituted our party for the pass. We started at 8 a.m., and reaching Tête Jaune Cache at 4 p.m., crossed the Fraser and encamped on the right bank. The water at the crossing place was only about three chains wide, and from three to four feet deep, running with a rapid current over a bed of large rounded stones. In some places the banks are rocky and precipitous, showing fine exposures of the strata. The river when full would be at exposures of least five chains wide, and from six to seven feet deep. 4 p.m., barometer 27.42.

17th October.—6 a.m., barometer 27.40; thermometer 28°; fine and clear. Started at 7.45 a.m., trail very bad; stones, rocks, logs and boggy creeks. We only travelled about seven miles to-day, having had to ford the river five times between Tête Jaune Cache and the Grand Forks, and to travel most of the distance along the now dry bed of the river. At 4 p.m., we camped about one and one-half miles above the Forks, in a thick forest of fir, spruce and pine, on the edge of a small meadow, on which we thought our horses would be able to get some grass. The old trail, at one time used by the Hudson Bay Company, runs up the right bank of the

river to the Forks, but, owing to fires, is now so encumbered with logs as to be quite impassable for horses. If the water in the Fraser had not been very low we should have been obliged to turn back.

18th October. - 6 a.m., barometer 27.09; thermometer 37°. This morn-

ing the horses could not be found. Some of them had strayed back to below the Forks, and were not all found till near noon. Our course forward Long cliff of ap the valley was E. 10° N. magnetic. To-day, to get round the "Lofty cliff of crumbling slate," mentioned by Milton and Cheadle, (North West Passage by Land, page 251,) we had to climb the mountain by a dangerous zig-zag path, to an elevation of probably more than nine hundred feet above the river: at the highest point reached the barometer reading was 26.10. By a somewhat less abrupt descent we again reached the level of the benches, and at 4.30 p.m., camped about 70 or 80 feet above the river, on a burnt hill side, thickly covered with fallen logs, and so steep that we had to dig and level the ground, to make flat spaces of sufficient size to accommodate our tents. 8 p.m., barometer 26.42.

19th October.—6 a.m., barometer 26.37; fine and clear, slight frost. Started at 7.40 a.m., and at noon crossed a considerable mountain stream from the left, and about one mile further we came to a large open meadow, on which earlier in the season, and before the frost had withered it, the grass must have been very fine. This is probably the open space mentioned in the North West Passage by Land, page 249. We stopped here for lunch, and to let our horses have a good feed. About three miles further, after crossing some very swampy ground, and following for some distence along the margin of the river, over slippery rocks and stones below high-water level, we suddenly found ourselves on the shore of Moose Lake, a short distance above its outlet. It was only 2 p.m., but our guide said we must camp here, as we should find no grass further up the lake, which appeared to be from eight to ten miles in length. The stereoscopic views No. 69,994. to 69,997. were taken at this camp. We have travelled about eight miles to day. The forest is chiefly of spruce, balsam, and hemlock, and rarely cedar. To night we had some tea made of the "Hudson Boy tea-plant," Ledum latifolium. It was better than cold water, but a little sugar would have made it more palatable. 9 p.m. barometer 25.91. The extreme width of Moose Lake is not more than two miles, and at our camp only about 300 yards.

20th October.—6a.m., barometer 28:05; thermometer 40°. Course up the lake E. 3° S. Bearing down the valley W. 8° S. The greater part of the lake shore, especially the upper portion, is a bed of stones and very bad to travel over. There is a little grass here and there, above the stones, and between the forest and high water mark. At times of high water, it would be necessary to travel almost the whole length of the lake in the water, or else clear a road through the forest. At the south end, roady hills rise

Moose Lake.

Forest trees.

steeply from the water's edge, exhibiting in their upper parts cliffs of ap-Cliffs. parently horizontally stratified rocks. At 10 a.m. we reached the head of the lake: immediately above it is a large lagoon and swamp, on which there were numbers of wild ducks, the first we had seen since leaving Kamloops. Passing round the north side of this swamp, and following the valley. we crossed at noon a strong stream from the north, probably Moose River, Moose River. about fifteen yards wide: at 6 p.m. we crossed another about ten or twelve yards wide, strong and rapid, but not more than eight or ten inches deep. From the large rounded stones, and the clean washed gravel in their beds, these streams are evidently subject to heavy floods. On the south side of the valley between these streams, our guide pointed out a steep pass through Pass to valley of Canoe River. the mountains, which he tells us is used occasionally by the Indians, and leads direct to the valley of Canoe River, not far below our camp. Some Indians had recently crossed it with a band of horses, on their way to Jasper House. We came upon the tracks of their horses shortly after, and from here the trail was cleared and well marked, but very boggy in places. At 2.50. p.m. we camped on the edge of a small swampy meadow, in which we hoped our horses would be able to find something to eat amongst the tall withered grass, with which it was covered. 3 p.m., barometer 25.92. Our guide now tells us we could not reach the head of the pass till to-morrow night. To-day we must have travelled nearly sixteen miles. Rain commenced falling at 2 p.m., and continued to fall heavily the whole evening, and through the night.

21st October.—6 a.m., barometer 25.97; still raining and the hills all hidden in mist. This morning we decided on retracing our steps, as we had neither tea nor sugar, and barely sufficient bacon and flour left to last scarcity of prous to our camp at Canoe River. At 2 p.m. we reached our camp of the 19th (at the lower end of Moose Lake), barometer 26.04, and at 3.30, and camped on the meadow where we lunched the same day. It has been raining all day, and everything is wet and uncomfortable.

22nd October.—6 a. m., barometer 21.16. Fine morning. Started at 8. a.m., travelled till 3.30 p.m., and camped on the bank of the Fraser, about one and one-quarter miles below the Forks, where there was a good bed of rushes, which the horses fed on greedily, and apparently relished much more than the frosted grass in the swampy meadows. To-day, coming over the Slate Mountain, one of our horses gave in and we had to leave state Mountain him on the trail; some of the others are now very weak, and I fear we shall have to abandon them also, before many days elapse. 9 p. m., harometer 26.99.

23rd October.—6 a.m., barometer 26.82. Cloudy, mild and inclined to rain; 9 a.m., barometer 26.77. This morning I sent back our Indian guide "Jem," to look for the horse we left behind yesterday, thinking he might be sufficiently recovered to travel. At 10 a.m., Jem returned,

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bringing the horse with him, having found him only a short distance

Camp at Tête Jaune Cache.

from where we left him. At 3.40 p. m., we reached our old camping ground at Tête Jaune Cache, and this evening we again enjoyed the luxury of a cup of tea, having found our tea and sugar lying uninjured, on the trail where it had been left on the morning of the 17th. I also killed six grouse to-day, which were a very welcome addition to our stock of provisions, now reduced to a small quantity of flour only, and the tea and sugar recovered this afternoon. At 3 p.m. rain commenced to fall, and continued in heavy showers up to 9 p.m.; barometer 26.72. signs of the party expected from Cariboo. Mr. Baltzly got one or two views of the hills on both sides of the pass below the Forks, but was not Robson's Peak. able to get one of the magnificent mountain, Robson's Peak (Milton and Cheadle, page 252), which stands in the angle made by the Frazer Grand Forks, and rises with mural precipices to a height of two or three thousand feet above the river. Yesterday, it was cloudless, and presented a truly splendid picture, while to-day, it has been wreathed in mist and capped with clouds. Our Indian told us that their name for this mountain signified, "The lines in the rocks." The whole face of the mountain, and its various spurs and buttress-like projections in their upper portions, are marked out in horizontal lines, due to the unequal weathering and to the varying colour and texture of the strata, which apparently consist of alternating calcareous and siliceous bands.

24th October.—6 a.m., barometer 26.86. Started at 8.50 a.m., and reached Selwyn River at 11.30 a.m. We stayed here an hour to take Camp on Canoe photographs, and reached our camp on Canoe River at 4 p. m. At 9 p.m., barometer 27.20. Thermometer 30°, clear and calm.

Preparations for return to Kamloops.

25th October.—6 a.m., barometer 27.30; thermometer 17°. The coldest Towards mid-day clouds and mist with night we have yet experienced. gusty winds, snowing on the mountains and light rain in the valley. day spent in preparation for our return journey to Kamloops: shoeing horses, repairing pack saddles, &c., &c. 9 p.m., barometer 27.17; foggy and calm; thermometer 40°.

26th October.-6 a.m., barometer 27.15; thermometer 38°. At 9 a.m. we left Canoe River, and at 12.30 reached the encampment of the railroad party, who were to be left here through the winter, under Mr. Green, C.E. They had already, during our absence, completed a large and substantial hut in which the supplies were housed, and another near by, to be used for With good water, abundance of fire a dwelling, was almost finished. wood, and a well stocked store, there is every prospect of the party being able to pass the winter comfortably, in this far off mountain wilderness. We remained here only long enough to make up some deficiences in our supplies for the return journey, and then proceeded on our way towards the Albreda Lake summit. We were now a party of twelve, the Geological

Winter quar-ters of railroad

Survey party of eight, with Mr. McClennan and three Indians. The latitude of the winter camp is 52° 27' 15", magnetic variation 25° 21', and the elevation probably about 2,760 feet. It is, as already mentioned, situated on Camp River, which issues from the western ranges, and forms one of the Camp River. principal sources of Canoe River, which it joins about five miles to the northward. At 4 p. m., we camped at about ten miles from the summit; barometer, 4.20 p. m. and at 9 p. m., 26.56. It had been raining slightly since 3 p. m. and at 8 p. m. came on heavily.

27th October.-4 a.m., barometer 26.42. The ground covered to a depth of three inches with snow, which still falls thickly. At 9.40 a.m. snow. reached my camp of Monday, 9th October; barometer 26.37. At 10.10, opposite Albreda Lake, barometer 26.30, and at 5.30 p.m. we reached our camping ground of Saturday and Sunday, 7th and 8th October. It had been snowing all day, and we were all cold and wet. One of our horses knocked up, about two miles from camp, and we had to abandon him. 9 p.m., barometer 26.41, rising; moonlight night, clear, calm and frosty.

28th October.-6 a.m., barometer 27.20. Sharp frost, very cold and uncomfortable all night, everything buried in snow, and nothing but twigs for the horses to eat. Started at 9.45 a.m., and reached the crossing at 2.30 p.m.; freezing hard all day. Had to abandon another horse too weak to travel. It will be impossible to take any of our horses further, and we Abandoning of must now build canoes, and descend the river, leaving the horses with the horses. hope they may survive the winter, but which their weak and exhausted state will, I fear, render almost impossible.

The party which left Canoe River to return to Kamloops, on the same day we left there for the Leather Pass, had built a large cache here, photographs 70,012 and 70,013), in which nearly 4,000 lbs. of flour was deposited. In it we also placed all our horse gear, pack-saddles, blankets, &c. It had been very hastily built, and was by no means secure; all the flour bags were conditions of damp, and much of the flour had been wetted, and if left as we found it, would probably have been quite spoiled in a month or two. We therefore set to work to empty the cache, and to dry and re-bag the flour. work, building a large canoe, and making paddles and poles occupied all hands from day-light till dark for the next four days; snowing and freezing nearly all the time.

Monday, 30th. October.—About seven inches of snow fell during the night.

Tuesday, 31st October .- Thawing slightly.

1st. November .- Snow falling nearly all day. This evening our preparations were all finished, and the following morning, at 9.10 a.m., we embarked in four canoes, the two largest carrying four, and the others two each. At 4 p.m. we camped in a thick willow scrub, wet, cold and uncomfortable. The following morning, 3rd November, starting at 7.20

Murchison's Rapids.

a.m., we reached Wild-goose Creek camp at noon, and at 2.30 camped on a sandy beach at the head of Murchison's Rapids, about five miles further down the river. On our journey up, we had worked hard for twentythree days to accomplish this distance.

4th November. -- 6 a.m., barometer 27.25, rising. Started at 8.10 a.m. To-day we had to portage and walk nearly the whole distance, letting the empty canoes down the rapids, one by one, with the aid of long ropes attached to bow and stern. We did not make more than three and a half miles, and encamped at 4.30 p. m., on a narrow rocky beach, about fifty feet above the river. 9 p. m., barometer 27.78; fine and mild, and the snow nearly all melted.

5th November.—6 a.m., barometer 27.85. To-day we have not made Canoe capsized. more than one mile. In running the first rapid, one of the canoes capsized in the middle of the river, with two of our Indians, who, however, were none the worse for their cold bath. Fortunately nearly every thing had been taken out of the canoe to lighten her, and our losses from the accident were not important. This evening we camped at the upper end of the upper Gate or Canon. 9 p. m., barometer 28.5; clear and frosty. The cedars here are very fine, tall and straight.

> 6th November.—6 a.m., barometer 28.12; sharp frost, clear and calm. Commenced at 7.30 a.m., portaging canoes; 282 yards to the top of the hill, 170 feet rise, forty yards level and 208 yards down to still water Before dusk we had all the canoes and some of the below the Gate. baggage over.

> 7th November.—6 a.m., barometer 28.13. At 6.45 commenced packing tents and baggage over portage, and descended the river for about one mile of still water to the head of the rapids, through the second gate or Porte D'Enfer, (photographs 70,020, 70,025.) Got all the baggage over the portage, about three-quarters of a mile, and camped on the edge of the pool below. 9 p.m., barometer 27.77.

> 8th November. —6 a.m., barometer 28.12. Slight rain last night, fine and frosty this morning. At 7.30 went back to get our canoes over the portage. By dusk we had all the canoes over, and camped amongst the stones, on the edge of the pool below the Porte D'Enfer canon. The photographs, Nos. 70,014, 70,016, 70,017, 70,019, to 70,023, and 70,025, afford an excellent idea of the character of the scenery of Murchison's Rapids.

> 9th November. - 6 a.m., barometer 28.10; hard frost, very cold in the tents. Started at 8.10 a.m., crossed to the left bank : below the pool more rapids, and we had to lighten the canoes and let them down with ropes: made about two miles and camped at dusk on a stony beach. 9 p.m. barometer 28.05.

Fine Cedars.

10th November. - 6 a.m., barometer 27.95. Start at 7.20 a.m.; in about one mile, more bad rapids, extending for nearly three-quarters of a mile, obliging us again to lighten the canoes and let them down stream with ropes. At 11 a.m. re-embarked, and made eleven or twelve miles. still water, often lake-like and very shallow, with a soft sandy bottom. noon we came to a camp of the party which preceded us down the valley. They had left here on the 5th. At 3.30 p.m. we arrived at their next camp. where we found sundry articles which they had cached, probably to relieve their worn out animals. It was very cold to-day in the canoes; ice forming rapidly along the shores, icicles hanging from the canoes and paddles; 9. p. m. barometer 27.71. The banks of the river here are mostly low and sandy, bordered by flats extending back a considerable distance. There Flats suitable for cultivation. is apparently abundance of good grass on these in summer; they are all suitable for cultivation.

11th November .- d a.m., barometer 27.70, probably indicating snow or rain. The frost was very severe last night, and the ice on the river, floating severe weather. and fixed is increasing rapidly. Start at 7.30; in ten minutes came to more rapids, which continued as far as we travelled to-day. At 3.30 we encamped on a gravel bench a few miles above Mad River. At dusk it commenced snowing. 9 p.m. barometer 27.80.

12th November.—6 a.m., barometer 28.00; snowing slightly; about one and a half inches fell last night. At 10.30 a.m. reached the rapid and canon. above the confluence of Mad River; here we had to get the canoes up a very steep hill, and down a much longer and equally steep slope, at the lower end of the portage. While hauling one of our canoes up, the rope broke, and the cance went down the hill like a sleigh, and shot out into the current, capsized going over the rapids, and passed beneath the ice on the pool below. The largest canoe was so heavy and ice-coated that we were unable to haul it up the hill, and were obliged to abandon it. We had now only two canoes left with which to continue our journey; shortly after dark we had these, and nearly all our baggage over the portage, and we camped, cold, wet and tired, on the left bank of Mad River, at its confluence confluence of with the Thompson. Fire-wood was scarce, and there was barely space to Thompson.

pitch our tent, between the steep hill side and the water. 13th November. Passed a very uncomfortable night. At daybreak commenced portaging our baggage over Mad River to a point lower down, where we could embark. At 10.30 every thing was across, but as our two canoes would not carry all our baggage, we were obliged to cache the photographic apparatus, and every thing not indispen sable, and send the canoes down with two Indians in each, the rest of the party following by the trail on foot. We started at 11 a.m. and at 3.30 p.m. reached our camp of the 29th of August, thirteen and one-half miles from Raft River. The was from eight to ten inches deep, and walking through it very fatiguing. 47

14th November.—6 a.m., barometer 28.10, at water level. At 7.30 started Clearwater and to walk to Clearwater. Snow deeper than yesterday. At one o'clock we reached Raft River, which we had to ford, the water above our knees, and covered with ice not quite thick enough to bear. At 3,30 p.m. we reached Clearwater, after a very fatiguing walk of twenty miles: the canoes had arrived safely about one hour before.

Red Pine Indian Reserve 15th November.—Having procured a boat at the depot, we left Clearwater at 8 a.m., and continued our journey down the river. At 3 p.m. we reached the Red Pine Indian Reserve, and camped again in the hut we had occupied on the 23rd August. It was then vacant, but we now found it occupied by an old Indian and all his family. It was a bitterly cold night, and we were glad to share the floor with the Indians and their dogs.

16th November.—Started at 8 a.m.; very cold, the ice forming rapidly in the river. At dusk we reached the last ranche, fifteen miles above Kamloops, where we arrived the following afternoon, having only once had to cut our way, for about forty yards, through ice, which had formed quite across the river, though often there was only just room for the canoes to pass between the heavy ice-floes which were floating slowly down the stream.

We found Mr. Tate in charge of the Hudson Bay Company's post, and we thoroughly appreciated the comforts and kind hospitality with which pistance travel he entertained us. We had been ninety days absent, having travelled 535 miles; the journey up the valley by land occupying sixty-two days, and the return by water only twenty-eight days.

The following are the distances from Kamloops, measured by pacing along the trail to Canoe River, and thence estimated to the furthest point which we reached in the Leather Pass:—

Distances from Kamloops.

Approximate elevations determined by barometric observation, mostly from a series of readings. The figures are probably rather above what the height will prove to be by accurate instrumental measurement:—

Kamloops1250	feet
Clearwater1403	
Raft River	u
Wild-goose Creek Camp, 34 miles below Blue River2214	u
Crossing at junction of Albreda Lake Branch2370	
Albreda Lake3063	
Canoe River2484	, u
48	

Elevations.

Cranberry Lake25	11	feet.
Tête Jaune Cache243		"
Fraser Grand Forks28	89	"
Moose Lake	00	"
End of Journey near Cowdung Lake369	54	"

We left Kamloops on the 20th of November, and reached Victoria on the 29th. At Yale we found that the ice in the Fraser had stopped the steamboats, and we had to descend the river in a canoe. We finally left Victoria on the 7th of December, and arrived in Montreal on the 26th Arrival in Monof the same month. Mr. Richardson left Victoria on the 22nd of December and arrived in Montreal on the 9th. of January.

## GEOGRAPHICAL FEATURES.

The boundaries of British Columbia on the main-land are, on the south, Boundaries of the forty-ninth parallel of latitude; on the east, the main chain of the Rocky bia. Mountains; on the north, the fifty seventh parallel of latitude, and the boundary of the United States Territory of Alaska; and on the west, the Pacific Ocean and the Strait of Georgia to the forty-ninth parallel. In the province are now likewise included Vancouver Island, at one time a separate colony, and Queen Charlotte Islands, as well as a number of smaller islands in the Strait of Georgia. A line through the centre of the country, from the south-east corner of the province on the forty-ninth parallel to the boundary of Alaska on Nasse Harbour, is nearly nine hundred miles in length, and the average breadth of the province, from the shores of the Strait of Georgia to the summit of the Rocky Mountains, is about three hundred miles, or an area of about 270,000 square miles. Pemberton, in his Facts and Figures Area. relating to British Columbia and Vancouver Island (published in 1860), says the area of British Columbia is about three and a half times as large as Great Britain, while Vancouver Island is about half the size of Ireland, or respectively 311, 517 square miles, and 15,937 square miles.

The main orographical features of this region are the Coast or Cascade orographical Range, the great central hilly plateau or table land, and the Rocky Mountain chain: subordinate to the latter, and more or less parallel with it, are two other belts of mountainous country, the Selkirk Mountains and the Gold Range. All these mountain chains, and likewise the central plateau, have a general north-west and south-east course. The coast or the Cascade Range is the northward extension of the Sierra Nevada; the hilly central plateau bears a similar relation to the great volcanic arid and hilly table land of the state of Nevada; and the Selkirk and Gold Ranges may be paralleled with the Bitter Root Mountains between Montana and Idaho, the Wasatch Mountains in Utah, and other chains which occupy a similar position in relation to the main axis of the Rocky Mountains.

Exclusive of the volcanic cones and craters of Mt. Baker, Mount Hood, Height of Mount Rainier, and others from 10,000 to 15,000 feet high, none of which,

however, occur between the Fraser River mouth and Alaska, the highest points of the Cascade Mountains probably do not exceed 7,000 feet. The central plateau has an average elevation of from 1.000 to 3.000 feet. The Selkirk Mountains, especially towards the north, in the vicinity of Cariboo, and about the sources of the North Thompson, have a somewhat greater average elevation than the Cascades, and they likewise appear to contain a greater number of glaciers and of points above the snow line, though their more inland position may perhaps account for this fact, irrespective of their altitude. The highest known summits of the Rocky Mountains are Mt. Murchison, Mount Hooker and Mount Brown, estimated at from 12,000 to 15,000 feet. They have never been ascended, and their geological structure has not, I believe, been ascertained.

Drainage.

Excepting the western slope of the Cascade Mountains, and the extreme northern portions,—the latter drained partly by the Skeena River and partly by Peace River, an affluent of the McKenzie,—the whole of British Columbia is drained by only two great rivers, the Fraser and the Colum-The former receives all the waters of the Cascade Mountains, the greater part of those of the central plateau, and of the western slope of the Gold Range, while its main eastern sources are on the western flank of the Rocky Mountains, north of the fifty-third parallel of latitude. principal eastern branch issues from the Leather or Yellow Head Pass: and from its source at the summit of the pass above Cowdung Lake, 3,750 feet above the sea, following the course of the stream to its mouth below New Westminster, is a distance of not less than six hundred and fifty miles. Its main western branch issues from Francois Lake, only 3 few miles less distant from the mouth, and one degree north of the eastern source in the Leather Pass, giving a fall of a little more than five feet to There are however many long stretches of almost level water the mile. in the upper part of its course, and it is stated to be navigable for steamers, with but few interruptions, from above Quesnel Mouth to near Tête Jaune At the latter place, in October last, the water was not, where we crossed it, more than four feet deep, and the appearance of the river was I have not myself seen not very promising for steamboat navigation. any part of it between Tête Jaune Cache and Lytton.

Character of upper courses of the Fraser.

The Columbia River drains a much smaller area within the British territory than the Fraser, its waters being chiefly confined to a triangular tract of country, the base of which is the United States boundary along the forty-ninth parallel, and the western side, the 120th meridian as far north as Tête Jaune Cache and the Leather Pass. Canoe River to the north, the Kootenay River to the east, and the Similkameen and Kettle Rivers on the west, are the only important tributaries of the Columbia north of the British boundary. There is a remarkable parallelism in the Fraser and Col-umbia Rivers. general course of these two great rivers. From their sources they

flow in a nearly north-westerly direction for about 180 miles; they then both make a sharp turn, generally known as "The Big Bend," to the south, flowing nearly due south, and almost parallel with each other for 350 miles; the Fraser to Hope and the Columbia to Colville, whence respectively they reach the sea by an almost rectangular bend to the westward. The Fra-Navigability of the Fraser and ser is navigable for steamboats for only one hundred miles above its mouth. ColumbiaRivers The navigation of the Columbia from the sea, for more than 300 miles, is interrupted by only two short portages; and above this, with the exception of a few short intervals of impassable rapids, it is navigable nearly to the Boat Encampment, at the junction of Canoe River, 250 miles above Fort Colville, and more than 800 miles above Astoria.

## GEOLOGICAL STRUCTURE.

The rocks in the vicinity of Victoria and Esquimalt were, I believe, Explorations of examined first in 1858 by Mr. Bauerman, the geologist attached to the and others. British and North American Boundary Commission; and again in 1859 or 1860, by Dr. Hector, who accompanied Captain Palliser, in his exploration of the southern passes of the Rocky Mountains within the British territory. The result of these observations has been published in the Journals of the Geological Society. The geology and mineralogy of Vancouver Island and of portions of British Columbia have also been investigated and described by other authors, among whom are Dr. Forbes, of the Royal Navy, Lieutenants Mayne and Palmer, the Rev. C. Lundin Brown, of Lillooet, Mr. Justice Begbie and Mr. Pemberton. A number of papers and communications have also been published by Dr. Robert Brown, giving the result of his Observations extending over four years from 1863 to 1866, during which time Dr. Brown made several scientific explorations in the Island on behalf of the local government, and also extended his observations to portions of the mainland. I have had an opportunity of reading only two of Dr. Brown's papers; one, On the Physical Characteristics and Geographical Distribution of the Coal-Fields of North-west America (published in the Transactions of the Geological Society of Edinburgh, 1868-1869), and which contains an excellent description of the Coal-fields of Vancouver Island; and also one, On the supposed absence of the Northern Drift from the Pacific Slope of the Rocky Mountains. (American Journal of Science and Arts, November, 1870). I was not able to make any personal examination coal-fields of the coal-fields in British Columbia, but Mr. Richardson did so, and the detailed result of his observations is embodied in his official Report. The opinion he has formed respecting the value and extent of the coal deposits on Vancouver Island is exceedingly favourable, though perhaps not quite so high as that of Col. Moody, R. E., who when speaking of Nanaimo at a meeting of the Royal Geographical

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Future of Nanaimo.

Society in 1864 said it is destined to be "a Newcastle, a Birmingham, a Glasgow and a Swansea, all in one," while the future of Victoria and Esquimalt he considered as entirely commercial.

The few days I remained in Victoria were almost entirely taken up with the necessary preparations for our contemplated journey to the Rocky Mountains, and I therefore saw but little of the geology of Vancouver Island.

In the immediate vicinity of Victoria, and around the shores of the har-Rocks of Van-bours of Victoria and Esquimalt, crystalline diorite and epidotic and green-conver Island. ish fine-grained rocks prevail, associated with massive granitoid, chloritic, feldspathic and hornblendic gneisses, quartzites, and bands of more or less crystalline and silicious grey limestone, also epidotic. Mr. Bauerman mentions the occurrence of serpentine, and dark green sandstones and mica slates, penetrated by crystalline greenstone and syenite; the beds being fused at the lines of contact. We saw no serpentine on Vancouver Island, nor any rocks which I should be disposed to consider as certainly intrusive. Their generally crystalline character is more probably due to metamorphic action on original sedimentary deposits, notwithstanding that often no trace of stratification can now be discerned in them: and this view is strengthened by the very important fact, which, through the labours of Mr. Richardson, we are able to establish, namely, the fossiliferous character of the associated limestones. Though the fossils in these limestones are too fragmentary for specific determination, yet the external forms, as developed by the action of acid on the specimens, leave no doubt of their organic origin. The Vancouver Island limestones do not differ materially from others from the main-land, in some of which we have found well preserved fossils, but which up to the period of our examination were supposed to be equally devoid of organic remains.

Fossiliferou limestone

Huronian and Quebec Group.

I examined several outcrops of the limestones between Victoria and Esquimalt, and also on the west shore of Esquimalt Bay. They are everywhere associated with epidotic and crystalline metamorphic rocks of the nature already described; and which, according to their lithological character and general aspect, might pass for strata either of Huronian age, or of that of the altered Quebec Group of Canada. A specimen from the last mentioned locality, supposed to be serpentine, has been analysed by Dr. Hunt. He finds it to contain 54 per cent of silica, and only a small proportion of mag nesia, and having the composition of a fine-grained diorite. This rock almost immediately overlies a thick band of limestone, the run of which is nearly magnetic east and west with a high southerly dip. In the paper already referred to by Dr. Brown on the glacial phenomena, he mentions gneissose rocks, crystalline limestones and traps, as being the only rocks seen for long tracts on the north shore of De Fuca Straits; and also says "A great portion of the island is occupied by igneous rocks—chiefly traps

and metamorphic sandstones,—seen in the southern and south-eastern sections." On the Leech River, a tributary of the Sooke River, Dr. Brown first discovered gold, and he states that \$100,000 worth was extracted from Gold. the stream in less than three months, and that nuggets of forty, fifty, sixty and even seventy and eighty dollars, were not uncommonly found.

Leech River takes its course along the junction of two classes of rocks which Dr. Brown describes as trap and metamorphic slates; the slate forming the bed of the river, and in many places changing into micaceous sandstone or shale. Numerous quartz veins run in the same direction as the cleavage of the slate. No gold has been found in the creeks on the right bank coming off the trap. Since the first discovery by Dr. Brown, gold has been found in all parts of the island where similar slaty rocks occur; but nowhere, except in the first locality discovered, in paying There are many fine examples of ice-grooves and scratches on Glacial action. the rocky shores of the island, some of which, near Victoria, are well shewn in the stereoscopic views taken by Mr. Baltzly during our stay there. The direction of the grooves where I observed them was N. 10° to 15° W. magnetic. Dr. Hector states their course to be N. E., and also that they are equally conspicuous on the main-land shores of the Straits of De Fuca. We did not observe any similar markings on the main-land, but our observations did not extend to the coast, or to any part of the western slope of the Cascade Mountains. The course assigned to the glacial grooves by Bauerman, is N. N. W., and S. S. E., very closely coinciding with my own observations of them near Victoria. Mr. Richardson's observations make them S. 27 W. It therefore appears that they occur in two directions nearly at right angles to each other.

Professor J. D. Whitney has stated that a northern drift does not occur in California, and that no evidence of its occurrence has yet been detected on the Pacific coast, as far north as British Columbia and Alaska. This conclusion having been arrived at on the authority of Mr. W. D. Dall, naturalist attached to the Collins Overland Telegraph Company, and who states that though he had carefully examined the country over which he had passed, in Alaska, for glacial indications, he had not found any effects attributable to such agencies; and that no boulders, no scratches or other marks of ice action had been observed by any of his party, though carefully sought for.

Dr. Robert Brown, in the paper before cited, in Silliman's Journal, November, 1870, states that there is abundant evidence of glacial action, and of the wide distribution of a true glacial boulder-drift, and quotes Mr. Bauerman in support of his views. Of the existence of ice-grooves on the shore of Vancouver Island there can be no question. Inland, neither Mr. Richardson nor I observed any.

A. 1872

Geological observations on the main-land.

Our geological observations on the main-land commenced on the 28th July, at Yale, the head of steamboat navigation on the Fraser, and for 110 miles, or to Cache Creek, were restricted to one line of traverse and its immediate vicinity. From Cache Creek two lines were examined, the one by Mr. Richardson along the line of the waggon-road to Cariboo, and the other by myself, via Kamloops and the North Thompson River, to Tête Jaune Cache on the Fraser, and thence nearly to the source of the latter, at the head of the Leather Pass, in the Rocky Mountains,—the distances being respectively about 268 and 318 miles from Cache Creek. Thus, only a very small portion of the Province has yet come under our observation, and, therefore, any even general conclusions we may have arrived at respecting the geological structure of the country and the sequence of the various formations, based, as they necessarily are, on so cursory and limited an examination, will probably require considerable modification after further and more detailed examination shall have been made. So far, however, as we at present know them, the rock formations of British Columbia may be grouped under the following divisions, reversing the order of their deposition: -

Grouping of

- I. Superficial Deposits.
- II. Volcanic Series and Coal and Lignite Group of the Main-land; and the Coal-rocks of Vancouver Island.
- III. Jackass Mountain Conglomerate Group.
- IV. Upper Cache Creek Group (Marble Canon Limestones.)
- V. Lower Cache Creek Group.
- VI. Anderson River and Boston Bar Group, and Upper Rocks of Leather Pass and Moose Lake.
- VII. Cascade Mountain and Vancouver Island Crystalline Series.
- VIII. Granite, Gneiss and Mica-schist Series of North Thompson, Albreda Lake and Tête Jaune Cache, including the micaceous schists of the Cariboo district.

Terraces or Benches.

I. Superficial Deposits.—These are chiefly developed in the ancient terraces or benches, which, throughout the country, are wonderfully regular and persistent, occurring from the coast up to elevations of nearly 4,000 feet, in the passes of the Rocky Mountains. They give a marked and peculiar character to the scenery of the river valleys, rising like gigantic stairs to elevations of sometimes more than four hundred feet above the In some places two, three, four and five distinct adjoining river or lake. steps can be seen; while often they have either become merged into one by subsequent denuding agencies, or else the precipitous character of the side of the valley has altogether prevented their formation. greatly in width and in height, the greatest height observed being as much as one hundred feet; what the greatest width is I have not ascer-In some of the stereotained; from one to five chains is not uncommon.

scopic views these terraces are well seen, especially in those of Lytton, the north bend of the Thompson and Canoe River.

Recently, February, 1871, Mr. Justice Begbie has brought the subject of the terrace deposits of British Columbia under the notice of the Geographical Society in London. He suggests that they are due to a vast lake, origin of teror series of lakes, and that their drainage was connected with an elevation affecting a large mass of the continent, raising at different periods various ridges of hills and mountains, either together or separately, resulting in protruding them through the wide-spread lacustrine formation. Reviewing these suggestions by Mr. Begbie, Professor James Dana remarks, that, if admitted to be lake terraces, the facts would prove that a large part of the continent had been covered with lakes in place of rivers, and just where rivers should have existed, which he says is a view not to be entertained; and he thinks that successive elevations of a portion of the continent a few feet would, by increasing the excavating force of the streams, be sufficient to produce all the results observed.

Movements of elevation such as are indicated might, however, produce an exactly opposite effect to that assigned to them by Professor Dana. If the elevation happened to be greater along the coast than inland it might operate in such a manner as to cause the formation of lakes in valleys which were peviously traversed by rapid rivers.

Nearly all the lakes in British Columbia occupy long, narrow depressions in the river valleys, and are, in fact, lake-like expansions of the rivers. There is, I think, no doubt that such lakes were at one time much more extended and more numerous than they now are; and that in many places, as for instance at Lytton, and on the north bend of the Thompson, and at Canoe River crossing, the terraces mark the old margins of these lakes, while in others they doubtless represent only the ordinary flood-flats of The removal of the rocky barriers by which these inland waters were confined would result in the formation of such gorges and canons as we now find on the Fraser at Yale, and below Lytton, as well as on the North Thompson at Murchison's Rapids, and on Canoe River below the wide flats at the crossing, and would, without any general movement of elevation, drain off the waters of the lakes, leaving the old shore lines exactly as we now see them, at corresponding heights on both sides of the valleys. Ordinary alluvial river flats do not commonly occur in that manner, but where a flat occurs on one side there is usually a steep bank on the other, and especially is this so along rapid rivers which traverse a mountainous country. If the terraces are due to river action only, the detrital accumulations in which they have been excavated must at one time have filled the valleys to elevations corresponding with the highest terraces, and this implies the existence of broad flat-bottomed valleys, where now there are steep gorges and rocky canons. The filling in of

these valleys must have taken place during a lengthened period of depression of the land, followed by successive movements of elevation during the terrace epoch.

Gold in Lower Fraser Valley.

The gold of the Lower Fraser Valley is apparently all derived from the terrace deposits. Often the workings have been on the upper benches; but the principal "bars," as they are locally termed, are below the highest flood levels, and, as their name indicates, are situated above some rocky bar or barrier in the bed of the river, which has acted like a riffle in arresting the heavier particles of gold. The deposits consist of sand, silt, clay and gravel, mixed with large, more or less water-worn blocks of local rocks, occurring chiefly in the lower portions. The gold is not confined to the layers which rest directly on the bed-rock, but occurs equally rich at several distinct horizons.

part exhausted, and have for some time been abandoned by white miners. There seems, however, to be a process continually going on by which the lower bars and flood-flats become replenished with fine gold through the washers.

The rich "bars" of the Fraser are now supposed to be for the most

Indians and Chinese as Gold washers.

annual floods operating on the slopes of the terraces within their range, and redistributing the gold they contain along the course of the stream. Nearly all the Indians of the Fraser above Yale have now become gold-They return to the same point on the river year after year, at the season of lowest water, to wash the sands, and, it is asserted, can almost always earn for a day's labour from one to two dollars' worth of gold. Besides the Indians there are quite a number of Chinese who make a living in the same way, and appear to have permanently located themselves at intervals all along the banks of the river, where they have built themselves log huts, and often, on the most unpromising-looking places, have made small gardens, in which by dint of carrying soil and water, they succeed in raising fine crops of vegetables, for which they find a ready sale to the teamsters on the waggon-road. The soil of the terraces is generally poor and sandy or stony, but by the aid of irrigation small gardens and fields of a few acres are successfully cultivated, especially on the lower flats which are occasionally flooded. There seems no reason to doubt that the gravel benches or terrace deposits of the Fraser and of the North Thompson, which border these rivers with but few interruptions from Yale to the Leather Pass, as likewise those of many similar valleys in British Columbia, would afford a highly remunerative field for hydraulic gold-washing on a large scale, the only drawback being the unavoidable suspension of operations during the winter.

Hydraulic Mining.

> II. The Volcanic Series; the Coal and Lignite Group of the Mainland; the Coal rocks of Vancouver Island.

On the main-land the rocks of this division are, so far as known, confined Central plateau, to the central plateau, which, preserving its peculiar geological and phy-

sical features, extends with varying width throughout the country from the forty-ninth parallel, I believe, to Alaska. The valleys of the Fraser and the Thompson intersect it diagonally from north to south. On the Fraser, the south-western edge is about fifty miles above Lillooet, and the north-eastern not far from Quesnel Mouth. On the Thompson, its southwestern boundary is about thirteen miles below Spence's Bridge, and its north-eastern about sixty or seventy miles above Kamloops. Lillooet and the North Thompson it appears to have a maximum width of only fifty to sixty miles. To the north the great Chilcoten plain forms a part of it, and both there, and in the Okanagan and Similkameen valleys to the south, the width is not less than one hundred miles.

The very few observations we have yet made scarcely justify any attempt to define its geological structure. Probably nearly all the groups enumerated are represented within the area, the older ones especially where the valleys are deeply excavated. It may be described as consisting of a base of more or less crystalline and slaty rocks, much disturbed and dipping at high angles; resting on these unconformably, filling up depressions, and sometimes capping the higher elevations and forming buttress-like hills are the rocks of division II. They consist of a series of Character of comparatively undisturbed and unaltered deposits, partly sedimentary, and probably often of fresh-water origin, and partly volcanic, associated with seams of coal or lignite and plant-bearing beds. Sandstones, shales and conglomerates, of various textures and degrees of hardness, are also met with in the series, and amongst the volcanic accumulations there are columnar basalt, dolerite, cellular lava, and various amygdaloidal, brecciated and fragmental rocks, containing zeolites, calc-spar, opal, chalcedony, agate and quartz in veins and cavities. Copper and silver ores have also silver ores. been found, but whether they belong to the lower crystalline rocks, or to the newer volcanic period, has not been ascertained. In the corresponding regions of Nevada, according to Mr. Clarence King, silver ores occur in nearly all the formations from the Palæozoic Carboniferous to the Tertiary Volcanic series inclusive.

I was not able to examine the site of the silver-bearing ledges at the Eureka Eureka Silver Silver Mine, near Hope, but was informed that the proprietor of the claim valued it at \$300,000. Difficulty of transport, the high price of labour, and the want of the requisite capital have, however, hitherto prevented its development. The mine is situated nine miles south from Hope on the Fraser River, at an elevation of about 6,000 feet above tide water. Messrs-George Dunbar and Thomas Schooley are the proprietors. They state that the vein is from three to twelve feet wide; that a tunnel has been driven on it for 500 feet, and that it can be seen for a thousand feet, on a strike N. E. and S. W., dipping S. E.  $< 80^{\circ}$ -90°. The specimens for

analysis, (for which see Dr. Hunt's Report,) were taken from a heap of several tons, and were considered a fair average of the whole.

Fossiliferous

On the south side of Kamloops Lake, the volcanic rocks are exhibited in perpendicular escarpments of columnar basalt, and are associated with plant-bearing beds, and fossiliferous shales and sandstones. has examined a thin slice of one of the latter, prepared at the museum by Mr. Weston, and he states, "It appears to contain quantities of Orbuline and Globigerine Foraminifera and sponge spicules. The forms are distorted as if by metamorphism or excessive pressure, and may be Cretaceous." Of the plant remains from the same locality, Dr. Dawson says, "On a few small specimens I observe a Coniferous plant, apparently Taxodium cuneatum of Newberry, and also what seems to be a fragment of a Cycadean leaf. I should think these Cretaceous."

Clinton.

Similar rocks, Mr. Richardson states, extend westward to within a few miles of the Bonaparte River. In the vicinity of Clinton, they cross to the west side of the river; alongside the waggon-road, twelve miles above Clinton, a chasm has been excavated through them from 200 to 300 feet deep, and about half a mile wide, which stretches for five or six miles to the southward. From the bottom the sides slope upwards at an angle of about 30° to the base of the vertical cliffs of horizontal volcanic strata, from 100 to 200 feet high, which form the walls of the chasm. The slope below being composed of a fine earth-like deposit, resulting from the disintegration of the debris fallen from the cliff above, and bearing a scanty covering of grass and a few small trees.

From here to the 150 mile house, where a small outcrop is seen, rock exposures are rare; but a few miles above Soda Creek, similar volcanic rocks rise wall-like to a height of several hundred feet, at about one mile from the river. Further on they bound the river valley on both sides, extending sometimes for miles in an unbroken wall, from half a mile to two miles from the river, between which and the base of the cliffs there are rich grassy slopes.

Coal-bearing rocks.

Above Fort Alexander, and at intervals to Quesnel mouth, the coalbearing rocks crop out along the river, in a horizontal position. Whether they extend beneath the cliffs of horizontally-bedded volcanic rocks, which, as before stated, bound the valley from two to five miles distant, has not section at Ques been ascertained. At Quesnel Mouth, an interesting section of the coal strata has been exposed by a recent slide. It is in descending order as follows :-

nel Mouth.

Feet. In. Pale grey, yellow, red and black beds, some of a very light compact rock containing thin grass-like stems and in places pieces of coal; others hard...... 100 0 0 Grey mud..... Grey sandstone with leaves and stems of plants..... Sand wit rounded pebbles.....

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Mud with impure coal	26	0
Drab ferruginous sandstone with leaves and stems of plants, from		
two inches to		0
Impure coal, mixed with earth, stems and leaves of plants. On the		
top a few trees remain with part of the stems and roots as they		
grew, both being partly mineralized	10	0
Grey clay	6	0
Total	190	_

The rocks exposed in the upper part of the above section shew marks Vapour emisof having been subjected to considerable heat. About one mile above Quesnel Mouth, smoke and hot vapours have for several years issued from The residents in the vicinity have erected a hut over the orifice whence the vapours issue, which they use when they wish to enjoy the luxury of a steam bath. A few miles above Fort Alexander, a similar escape of smoke and steam has been observed. In both cases it is supposed to be due to the slow combustion of beds of coal or lignite, which have taken fire, either accidentally from the surface, or more probably by spontaneous ignition. In the geologically somewhat similar regions in Nevada and Idaho, emissions of steam and heated vapours are very common, and can be witnessed in close proximity to the railroad, in many parts of the Humboldt valley.

Dr. Dawson has examined the plant remains from Quesnel Mouth. Plant remains He says, "The prevalent genera seem to be Quercus and Platanus. Mouth." There is also a leaf referable to Pterospermites, Heer; and possibly an Acer and Populus. The species seem to be different from those of Vancouver Island, and, I should think, not improbably of Miocene age. Larger and more perfect collections should be made." Slices of the fossil woods collected at Quesnel Mouth have likewise been examined by Dr. Dawson. Some are of Exogenous woods, shewing structure like that of modern poplar, probably Populus or Platanus; others are of Coniferous wood in the state of Lignite or brown coal. One of these is remarkable for its density, and Dr. Dawson thinks must be heart-wood of a large tree or a knot—the structure is similar to that of Cypress.

"The specimens," Dr. Dawson says, "do not throw much light on the age of the formation, except to strengthen the probability of its being Tertiary. They are different from the woods examined from Vancouver Island, and fossilized in a different manner. In nearly all the specimens the woody cell-walls appear to be in the state of brown coal."

Several miles to the westward from Quesnel Mouth, white wall-like cliffs of these rocks are seen, which, with their associated volcanic strata, apparently stretch far to the north-west, beneath the rich grassy plains of the Chilcoten district.

The Vancouver Island Coal rocks are fully described in the Report of Coal Rocks of Mr. Richardson, and do not therefore require further notice here. Though Island.

apparently of the same age as those in the vicinity of Kamloops, they are not associated with any rocks of volcanic origin, and, I am inclined to think, they are somewhat lower in the series.

Sandstone, shales and conglomerates.

III. Jackass Mountain Conglomerate Group.—The rocks of this group were first observed on the waggon-road between the fortieth and forty-They consist of hard, close-grained and thicksecond mile posts. bedded, greenish sandstones or quartzites, green and black shales, and, above these, massive thick-bedded pebble conglomerates, dipping generally at low angles in various directions: some of the enclosed pebbles are of rocks belonging to the Cache Creek series. Mountain the road is built round, or excavated out of vertical cliffs of these conglomerates, at from 800 to 900 feet above the river, into which you can almost drop a stone from the parapet of the road; and at a short distance back they rise into hills, not less than 3,000 feet above the valley, which they occupy to within about five miles from Lytton. Another small area of these rocks was observed by Mr. Richardson, com. mencing between the 127th and the 128th mile-posts, and extending on each side of the road for about seven miles, after which no rock exposures occur for many miles. The geological position of this group is at present uncertain; no fossils were found in it, but it is supposed to be younger than the Upper Cache Creek group.

Roads to Cariboo.

IV. Upper Cache Creek Group.—Clinton, or "The Junction," is situated at the junction of the two waggon-roads to Cariboo; the one to the west by the valley of Harrison, Lillooet and Seton lakes, and Lillooet; and the other by the valley of the Fraser and the Thompson. It was on the latter road, between Clinton and Lillooet, that Mr. Richardson first observed this group. The road runs there through a valley, transverse to the strike of the rocks, from one to two miles wide, on either side of which hills rise abruptly from 1,000 to 2,000 feet. The base of this group Mr. Richardson supposes to be here, about two miles west of Clinton. The beds have generally a high They consist of a great volume of bluish, dove-colored, westerly dip. and white limestones, often a good marble, interstratified with brown dolomitic limestone, red and green shale, and epidotic and chloritic rocks, with others which closely resemble rocks of the Quebec group in the These rocks occupy the country west-Eastern Townships of Canada. ward for about six miles. On their strike to the northward they can be easily traced by the eye, from the almost snowy appearance of the lime stones, for twenty or thirty miles; and in the opposite direction they can be traced, by the same characters, for ten to twelve miles, to another Marble Canon, transverse narrow valley called Marble Canon. A narrow, deep lake, of clear water, occupies the bottom of this canon, the white cliffs of limestone rising on either side of the lake to heights of from 2,000 to 3,000 feet About half-way up, on the north side, the limestone above the water.

Limestones, shales, &c.

beds stand up in masses which look like detached columns of a diameter of from fifty to one hundred feet, and from three hundred to four hundred feet high, due probably to unequal weathering of the here almost vertical strata.

How far the rocks of this group extend to the southward has not been ascertained. It is not unlikely that in that direction they pass beneath the rocks of the volcanic series which extends westward from Spence's Bridge, on the Thompson, towards the valley of the Fraser.

The only other locality where similar rocks were observed was near the 164th and the 165th mile posts, on the waggon-road, which is very nearly on what appears to be the direction of their strike to the northwestward from Clinton. In both localities the limestones are succeeded by a considerable thickness of black shales, sometimes soft and calcareous, black shales, but often hard and flinty.

The only fossils discovered in these rocks are in specimens of the Fossils. limestone from Marble Canon. Of these, Dr. Dawson says, "They contain large Foraminifers of the type of *Loftusia*, but different generically; also other smaller Foraminifers, probably Eccene or Cretaceous."

V. Lower Cache Creek Group.—The rocks of this group were first met with on the waggon-road, a short distance above Spence's Bridge, and they extend thence along the line of the road to four or five Extent. miles above Clinton, where they become covered by rocks belonging to the Volcanic and Coal groups. At Clinton they occupy a breadth of six or seven miles, being overlaid on the west by strata of the Upper Cache Creek group, apparently in conformable succession, and on the east by rocks of the Volcanic series. Between Spence's Bridge and Cache Creek, these rocks can be well studied in cuttings on the road, as well as in the numerous exposures on the adjacent hill sides. They Characters. consist of massive beds of grey sub-crystalline limestone (Photograph No. 69,926), black flinty shale in beds of from one to three or four inches thick, chloritic and epidotic rocks with serpentine and soapstone; there are also great thicknesses of crystalline dioritic rocks and porphyritic felsite—a brown compact rock holding small crystals of pinkish feldspar. I also observed bands of brown calcareous and gypsiferous slaty shales or schists. The limestone in one place was found to contain abundance of fossils, which, Fossils. though in a very fragmentary condition, are sufficiently well preserved to throw some light on the age of the formation, even with the aid of the present small and imperfect collection. The specimens have been carefully worked out with dilute acid, and Mr. Billings, who has examined them, says the fossils from this locality, ten miles above Spence's Bridge, consist principally of the comminuted remains of several species of Brachiopoda in a greyish limestone. As they are partially silicified, by treatment with

acid we have extracted sufficient material to enable us to recognize the following genera:—

1.	Cyrtina2	<b>s</b> p.
2.	<i>Spirifera</i> 1	sp
3	Rhunchonella 1	***

There are also a small Myalina and an Euomphalus with angular whorls. Although none of the above have been determined specifically, they indicate almost certainly a horizon between the base of the Devonian and the summit of the Permian.

Serpentines.

The limestones holding these fossils are so intimately associated and interbedded with the serpentines and other crystalline rocks above described, as to leave no doubt that they all belong to the same series.

Decomposition of rocks.

In some places a remarkable amount of decomposition has affected the outcropping edges of the Cache Creek rocks: occasionally this action has extended to a depth of more than twenty feet, as shewn in numerous transverse gulleys cut by the surface waters through the soil and soft earthy material, which is then seen to pass gradually into the solid rock below. In these areas of decomposition, which are often of considerable extent, iron pyrites is largely disseminated in the rocks. On the surface they are characterized by a succession of rather steep mounds or mound-like hills, from fifty to as much as 300 feet high. The soil often presents a curiously parti-colored appearance, in tints of brown, yellow, red and black, which, with their peculiar outline, renders these hills conspicuous at a considerable distance.

Robbin's Ranche. At Robbin's Ranche, ten miles above Kamloops, on the east side of the valley, there are two outcrops of grey crystalline limestone, apparently in a synclinal form. These are associated with dark blue and grey flinty shales, and calcareous breccia conglomerate, with crystalline feldspathic and dioritic rocks. Similar rocks occur in the vicinity of Kamloops, and up the valley of the North Thompson to near Clearwater. They are overlaid, in places, at as much as 1,200 feet above the river, by hard black columnar basalt of division II.

Anderson River.

Shales.

VI. Anderson River and Boston Bar Group, and Upper Rocks of Leather Pass and Moose Lake.—These rocks were first seen at Anderson River, twenty-five miles above Yale, where they succeed the crystalline rocks of division VII, and where the change in the geological structure of the country is accompanied by a corresponding change in its physical features, indicated by the widening out of the valley and the less abrupt character of the hills. The rocks here consist of dark and bluish-grey earthy shales, with calcareous and sandy bands: between Boston Bar and Butcher's Flat they are exposed in numerous road-side cuttings, and are mostly blue and grey banded shales, much jointed and breaking up into rubbly and lenticular fragments. They

are all more or less calcareous, and there are occasionally thin bands of thin bands of limestone. Dykes or bands of a partially decomposed and rusty-weathering diorite-porphyry are often seen associated with the slates. Wherever they occur, the latter appear to be much broken and twisted, though not otherwise altered. The rocks seen in the upper part of the Leather Pass, Leather Pass, Slate Mountain Slate Mountain, and along the shores of Moose Lake, which I have, chiefly and Moose Lake on lithological grounds, associated with these, are slates and sandstones, with a good deal of grey quartzite or quartz rock, and thin-bedded limestones or calcareous sandstones. They dip pretty regularly N. 15°W. <35°-40°. I did not see any limestones in place. Amongst the loose stones, however, along the shore at the upper end of the lake, pieces of impure limestone which look as if they came from beds near by, are not rare, and nearly all the water-worn pebbles from the bed of the river at the Grand Forks are of impure grey limestone. I was not able to collect any fossils in them, and therefore the age of these rocks is uncertain. The opportunities for observations during this part of our journey were, I am sorry to say, very limited, and those which I made confined to such exposures as could be seen on the trail we were following.

VII. Cascade Mountains and Vancouver Island Crystalline Series.— The crystalline rocks which I have already mentioned as occurring in the Crystalline vicinity of Victoria and Esquimalt, and which are described in more detail in Mr. Richardson's Report, are supposed to belong to this series. Our first observations of them on the main-land were at Yale, and thence along the waggon-road, closely following the right bank of the Fraser for thirteen miles to the Alexandra Suspension Bridge. Crossing the bridge, the road continues up the left bank of the river, and similar rocks are seen for thirteen miles further to Anderson River, where, as has been already stated, they are overlaid in the valley by the rocks of divisions III and VI to within a few miles of Lytton. Thence similar rocks occur along the road to about sixty-seven miles from Yale, where they are concealed by the rocks of the volcanic series, division II.

Close to the toll-gate, leaving Yale, the hills rise in precipitous rocky 8lopes, exhibiting sections of massive beds of whitish granular rock, com-Posed chiefly of quartz and feldspar; also bands of a dark grey fine-grained gneissoid rock. These rocks all shew more or less a banded structure, and resemble a hard feldspathic granitoid gneiss, holding epidote, black mica, Gneiss holding quartz, orthoclase and hornblende, with occasionally sphene. At about one mile from the village, the cliffs and likewise the stratification are vertical, with a general strike about W. 25° N. magnetic. At a little more than six miles above Yale a band of white and greyish-white crystalline Crystalline limestone crosses the road. It has been quarried to a small extent and limestone. burnt for lime, but most of it is apparently too siliceous for lime burning purposes. It dips at about 70° to the N.E. No fossils were recognized in

it; the siliceous patches stand in relief on the weathered surfaces, and

Quartz veins.

some of them may not unlikely be similar to those observed in the Vancouver Island limestone, which prove to be silicified fragments of fossils. Immediately beyond the limestone outcrop, the rocks are more schistose, and the stratification is more distinct; there are also lenticular veins or bands of white quartz in a rusty-weathering grey gneiss. Near the seventh milepost the rocks are less crystalline, quartz veins are numerous, and the stratification distinct dipping E.35° to 45° N. At 250 yards beyond the seventh mile-post, crystalline limestone again crops out on the road with dip N. E. <79° (Photos. Nos. 69,915 and 69,916), and again between the ninth and tenth mile-posts, where it is of a bluish color, and nearly fifty feet thick. It is here associated with green chloritic-looking rocks. The three outcrops are probably on the same band, the windings in the course of the road causing it to intersect the band in three places. In the neighbourhood of the suspension bridge the rocks are chiefly grey feldspar porphyry, and feldspathic granitoid rocks holding hornblende and black mica, and passing occasionally into feldspathic diorites; these are cut by large reticulating veins of milky white orthoclase, mixed with large plates of a silvery-white mica. There are also grey feldspathic diorite porhyries. At fifteen miles above Yale, the rock is a grey, micaceous, rather slaty gneiss, cut by similar veins of orthoclase feldspar. From seventeen to twenty-two miles from Yale, including China Bar Bluff, the heaviest rock cuttings on the road occur-They are chiefly through greyish-white, fine-grained, granitoid rock, very feldspathic, and cut by feldspathic veins, but also containing a little black mica, quartz and hornblende.

Porphyry.

**F**eldspathic veins.

In some places this rock is traversed by three sets of joints, running respectively north and south, east and west, and horizontally, dividing it into blocks, with very regular even sides, from five to twenty feet long and Building-stone, from two to ten feet wide. An unlimited quantity of durable and handsome building-stone could be procured from these cliffs.

Beyond Anderson River, and to about fifty-two miles from Yale, the valley, as already stated, is occupied by newer rocks, but on either side, at some distance back from the river, the mountains are apparently entirely made up of similar feldspathic and dioritic crystalline rocks, rising steep and rugged to the line of perpetual snow.

VIII. Granite, Gneiss and Mica schist Series. - The rocks of this division were first met with at Raft River (Photograph No. 69,958) a tributary of the North Thompson, six miles above Clearwater, and Tête Jaune thence to the Grand Forks of the Fraser They represent, I believe, the oldest rocks observed in the Cache. The talcose micaceous schists of the Cariboo region, and the base rocks of the Selkirk Mountains and the Gold Range, probably belong to the same series. The stratification in the rocks of this series is often

Oldest roc observed.

Characters of rocks.

obscure, and they are much broken and disturbed. Among them we find gneiss and mica-schist of various textures and degrees of hardness, with large scales of white and black mica, and holding garnets; also masses of almost pure feldspar, as well as hornblende rock, the former likewise holding garnets and black tourmaline. Specimens of these were found at Blue River Bluff, and at Garnet Creek Falls (Photographs Nos. 69,977; 69,978; 69-980). No linestone was seen in situ on the upper North Thompson, but when crossing a stream flowing into it from the west, and which at some seasons must be a formidable mountain torrent, I found quite a number of pebbles and large fragments, some of them not much worn, of grey or nearly white crystalline limestone, and which, judging from their size and number, did not appear to have travelled far. This stream I named Limestone River. Limestone River. It was the only one of the numerous streams which we crossed, in following the left bank of the Thompson, where indications of limestone rock were found; and it will perhaps become important in connection with the construction of this section of the railroad. It is about 170 miles above Kamloops, and between Blue River and Garnet Creek, which comes in on the opposite or east side of the Thompson.

Near Albreda Lake, and soon after reaching the water-shed to Canoe Albreda Lake.

River, rock exposures are plentiful on the hill sides, at short distances above the trail. They are, however, so far as observed, all of similar crystalline gneissose, granitoid and micaceous rocks. The distinct and often very regular stratification which is observable above the limits of the forest, on many of the high peaks and summits which rise abruptly from the river to the perpetual snow line, induces the belief that they are composed of a less altered and more recent set of rocks than those which are exposed in the valley and on the lower hill-slopes. Except the limestone fragments observed at Limestone River, however, and which might belong to rocks of the age of the Cache Creek group, I did not find on the North Thompson, above Clearwater, any direct evidence of the occurrence of such rocks, though carefully looked for in the detritus of all the tributary streams: nor in crossing the mountains to avoid the canons of Murchison's Rapids, between Mad River and Blue River, and which took us to an elevation of probably more than 6,000 feet above the sea, were any but granitoid and gneissose rocks met with. The rocks exposed along Granitoid and gneissose rocks. the rapids, which we descended on our return journey, are all of similar character.

On the waggon-road between Vanwinkle and Barkerville these rocks Vanwinkle and Barkerville. are first seen, about one and one-half miles north from Vanwinkle, on Lightning Creek. Thence to Barkerville on Williams Creek, a distance of nine miles, no other rocks are seen. At Barkerville they are overlaid unconformably by rocks apparently of the Cache Creek group, with bands of crystalline white limestone in thin beds.

Average strike.

The average strike of the micaceous schists is about N. 70° W. and S. 70° E. They are much disturbed and crumpled, and are generally dipping at high angles.

Gold indica-

The country in which Raft River and Mad River have their sources presents favorable indications as a gold-bearing region, and is, I think, worthy of being carefully explored and prospected.

Appended is a Report by Dr. T. Sterry Hunt on the silver ores from the Eureka Mine near Hope, and on some of the fossil woods and rocks from the Fraser near Quesnel Mouth, as well as from the section given on page 123.

There are many more specimens from the several groups enumerated which require further study and analysis for the precise determination of their characters.

#### REPORT BY DR. T. STERRY HUNT.

With regard to the specimens, ores, coals and rocks lately placed by you in my hands, from the main-land of British Columbia, I have to report that time has not allowed me to make so complete an examination as I should have desired; they have, however, yielded me some interesting results, which I beg to lay before you.

Silver ore from Eureka Mine.

Silver ore from the Eureka Mine, near Fort Hope.—These specimens show a veinstone of spathic iron, with some quartz, through which is disseminated a massive steel-grey ore giving a black pewder, and yielding by analysis sulphur, antimony, copper and silver. I was not able to obtain sufficient in a pure state for a quantitative analysis, but, from the comparatively large proportion of antimony and copper which the ore contains, it would seem to be probably a highly argentiferous fahlerz or freibergite. An average sample of the veinstone, in a much decomposed condition, gave 1.19 per cent of silver, of which 0.11 per cent was present in the form of chlorid, and was dissolved from the raw ore by a solution of hyposulphite of soda. Other considerable masses of the ore would yield a much larger proportion of the precious metal.

Coal from Nicola River.

The coal from Nicola River gave a firm dense coke, and a very small amount of grayish ash. The analysis by slow coking gave as follows:

Fixed Carbon	74.58
Yolatile	21.51
Ash	3.91
	100.00

Lignites.

The lignites from the Fraser River at the mouth of the Quesnel are very variable in character: some of them are a light brown-coal, approaching

to jet in texture, while others are impregnated with carbonate of iron, which has nearly replaced the woody matter. These are brownish in color, very heavy and hard, and dissolve in heated hydrochloric acid, leaving a small ligneous residue, which is yellowish-brown in color, and in one specimen was found equal to about 7.0 per cent. The analysis of this, which was a portion of an unflattened trunk, several inches in diameter, Iron Ore. showed it to be a good iron ore. It gave:

Carbonate of Iron	85.00
Carbonate of Lime	3.60
Carbonate of Manganese	1.10
Carbonate of Magnesia	2.80
Organic Matter	6.60
Insoluble Ash	50
	99.60

Several specimens of volcanic rocks from near Quesnel Mouth were volcanic rocks. examined. One of these was fibrous, another scoriaceous, and a third compact and vitreous, but all were highly ferruginous lavas, readily fusible before the blowpipe. The last mentioned had a specific gravity of 3.96.

Two other specimens were much less dense; of these the one having a specific gravity of 2.36, was of a pale purplish or lilac color, nearly opaque, with a conchoidal fracture, a somewhat waxy lustre, and the hardness of quartz, or near it. This resembles what is called pearlstone. Pearlstone. The other, with a specific gravity of 2.45—2.52, resembled the last in hardness, lustre and fracture; but was in great part of a pitchy-black, with, however, an adherent portion of a material, which, with a similar hardness, lustre and fracture, had a light reddish-brown color. The black mineral has the characters of pitchstone.

Accompanying these specimens was a portion of fawn-colored rock, which was apparently an indurated clay, having a considerable hardness Indurated clay. and cohesion, and very absorbent.

#### CHARACTER OF THE LAND.

I have already, in a previous part of this Report, alluded to the character of the soil of the Fraser Valley between Yale and Lytton. Approaching Spence's Bridge a marked improvement in the character of the country is observed. We here come upon the western edge of what I have desig-soil of central nated the great central plateau, the soil of which, wherever we traversed it, appears to be excellent, but, owing to the extreme dryness of the climate, it is only in exceptional seasons that it can be cultivated successfully, without irrigation; wherever this had been resorted to we observed splendid crops of wheat, oats, barley, potatoes and vegetables of all kinds.

The following facts on crops and vegetation were collected by Mr. Crops. Richardson. At Mr. Robert Carson's Pavillion Mountain Farm, of three

hundred acres, on the Lillooet road, there are one hundred and fifty acres under cultivation.

```
Wheat 30 acres, yield 1,400-1,500 lbs per acre.
                " 1,300-1,500 "
" 1,600-1,800 "
Barley 30 "
            "
Oats 70
Peas and Beans 3 acres, produce not ascertained.
Potatoes 6 acres, yield 30,000-40,000 lbs per acre.
```

The oat crop sometimes reaches 2,700 lbs per acre. Timothy grass from one and a half to three tons per acre. Red clover grows well. has been only four years settled upon. Mr. Carson continues to break up from twenty-five to thirty acres each year. The whole farm is irrigated by water brought seven miles. The prices obtained on the farm are for wheat, barley, oats and potatoes, two to three cents per lb.; hay, forty dollars per ton; bacon, twenty to twenty-seven cents; beef, ten cents per lb.

Sowing time and harvest.

tion.

Sowing time, 1st April; harvest, from middle of August to middle of September; reaping and thrashing done by machine. Cattle live out of doors all winter. Snow-fall averages about eight inches.

At the Australian Ranche, about twenty miles below Quesnel Mouth, of 640 acres belonging to Henry Downs and Compy., there are one hundred acres under cultivation.

```
Wheat
        14 acres, yield 2,500 lbs per acre.
        32 "
                "
                     2,500 " "
Barley
        16 "
                "
                     2.500 " "
       7 "
                "
Turnips
                     25
                          tons of 2,000 lbs per acre.
Potatoes 21 "
                "
                     25
Timothy 30 "
                     3,500 lbs per acre.
```

The proprietor stated that by careful cultivation and attention to irrigation the wheat crops could be brought to 3,700 lbs. per acre. All kinds of Prices at Cari. vegetables grow equally well. The prices obtained at Cariboo, eighty miles boo. distant, are wheat, barley and oats, nine cents per lb., potatoes, ten cents per lb., butter, seventy-five cents per lb. Sowing and planting commences the first week in April; harvest, August and September. to be fed from the first week in December to the last week in March.

All the foregoing yields are obtained by irrigation. The average of lands not irrigated on the same farm are, wheat, barley and oats, from seven hundred to one thousand lbs. per acre. Potatoes and turnips from six thousand to ten thousand lbs. per acre. Timothy from one thousand to Value of irrigat twelve hundred lbs. per acre. This proves the great value of irrigation, the character of the soil in both cases being the same.

> On lands about four miles nearer Quesnel Mouth, large fields of oats and barley, grown without watering, were being harvested on the 4th of September. On one of the fields of oats, which appeared to be an average of all, the straw was about five and a-half feet high, and strong in proportion; and one head counted eighty corns on five stalks.

About Kamloops most of the higher ridges and hills are thinly timbered vegetation with pine and fir, the latter chiefly in the gulleys; where a species of small loops. shrubby cedar or juniper is also common. The country is everywhere well covered with bunch-grass. Sagebush (Artemisia), and a dwarf cactus are likewise characteristic plants. As a grazing country for cattle and horses, it can hardly be surpassed; abundant feed, shelter in all weathers, and the climate so mild that stock do not require to be housed during the winter. and only occasionally to be fed with hay. The peculiarities of this central plateau region in British Columbia have been noticed by Colonel Moody, without, however, referring them to any physical or geological cause. described the country as, "A line of soil running obliquely through the country in a north-easterly and south-westerly direction, on which you have the bunch grass and Pinus ponderosa, while on either side of it you have neither the one nor the other."

Whether regarded in reference to its geographical position, its geologic cal structure, its characteristic vegetation, or its peculiar climate, it very closely resembles the region which we traversed on the Union Pacific Railroad, east of the Sierra Nevada. The dryness of the climate is doubtless due to the absence of forest, caused probably by the nature of the soil not favouring its growth; and the soil is dependant on the character of the rocks Thus geological causes may be regarded as the real origin of all the peculiarities observed.

On the Fraser, from Lytton downwards, berries of several kinds are very Native fruits. abundant. On the flats about New Westminster, large quantities of cranberries are gathered and exported to San Francisco. The principal berry, however, is the service-berry (Indian name Olelly), about the size and appearance of a black currant. It grows on a shrub from three to ten feet high, and forms a staple article of food amongst the Indians. The women collect it in large quantities on the steep and stony hill sides, everywhere along the valley of the Fraser, between Yale and Lytton. They appear to steam or parboil the berries, and then make them up in large flattish cakes mixed with grass; these are dried in the sun and cached for winter use. The object of the grass is, I believe, only to give consistency to the cakes. The Indians likewise use largely a species of moss or lichen, rather like long black horse-hair, which grows on the pine and fir trees, and from which they make a beverage called 'sapolell,' which is, I believe, slightly Intoxicating intoxicating.

In the central plateau country, the service-berry does not appear to be <sup>80</sup> plentiful, and about Kamloops is confined to the river flats. A few bushes of it were seen in the Leather Pass above the Grand Forks of the Fraser. It is, however, rare on the North Thompson, above Clearwater. Raspberries, strawberries, gooseberries, currants and choke-cherries are abundant. I also observed near Kamloops a large Cratægus, loaded with

Wild flax and hemp.

blackish-red fruit. On the central plateau country, wild flax and hemp were observed, growing luxuriantly.

Valley of the North Thompson.

For the purpose of settlement, very little can be said in favor of the vallev of the North Thompson, above Clearwater. The soil is generally of a light sandy or gravelly character; and the flat lands bordering the river, and which might be available for cultivation, seldom reach three-quarters of a mile in width, and occur only at considerable intervals. After passing the water-shed, however, at Albreda Lake, the valley opens out, and from Canoe River to Cranberry Lake, and thence down the valley of Selwyn River to the Fraser at Tête Jaune Cache, the valley, including the lower benches or terraces, is seldom less than three to four miles wide, with but little timber, and affording excellent summer pasturage. Indeed we were informed by the Indians that they frequently winter their horses between Canoe River and Tête Jaune Cache, and that they find them in excellent condition in the spring. Several varieties of grass are abundant in this district; two species of Equisetum; a vetch and a blue lupin, both locally called pea-vine, are also plentiful, and apparently form a very favorite food of both horses and cattle.

Plants.

Grazing country. On most of the mountains above the limit of the thick forest (from 4,000 to 6,000 feet,) there seem to be very considerable tracts of fine summer grazing country. The ground is mostly swampy, and numerous small lakes and ponds, belts and patches of stunted fir and pine, and open plains or meadows are the usual features met with. These alpine pastures possess a characteristic vegetation; the blue lupin, before referred to, being a very conspicuous plant.

The stereoscopic views taken near the summit of the mountain trail, between Mad River and Blue-River, afford an excellent idea of the general aspect of this elevated region.

Forests.

Birch is the only hard-wood tree seen in the forest of the North Thompson and the Fraser; but for cedar of gigantic size, hemlock, spruce, and other species of fir and pine, the forests of the North Thompson offer a magnificent field for the operations of the lumberer. The cedar is, I believe, the Thuja gigantea; and trees of from ten to eighteen feet in circumference, and from 100 to 150 feet high, are not uncommon. The photographs Nos. 69,974 and 69,975, afford a good representation of one of these cedar forests. The cotton-wood grows to a very large size, and is the best wood for making canoes. One, out of which we made our largest canoe at the North-west Branch crossing, was nearly four feet in diameter. Various species of willow, alder, poplar and aspen form the woods on the flats bordering the river. A species of Viburnum (tree-cranberry), and the mountain ash, enliven the forest with their bright red-berries; hazel, elder, and ground-hemlock or yew, and an occasional maple shrub, were also observed. The most obtrasive and troublesome plant to the traveller in these forests, however, is a species

70

of prickly Aralia. It has a large, deeply-cut leaf, not unlike that of the Aralia, purple-flowering raspberry, which is also common, and a long, trailing, rather woody stalk. Every part of the plant is thickly covered with small sharp It grows to a height of about four feet, and often thickly covers the ground. A gentle touch with the naked hand was sufficient to get the skin filled with the prickles, which really seem to have a greater affinity for human skin than for the parent stalk. When clearing the trail through it, even stout clothing afforded very imperfect protection, and the subsequent inflammation and irritation, particularly in the hands and knees, were most unpleasant and painful. Ascending the mountain trail we soon got above the limit of these irritating companions, but only to find them more abundant on our return to the valley.

At 4,000 feet and upwards, the principal undergrowth on the hill sides, is Alpine plants. a plant resembling Azalea, with a small white flower and a somewhat trailing woody stem.\* It often stands three feet high, sometimes even more, and forms quite a dense thicket, difficult and very fatiguing to travel through. A species of heath, (Erica), with a pink flower, and many other plants, not seen in the woods below, were likewise observed on these heights. Among the smaller plants observed, the pigeon or bunch-berry (Cornus Canadensis,) has perhaps the greatest horizontal and vertical Common The Mahonia, or holly-leaved barberry, locally called the Oregon plants. grape, is also widely distributed, and on a hot day the fine-flavored, acid fruit, which it bears in the greatest profusion, is very refreshing to a thirsty Two or three species of blueberry are also common, but were not observed above 4,000 feet. A species of Smilacina, with bright orangecolored berries, is also common in damp shady places. There are many other plants which I am not familiar with. Of some of these specimens were collected, but had to be abandoned when we lost our canoes. plant locally called Hudson Bay tea is abundant all through the upper country, in moist or swampy situations, and is, I believe, the same species as that known on this side as Labrador tea,—Ledum latifolium. The infusion from it, if not made too strong, is by no means an unpleasant beverage, even without milk or sugar. The Kinnikinnik, or Indian tobacco plant, is also common; probably, however, a different plant from that known by the same name, and used in a similar manner, by the Indians in Eastern North America.

There are no Indians resident on the North Thompson above Mad River, or on the Upper Fraser. After leaving Mad River to cross the mountains, Indians. we met only three families until our return to Clearwater. These were out on hunting expeditions, but did not seem to have met with much success. Except squirrels, the only quadrupeds seen, or reported to have been seen by any of the party, during the journey from Kamloops to the Leather Game. Specimens for determination were collected, but were abandoned when we lost our

Pass and back, were one bear, one porcupine, two hares, one fox, one marten and one mink. Traces of bears and of beaver were occasionally pretty abundant, and we also observed a few tracks of deer, moose and The marmot, or ground hog is, I believe, one of the most abundant of the fur-bearing animals; the lynx is not rare, and the carcajou or wolverine is met with occasionally. Two or three varieties of grouse or wood-partridge are abundant. In their habits they do not differ from those found in Canada. The willow-grouse and the black-grouse are the The former frequents chiefly the willow and alder commonest species. coppice along the river flats, and the latter the thick pine and cedar forests on the hill sides. We commonly killed from two to six every day, and they formed a very welcome addition to our daily bill-of-fare of beans and These birds are an easy prey to the hunter, and are locally known by the appropriate designation, 'fool-hens.'

Beasts, birds and fishes are decidedly scarce throughout these gloomy forest regions; of the latter only two small trout were captured, and only one salmon seen during the expedition above Kamloops.

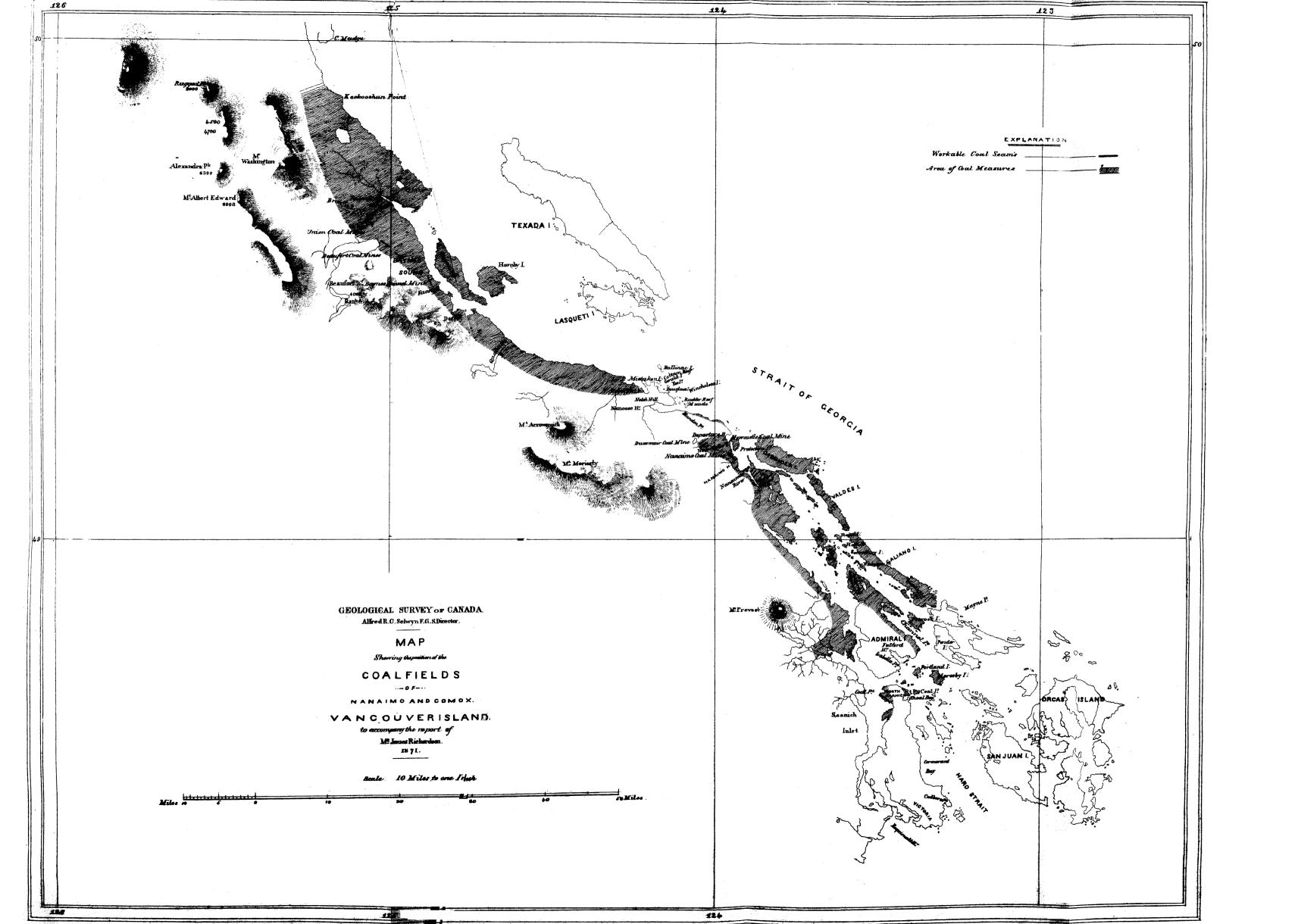
Though British Columbia possesses considerable tracts of fine agricultural and pastoral land, amply sufficient to produce all the food her own population is ever likely to require, yet it is not probable that she will ever hold a prominent position as an exporting agricultural country. Her chief resources are her forests, her fisheries and her mines; and these are capable of almost unlimited development. Her gold-fields, her silver-veins and her coal-mines are yet in their infancy; her timber trade is in a similar condition, and her fisheries, which may fairly be expected to rival those of the Atlantic Provinces, have not yet extended beyond the supply of local requirements.

Fisheries and Mines.

Future of the Alpine Province. There can scarcely be a doubt in the mind of any one who has visited the country, that a bright and prosperous future is in store for the Alpine Province of the great Dominion; only to be realised, however, when the iron road shall have brought her into closer communion with her elder sisters in the east.

I have the honor to be,

Sir,
Your most obedient Servant,
ALFRED R. C. SELWYN.



### REPORT

ON THE

# COAL FIELDS OF THE EAST COAST

OF

# VANCOUVER ISLAND,

WITH A MAP OF THEIR DISTRIBUTION,

BY

#### MR. JAMES RICHARDSON;

ADDRESSED TO

ALFRED R. C. SELWYN, ESQ., F.G.S.

DIRECTOR OF THE GEOLOGICAL SURVEY.

MONTREAL, May 1st, 1872.

SIR,—The geological exploration in which, under your instructions, I Exploration in have been engaged during the past season on the Pacific side of the bia and Vancontinent in British Columbia, may be divided into two parts; namely, those general preliminary investigations in the interior of the continental portion of the Province, in which I had the honor for some time to accompany yourself, and those of a more special character connected with the coal deposits of Vancouver Island.

The geological facts collected by me on the former, with my impressions of the country, have already been communicated to you, to be embodied, as I understand, in your own Report; I need not therefore repeat them here; and I shall only further allude to this part of the work, for the purpose of stating the extent of the area it covered and the time it occupied.

Leaving Victoria in Vancouver Island by steam, on the 25th of July, in company with the various surveying parties appointed on the Canadian Pacific Railway, we crossed the Strait of Georgia to New Westminster, New Westminster to junction near the mouth of the Fraser River, and ascended that stream to Yale, of North and which is the present head of steam navigation from the sea. Starting the Thompson.

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thence on foot we followed the Cariboo road, keeping along the margin of the stream to Lytton, situated at the junction of the Thompson river. Proceeding farther by stage, we ascended the valley of the Thompson, along the same road, to Bonaparte House on the Bonaparte River, near its junction with the Thompson, and then, leaving the Cariboo road, continued up the valley of this stream to Kamloops Lake. This we ascended by boat, and reached the junction of the North and South Forks of the Thompson, close by the head of the Lake, the distance to this point from Yale being about 160 miles, and the time spent in accomplishing the journey from Victoria, including many stoppages on the road, having been fifteen days.

The experience which we had by this time acquired, convinced us that we should get through the examination of a much larger extent of country in a given time by separating and pursuing the investigation of distinct tracts. Leaving you therefore, on the 19th of August, to accompany Mr. McLennan's railway party, I returned westward to Bonaparte House, descending Kamloops Lake by boat and hired canoes, and examining the rocks on each side in some detail. From the outlet of the Lake I proceeded on foot, measuring the road by prismatic compass and pacing as I went along, and registering the position of the rock exposures after the investigation. The distance of this part to Bonaparte House was found to be twenty-four miles. From this, turning northward and following the Cariboo road, my measurements were continued to Clinton for thirty miles, and for twenty-four miles farther to what is called the seventymile house. Understanding that in the next eighty miles to Deep Creek there was only one exposure of rock, and that of no great extent, it was judged expedient to travel the distance by stage, an opportunity being afforded for the examination of the exposure as we passed along. In the next ninety miles, by Soda Creek and the bank of the Fraser River, along which the Cariboo road again runs to Quesnel Mouth, the rock exposures, with the exception of those in the first ten miles, were said to be almost continuous, and in some places to display coal. These ninety miles were therefore measured.

Coal.

Vanwinkie.

From this point the road turns eastward, crosses the Cotton-wood River, and runs up the valley of its tributary, Lightning Creek. On this creek is situated Vanwinkle. The distance between Quesnel Mouth and Vanwinkle is about sixty miles, and the exposures not being numerous, I availed myself of the stage between them, trusting that such stoppages as might occur would afford opportunities for the examination of them. Thence to Barkerville and beyond, in the Cariboo gold region, twenty miles more were measured.

It was now the 17th of September, and part of my instructions being that before the close of the season I should visit some of the Vancouver

coal deposits, it was deemed prudent to return towards the Island. I did Return towards so by stage as far as Bonaparte House, stopping on the way at Clinton Island. to make a measurement on the Lillooet road, as far as Carson's farm on Vermillion Mountain, thence across the hill to and up Marble Canon, the distance being altogether about thirty miles; and another eastward from Clinton of some eight miles across to the Bonaparte River.

From Bonaparte House to Yale, the road was measured all the way, the distance being about 110 miles; and additional intermediate measurements were made from Spence's Bridge, one of them twenty-five miles up the Nicola River, to the south-east, and an opposite one of ten miles on the flank of the Cascade Mountains. From Yale returning to Vaucouver Island by steam, I reached Victoria on the seventh of October.

The whole of these measurements amount to about 370 miles, about 500 Total measurements in British having been travelled on foot to accomplish them, and it is hoped that they columbia. will hereafter be serviceable in the construction of a final geological map.

Before entering on the examination of the Vancouver coal deposits, it was necessary to equip myself with a tent and provisions, to look out for a boat, and to hire such men as might be required to assist me; and, while, arrangements in connection with these preparations were in progress, my time was occupied in such examinations as could be made of the neighbourhood of Victoria.

Leaving this place on the 17th October, I was conveyed by steamer, with my boat and two men, as far as Nanaimo, a village on the south-west Nanaimo. side of the strait, about seventy miles from Victoria, where coal has been worked for the last twenty years. A week was spent in the examination of the rocks of this vicinity, and a free passage having been afforded me on the government steamer Sir James Douglas, through the kindness of Mr. W. B. Pearce, Assistant Crown Land Commissioner for British Columbia, I proceeded about seventy miles farther to Comox Harbour, near which several coal claims have been taken up within a year or two, coal claims. reaching it on the 27th of October. Coal is known to occur sixteen miles still further along the coast, but as I understood there was no good shelter, and as I wished to make my chief examinations by returning along the coast in my boat, it appeared to me that the season was too far advanced to render it prudent to go beyond Comox. I accordingly returned from there to Victoria, where I arrived on the 23rd of November, and after continuing my examinations in its vicinity until the 22nd of December, started on my return to Montreal. Return to

COAL DEPOSITS.

Coal-seams are known to exist in other parts of Vancouver Island, besides those already alluded to. They have been met with towards the north-western end, one locality being on the north-east side, near Fort

Trough.

Rupert, on Queen Charlotte Sound, another on Quatsino Sound, which opens on the south-west side into the Pacific; and there appears at present nothing to render it impossible that they may spread out in some places into the centre of the sound. But I shall here confine my remarks to those parts which I have visited on the Strait of Georgia. These appear to belong to a narrow trough, which may be said to extend from the vicinity of Cape Mudge on the north-west, and to approach to within fifteen miles of Victoria on the south-east, with a length of about 130 miles. It is occupied by a series of rocks which in some places present a rolling surface, with no elevations rising to a greater height than 800 or 1,000 feet, and in others is comparatively level. It possesses generally a good soil, and may hereafter be thickly settled. It is mostly covered with forest, but in some parts presents a prairie or park-like aspect, with grasscovered ground, studded with single trees or clumps of them, and offers great encouragement to agricultural industry.

Soil and vegetation.

Crystalline rocks.

Height of mountains.

Claims.

The north-east side of this trough lies beneath the waters of the Strait of Georgia, and on that side is bounded by crystalline rocks coming apparently from beneath it in Lasqueti, Texada and other islands, and on the main-land beyond; while on the south-west it occupies a strip along Vancouver Island, limited by a range of very bold mountains of the crystalline series, which runs nearly parallel with the coast, having points of from 4,000 to 7,000 feet above the sea. In the first or nearest ridge of these are Mount Washington,5,410 feet, Beaufort Range, 4,900 and 5,420 feet, Mount Arrowsmith, 5,970 feet, and Mount Moriarty, 5,185 feet; while in the second ridge, farther in the country, is Alexandra Peak, 6,394 feet, and Mount Albert Edward, 6,963 feet; all as represented by Captain Richards in his Admiralty chart, a copy of which was kindly lent me for use by Captain Clark of the Sir James Douglas Steamer.

In the general trough, coal-seams are exposed in upwards of a dozen different places, and in five distinct localities claims have been laid before the government by different companies. The most instructive exposure is one that occurs about five miles (S 63°W)\* from the shore on the south-west side of Comox harbour, on the claim of the Union Coal Mining Company.

Here in an almost perpendicular cliff, which rises on the north side of a small brook, tributary to the Puntledge River, there occurs the following descending section, the coal-seams in which I shall number in ascending order: †

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<sup>\*</sup> All the bearings in this Report are given in relation to true north, magnetic north being twenty-two degrees to the east of it.

Analyses of samples from the principal coal-seams examined by me in Vancouver Island will be found by reference to Dr. T. Sterry Hunt's Report, appended.

	Ft. I	ns.
Brownish or drab-coloured, slightly calcareous sandstone, the grains	-	
of which are composed of quartz, feldspar and mica, with some of		
a black substance supposed to be peroxide of manganese, the		
beds being from one to five feet thick	45	0
Coal (No. 4), black and shining, apparently clean and free from		
shale	4	6
Brownish-black argillaceous shale and greenish-brown sandstone,		
interstratified with one another in thinnish layers, the shale		
predominating, and both holding thin, irregularly-distributed,		
lenticular patches of coal, which may constitute about one tenth		
of the mass; no indications of roots penetrating the upper part of		
the bed were observed	15	0
Coal (No. 3), apparently all of good quality	5	4
Brownish-gray or light drab sandstone, in beds of from one foot to		
eighteen inches	10	0
Coal (No. 2), apparently clean and of good quality	6	0
Brownish-gray or light drab sandstone, interstratified with thin		
layers of black, soft, argillaceous shale	-	0
Coal (No. 1), without observed impurities	10	0
Total	98	10

The dip of the measures in this part is N. 32° E. < 11°. The brook, which, Dip of meais, as already stated, a tributary of the Puntledge, runs north-westward, nearly sures. on the strike, and at some height on the right bank, about 600 paces down the stream, a coal-bed of four feet and a half is exposed, which very probably corresponds with number 4 of the above section, and shows an apparent regularity in its course, and in the attitude of the measures, for at least that distance.

None of the seams in this locality have yet been opened for productive working; but during the past summer a road has been cut out and cleared New road. of wood to a breadth of some twenty or twenty-five feet, for a distance of four miles, leaving about three miles more still to be freed of heavy timber. The level of the brook where the seams are exposed, is about 500 feet above the sea, and the road will have a pretty even fall the whole way to it.

Coal-seams, said to resemble those which have been described, occur at Coal-seams N. no very great distance in a north-western direction from the Union Claim. Claim. They were first discovered by Mr. P. J. Leech, and are mentioned by him, in the Report of his exploring expedition of 1864, as being an eight-feet and a five-feet seam, situated on a western tributary of the Puntledge, which falls into the Courtnay River about two miles above its mouth. Not having obtained information of their precise position until I had left the Union Claim, they were not visited by me, and I cannot therefore offer an opinion as to their stratigraphical relations. I was told also that still further to the north-west, the position being sixteen miles from Comox Harbour and close upon the coast, there is a four-feet coal-seam, but the weather prevented me from visiting it.

About five and a half miles along the coast from Comox Harbour, in a general bearing about S. 28° E., there occurs a trail or path leading to

Beaufort Mine. what is called the Beaufort Coal Mine; the general bearing of the path being S. 80° W., and the distance from the coast a little over five and a half miles. Here, on the left side of a small stream called Bradley's Creek, there occurs a seam of good hard coal, measuring 3 feet 2 inches, and resting on two feet of soft black argillaceous shale, beneath which there are visible between five and six feet of brownish-gray sandstone, holding disseminated pebbles of quartz, feldspar and diorite. The dip of the strata is here N. 27° E. < 18°, and Bradley's Creek, which, flowing north-eastward, ultimately gains Baynes Sound, at this place crosses the measures nearly at right angles.

Sandstone

Proceeding down the stream, the coal-seam appears to be overlaid by a considerable thickness of sandstone, and, at the distance of about half a mile, another coal-seam occurs, of which, from the quantity of water in the brook, no more than two inches were visible; while half a mile farther on, there are indications of still another seam. These two seams, from the quantity of water caused by recent heavy rains, were very imperfectly seen by me; but Henry Bradley, one of my men, who was one of the first discoverers of the seams on this claim, and was afterwards employed to ascertain their thickness, informed me that the two in question were from one to two feet each. He also informed me that about a mile and a half to the westward of the position where the lowest of the three seams is Seam on Trent exposed, there occurs a fourth seam on the Trent River. of water prevailing, and the occurence of an intervening swamp, prevented me from visiting this seam, but Bradley gives the thickness, 28 far as ascertained without reaching the bottom of it, as nine feet.

The transverse distance in which these four seams occur appears thus to be upwards of two miles, while the four seams of the Union Claim, with a less apparent dip, would not occupy a greater breadth than 250 feet; and the strike of the latter would seem to place them considerably higher in the measures. If it should hereafter be ascertained that any of the seams of the two localities are identical with one another, it can only be through the occurrence of undulations or faults, of which we at present know nothing.

Five miles along the coast, in a bearing S. 18° E. from the trail to the Perseverance Claim, a path runs inland, in general bearing S. 70° W., and leading, in a distance of a little over two miles in a straight line, to the Baynes Sound Coal Mines. Here in a deep gorge, through which a small stream of water finds its way in its course to Fanny Bay on Baynes Sound, occurs the following descending section:-Ft. Ins.

Baynes Sound Coal Mines.

Brownish-gray or drab, moderately fine-grained sandstone, slightly calcareous, with scales of white mica, and in layers of from six inches to two feet, holding fragments of the stems and leaves of plants......

Coal, clear and hard	5	10
thick, holding fragments of plants	48	t
Black, soft, argillaceous shale, with short thin lenticular patches of coal	5	(
Brownish-gray or drab sandstone, in beds of from six inches to two feet	5	6
Black soft argillaceous shale with obscure impressions of plants	2	0
impressions of plants, say	6	C
Brownish-gray or drab, moderately fine-grained, slightly calcareous sand- stone, with scales of white mica	5	(
· · · · · · · · · · · · · · · · · · ·	107	

The dip of the strata is here N. 860, E. < 15°, gradually increasing to Dip of strate 40°, and the two coal-seams are seen descending in both sides of the ravine, the edges of the lower one meet in the bottom of the stream, but while those of the upper one are still about twenty feet above the water, a fault occurs cutting them off. The underlie of the fault is S. 62°W. < 38°, Fault. and the dip of the strata on the other or eastward side of it is N. 64° E. <43°. The strata on that side, after an interval in which seventy feet of the base are concealed, consist of seventy-two feet of brownish-gray sandstone, holding a few fragments of plants, overlaid by ten feet of black argillaceous shale. As these beds are not recognized on the west side of the dislocation, the amount of it, on the side on which the strata are thrown down, cannot be determined with certainty, unless a small mass of coal which is caught in the fault, and lies lower than the extremity of the upper seam, be derived from it. In that case the down-throw would be on the east side. In a position, which appears to be close to the east side of the fault, a shallow shaft has been sunk in search of the upper seam; it penetrates the measures on that side, but sandstone alone appears to have been excavated.

The section which has been given above does not suggest any means of Separate zones identifying the coal seams displayed in it with those of the previous localities. It may reasonably be supposed, however, that the whole of those described belong to the lower part of the measures, and the localities may each belong to a separate zone.

On the coast, no rocks are seen from the path leading to the Baynes Sound Claim all the way to Qualicum River, a distance, in a general southeastward course, of sixteen miles. But on Denman's Island, lying on the Denman's Island. north-east side of Baynes Sound, there is a continuous exposure for ten miles, which is nearly the whole length of the island, in an escarpment rising up from ten to seventy feet, and running pretty much with the strike. The rocks presented consist almost altogether of brownish-gray or drab sandstone and shale. sandstones, in beds from two inches to two feet thick, but chiefly of about six inches, separated by thin partings of black argillaceous shale, of which,

Lenticular pat-

however, occasional beds occur of ten feet in thickness, the shales hold occasionally thin lenticular patches of coal, sometimes extending unbroken for twenty feet, but often displayed interlocking with one another, for a mile or more on one horizon.

Calcareous

At the base of the escarpment the sandstones frequently display ovoid masses, from six inches to one foot thick in one direction, by from nine inches to two feet in another. These present occasionally a net-work of calcareous veins, giving them the aspect of septaria, and the sandstones themselves are probably in general slightly calcareous. Impressions of plants did not seem to be abundant. The strike of the beds coincides with the general bearing of the island; in some places they appear to be quite flat, but generally the dip is in a northeasterly direction, at from one to ten degrees.

From Qualicum River to North-west Bay, in a bearing about S. 75° E., there is a distance of about twenty miles in which no rock exposures were observed. Beyond this, masses of the crystalline series present themselves, continuing for fourteen miles in the same bearing, and separating what may be called the Comox field from one farther on; shewing that the general trough is divided into two distinct basins.

Two distinct basins.

The Comox basin would then have a length, between Cape Mudge and North-west Bay, of about sixty four miles, but limiting it, for safety sake, and the probable occurrence of some thickness of unproductive measures at the base, to the distance between Kookooshun Point and Qualicum River, it may safely be called forty miles. The greatest breadth from the Beaufort Claim to a line in the run with the outside of Cape Lazo, or, as it is commonly called, Point Holmes, would be about thirteen miles, without taking into consideration what may be beyond under the water. But estimating the average breadth to be somewhat over seven miles, the productive area may safely be considered to hold about 300 square miles.

Productive area.

Quantity of

The rule applied in the coal-field of South Wales in the United Kingdom, to calculate the productiveness of a coal-seam, gives 1,000 tons for every square foot in each acre of a seam one foot thick, leaving a sufficient quantity for pillars to support the roof. In the Union area the total thickness of workable seams is a little over twenty-five feet. This would give 25,000 tons per acre or 16,000,000 tons per square mile. In the Baynes Sound Mine the quantity would be about 12,000 tons per acre, or per mile 7,680,000 tons. Not having seen the full thickness of all the seams on the Beaufort Claim, I shall not venture upon a calculation, but any one can easily make it for himself. To attempt a calculation of the productive yield of the whole field would be premature, before all the details of its structure have been ascertained, seeing that where the seams sink beyond a certain depth they can scarcely

be profitably worked, and until all the seams have been discovered, the undulations determined, and the dips every where observed, how much or how little of the seams are in this condition cannot be known. For the facilities of trade, Comox Harbour would afford excellent accommodation Comox Harto both the Union and the Beaufort Mines. The former being, as already stated, five miles from it, with a fall of about 500 feet, while the latter is about seven miles distant, with a fall of about 700 feet, Baynes Sound with proper wharfage, might be made available at most places. It is in one place less distant from the Beaufort Mine than Comox, but the fall is not so even. Baynes Sound Mine is about 200 feet above the sea, and Fanny Bay on the Sound is about three miles south-east from it, while Deep Bay is about eight miles. Both of these harbours, though small, Safety of harare safe, especially the latter, being thoroughly protected from all winds. The approaches to all the harbours named, as well as the harbours themselves, have a depth of from five to twelve fathoms at low water. more southern division of the two into which we have separated the general trough holding them both, may be called the Nanaimo Field or Basin. nanaimo Field.

On the Strait of Georgia, at the entrance to Nanoose Harbour, a narrow strip of the brownish-gray sandstone, which belongs to the coal-measures. comes upon the coast at Blunden Point, and strikes along it in a southeasterly direction for six miles, resting on the crystalline series, and dipping north-easterly toward the strait at angles varying from two to fifteen degrees. Further on, these sink beneath the surface of the water, and, concealed by it, seem to turn the point bounding the north side of Departure Bay. In conformity with this they occupy a small island about 200 yards from the shore, just at the entrance of the bay, where they present the character of a conglomerate, the pebbles of which are siliceous, varying from a quarter of an inch to three inches in diameter, while the matrix holds a considerable quantity of carbonate of lime. These beds are interstratified with light drab sandstones, the whole having a thickness of forty feet; dip S. 8° E. < 17°.

On the shore, immediately behind the island, moderately fine-grained brownish-gray sandstones are seen, resting on the crystalline series, alling up inequalities in their surface, and nearly conforming in dip with the beds on the island. For a quarter of a mile along the shore of the bay, the sandstones continue, with occasional sharp craggy intervals occupied by the crystalline series, the dip of the sandstones gradually becoming south, and then west of south. Within fifty paces of the last of these sandstone exposures, a rock occurs whi h is composed of a brownish arenaceous matrix so thickly studded with rounded calcareous forms as to constitute an impure limestone. Here, a very little over high water mark, a lime Limeter kin had been built, and the rock quarried, and burnt for quicklime.

The experiment, however, does not appear to have been very successful, as the kiln is now abandoned.

This impure limestone is visible for about twenty paces, along the strike, and there may be a thickness of it of some ten or twelve feet, in beds of from twelve to eighteen inches. The rounded calcareous forms which stud it were taken on the spot to be water-worn fragments of shells, but, upon microscopic examination of thin slices of them, prepared by Mr. Weston at the museum, Dr. Dawson finds that they contain hexagonal tabulate coral, like Stromatopora compacta; a Bryozoon-like Escharina, with square cells; also fragments of Ceriopora and of shells like Inoceramus or Pinna, Cretaceous or possibly older. On the surfaces of some of the beds there were displayed patches, occupying from two to three inches where least, and about a foot in diameter where largest, of yellowish-white ealc-spar, rather over a quarter of an inch thick, very much resembling the remains of thin seams of satin-spar. These, upon the microscopic examination of thin slices, were determined by Mr. Billings to be of the genus Inoceramus or Pinna, belonging to the Aviculina. The dip of these beds is S. 24° W. < 18°, and opposite them, at a distance of about 100 yards, there are four or five rocky islets, composed of the brownish-gray sandstones, which, having the same dip, would overlie The fossils which have been mentioned as probably Cretaceous are of importance, in proving that the coal deposits of Vancouver Island are of that horizon. Bearing S. 88° W., three miles from the bight of Departure Bay, but

Fossile, Cretaceous or possi-bly older.

how far above the base of the sandstones mentioned is uncertain, there Dunsmuir Coal being no exposures in the interval, occurs the Dunsmuir Coal Mine. In a part of the coal-bed, which had been covered with a few feet of clay, a trench six feet wide was being cut at the time of my visit, and had already The thickness in been extended to fifty yards in a bearing N. 63° E. Nine-feet seam, this part was sometimes nine feet and sometimes, perhaps from denudation, At the end of the distance the seam had become reduced to seven feet. covered with about a foot of decomposing argillaceous shale, and was of its full measure, while all the way it rested upon a bed of light drab sandstone, which was quite horizontal.

Proceeding from the commencement of the trench, in nearly the same bearing as before (S. 88° W.), the surface of the ground gradually rises above the base of the coal about twenty feet, and exhibits a mass of light gray conglomerate-sandstones, with pebbles derived from the crystalline rocks, varying in size up to an inch in diameter. The ground again falls about twenty feet, and in a distance of a little more than a quarter of a Four-thet seam, mile from the first coal exposure, we meet with a second. four years ago, was worked to the extent of several hundred tons; and I was informed by Mr. Dunsmuir, Postmaster of Nanaimo, that the

Feet.

seam is from four to seven feet thick, and like the other, it is so nearly horizontal that, being on the same level, it might readily be supposed to be identical with it; but, according to Mr. Dunsmuir, the one gives a red. and the other a white ash; moreover, the second one being nearer the run of the coal-measures, and upon strict examination appearing to slope towards it at the rate of about one degree, it may, from some slight increase of inclination in the interval between them, sink beneath it.

Nanaimo Harbour is situated about three miles S. 25° E. from Depar-A sound leads from the one to the other, on the south side of which are Newcastle and Protection Islands; the latter so named from the shelter it affords to Nanaimo. The northern extremity of Newcastle Protection Island bears a little east of south from the small island, which has been Islands. mentioned at the entrance of Departure Bay, the distance between the two being about three-quarters of a mile. It presents bold cliffs to the water, which rise to heights of from 100 to 150 feet in some places, and are perpendicular, or even overhanging. These are composed of a coarse conglomerate rock, in which rounded masses of various sizes, up to a foot in diameter, consist of diorite, quartzite and other hard materials, derived from the crystalline series. The breadth of the conglomerate was found to be about a quarter of a mile, and in the cliffs it nowhere shewed distinct stratification; but on the two sides of the island finer beds which succeed have a slope of nine degrees, comformable, in the direction of the dip, with those at the entrance of Departure Bay. The following ascending section, from the crystalline rocks on which it rests, may be constructed of the coal series in the vicinity:-

Brownish-gray sandstone, in beds of from six to eighteen inches, occasionally merging into impure limestone from the presence of		Section of the Coal measures
calcareous remains of Bryozoa and Aviculina, such as in the band		
already described	30	
Concealed under the water	35	
Gray sandstones, with beds of fine conglomerate	40	
Concealed under the water	35	
Gray conglomerate, with siliceous pebbles, varying in size from a		
quarter of an inch to an inch, in a matrix of fine sand, and much		
carbonate of lime	77	
Concealed under the water, between Small Island and Newcastle		
Island	917	
Brownish-gray coarse conglomerate, with rounded masses varying in		
size from a quarter of an inch to a foot in diameter, consisting of		
diorite, quartzite and other hard materials	21τ	
Gray, fine-grained, thinly-laminated sandstone, separated into beds		
from half an inch to four inches thick by carbonaceous partings,		
showing remains of plants as well as of Inoceramus	37	
Black argillaceous shale	4	
Coal, clean and hard; with a cleavage oblique to the bedding, thin	,	
leaves of carbonate of lime filling the cleavage joints in some	•	
places; thickness from three and a half feet to	4	
Concealed.	24	
20		

	Fee
Brownish-gray sandstone	5
Brownish-gray sandstone, holding sub-globular masses harder than	
the rest of the rock, from the presence of carbonate of lime, of	
from two to four feet in diameter, which stand out in relief on sur-	
faces exposed to the beating of the sea waves	4
Brownish-gray or light drab sandstones, in beds of from six to	
eighteen inches, interstratified with bands of conglomerate with	
pebbles up to two inches in diameter	21
Brownish-gray sandstones with sub-globular masses, as before	3
Concealed	10
Coal, clean and hard, not seen, from the presence of water in the	_,
slope which has been opened on it, but said to be from three feet	
thick to	4
Concealed	17
Gray, thinnish-bedded sandstones, with fragmentary remains of	**
the stems and leaves of plants	3
Gray, fine-grained sandstone, holding iron pyrites disseminated ob-	
scurely in small grains in the rock, which crumbles away on	
weathering	6
	О
Gray fine-grained and finely-laminated sandstones, separated into	
beds from an inch to a foot in thickness by the presence of thin	4
carbonaceous partings	4
Gray fine-grained sandstone in one bed	5
Gray fined-grained sandstone in one bed	4
Gray fine-grained and finely-laminated sandstones, separated into	
beds from an inch to a foot thick by thin carbonaceous partings,	
and yielding excellent flag-stones; on some of the surfaces re-	
mains of plants are displayed	12
Gray fine-grained sandstone, which constitutes a good building	
stone in some places, and in others, from the decomposition of fine-	
ly-disseminated iron pyrites, crumbles on weathering	16
Gray fine-grained sandstone, in one bed yielding excellent building	
material	10

The dip between the two coal-seams of this section is S. 25° E. < 15; but, proceeding across the measures which overlie them, it gradually diminishes, until, at the summit, the strata become nearly horizontal.

The gray sandstones of the upper portion yield in most parts excellent Fing-stones and material for building and flagging. At the time of my visit, the quarry building mawhich has been appared to the control of which has been opened on them was leased by the Vancouver Island Company, on whose claim the coal-seams and gray sandstone occur, to Mr. E. E. Emery of San Francisco, who was raising stone from it for the construction of a United States mint in that city. Six blocks for pillars had been procured from the ten-feet bed, one of which was being dressed size of blocks. into shape for use. When finished the length of the pillars would be twenty seven feet and a half, with a diameter of three feet ten inches. Mr. Emery was also quarrying flag stones from the twelve-feet bed, from which are obtained very even-surfaced slabs, from one to six inches thick. the latter thickness, which I measured, was ten feet square. flags and building stones are easily quarried. The stone dresses freely,

and it will probably preserve its colour, seeing that natural causes have produced little or no change in its tint on exposed surfaces still unquarried. It is not impossible that grindstones may in some places be obtained from Distribution of this part of the measures. The flatness of the beds gives a considerable area in Newcastle Island to these useful gray sandstones, and extends their distribution to Protection Island to the south of it.

About a mile south-east from Protection Island, brownish or drab, moderately fine-grained sandstones occur at Sharp Point, and they are seen thence along the coast, almost continuously, all the way to Dodd Narrows, Sharp Point a distance of three miles and a half. The dip varies in direction from and Dodd Narrows. N. 39° E. to N. 71° E., and in inclination from twelve to twenty-four The coast crosses the measures obliquely, gradually gaining higher strata, and there appears to accumulate a thickness of 532 feet. The concealment under the water between Protection Island and Sharp Point, and the increase of dip in the latter locality make it difficult to determine how the rocks in the two are related to one another, and it would scarcely be safe, without more information, to add these sandstones to those in the previous section.

Both the coal-seams mentioned in the Newcastle section have been Coal-seams on tested by openings. A slope was sunk in the upper one, upwards island. of a dozen years ago, to the extent, I was informed, of about 120 yards, and coal shipped from it to Victoria. It seems to have been out of working for a considerable time, and the Vancouver Island Company are at present erecting a small steam-engine at the mouth of the slope for the purpose of bringing it into operation again; but when I was there the slope was full of water. The lower seam is in actual working, a small steam-engine standing at the mouth of the slope to haul up the coal. Several schooners and steamers were supplied with coal from it while I was on the neighbouring coast, and several hundred tons were piled on the wharf at the time of my visit to the mine.

The main working of the Vancouver Island Coal Company, however, Vancouver Island Comis at Nanaimo, on a six-feet seam, about two miles south of the seams on pany's Mine at Nanaimo. Newcastle Island. Of the measures associated with this seam, Mr. John six-feet seam. Brydon, the under-ground manager of the mine, has been so kind as to furnish me with the following descending section, the data for which, having been obtained from a vertical bore-hole, the thicknesses have been reduced by me to measurements perpendicular to the plane of the beds:-

Bluish-black argillaceous shale..... Brownish or drab, coarse-grained sandstone, holding a few disseminated pebbles up to half an inch in diameter ...... 11 Coal, clean and hard, holding thin leaves of carbonate of lime in the cleavage joints; the thickness varies from two and a half feet to.... 

Section of the measures.

	Feet.
Gray fine-grained sandstone	75
Coal, associated with from two to three feet of bluish-black shale, the	
thickness both of the shale and coal being very irregular	7
·	175

In the working of the upper seam on the slope it has been found that the dip is N. 54° E., with a very regular inclination of sixteen degrees in the first 350 feet, increasing to seventy and eighty degrees in the succeed-

300 feet; the seam then suddenly rises and dips south westerly at an angle of twelve degrees, on which it has been followed for sixty feet. There may possibly be some variation in the bearing of the dip in the steepest part.

Extent of the workings.

Not having seen any under ground plan, I am unable to state how far the seam has been worked on the strike; but it must now be a considerable distance, as the colliery was first opened upwards of twenty years ago, and has been in operation pretty regularly ever since. In 1860 the produce of the mine is said to have been 14,000 tons, and I was informed by Mr. Brydon that the quantity of coal now daily raised is from 160 to 180 tons as it comes from the pick, which would probably give about 40,000 tons of saleable coal per annum.

•

Produce of the

mine.

coal.

In a bearing S. 22° E., a little over a mile from the mouth of the slope, there is an exposure of coal on the coast in which three or four seams of good coal, varying in thickness from a quarter of an inch to an inch, are interstratified in about four feet of black shale, resting on about sixty-three feet of light drab sandstone. The dip in the neighbourhood is N. 32° E. < 15°, gradually changing to S. 83° E. < 7°, in something less than a mile along the coast.

Seams on Nanaimo River and Dodd Narrows.

Continuing in about the same bearing as before, S. 22° E., for about four miles, two seams of coal are said to occur on the Nanaimo River, about a mile up from the mouth, but I was not so fortunate as to ascertain their thickness or the distance between them. Another reported locality of coal is about a mile south from Dodd Narrows, which would be about four miles south-east from the previous one; but I could gain nothing satisfactory from my informant, of either the thickness or the character of the How these reported seams are related to the Nanaimo coal-beds is uncertain. They may not, however, be far removed from this horizon. On the outside of Dodd Narrows stands the Island of Gabriola. It has a length of ten by an average breath of about three miles, and, judging from an examination across the strike at the north-west end, and along it on the southwest side, the rocks of the island seem to consist almost wholly of brownishgray sandstone, sometimes becoming conglomerate, particularly on the No coal-seams were observed to be associated with the south-west side. The dip on the outside of the island appears to be north-east-But in Rocky ward, with an average inclination of about four degrees.

Gabriols Island Bay at the north end, towards the west side, there are evidences of a small undulation.

Area of the Na-

The area, including all the coal-seams which have been already men-naimo coal-field. tioned as belonging to the Nanaimo field, has a length from the Dunsmuir claim to the end of Gabriola Island of about sixteen miles, with an average breath of about six miles. Its surface would then measure upwards of ninety square miles. In the remaining part of this basin, to the south-east, no important coal-seams, as far as I am aware, have as yet been met with. But little of the region is up to the present known, and there is every probability that the same seams will extend to it.

Two long narrow islands, Valdes and Galiano, to the south-east of Gabriola, liano Islands. appear to be a continuation of the same rocks which characterize this area, as far at least as Montague harbour which is near the south end of Galiano. The escarpment along the south-west side of them is seldom less than 200 feet in height, and in one part of Galiano it becomes 900 feet; while the dip, which is north-eastward, is in general moderate. But in Thetis, Kuper and Saltspring Islands, as well as in the smaller ones, called Indian, Undulation Secretary, Reid and Hall, the strata appear to be affected by numerous affecting the strata. undulations, the dip changing continually both in direction and amount. In the smaller islands mentioned, which have a range parallel with Valdes and Galiano, the strata consist of sandstones, but, at the northern extremity of Saltspring Island, and extending to Saltspring Settlement, a distance of Sandstone and four miles, the sandstones become largely interstratified with black, soft, ar-argillaceous gillaceous shales, occasionally becoming partially arenaceous. Some of the argillaceous bands are from twenty to thirty feet thick, and these occasionally hold bivalve shells, apparently belonging chiefly to one species; but the shale is of so crumbling a character that it was found next to impossible to preserve a single specimen. Many of the argillaceous bands are from two to five feet thick, separating belts of sandstone, subdivided into beds from two to four inches thick by the presence of shale, varying from mere partings to layers of a quarter of an inch. These sandstones would form excellent flagging, in slabs varying from two to seven feet square.

Southward of Saltspring Island, or, as it is named upon the chart, Moresby, Port-Admiral Island, are situated Moresby, Portland and Coal Islands, dis-land and Coal Islands. playing sandstones and shales belonging to the coal-series. centre of the last named island, about twenty feet of dark gray argillaceous shale are overlaid by seventy or eighty feet of gray sandstones. uppermost two feet of the shale enclose many fragments of tree stems, impregnated with carbonate of iron, and usually in the form of transverse slices, with sharp edges, measuring from two to eight inches in width and from four to twelve inches in length. Impressions of well formed

<sup>\*</sup> For description of these fossil plants, see Dr. Dawson's note, following Report.

Fossil leaves.

broad leaves, distinctly veined, were abundant on the surfaces of the shale-layers, and in one place there lay upon a surface, and extended in a serpentine manner for a length of some ten or twelve feet, the remains of what appeared to be a root, perhaps in its original site of growth, with a thickness of three-quarters of an inch at one end, and gradually tapering to a quarter of an inch at the other. It appeared to be wholly composed of clean coal; whether any branches proceeded into the shale beneath I could not ascertain. The conditions of the case made it appear as if the supposed root, before denudation, had been imbedded in a thickness of shale just sufficient to cover it. On the immediate surface of this covering portion, there was evidence in a vertical section of the succeeding layer, that patches of coal of seven or eight feet in diameter had lain to the thickness of a quarter of an inch.

Shoal Bay.

About two miles and a half to the westward of this locality, there is another, in North Saanich, about half a mile west of the entrance to Shoal Bay, on the north side, so exactly resembling the one already described that it suggests an identity of horizon. Here, in addition to the remains of stems, and impressions of veined leaves and root-like forms, fragments of Inoceramus are met with in patches. Some of the fragments are eighteen inches in diameter, and occasionally five or six inches thick. In these the shell, which exhibits a transverse fibrous structure, is separated into layers by the interposition of thin leaves of shale, which probably indicates that the thickness is due to an accumulation of fragments, while the layers mark the real thickness of shell in each fragment.

Fossils.

On the same side of Shoal Bay, about half a mile farther west, another similar exposure occurs, with the same sort of remains, with the exception of the supposed roots.

Crystalline rocks

Coal-measure troughs. A large part of Admiral or Saltspring Island, on the south-west side, is composed of crystalline rocks. They may have a breadth of six miles, which is more than half the full breadth of the island. These rocks here separate a cluster of united troughs in the coal-measures on the north-east, from a synclinal form on the south-west. The whole number of these synclinal forms, great and small, may be six or seven, and perhaps more. Valdes and Galiano Islands, with part of Gabriela, seem to be in one; Secretary and Reid Islands in another; Moresby Island in a third; Portland Island in a fourth, which seems to run up to Fulford Harbour, and to be continued, after an interruption, in Burgoyne Bay; Coal Island and Shoal Bay are in a fifth, and there is possibly a sixth in a very small undulation. These six synclinals as a group are separated from a seventh by a run of the crystalline series, extending seventeen and a half

On the west side of Fulford Harbour, near Isabella Point, Inoceramus again occurs, in black argillaceous shale, dipping N. 32° W., probably shewing a small fold.

miles north-west, and swelling as it proceeds to the breadth given, the seventh having a length of twenty miles from Cole Bay to the foot of Provost Mountain, with a breadth of probably three miles.

At Coal Point, in the last synclinal form, on the south side of Deep Bay, which is on the east side of Saanich Inlet, there is a seam of coal, from Coal soam at Coal Point, Saawhich a few tons have been excavated; but the coal appeared to be a nich Inlet. good deal mixed with shale. The seam is thirty inches thick, and dips N. 22° E. < 18°. I was unable to trace it beyond the opening. Threequarters of a mile on the strike eastward, on the farm of Mr. Cloake, an opening has been made in search of coal; but, although a seam was observable in it, its thickness did not appear to be more than the eighth of an inch.

The numerous undulations which have been indicated in the Nanaimo Thickness of coal-field, make it difficult to estimate the total volume of the measures. Nanaimo coal-The thickness presented in the Newcastle Island section, from the base to the gray sandstones, is 1,538 feet. As already stated, it would be scarcely safe as yet to add to this the 532 feet displayed on Dodd Narrows; but I am disposed to think that the sandstones of the outside of Gabriola Island, which are the same as those of Valdes and Galiano, are higher strata. In the escarpment in the last named island, we have in one place 900 feet, and for the present it may be safe to suppose that the total thickness of the measures will prove to be at least 2,500 feet.

Belonging to the formation, salt-springs occur in the north part of Salt-springs. Admiral Island, giving the popular name by which the Island is known in the country. The water has a bitter, saline taste, and is said by Mr. C. Forbes—quoting from Mr. J. D. Pemberton,—to contain 3,446 grains of salt to the imperial gallon; but, not having seen the full analysis, it is impossible for me to form an opinion as to how far the salts giving it a bitter taste, would be prejudicial to its use for the manufacture of salt.

#### CRYSTALLINE ROCKS.

The rocks which come from beneath those associated with the coal Crystalline rocks beneath deposits are of a decided crystalline character, shewing different aspects the Coal measures. in different places. In my examination along the coast south-eastward from Comox Harbour, the first exposures of these which presented themselves have already been alluded to, as dividing the general trough containing the coal-measures, into two parts. They occur between Northwest Bay and Nanoose Harbour, forming the coast for between seven and eight miles, and rising up into Notch Hill, which, although only 624 feet in height, is rendered conspicuous by its isolated position. Like the peninsula on which it stands, it is composed of a dark gray diorite, minutely Diorite. jointed in various directions, causing it in its destruction to fall into small fragments. It extends into several small islands and reefs along the coast,

Fine-grained syenite.

of which the names are Cottam, Mistaken, Gerald, Douglas and Yeio. On the east side, this diorite seems to be united with a considerable mass of finegrained syenite, consisting of white quartz and feldspar with black hornblende, with which is associated an occasional small quantity of mica. The presence of this rock is indicated in the Islands of Winchelsea, Rudder Reef, Ada, Southly and Maude. The diorite is projected five miles farther to the south-east, in the tract separating the coal rocks of Blunden Point from those of Departure Bay, and where it is seen at the extremity of this its joints are occasionally invested with yellowish-green epidote. Neither the diorite nor the syenite presented any evidences of stratification.

The next locality in which the crystalline rocks occurred was that in which

here which I had an opportunity of examining, was in Fulford Harbour, both sides of which shew great masses of a rock composed of bluish-white quartz and feldspar, in which is disseminated a sparing quantity of what appears to be chloritic matter. In that part of the distribution which

runs north-westward from between Cape Keppel and Point Isabella, a portion of the breadth rises to the height of 2,329 feet. I am not able to

state of what this portion is composed, but to the south-east and south, in the peninsula lying between Saanich Inlet and Haro Strait, and stretching to Victoria, there is a great development of speckled diorite, with much black hornblende, in large masses in the greater part of which no evidences

miles north-eastward from Victoria, the rock becomes a finely-laminated

Three miles south-east of this, in Cadboro Bay, a similar rock is characterized by the presence of mica. and has a thickness of not less than

On the Saanich road, however, about five

the distribution has already been given, in Admiral Island.

of stratification were observed.

Epidote.

Point.

Cape Keppel and Isabella

Dioritic gness, dioritic gness, cut by thin obscure veins holding a small quantity of epiwith epidote.

150 feet.

Crystaline limestones.

The general trend of the crystalline rocks, which in Admiral Island appears to be south-eastward, seems gradually to turn to the south-west approaching Victoria, conforming apparently to the shape of Vancouver Island, and limestones frequently present themselves associated with the The most northern exposure of limestone met with by me is in diorite. Cormorant Bay, in Haro Strait, eight miles nearly north of Victoria-Here, running along the shore, which is nearly north and south for about 500 paces, there occurs an exposure of limestone, darkish-gray and very finely-crystalline in some places, and in others bluish-white and of an The arrangement of the impalpable grain, with a conchoidal fracture. colours is difficult to understand, as the stratification appears to be oblit-Both of these limestones hold forms which Mr. Billings is inclined to consider organic. In the dark gray variety they appear like irregular cylinders and fragments of shells which have been silicified, and are weathered into relief on the surface; while in the bluish-white, similar forms,

Fossils.

without silicification, appear of a whiter colour than the matrix, and are also slightly weathered into relief with a shallow furrow close around them. The whole of the forms are too much obscured by distortion to be deter-In some parts both the limestones become intermixed with epidote, the quantity of which gradually increases on receding from the water, while the limestone diminishes, until at last, the whole rock is epidote, of which in some places there is a thickness of twenty feet. Beyond this the epidote gradually becomes intermixed with diorite, and again diminishes until the rock is all diorite, while still farther on, the rock is a diorite of the speckled variety already mentioned, but the junction of the two diorites is concealed. In the passage between the limestone, and the epidote, the rock in some places is marked by the occurrence of small quantities of copper pyrites.

Copper pyrites.

On the Saanich road, about a mile south of the dioritic gneiss which has already been alluded to, there occurs another exposure of limestone, in a vertical bed of eight feet thick, which was traced S. 68° E. for half a mile, Limestone bed and in an opposite direction at intervals for a quarter of a mile. It is a brownish-gray compact rock, of impalpable grain and conchoidal fracture. The rock in contact with the limestone on the north side is a speckled diorite, exposed in some places for a breadth of 200 paces, and probably more; while on the other, at ten paces from the limestone, diorite occurs, which is exposed for an equal breadth.

About a mile and shalf from Victoria, to the east of the same road, limestone occurs on the farm of Dr. Tolmie, who has burnt it for quicklime. It is of the same colour and character as the previous band. Only a small amount of the rock is exposed. In the immediate vicinity of the limestone the rocks are concealed; but, about three hundred paces to the north there is a band, 100 feet thick, of bluish-white quartzite, weathering to a yellowish Quartzite. colour. To the south and south-east of it, diorite forms a low range of hills which continue half way to Victoria, and there are occasional exposures of the same rock in Victoria itself.

The fourth locality in which limestone occurs is less than a mile west of Victoria, on the north side of the entrance to the harbour. It appears in a small cove, where it rises about ten feet above the water, and runs about twenty paces along the bank, in which it is overlaid by clay. strike could not be determined, but it is compact and of a mottled-gray.  $O_{
m n}$  going south the limestone gradually becomes impure and merges into a diorite, which is the prevailing rock in the neighbourhood.

A fifth locality of the rock is about three miles and a half west of Victoria, on the east side of Esquimalt Harbour. The exposure extends for about Limestone on 100 paces on the strike, which on the average is N. 82° W., and has Esquimalt Hara breadth of from twenty to thirty paces. In some places it is confusedly mixed with diorite. It is gray in colour, somewhat crystalline in

Silicified Encrinal columns.

texture, and holds a great quantity of siliceous grains, and some forms which seem to be silicified fragments of Encrinal columns. Immediately north of the limestone, the rock is diorite of the same speckled character already mentioned.

A sixth locality is in the same bay, about a mile farther west, where there is a bluish-white limestone of an impalpable grain, and having a conchoidal fracture. It has a thickness of ninety feet, and shows thin closelyjoined beds, dipping S. 24° E. < 70°. It is traceable on the strike for about 200 paces. Speckled diorite is seen within a few yards of it, both above and below, that below being visible for a breadth of fifty or sixty yards.

In a seventh locality, about half a mile north of the last, a limestone, of the same character in every respect, occurs, with an exposed thickness of forty feet, which is probably not the full amount. The rock immediately south is speckled diorite, of the same character as the last, and the band of limestone is probably a repetition of the previous one, on the opposite side of a synclinal. It has been burnt for quicklime in both localities.

On the west side of the same bay, from one to two miles southward of these two localities, you have yourself observed the eighth exposure, where a compact bluish-white limestone with a conchoidal fracture occurs, very similar to the bluish-white limestone of Cormorant Bay. The specimens from it seem to show that, as in the case of the Cormorant Bay rock, it becomes greatly mixed with epidote, which, apparently, in some places becomes interstratified with it, and constitutes a large part of the mass.

A ninth locality is met with about a mile west of the sixth and seventh exposures. The limestone is gray and crystalline, and holds many siliceous grains and forms similar to those already mentioned as occurring in the The exposure has a breadth of twenty-four paces in a fifth locality. dentity of the bearing N. 87° E. It in every respect so thoroughly resembles the limestone pands exposed irthe fifth and of the fifth locality, that specimens from the one cannot be distinguished ninth localities. from those of the other, and there can be little doubt of the identity of the bands.

In the tenth locality, which occurs about three-quarters of a mile northward from the last, the rock is a bluish-white compact limestone with a con-It has a strike of S. 78° E., across which is the followchoidal fracture. ing horizontal section going northward:-

Bluish-white compact limestone, with a conchoidal fracture...... Dark-gray or blackish hornblendic rock, soft but hardening on exposure, cut by a multitude of thin veins of epidote, running in all directions intersecting one another..... Bluish-white compact limestone as before..... 38

In the eleventh locality, which is the last, at Knockan Hill, nearly one Knockan Hill mile from the head of Victoria Arm, or about four miles from Victoria limestone.

itself. the rock is again a bluish-white compact limestone, with a conchoidal fracture, and has a visible breadth of twenty paces, which may not be the full thickness. It is in contact with speckled diorite on the south side, which has there a breadth of 200 or 300 paces, but its associations on the north are concealed by drift. The strike is E.and W., and in this direction it is traceable for 1,200 paces, at the end of which it is on the land of Mr. Robert Anderson, and close to Colquet River.

It seems probable that these limestones will resolve themselves into at least three bands; one, to which will belong the bluish-white compact variety; another, the gray crystalline variety, with the supposed silicified fossils; while the third will comprehend the epidotic limestone. The second sixth, seventh, tenth, and eleventh localities will probably belong to the first of these bands, which we may call A. The fifth and ninth localities to the second band, B, and the third band, C, will comprehend the first and The third and fourth localities must for the present be eighth localities. left out. It may be conjectured that the sixth and seventh exposures are on the opposite side of a southern fold, while the tenth and the eleventh, continued to the first, are on the opposite sides of a northern and parallel fold in A; that B, running conformably on the outside of A, shows itself on the opposite sides of the southern fold in the fifth and ninth localities; and that C, running on the outside of all, displays itself on the south side of the southern fold and on the north side of the northern fold, in the first and The whole, therefore, may be conjectured to belong to eighth localities. an anticlinal or synclinal form, the evidence not being sufficient to say which, with a double fold subordinate to it. I have been informed that there are many more exposures of limestone in the neighbourhood than those I have seen; and, by the future study of these, and perhaps of some fortunate locality connected with the supposed fossils, not only the structure, but possibly the age of these crystalline rocks may be made out in this part of the country.

#### SUPERFICIAL DEPOSITS.

Deposits of stratified clay, sand and gravel are very extensively spread superficial de-over the rocks belonging to the coal series. With the exception of escarp- and gravel. ments towards the base of this series, almost all the exposures of coal rocks were observed only where the drift had been swept away at the margin of the sea, or in channels of streams. Sections of the drift were scarce, and I have only a few examples from which to form an opinion of the general character of the superficial deposits. They consist generally of a grayish-brown clay, mixed with sand, sometimes becoming gravelly with well rounded pebbles, derived from the crystalline rocks, from a quarter of an inch to an inch in diameter. In some places the clay is free from sand, and in others sand prevails, and is usually marked by false bedding.

Thickness.

The greatest thickness that came under my observation was in a cliff forming the coast part of the way between Comox Harbour and Cape Lazo, or Point Holmes. The estimated height was about 150 feet. part is composed of good brick-clay, with very little sand. Lavers of sand gradually become more prevalent on ascending, while toward the top the sand predominates, and shows occasional rounded pebbles. rant Bay there is a cliff of a similar character, but its greatest height is not more than 100 feet.

Brick-clay.

To the east of Beacon Hill, which is on the coast just south of Victoria, a cliff, extending a mile, is composed of from fifty to eighty feet of clay, with a small mixture of sand throughout; and, from a similar looking clay, red bricks are made on the west side of the Saanich road, about half a mile from Victoria.

The drift in general presents horizontal layers, which in a multitude of

the drift.

Sea shells.

places are worn into gentle inequalities. Throughout the country it is soil resting on covered with an unconformable mantle of black soil, consisting of from two feet six inches to four feet of an earth, apparently, containing a large proportion of vegetable matter. This soil is probably marine, seeing that the lower layer from six inches to a foot in thickness, holds sea-shells sometimes, crowded together in great quantities. Owing to the loss of the gelatine, they crumble on being handled, and perfect specimens are, therefore, difficult The highest position in which the shell-bed was observed is to the east of the Saanich road, about five miles from Victoria. in a slight depression, at a height of about 300 feet above the sea; but it is not improbable that it may be met with at still greater heights in other Some of the shells appear to me to be the same as the recent species.\*

Erratic blocks and ice grooves.

In all the area examined by me on and about Vancouver Island, erratic blocks were only occasionally observed. Ice grooves were remarked on the beach, below Beacon Hill, near Victoria, running S. 27° W.

Character of the soil.

The vegetable soil, which has been mentioned, seems to be of a very productive character, and, whether in the forest, the field or the garden, appears, aided by the favorable climate of the country, to yield great returns. In the Comox district, about 140 miles from Victoria, as already stated, this soil is spread over a considerable area of prairie country, commonly designated openings, extending from the coast up the different branches of the Courtnay River for seven or eight miles. The surface of this district, which is naturally free from timber, with the exception of single trees and

A few of the recent shells were collected on the coast, and Mr. Whiteaves, Secretary of the Natural History Society, has kindly determined them for me. They are as follows: Mytilus Californianus, Cardium corbis (= Nuttalii), Saxidomus opacus, Tapes staminea Macoma inconspicua, Natica russa, Lunatia Lewisii, and Purpura crispata.

clumps, chiefly of oaks (Quercus Garryana), and strips of alder (Alnus Oregona) in the bottoms, may be some twelve square miles, the scenery being picturesque and park-like. Its margin is very irregular in shape, and it is surrounded by a growth of very heavy timber, among the trees of which are the Douglas Spruce (Abies Douglasii), often attaining two feet in diameter and 200 feet in height, in one half of which it is free from branches, and the cedar (Thuja gigantea) often equally large. open country, in its natural state, is mostly covered with a growth of ferns, Fern roots used for food by the which sometimes attain a height of ten feet, with stems three-quarters of Indians. an inch in diameter, and roots descending to a depth of three feet. roots the native Indians prepare in some peculiar way for winter food, and excavate deep trenches to obtain them. The farmers are under the necessity of grubbing up the fern roots before the ground is ready for use, and they are often voluntarily assisted by their pigs in this operation, these animals, it is said, relishing the fern root as food.

I was informed by Mr. John Robb and Mr. George Macfarlane, two settlers of the district, that the average yield of the land, after it is cleared Crops. and thoroughly under cultivation, is

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Of Wheat from 30 to 45 bushels per acre.
" Barley " 40 " 45 " Oats " 50 " 60
" Oats " 50 " 60 " Pease " 40 " 45
                          ... .. ..
                          .. .. ..
" Potatoes " 150 " 200
" Turnips " 20 " 25 tons.
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Some of the turnips exhibited by Mr. Robb at the agricultural shows are said to have been remarkably heavy, but those of the Swedish and yellow varieties seen by me, I considered rather small. The season, however, was said to be an unusually dry one. The yield of Timothy hay is about two tons per acre. Clover thrives well, and rye grass is valued for its after-crop. The yield of butter per cow, after calf-feeding, is about 150 lbs annually; the ordinary selling price being 40 cents per pound. Cattle require generally to be house-fed from the beginning of December to the middle of April. Snow seldom lies long. Heavy falls sometimes occur, but generally disappear in a few days. Once or twice snow has remained on the ground for two months.

Apples, pears, cherries, plums, white and red raspberries, red, white Fruit. and black currants, and most kinds of fruit thrive remarkably well. Some apples, of which I obtained a sample, measured thirteen inches in circumference, and weighed nineteen ounces, they were highly flavoured, and well adapted for eating and cooking; of the pears, many measured eleven inches in circumference, and were highly flavoured and juicy.

On Gabriola, prairie lands or openings occur, such as those already des-Prairie lands cribed at Comox. More of them are met with on Saltspring Island, but Saltspring Islands.

in neither place of the same extent as at Comox. Mr. Griffith, one of the settlers at Salt Springs, informed me that fall wheat thrives well there, and yields from thirty-five to forty-five bushels per acre. Of other grains the yield seems to be about the same as at Comox. In Mr. Griffith's garden there was a large plot of common winter cabbages, the solid heads Fine vegetables of most of which measured from three to four feet in circumference. Red cabbage and cauliflowers were equally large and sound. Carrots and parsnips were large, as well as onions, and there was an abundance of tomatoes of several varieties; of gooseberries, which did not seem to thrive so well at Comox, Mrs. Griffith informed me that at Salt Springs the bushes gave a crop equal in quantity and quality, to the best English. The crops of all the varieties of currants and raspberries vied with those of Comox.

> Mr. Griffith's orchard occupies about two acres, and has been set out only three or four years. I saw different varieties of apple, pear, peach, plum and cherry trees, and the proprietor informed me that all kinds bore fruit last year. The apples are of excellent quality, and the pears, though not large, were equal in flavour and juiciness to any I had ever tasted.

Powls and eggs.

Mr. Griffith has about three hundred barn-yard fowls, which are fed on the grain of the farm, and enable him to supply a great abundance of eggs to the Victoria and Nanaimo markets, where they sell for from 25 to 40 cents per dozen.

Pumpkins at Fulford Harbor.

At Fulford Harbor Mr. Theodore Frago showed me a pumpkin of the mammoth variety, which measured thirty-two inches in length, with a diameter of fifteen inches at the small end, and twenty-two inches at the other, and he informed me that larger ones had been used before my arrival.

on the oak-openings.

Hops.

The settlements of North and South Saanich, as well as of other districts near and around Victoria, show a good deal of prairie land. Beautiful farms From the abundance of oak trees on these lands they are known in this part of the country as oak-openings. In them many beautiful farms are met with, and their soil and aspect resemble those of Comox. In addition to the grain, fruit and vegetables, enumerated elsewhere, the hop vine has been introduced in North Saanich, and in the neighborhood of Victoria. In the former place, Mr. Isaac Cloake and Mr. Henry Wain, with some others, have each a hop-orchard, as it is there termed, of several acres in extent. Mr. Cloake, who spent nine years among the hop-fields of Kent, in England, informed me that his hops are quite equal, if not superior, to the English, which, according to him, was tantamount to saying that they were the best on the face of the earth; and Mr. Wain, who likewise had practical experience, stated that in regard to aroma they were equal to the best he knew. They are of the variety called the grape-hop. It was introduced from California, and is said to have greatly improved in British Columbia. The yield of hops is here from 1,000 lbs. to 1,700 lbs. to the acre, and they bring in the

Victoria market from 22 to 60 cents a pound. When railway communication is established, the article will probably become one of trade between British Columbia and the Eastern Provinces.

The following report on a sample of a few pounds of these hops which I brought from Vancouver Island, grown within a mile of Victoria, has been furnished by Messrs. William Dow & Co., of Montreal, and must prove highly satisfactory to the growers.

# Montreal, 13th May, 1872.

"DEAR SIR,—At your request we have much pleasure in reporting upon Report on sample of British Columbia, a sample of which you favored us with.

"In our opinion they are of very superior quality, rich and fine in aroma. These hops resemble the Californian, and would be equally sure to find a ready sale in this or other markets at the highest rates; they have been well dried, and are in first-rate condition. Our estimate of the value of these hops is that they are worth fully 10 cents per lb. more than the best Canadian growths, the prices of which during the past season ranged from 50 cents to 70 cents per lb., according to the demand, exceptionally high prices however."

# Yours faithfully,

(Signed,) WM. DOW & CO.

Other settlements of a similar character to those described are established between Saanich and Nanaimo, but I had no opportunity of visiting them. Near and around the farms which I saw, rocky hills rise up, in many anich and Nanaiho places to heights of 1,000, 2,000, or even 3,000 feet and more, the surface of which is in some parts craggy, but in others presents patches with a thin soil, covered with a fine, short but thick grass, on which sheep and cattle thrive well; all those I saw there appeared to be in good condition. The temperature is cooler in such places than in the lower and more level country, and during the heat of summer they afford excellent pasturage, which will much assist agricultural industry.

Along the coast, and in the interior of Vancouver Island, as well as on the shore of the Archipelago surrounding it, equally good farming localities will be discovered, and hereafter become the homes of thousands of hardy and industrious people.

I have the honor to be,

Sir,

Your most obedient servant,

JAMES RICHARDSON.

## NOTE BY DR. DAWSON ON THE FOSSIL PLANTS REFERRED TO IN MR. RICHARDSON'S REPORT.

The specimens are not numerous, and most of them are very imperfect. They are principally from beds associated with coal at Nanaimo and North Saanich. They belong to a flora which has occasioned some controversy. It was originally described by Lesquereux \* and Heer as Tertiary, being indeed very nearly allied to that of the Miocene of Europe. Newberry, however, on the evidence of the associated marine fossils, and on the analogy of the Cretaceous flora of Nebraska, † regards it as of the latter age, and this is, I believe, the view more generally adopted. The present collection is too imperfect to throw much light on these questions, and it will be better to await the arrival of larger collections before describing any of the species which it contains. It may be anticipated, however, that the investigations of the survey will develop very interesting facts with regard to these plant-bearing beds of Vancouver Island and the associated coals.

In the meantime the following list may serve to indicate the more important genera recognised in the collection:

List of genera of fossil plants.

Note on fossil plants by Dr. Dawson.

> No. 1.—Tæniopteris, ? N.S. Distinct from T. Gibbsii, of Newberry, Nanaimo. " 2 .- Taxodium cuneatum, Newberry, " 3.-Sequoia Langsdorffii, Heer, or allied, do " 4.—Sabal (fragments of leaves of a fan-palm). do North Sasnich. " 5 .- Palmacites, fragments of leaf, " 6.-Populus, " 7 .- Quercus, đο Fragments of leaves, " 8.—Platanus, " 9 .- Cinnamomum Heeri, Lesq., do Union Mine Comox. " 10.-Indistinct fragments of wood, " 11.—Taxites, belongs to a Taxine tree, possibly Salisburya. " 12-Cupressinoxylon. Other specimens from Vancouver Island, Coal Island and North Saanich have the structure of Cypress, and belong to two or three species.

Analyses of Coals and Crystalline rocks from Vancouver Island, BY DR. T. STERRY HUNT.

Analyses of coal, and of crystalline rocks.

Of the eight specimens of coal, numbers I. to IV. were, you informed me, from the outcrops of seams, and, consequently, much modified by the weather.

I. Beaufort Mine, Comox.

II. Union Mine, Comox, 10 feet seam, very much weathered.

III. Baynes Sound Mine, Comox, upper seam, some what weathered.

IV. lower seam.

<sup>\*</sup> Silliman's Journal, Vol. XXVII.

<sup>†</sup> Fossils plants collected by Mr. G. Gibbs, and Report on Yellowstone and Missouri Expedition.

V. Nanaimo Mine, upper seam. Vancouver Island Coal Company.

VI. Dunsmuir Seam, Nanaimo.

VII. Newcastle Island, lower seam. Vancouver Island Coal Company. VIII. Locality uncertain, supposed from Nanaimo, marked "lower 7feet seam."

The results obtained from these by slow coking were as follows:

	I.	II.	III.	IV.	v.	VI.	VII.	VIII.
Fixed Carbon	55.75 29.30 14.95	54.57 23.83 21.60	57.48 29.10 13.42	64.70 29.55 5.75	51.45 38.40 10.15	55.50 34.70 9.80	52.57 35.49 11.94	59.29 27.63 13.08
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

I. of the above, gave a bulky soft coke, with a fine gray ash;

II. scarcely coked, and gave a coarse gritty ash;

III. gave a firm dense shining coke, with gray ash;

IV. a firm coke, with a fine reddish ash;

V. a firm coke, with a grayish ash;

VI. and VII., like II, scarcely coked, and gave a soft gray ash;

VIII. gave a firm coke and a fine gray ash.

Lignite.—A specimen of lignite from North Saanich, Vancouver, was Lignite. remarkable for being in great part replaced by carbonate of lime. It was a part of a flattened trunk or stem, measuring two by four inches, and was black, brittle and devoid of lustre; but was coated with true coal, apparently derived from the epidermal tissues. The powder of the ligneous interior was dark chocolate-brown in color, and, when exposed to heat in a close vessel, gave off a vapor with an aromatic odor, burning with a bright flame. The black residue, by calcination at a low temperature, became grayish-white, and was chiefly carbonate of lime with a little magnesia.

The analysis of a specimen gave as follows:

Carbonate of lime	79.00
Carbonate of magnesia	7.78
Iron and alumina, traces	
Insoluble siliceous matter	1.50
Volatile matter	3.35
Fixed carbon	7.00
	98.63

The following are notes on various rock specimens:

No. 41 diorite, fine-grained, gneissoid. East Saanich Road.

No. 18 is a fine-grained grayish hornblendic gneiss or granite, consisting of white orthoclase, Rock speciwhite quartz and greenish-black hornblende. From Maude Island, Georgia Strait. mens.

No. 33 is a gneissoid diorite composed of a white triclinic feldspar, with greenish-black hornblende and a little light brown mica in layers. From Cadboro Bay, near Victoria-No. 44 diorite, contains the same elements as the last, but more hornblende. Anderson's farm, near Victoria.

No. 47 diorite, like the last, but finer grained, gneissoid. Near Beacon Hill, Victoria.

Another specimen of a similar fine-grained diorite from the west side of Supposed serpentine from Esquimalt Harbor, which had there been called a serpentine, was found to Esquimalt Harbor. When the carbonate of lime has been removed be somewhat calcareous. by a dilute acid, the residue is somewhat attacked by strong acids, which remove portions of alumina and lime, showing a feldspar related to labradorite in composition.

The analysis of the rock freed from carbonate of lime gave as follows:

Silica	54.10
Alumina	18.70
Protoxyd of Iron	9,18
Lime	3.58
Magnesia	4.97
Potash	1.10
Soda	4.51
Volatile	3.60
•	99.74

The presence of a considerable amount of water shows that the rock contains a hydrous species, probably something like chlorite or delessite, containing alumina, so that any attempt to calculate the mineralogical constituents of the rock from the results of analysis, would be of little It is a hydrated, chloritic, feldspathic rock, probably containing also a hornblendic element.

No. 27 is quartz, holding only a little chloritic matter, penetrating and coloring its Fulford Harbor, Saltspring Island.

No. 45 is an impure quartz rock, penetrated like the last by some greenish coloring matter. Dr. Tolmie's farm, near Victoria.

No. 45 diorite, gneissoid, with greenish-white feldspar, vitreous white quartz, and greenishblack hornblende. Victoria.

No. 63 diorite, greenish, fine-grained, almost impalpable; with compact pale green epidote in the joints. From Departure bay.

## REPORT

ON THE

## COUNTRY BETWEEN LAKE SUPERIOR

AND THE

## ALBANY RIVER,

BY

MR. ROBERT BELL, C.E., F.G.S.,

ADDRESSED TO

ALFRED R. C. SELWYN, ESQ., F.G.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

Montreal, April 17th, 1872.

SIR,—I beg to report the progress made during the past season in the geological survey of the country lying to the north-west of the great lakes, with the investigation of which you have done me the honor to entrust me. The Thunder Bay and Lake Nipigon regions were examined and reported mined. upon in 1869, and the country lying further east, including Long Lake and Pic River, was worked out in 1870, and described in my report to you for that year; while the section explored last season lies mostly to the northward of both of these tracts.

Not having been able to leave Collingwood until the 1st of July, our operations in that northern latitude were necessarily much retarded by the lateness of the season, and it was the 23rd of November before we again reached Collingwood. Owing to the unusually great demand for men for parties of explorers and others who had gone to the woods just before me, I found it very difficult to get together a suitable party; but, notwith-party. standing these drawbacks, I am happy to be able to report a very satisfactory season's work. I may be here allowed to express my obligations to my assistant, Mr. Geo. F. Lount, to whose energy and interest in the work our success was largely due. I have also again to acknowledge our acknowledge indebtedness to all the officers of the Hudson Bay Company, with whom we came in contact, for their kindness in aiding us in our labors.

In geological work, such as that allotted to me last year (consisting principally in ascertaining the geographical distribution of the rock formations), the results are best shown upon a map, and for this purpose I have, during

Plans shewing the winter, laid down all our surveys on a scale of half a mile to the inch, and recorded our geological notes upon the face of the plans. present report I shall, therefore, merely endeavor to give a summary statement of the work done, and a general description of the country examined. One of the duties assigned to me being to ascertain, if possible, the

relation of the Upper Copper-bearing Rocks to other formations to the Nipigon region northward, we entered the country by way of the Nipigon River, and proceeded to make surveys to the north-west, north and north-east of Lake Nipigon. The first of these was by way of the Wabinosh River and chain of lakes, which together form the canoe-route to Osnaburgh House; the second was by the Pikitigouching River, and was performed by Mr. Lount; while the third was by the Ombabika River. On our way to the country north of Lake Nipigon, we had opportunities of adding somewhat to the geological knowledge of that country gained while making the survey of 1869, and also of perfecting, to some extent, our topographical plan of the region.

South Bay.

Small outlet.

Traverse of Lake Nipigon.

Having been detained by head wind for a few days at Flat Rock Portage, I made a survey of the shores of South Bay, and, while doing so, discovered a small discharge flowing from Lake Nipigon by way of Lake Hannah. It consisted, at the time of our visit, of a brook large enough to drive a mill, but was dry in 1869, owing to the water in the lakes having then been about three feet lower. A traverse was made from island to island across the main body of Lake Nipigon, from Nipigon House to the mouth of the Ombabika River, the distances having been ascertained by Walker's patent log, and bearings taken from numerous points, which have enabled me to make a more complete map of the islands in the centre of the lake.

Having ascertained that the best route for a further examination of the country was from the head waters of the Ombabika River, we continued thence, northward, all the way to the Albany River, surveying our course as we went. On reaching the Albany, we turned down stream, and surveyed the river to the point where it is joined by the Kenogami or "English" River, a distance of one hundred and eighty-four miles. Here we turned southward, up the Kenogami River, and surveyed it as far as Pembina Island, which I had reached the previous year from Long Lake; so that we have now completed two distinct lines of survey from Lake Superior to the Albany and also surveyed the intervening portion of that river.

Two lines from Lake Superior to Albany River.

> The following list shews the distances actually surveyed, without including side explorations or geographical features fixed by triangulation:

Summary of surveys.

	Miles
New traverse of Lake Nipigon	34
Route northwest from Lake Nipigon by Wabinosh River	33
Pikitigouching River	30

From Lake Nipigon to the Albany River  On Albany River, to the mouth of Kenogami River  Kenogami River from its mouth to Pembina Island	184
Total number of miles of new survey	522

These surveys were made by means of the Rochon micrometer and the prismatic compass, with the exception of the traverse of Lake Mode of survey-Nipigon, where the distances were ascertained by means of Walker's patent log, and a small section of the Kenogami River, just below Pembina Island, where they were determined by pacing along the banks of the stream. Where the line of our survey passed through lakes, their correct dimensions and forms were ascertained by triangulation and other means, as accurately as our time would permit. The latitude was taken every day, Observations. if the state of the weather allowed, and a regular record was made of the reading of the barometer, at least twice a day, for the purpose of comparison with another record which was kindly kept for us at Nipigon House by Mr. Crawford and Mr. Henry De la Ronde, with the view of ascertaining general levels. Comparative levels were taken at all falls and rapids, and at portages between lakes, and the heights of hills or mountains were ascer-Levels. tained whenever we had opportunities. Throughout the region examined, the magnetic meridian corresponds nearly with the true north and south, but the amount of variation was ascertained as often as was considered necessary. Observations were also made with the view of determining the volume of water discharged by the principal rivers. Some of the rivers, Navigable of which we surveyed portions, may yet prove valuable for the purposes of rivers. navigation, although even their existence appears to have been unknown, except to the few Indians and fur-traders who inhabit the country. We made frequent notes of the temperatures of the rivers and lakes, and of the other notes. nature of the vegetation, as being the best means within our reach of judging of the climate of the country we travelled through. We also took care to register any notes, both from original observations and the information derived from the inhabitants of the country, which appeared likely to enable us to furnish useful information of any kind in regard to this great region.

ADDITIONAL NOTES ON THE GEOLOGY OF LAKE NIPIGON.

Some of the geological notes made while we happened to be on Lake Geology of Nipigon may be worth mentioning here, to supplement the geological des. Lake Nipigon. cription of the lake contained in my report of 1869. The red quartziferous feldspar-rock, which is there described (page 348) as occurring near Nipigon House, was found on the west side of Dog Island opposite the Post, where it forms a cliff about forty feet in height, divided by joints into large perpendicular columns. The stratigraphical relation of the prevailing trap of

Lake Nipigon to these rocks and to the sandstone of the same neighborhood was not clearly made out; but, at the locality just described, the dark-colored trap is seen, apparently overlying the other rock, which, in one place, is cut by a small dyke of the trap. In the same locality, and on a higher level than either the trap or porphyry, there is a bed at least five feet thick, of a soft grey magnesian rock, dipping northward at a low angle.

The eastern slope of the hill, which rises above Nipigon House to a height

Nipigon House.

Inner Barn.

of about 200 feet, is composed of a feldspar rock, similar in lithological character to that above referred to, but occurring in beds, some of which are thin while others are massive, all dipping N. N. W. at angles varying from forty to sixty degrees. Many of the beds shew well marked diagonal stratification. This rock may have a thickness of 800 or 1,000 feet, and is followed by the dark-colored trap, apparently in beds having the same dip, and which form a cliff seventy or eighty feet high at the summit of the hill. On the southern point of the Inner Barn, in Wabinosh Bay, I discovered, near the water's edge a section of about ten feet of mottled, green and purple, shaly, arenaceous limestone, dipping easterly at an angle of 15° or 20°. Beds of a purer limestone, having a grey and greenish color, mottled with purple patches, are interstratified with the others; and fragments derived from them are strewn in abundance upon the beach, and may prove of value for burning into lime. None of the beds were observed to contain fossils. The common trap, having a vertical columnar structure, rises to a height of 520 feet (by barometrical measurement) immediately above these unaltered sedimentary deposits. Some loose fragments of fine-grained, light-grey sandstone, and large worn gneiss boulders were found lying upon the rounded surface of the trap on the highest part of the island.

Sandstones.

In going from Nipigon House to the Ombabika River, the only rock found in situ, on any of the islands examined, consisted of the common dark trap; but on one lying about seven miles north-east of Nipigon House there are many very large angular masses of thick-bedded, greenish-grey and reddish, rather fine-grained, hard, quartzose sandstone, and others of a mottled green and grey color, derived from thinner beds. The rock was not found in place, but from the abundance and angularity of these large masses, it cannot be far off. The Indians report one of the islands lying off the south Peninsula of Ombabika to be composed entirely of sandstone, and Mr. McKellar found this rock in situ in several places on the main shore of this peninsula. (See Report for 1869, page 344.)

I was shewn specimens of iron pyrites by Indians who said that they obtained it on Medicine Lake on the Red Paint River, which enters the east side of Lake Nipigon, and at another locality near the mouth of the same river; also of a slaty iron ore from the east side of the lake. Specimens

of a similar ore but of a poorer quality, from a point on the Sturgeon River a short distance above Poplar Lodge, were shewn me by Mr. H. De la Ronde.

#### SURVEY OF WABINOSH RIVER.

The survey by way of Wabinosh River and the lakes beyond the height Wabinosh anon-route, of land, began at the outlet of Wabinosh Lake, one mile from Lake Nipigon (to which Mr. McKellar had surveyed it in 1869), and extended to a point twenty-nine miles in a straight line from the head of Wabinosh Bay, or thirty-three miles following the canoe route. In this distance we made nineteen portages, and passed through eighteen lakes, the largest of which are Wabinosh and Round Lakes, each three and a-half miles in width, and Oval-rock Lake, four miles in length. The south branch of the Wabinosh River enters the south-west angle of the lake of the same name, and is a larger stream than the north branch, which we followed. tage which occurs on this route between Clear and Oval-rock Lakes, at a distance of twenty miles in a straight line from Wabinosh Bay, the Indians told us was on the height of land between the waters of Lake Nipigon and the Albany River, although the water of the next lake to the north-west of Oval-rock Lake flowed into the latter. The surface of Clear Lake has an elevation of thirty feet over Oval-rock Lake, and of 100 feet over the lake to the south-east of it, into which it discharges.

For a distance of ten miles from Lake Nipigon, or around Wabinosh Aspect of the and Round Lakes, the country has the same mountainous aspect as about country. Wabinosh Bay, the trap hills rising from 200 to 500 feet above the level of the water, and often presenting perpendicular cliffs. The same kind of trap prevails as far as the height of land, beyond which gneiss was the only rock seen, with the exception of a ridge of dark grey crystalline trap, running in a north-westerly course, near the furthest point which we reached. The general attitude of the trap beds appears to be horizontal. Stratified trap. The stratification is particularly well seen about the outlet of Round Lake, where the bluffs, viewed from a short distance, resemble cliffs of thinly-bedded limestone.

A small island in the middle of Round Lake consists of a dark red, coarsely Geology of Wabinosh crystalline rock, composed of red feldspar, green hornblende, and a little route. mica, quartz and magnetic iron. For a distance of four miles north-west of Round Lake, a dull red granite is met with almost everywhere along the lower levels. A small exposure of grey contorted gneiss occurs, how ever, at one place three miles north-west of this lake. At the eighth portage, which is about fifteen miles from Lake Nipigon, a breadth of about 200 feet is occupied by altered sandstone and a hard, compact, dark grey, siliceous rock, which is full of straggling veins and patches of uncrystalline red feldspar; and in one place this mineral is associated with large aggregated

crystals of green hornblende, mixed with calc-spar. On the north side of this band the rock is dark trap with numerous specks of magnetic iron; while on the south side, a compact, hard, red, splintery, quartz and feldspar rock occurs. Beyond the height of land, the gneiss, which is the rock of the country, as far as we went, presents nothing remarkable to note. Proceeding north-westward, it first dips N. E., then E. and finally S. E.

Glacial striæ. Moraines. The direction of the glacial strize along this route varies from S. 15° E. to S. 30° W. Moraines of boulders, having a southerly course, are conspicuous on both sides of Round Lake.

Soil.

The country which we passed through by the route just described, is generally rocky and of little value for agricultural purposes. The only good land which came under our observation was on the west and north sides of Wabinosh Lake, where the soil consists of fine sandy and clayer loam.

### SURVEY OF PIKITIGOUCHING RIVER.

Pikitigouching River.

The Pikitigouching, or Little Muddy River, flows into Windigo's Bay in the northern part of Lake Nipigon. In 1869 we measured four and a half miles of this stream, and last year nearly thirty miles more were surveyed by Mr. Lount. Although the highest point reached by Mr. Lount is only about twelve miles from the mouth of the river in a direct N. N. W. course, yet, following the windings of the stream, the distance is about thirty-four miles. Besides the great bends which the river makes, its whole course is extremely crooked. At one place, a portage of about sixty chains saves eight miles of river navigation. Mr. Lount's survey terminated at the north side of a sheet of water, two miles wide, called Round Lake, which is the first one met with in ascending the river. In the above distance only four short portages occur, and two of them are past wood-jams.

Character of the country.

with apparently a good soil; but hills of trap could be seen from the river here and there, as far as Round Lake, beyond which the country is said to be everywhere of a level character. In the bed of the river, Mr. Lount reports having met at six miles, in a straight line, bearing a little north of Rocks observed east from the mouth of the river, with a dark green dioritic schist, running north-east and south-west; and at nine miles, in a direct north-north-westerly course from the same point, an indurated, pink-colored, calcareous marl in horizontal beds; also a deposit of iron pyrites at the fourth portage, which occurs about two miles below Round Lake.

In the portion examined the Pikitigouching flows through a flat region,

SURVEY FROM LAKE NIPIGON TO THE ALBANY RIVER.

Lake Nipigon to Albany River. In crossing the country from Lake Nipigon to the Albany River, we first followed the Ombabika River to its source, which is in Shoal Lake, three and a-half miles long and one mile wide, lying at a distance of twenty

five miles north-east of the mouth of the river. This lake lies due north and south, and discharges both ways, the stream flowing northward towards the Albany, called the Powitik River, being nearly as large as the southern Lake on water hed. outlet. No portage occurs on the Ombabika for about nine miles before reaching Shoal Lake, nor for nearly five miles beyond its northern outlet; so that we passed the height of land with the greatest possible ease, having had about seventeen miles of uninterrupted canoe navigation, from the time we made the last portage, in going up on the southern side, till we came to the first in going down on the northern. Shoal Lake has an elevation of Height above scarcely 300 feet over Lake Nipigon, or about 1,200 feet above the sea. Before reaching this (summit-level) lake we passed through twelve others on the Ombabika River, the largest of them, Cross Lake, being four miles in diameter. Although the distance from the mouth of the Ombabika River to Shoal Lake is only twenty-five miles in a straight line, it amounts to forty-two miles by the river. Of this distance, however, upwards of eight miles, in the form of a long acute bend, and four portages may be avoided, by making a portage of sixty-eight chains in length, which would be the fifth from Lake Nipigon.

The stream which flows northward from Shoal Lake, at the distance of Branches of the six miles joins a larger river called the Ka-pi-ke-tongwa, which we descended for twenty-one miles, and then turned up a small branch from the left side called the Mokoké River, from which, crossing the water-shed, we followed the canoe-route north-westward and descended the Zhob-schquay to the Ogoké River, another of the branches of the Albany, and probably the largest from the south side above the Kenogami River. miles of the Ogoké River which we examined, it averaged about 500 feet in breadth, with large lagoons and marshes on either side, and was Ogoké River. from fifty to sixty feet deep in the middle. The Indians informed us that it maintained the same dead-water character as in this section, for a long distance, both above and below; so that it would appear to be well adapted for steamboat navigation in this part of its course; but it is said to spread out to a great width and to become very shallow after it reaches the flatlying palæozoic rocks further down. We left the Ogoké River by what is called the French Channel, and at less than two miles crossed the height of land which separates its waters from those of another tributary of the Albany lying further north, and which is known in different parts by four distinct names, corresponding with those of the lakes upon its course, the argest of which is called Ka-gé-i-na gami. We surveyed the lower part of Ka-gé-i-na-gathis lake and found it to measure eight miles in length by four in breadth. The upper or south-western part, which is said by the Indians to be equally arge, is separated from the lower by a channel, less than half a mile wide. Following this tributary northward, we reached the Albany at a lake called Abazotikitchewan, which, according to our survey, lies at a distance of

eighty-three miles in a straight line, bearing N. 15° E. from the mouth of

the Ombabika River. By the canoe-route, which we surveyed, the distance is about 142 miles, in the course of which twenty-nine portages require to be made, or thirty-three by way of the great bend of the Ombabika River. The country traversed by this route presents a generally level aspect, but the surface is rocky or swampy, as far as we could examine it, with the exception of some small tracts of good land. Some sections are hilly, but the highest points seldom rise more than fifty or sixty feet above the general level. The nearest approach to a completely level tract is in the neighborhood of the height of land, the surface of the country having a greater tendency to become broken in approaching Lake Nipigon on the

one side and the Albany River on the other.

Aspect of the country.

Character of the rocks between Lake Nipigon and Shoal Lake.

The rocks consist of common Laurentian gneiss from Lake Nipigon to Cross Lake, the distance being about twenty miles in a straight line Towards Lake Nipigon the general strike is a little north of west, but in approaching Cross Lake it becomes nearly south-west. A ridge of massive red granite makes, its appearance on the south side of this lake, but on other parts of the shore the rocks consist of close-grained, dark green dioritic, and fine-grained, green mica schists, all having a nearly vertical attitude, the strike being from 10° to 20° north of west. Quartz veins, mostly small, irregular and branching, run both with the strike and across it. Leaving Cross Lake, the next rock seen was along the west side of Shoal Lake, and consisted of fine-grained, grey, imperfect gneiss, holding quartz grains and mica in the form of schistose bands in some parts, and as disseminated scales in others; also branches and veins of quartz, measuring from six inches to two feet in thickness, and containing crystals of epidote and scales of chlorite. The average strike is here from 10° to The fine-grained green mica schists are again seen on 20° south of west. the Powitik River near its junction with the Ka-pi-ko-tongwa, and are here cut by quartz veins a foot thick containing specks of iron pyrites, and also by a vein of coarse granite fifteen feet thick. The strike at this locality varies from S. 72° W. to S. 85° W. The above-mentioned rocks, which appear to have a breadth of twelve or thirteen miles from south to north, are all of the same character as those described, under the same names, in my report of last year, as occurring around the head waters of the Pic River and elsewhere, and are supposed to be of Huronian age.

Huronian rocks.

The next rock met with was at about three miles down the Ka-pi-ko tongwa, and consisted of a massive, bright grey granite, composed of white quartz, white feldspar and black mica. A coarse massive micaceous gneiss, which runs in a south-westerly direction, and is cut by straggling granite veins, occurs about a mile further down. From this point, gneiss and granite were the only rocks met with all the way to the Albany River. The gneiss is generally of a massive character, and its average strike south-westerly

the most remarkable exceptions being along the Zhob-schquay River before it joins the Ogoké, and again where we approached the Albany, in both of which localities it is north-westerly. Around Lake Ka-gé-i-na-gami the only rock observed was a massive bright grey granite, composed principally of quartz and black mica, and traversed by reticulating veins of mixed quartz and feldspar.

The general course of the glacial strice between Lake Nipigon and the Glacial strice. Albany is south-westward, usually approaching more nearly west than south.

### SURVEY ON ALBANY RIVER.

Gneiss, striking from west to north-west, is found all around the southern part of Lake Abazotikitchewan, but in going northward, dark crystal-Crystalline trap, like that of Lake Nipigon, (see my Report of 1869), is met with on the shores in approaching the inlet of the Albany, which is from the northwest. On a small island near the inlet, a dark colored granite and a green hornblende rock are cut by a trap dyke five feet thick, running north-west, and having a basaltic structure, the columns being at right angles to the walls. From the inlet of Lake Abazotikitchewan, the course of the Albany River is south-east for eight miles, when it enters Makokebatan Lake. In this section seven rapids, but no portages, occur, and the width of the river varies from ten or twelve chains at the rapids to more than half a mile in the smooth places between them. Gneiss running N. 70° W. was observed in one place in this section of the river.

From the head of Makokebatan Lake to Martin's Falls, a distance of Makokebatan fifty-six miles, the general course of the river is N. 70° E. Makokebatan tin's Falls. Lake is nearly straight, and measures sixteen miles in length by one and a-half in breadth. No rock in situ was seen upon its shores, which are strewn with small rounded boulders, interrupted in some parts by sand beaches; and the country all around is so low and level, that, looking from one end of the lake, the land cannot be seen at the other. At the eastern extrem-1ty of the lake the Albany flows out by two channels, which only come together again at Moosewaké Lake, nearly twenty miles further down. Ten miles below Makokebatan Lake, the northern channel enters the lower part of Washi-sagaigan or the Lake of the Narrows. This part of the lake is four miles long, but the Indians informed me that the upper division approached close to a bay on the north side of Makokebatan Lake, and that a portage leads from one to the other. This would give it a length of twelve miles more, or sixteen in all, which is equal to that of Makokebatan, and the Indians also consider these two lakes to be of the same length. Washi. <sup>8agaigan</sup> was also formely called Gloucester Lake from a Hudson Bay Company's post of that name, which existed many years ago at the Narrows.

The distance from the Lake of the Narrows to Moosewaké Lake is Fine micaceous and dioritic schists (like those already about five miles. described) running S. 65° W. occur at the east end of the former, and again running S. 30° W. at the west end of the latter; while on the river, between these two localities, is exposed a massive, reddish-grey, micaceous gneiss, much of which is thickly studded with crystals of light red feldspar, giving the rock a coarse porphyritic appearance. From Moosewaké Lake to Martin's Falls (a distance of about twenty miles) the river is full o islands and rapids, and the rocks appear to consist entirely of fine-grained green, micaceous, dioritic and hornblendic schists, with which are associated small veins, strings and patches of quartz, and large veins and masses of coarse granite. Specks of copper pyrites were observed at one place in the dioritic schist. The average strike is west, varying to ten and sometimes to fifteen degrees both to the south and north of that course. rapids mostly occur where great veins of the granite cross the bed of the Towards the end of the above twenty miles, bands of gneiss become interstratified with the schists, and just at Martin's Falls the latter have become entirely replaced by red and grey gneiss, apparently shewing a conformable passage from the Huronian into the Laurentian rocks. What appeared to be a similar blending of these formations was noticed last year in the neighborhood of White Lake.

At-Martin's Falls there is only a rapid with a descent of about twelve

occur between Makokebatan Lake and Martin's Falls. The greatest single descent is at Ka-gé-ami, where the river descends forty-five feet at one

The surface of the country on either side of this section of the

Blending of Huronian and Laurentian rocks.

Portages.

river appears to be only slightly undulating, and the soil in many places The general direction of the glacial strize is about W. seems to be good. Glacial striæ. S. W., corresponding with that of the upward course of the river. Between Abazotikitchewan Lake and Martin's Falls twelve rivers and large brooks enter the Albany.

or fifteen feet, down which light canoes are easily run.

Journals kept at Martin's Falls for the last forty years.

When at Martin's Falls, Mr. McKay, the gentleman in charge of the Hudson Bay Company's post there, kindly afforded me an opportunity of looking over the journals of the last forty years, which had been kept by From these I ascertained that the river between this his predecessors. point and James's Bay is open, on an average, six months of the year. Hay, turnips and potatoes have been successfully cultivated for a long time at this post, and the cattle kept here thrive well.

Crops.

Below Martin's Falls the river changes its character becoming more uniform in breadth, depth and velocity of current. 120 miles which we surveyed to "The Forks or junction of the Kenogami River, the width is from twenty to thirty chains, the depth in the middle from five to twenty feet (averaging about eleven), and the mean velocity

about three miles an hour. Below The Forks, the river is described as maintaining similar characters all the way to the sea. A rapid occurs near the mouth, but this is said to be easily passed by boats going both up Except in very low water, the river would appear to be navi-River navigable gable by powerful steamers, with shallow draft of water, all the way from Falls to its mouth. its mouth to Martin's Falls, a distance of about 250 miles. As shewing its freedom from obstructions, I may mention that the Hudson Bay Company's boats, in descending, are allowed to drift all night with the stream, in any part of this distance, the submerged top of a fir tree being sufficient to keep them in the channel.

From Martin's Falls to the junction of the Ogoké River, the Albany makes a curve to the north, equal to a semi-circle measuring over thirtyseven miles. The Ogoké is nearly twenty chains in width where it joins the Albany. From this point the latter runs due east for twenty-one miles, and then turns south-east, and maintains that course for upwards of sixty-one miles, to the Kenogami, which it joins at right angles; the Junetion of the Albany, at this point, turning abruptly to the north-east, while the upward River and the Albany. course of the lowest stretch of the Kenogami is south-west.

All the way from Martin's Falls to The Forks, the Albany is flanked Character of river-banks. by steep banks, either immediately overlooking the water, or rising at a short distance back from it. In descending the river their general height increases gradually from forty to about ninety feet, and they also become more regular and continuous in approaching The Forks. are at first composed entirely of drab-colored boulder-clay, capped with sand; but, after reaching the palæozoic rocks, these deposits are by degrees replaced, in the lower part of the banks, by drab and chocolate colored marls and shales, the upper part being usually composed of the boulder-clay, overlaid by sand. The bed and shores of the river consist of either smooth, flat-lying rock, or small rounded boulders, packed closely Packed boultogether, and all brought by the drifting ice to a uniform surface, so that they bear a strong resemblance to a well laid pavement. Gneiss, with the usual east and west strike, was the only rock seen

in situ from Martin's Falls to the most northern point of the great bend; Limestones, but, immediately on passing this, yellowish limestone strata make their appearance in the bed of the river. Similar limestones, and others of a grey color, are seen in the bed and banks of the river, here and there, to within about twenty miles of The Forks, where they become replaced by the overlying drab and chocolate-colored marks and shales. inclination of the strata towards the sea is greater than that of the bed of the river, so that the line of division between the chocolate-colored and

the underlying drab marls and shales becomes gradually lower and lower in the banks, and at length sinks beneath the river bed. Layers of the two colors are interstratified with each other for a certain thickness at

Fossila.

Coal.

the junction, so that for some miles the banks have a banded appearance. In this interval a small quantity of soft, thin-bedded, grey sandstone occurs. The few fossils found in these rocks appear to indicate an equivalent of the Niagara formation; but in one place, just below the mouth of the Goose River, or three miles below the point where the river turns southeast, bright red marl occurs on the north bank, and on a small island, a mile further down, some loose fragments of a bright bituminous coal were found. The Hudson Bay Company's officers informed me that coal had never been brought into the country; and, considering that the conveyance of even light and valuable goods is so expensive in this region, this is only what might have been expected, so that I cannot suppose this coal to have been brought here by human agency.

Hematite.

The large proportion of boulders of a very dark colored granular quartzite, and the abundance of rounded fragments of a hard, banded, silicious hematite, containing usually about 50 per cent. of iron, which occur in the drift along the Albany, are worth noting. These erratics have probably come from a long distance to the north-eastward, as indicated by their worn character and the direction of the glacial strize.

The country on either side of the Albany below Martin's Falls is quite level. The steep banks drain a narrow strip of land on either side of the river, but beyond this great swamps appear to extend on all sides. Water is constantly oozing from the foot of the banks, rendering it very difficult to walk along the sides of the river, on account of the deep mud, except upon the boulder pavements already described. The Albany receives nineteen rivers and large brooks between Martin's Falls and The Forks.

#### KENOGAMI RIVER.

Marine shells.

The Kenogami River, and the Albany below The Forks, flow in the same great valley, which appears to be a more considerable depression of the country than that occupied by the portion of the Albany already described. On coming to The Forks we found, for the first time, marine shells in the drab or bluish-gray pebbly clay in the bank of the river. The species, in order of abundance, are Saxicava rugosa, Mya truncata, Tellina proxima, Cardium Grænlandicum, Leda truncata and Mytilus edulis. A short distance up the Kenogami River we found, in addition to these, Tellina Grænlandica and Buccinum undatum, making eight species in all. Along the east bank at the junction of the two rivers, the drab or bluishgray, gravelly clay, which holds the marine shells, is about thirty feet thick, and is overlaid by about thirty feet more of clay, sand and gravel, holding fresh water shells, and having a band of impure black lignite, two feet thick, at about six feet from the top.

Lignite.

Mamattawa

From The Forks to Mamattawa, a distance of fifty miles in a straight line, or sixty by the river, the upward course of the Kenogami is a little

east of south. At its mouth this river is thirty chains in width, but it soon contracts to about twenty, which it maintains all the way to Mamattawa. Throughout this distance, it is shallow with a slack current, except in a few places; while the banks are generally low and the country level on either side. The marine shells are found in abundance in the clay and sand of the banks all the way to Mamattawa, and for a few miles above it, when they disappear entirely. Mamattawa is a contraction of an Indian word signifying the coming together of many branches, and refers to the fact that two large tributaries here join the main stream from the east, and both of these again receive branches near their mouths. The Hudson Bay Company had a post at this locality many years ago, but it is now re-established, under the name of Newpost, further down the river, at a distance of thirty miles from The Forks. From Mamattawa, the river has a nearly straight upward course, bearing S. 50° W. to the junction of the Bagutchewan River, the Bagutchewan distance being twenty miles in a straight line, or only three more by the The general upward course of the Kenogami, from the mouth of the Bagatchewan River to Pembina Island is S. 60° W., and the distance Pembina Island. is about twelve miles in a straight line, or sixteen by the river.

On the east side of the Kenogami River, where it joins the Albany, the Kenogami chocolate-colored marl and shale hold a band, about four feet thick, of a

coarse colitic character, the spheroidal concretions being about the size of salmon roe, and composed of clear calc-spar, while the interstices are

filled with soft, porous, calcareous marl, or sometimes with limestone. This rock was met with at other points on the river as far as Mamattawa and

in one place about six miles above it.

In ascending the Kenogami River, we have a repetition of the geological conditions which were observed on the Albany. From The Forks to Mamattawa, drab and chocolate-colored marls and interstratified bands of earthy yellowish limestone are exposed in a few places. up the stream, at about seven miles above Mamattawa, the bottom of the river is composed of beds of limestone which are in places somewhat dis-Limestones and turbed. The river between this spot and the Albany appears to run upon the axis of a slight anticlinal. At the end of the seven miles indicated, we enter between banks composed of chocolate-colored marl interstratified with bluish-green bands, and varying from fifty to eighty feet in height. These banks continue on both sides almost uninterruptedly for about ten miles up the stream. Above this, the banks, which maintain almost the same height, especially on the southern side, are mostly composed of stiff gravelly clay with boulders, but the chocolate-colored marl is seen here and there almost to Pembina Island, beyond which the geology of the country, all the way to Lake Superior, was described in the report which I had the honor to submit to you last year.

Provisions.

From Pembina Island we pushed on as rapidly as possible, by way of Return journey. Long Lake and the Pic River to Lake Superior, which, with our small party, we had great difficulty in reaching, owing not only to the lowness of the water and the great number of portages which we were obliged to make, but also to the snow and ice, and the unusual severity of the season, even for that region. The party, however, suffered no inconvenience from any want of provisions, as we succeeded in taking with us, all the way from the mouth of the Nipigon River, at the same time that we carried on the survey, an abundant supply for the four mouths during which we were gone, not only for the use of our regular party, while travelling over the 800 miles on the round trip back to Lake Superior, but also for the additional men whom we required in making the other surveys from Lake Nipigon, and for our Indian pilots on the Albany River. Besides frequent presents of small quantities to the Indians whom we happened to meet, we were obliged to leave a considerable proportion of our surplus provisions at Newpost and at the mouth of the Bagutchewan River.

I have the honor to be,

Sir,

Your most obedient servant,

ROBERT BELL.

# REPORT

ON

### EXPLORATION OF COUNTRY

BETWEEN

## LAKE ST. JOHN AND LAKE MISTASSINI,

 $\mathbf{B}\mathbf{Y}$ 

### MR. WALTER McOUAT,

ADDRESSED TO

ALFRED R. C. SELWYN, ESQ., F.G.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

SIR,—In compliance with instructions received from you in May last, I was engaged during the past season, in company with Mr. John Leitch, in making a geological exploration in the country to the north and north-west of Lake St. John, on the Saguenay, and extending to, and embracing a portion of Lake Mistassini; and I now beg to submit to you a statement of the work accomplished.

Leaving Montreal on the 10th June, I arrived on the 17th at Lake St. John, where I joined Mr. Leitch, who had preceded me by about a week. Our departure from this lake, where we had arranged to procure men and canoes, was seriously delayed by the unusual lateness of the spring in that region. Owing to this cause the Indians, with few exceptions, did not return from their spring hunt till nearly a month after the time of our arrival, so that we were unable to procure the necessary men. From the same cause, it was near the middle of July before the spring flood had subsided sufficiently to allow of the ascent of the rapid rivers flowing into the lake from the north. For these reasons, we did not leave Lake St. John till the 13th of July.

A short reference to the work done in the same part of the country, selection of during the previous season, will explain the considerations by which we route. Were guided in deciding upon the route to be selected for our line of traverse from Lake St. John to Lake Mistassini. Mr. Richardson, by ascending the Ashuapmouchouan River, reached a point bearing N. 58° W. from the mouth of that river, and distant from it a hundred and twenty miles, where the Laurentian is overlaid by newer rocks. Within about six miles of this point, the line crosses the height of land between the St.

Lawrence waters and those flowing to Hudson's Bay. Continuing from this point, the direction of Mr. Richardson's exploratory line is N. 34° E. or nearly at right angles to the foregoing, to the southern extremity of Lake Mistassini, a distance, in a straight line, of fifty-five miles. with the exception of the last mile or two, lies entirely on the outcrop of a series of rocks which are in some parts characterised by rich deposits of copper ore. According to Mr. Richardson, the general strike of these rocks is about N. 41° E. and S. 41° W., or a few degrees further from north and south than the line on which he crossed them. Near Lake Mistassini, they give place to rocks of a different character,—the flat limestones mentioned in his Report. As required by my instructions, we endeavoured to reach Lake Mistassini by some route that would enable us to cross the run of these copper-bearing rocks at some considerable distance from where they were seen by Mr. Richardson, and thus obtain some idea of their distribution. After careful inquiry, we concluded that the only practicable route by which this object could be attained, considering the shortness of the season, would be by way of the Mistassini River.

Leaving Lake St. John, as already stated, on the 13th of July, we

ascended the Mistassini for a hundred and five miles, to a point bearing N. 13° W. from its mouth, and distant, in a straight line, eighty miles. At

Ascent of the MistassiniRiver.

> this point we left it on the west side; and here also we commenced our survey, the Mistassini River having been previously surveyed by Mr. The distance from this point to Lake Mistassini, in a Blaiklock, P.L.S. straight line, is sixty-one miles, in a bearing N. 50° W., although the distance actually measured was about ninety miles. We struck the lake at the end of a long narrow arm, called Cabistachuan Bay, and about nine miles to the north-eastward of the southern extremity of Abatagush Bay, where Mr. Richardson's line comes upon it. Continuing our measurements on the lake, our survey was connected with that of the previous season at the Hudson Bay Company's post, where we arrived on the 14th of August, thirty-three days from the time of our departure from Lake St. John. Having despatched a canoe to Blue Point, for the remainder of our provisions, we set out from the post to make a survey of such portions of the lake as the time at our disposal would permit; and on the 14th of the following month we returned to the same place, the season being then so far advanced that it was necessary to return, without any avoidable delay, to the Canadian side of the height of land. We were obliged, however, to remain at the post till the 20th, on account of the failure of our provision

> ward journey, reaching Lake St. John on the 7th, and Montreal on the 22nd of October. The first portion of our survey—that from the Mistassini River

canoe to arrive at the time expected. On that date we left on our home-

The first extends to the Chief River, mentioned in Mr. Richardson's report as the main branch of the Ashuapmouchouan, the distance, in a Mistassini River to Chief River. straight line, being twentyeight miles, in a bearing N. 80° W. Rather more than half way the line on this part crosses the Wassiemska, which appears to be nearly as large as the Mistassini, into which it flows. The second part is from the last mentioned point to the height of land between the St. Lawrence and Hudson's Bay waters, the distance being thirty Chief River to height of land. five miles, and the bearing N. 25° W. The Chief River, about a mile above where our line strikes it, divides into two branches, which are nearly equal in size. The most westerly of these we surveyed for about twenty miles above the fork. The general course is nearly north and south. This is also the course of nearly all the small streams, tributary to the Ashuapmouchouan, between this and the height of land, many of which are crossed obliquely by the line just defined. Both this line and the preceding, pass entirely over a Laurentian country. The rocks are mostly grey, moderately fine-grained, micaceous gneiss, with considerable dark green, hornblendic gneiss interstratified, usually in layers from one Gneiss. inch to a foot thick. Red gneiss is rarely, if ever, seen. The dip is very uniformly east, or a little south of east, and the angle of inclination is always high, the strata being often nearly vertical. There is a very noticeable connection between this fact—the uniformly north and south strike of the strata—and the peculiar conformation of the surface. Over the whole region from the Mistassini River to the height of land, and two or three miles beyond it, as far as it could be seen from our line of traverse, the surface is broken by low, narrow ridges, running nearly north and Character of the surface. south, or a little east of north and west of south. These ridges are seldom more than three hundred, and often not more than one hundred, feet above the general level. The direction of the rivers generally conforms with this arrangement, and the small streams found in all the valleys frequently expand into lakes from a quarter to half a mile wide, and perhaps several miles long. These are so numerous that from the top of Frog Mountain, a hill rising to a height of about 350 feet, and situated about the middle of the second of the two lines referred to, I counted upwards of forty of them within a radius of six or eight miles.

The remaining distance, from the height of land to Lake Mistassini, is From the height of land the last of the three parts into which the whole exploratory line is divided. to lake Mistassini, The distance, in a straight line, is only five and a-half miles, and the bearing N. 60° W. The ridge forming the water-shed is about ten chains wide, and, where we crossed it, has a small lake on each side, that on the south-east side discharging by a stream which is tributary to the Ashuapmouchouan, and the other sending a contribution to Rupert's River, through lake Mistassini. These two small lakes are nearly on the same level, and only sixty feet lower than the highest part of the dividing ridge. We

descended to within a mile of Lake Mistassini by a small rapid river called Little Perch River. About three miles from the lake, this stream falls about sixty feet over an escarpment facing to the north-west, and overlooking a comparatively level tract of country, extending in that direction as far as the eye can reach. The rock in this escarpment is grey gneiss, similar to that already described, and dipping about S. 65° E. < 50°. About a mile to the westward, and within about two miles of the lake, hard bluish-grey limestones are met with. These are the flat limestones of Lake Mistassini, mentioned in Mr. Richardson's Report as the northernmost of the three successive groups of rocks crossed by his exploratory line.

Limestones.

About mid-way between the last exposure of gneiss and the first of limestone, a distance, as already stated, of about a mile, there are some small exposures of a reddish feldspathic rock, apparently of a brecciated character, with calcareous seams, and shewing a considerable amount of a dull green steatitic mineral. This rock occupies as nearly as possible the position in which one might expect to meet with Mr. Richardson's second group, which includes the copper-bearing strata, and may represent some of the conglomerates of that group; but, if it does not, no rocks of that series were observed. Nothing was seen at all like the chloritic slates of Lakes Chibogomou and Wakinitchee, which, on the former lake, Mr. Richardson found to contain important deposits of copper ore.

Surveys on Lake Mistas-sini.

The Surveys on Lake Mistassini constitute the second of the two divisions into which our season's work naturally divides itself. We measured on this lake a coast line of about a hundred and fifty miles, including no bays less than a mile in width. The main body of the lake was found to be of a very elongated form, lying in a south-west and north-east direction, with a perceptible curve between the south-west extremity and the farthest point seen by us, the concavity of the curve being towards the south-east. A long, ragged tongue of land, upwards of twenty miles in length, running from the south-west end, divides that end of the lake into two parts; and, of these, the one on the south-east side divides into several long narrow arms, which are out of the general direction, having a nearly north and south trend. A series of long narrow islands, which were seen only from a distance, extends for many miles in the same direction, beyond the above-mentioned point, being, like it, apparently parallel with the longer Measurements, axis of the lake. We carried our measurements round the long point, to the bottom of the bay on the north-west side of it, called Poonichuan Bay, and thence along the main north-west shore of the lake, for about seventy-miles from the extreme south-west point As no land was visible from this position, looking in a north-easterly direction from a point about forty feet above the level of the water, the whole length of the lake cannot be much, if any, less than a hundred miles. It appears, however, to be comparatively narrow, being probably not more than fifteen miles wide, unless the width increases beyond where we saw it.

All the rocks met with on the lake are the flat limestones already men-flat limestone tioned. They seldom dip at a higher angle than twenty degrees, and although very much disturbed by minute undulations, the general strike appears to be with the direction of the lake. These strata appear to occur over the whole area occupied by the lake, but they are bounded all along the north-west shore by Laurentian gneiss. They would appear not to extend far beyond the lake in a south-westerly direction, as it seems probable that they are there cut off by the meeting of the Laurentian gneiss with the rocks of Mr. Richardson's second group.

The character of the land being much the same as that described by Character of Mr. Richardson, I have nothing to say on that head which appears worthy to be introduced into this preliminary Report, although I made numerous notes both on this and other subjects, which will find an appropriate place in a more detailed Report after further exploration.

The whole of the season's work has been protracted on a scale of forty chains to an inch, and also reduced from that scale to one of four miles to the inch; and will be available for the construction of a general map of the region. It may be added that all the bearings given in this Report have been corrected for variation, and, therefore, refer to the astronomic meridian.

I have the honour to be,

Sir,

Your most obedient servant,

WALTER McOUAT.

MONTREAL, May 9th, 1872.

## PROGRESS REPORT

# EXPLORATION AND SURVEYS

IN THE

## COUNTIES OF LEEDS, FRONTENAC AND LANARK,

With Notes on the Gold of Marmora.

BY

MR. HENRY G. VENNOR, F.G.S.,

ADDRESSED TO

ALFRED R. C. SELWYN, ESQ., F.G.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

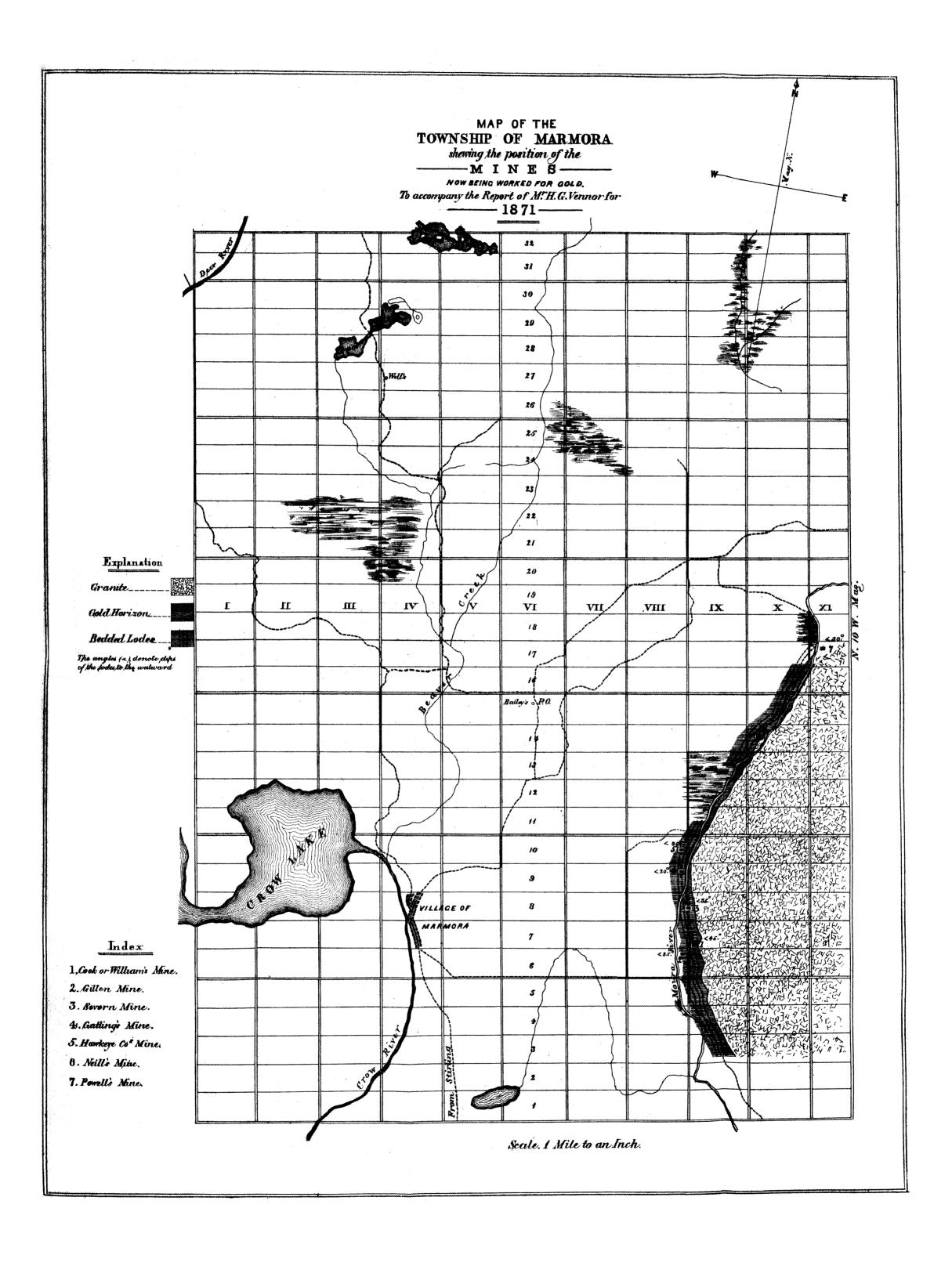
Sir,—The following Report is a summary of the result of my geological researches in the Province of Ontario during the season of 1871.

Frontenac Leeds and

As you directed, my investigations were continued through those parts of the counties of Frontenac, Leeds and Lanark which had not previously been explored. The rocks met with do not differ in their general characters from those described in the Abstract of Report on the geology of these counties which I had the honor to lay before you last spring, and in which they were divided into three groups, represented by the letters A, B, C, or the figures 1, 2, 3, corresponding with the divisions previously adopted for the rocks of the county of Hastings, described in my Report on that county. [Report of Progress, 1866-69.]

Crystalline limestones

In commencing the investigation last summer I made the crystalline limestones of division A a special study, and consequently chose that portion of the country where these were most largely represented, namely, the townships of Bedford, Loughboro', Olden and Oso, in the county of Frontenac; North and South Crosby, in the county of Leeds; and North Burgess, Bathurst and South Sherbrooke, in Lanark; and which is Magnetite and furthermore rendered important by the occurrence of deposits of magnetic apalite. iron ore, and of apatite, or phosphate of lime. During the course of my exploration all these deposits were examined and their respective stratigraphical positions determined as far as possible.



The mapping of the crystalline limestones occupied a much greater part of the season than I had anticipated, for, owing to the incorrectness of the surveys through this section of country, we were obliged to keep up a continuous line of measurements throughout the whole area Measurements. examined, and, for the same reason, found it necessary to re-survey all the roads through the townships of Bedford, Olden and Oso. The instrument used was the prismatic compass, with measurements by pacing, and occasional chaining.

Later in the season I again visited the townships of Madoc and Mar-Madoc and mora, in the county of Hastings, and spent some time in a further examination of certain auriferous zones, the existence of which was first pointed out during the years 1866 and 1867, and on which are now situated several promising mines with stamp-mills. From the managers of these mines much assistance was received, and I would particularly acknowledge the kindness of Mr. W. J. Gatling, J. D. R. Williams, M.D., assistance. Mr. J. H. Dunstan, Mr. O'Neill and Mr. Jenkins. From Mr. Dunstan I have, further, received plans, drawn to scale, of a rotating cylinder-furnace, recently patented by him in the United States; and from Mr. Gatling a sketch-map, shewing the position of the shafts on his own and adjoining locations. The results of the foregoing explorations may be given under the following heads:

- I. Notes on the Iron Ores occurring in the Counties of Frontenac, Leeds and Lanark, with assays.
- II. Summary of the Phosphate of Lime or Apatite Deposits now being worked in North Burgess, Bedford and South Crosby.
- III. The Geological Position of certain Ore-zones in the Township of Marmora, now being worked for Gold, with assays.
- I. Iron Ores.—The iron locations examined were the Chaffey and tron ores. Yankee or Mathews mines, in South Crosby; the Howse mine in Bedford; the Bygrove, Fournier and Christie's Lake mines in South Sherbrooke; the Foley mine in Bathurst; and the Dalhousie mine in Dalhousie township; all of which have already been alluded to in my Abstract of Report for the year 1870. Of these, the only ones worked to any extent during the year 1871, were the Chaffey, Yankee, and Dalhousie mines.

The Chaffey Iron Mine, is situated on an island in Mud. Lake on the Chaffey Mine. Rideau, in South Crosby, and is about one mile distant from the village of Newboro'. Two excavations have been made, about thirty feet in depth, on a solid bed of magnetic iron ore, which strikes in a N. N. E. direction. During 1871, some twelve men were employed, and 3,500 tons of ore raised and sold. The ore is shipped to Cleveland, Ohio, via Kingston. At the mine it is worth \$2.25 per ton, and delivered at Cleveland it brings from \$6.00 to \$6.50 per ton. The cost of carriage to Kingston—a distance of forty-four miles—is seventy-five cents per ton

Yankee or Mathews Mines.

The Yankee, or Mathews Mine, is situated about one hundred rods N. N. E. from the Chaffey mine, and on a continuation of the same bed. It is owned by S. H. Mathews Esq., and has been more or less worked since the year 1860. On this bed an excavation of irregular form has been made to the depth of about forty feet. During the year 1871, fifteen men were steadily employed, and upwards of 4,000 tons of ore mined and raised, 3,300 tons of which were sold, and shipped to Cleveland, Ohio, via Kingston. The price per ton at the mine, and delivered at Cleveland, is the same as that of the Chaffey mine. The total amount of ore sold and shipped to Cleveland from these two mines, for the years 1870 and 1871 combined, amounted to about 14,520 tons.

The demand for this quality of ore (see analyses) varies considerably at different periods, and, I understand, was much greater during the year 1869, than during 1870 and 1871.

Dalhousie Mine.

The Dalhousie Iron Mine is situated on the east half of the first lot, in the fourth concession of the township of Dalhousie, and is about twelve miles distant from the town of Perth. From the time of its being opened, in 1866, until September, 1871, this location was worked by Alex. Cowan, Esq., of Brockville, and partners; but subsequently they sub-leased it to Messrs. Hannah and Spearman, of Cleveland, Ohio, who at present work it. The mine is on a bed of red hematite averaging seven feet in thickness, striking N. E. by E., dipping south-eastward < 45°, and contained in a band of crystalline limestone. Six shafts have been sunk on the dip, as follows:—

Shafts.

No	1	shaft,	8 by 10 feet and timbered	68	feet	deep
"	2	"		49	"	"
"	3	"	***************************************	25	ιι	"
u	4	a	••••••••••••	20	u	££
"	5	"	******	45	"	u
"	6	ш		29	"	"

Mr. Jerald C. Brown, who has for some years managed the workings at this mine, informs me that the total length of stopes amounts to 408 feet; and that the quantity stoped from the opening of the mine, up to November, 1871, was 80,800 cubic feet. From this opening there has been extracted very close upon 10,000 tons of ore. About twenty-five men are employed, including one mining-captain and one blacksmith. The ore is drawn to Perth by waggons in summer, at the rate of \$1.70 per ton, and in winter by sleighs, at \$1.00 per ton of 2,240 lbs. From Perth it is carried by railroad to Brockville, and shipped thence to Cleveland, Ohio. The cost of the ore, laid down in Cleveland, is \$5.00 per ton. The quantity raised from April 1st, 1871, to November 6th, 1871, was about 2,500 tons of 2,240 lbs.

Quantity, transportation and value of ore.

naiysis of ore Mr. Alexander Cowan informed me that it contained an average of from the Dalace 60 per cent of iron, according to numerous analyses made in the United

States. An analysis of it made in the Geological Survey laboratory by Mr. Gordon Broome gave as follows:—

Peroxyd of iron	82.250 = metallic iron  57.6
Insoluble residue	16.050
Lime	trace
Phosphorus	.026
Water	.660
•	
	98.986

Five further determinations recently made, have afforded an average of 56\frac{3}{4} per cent. of iron, showing a close agreement with the result obtained by Mr. Broome.

Samples of ore from the Chaffey, Yankee, Bygrove, Fournier and Foley, Partial analyses mines were, in accordance with your instructions, submitted to Dr. B. J. rington. Harrington for analysis. The following figures shew his determination of the percentage of metallic iron in these ores, but more time will be required for their complete examination:—

Chaffey Mine	52.91	per cent.	metallic	iron
Yankee Mine	52.09	~ "	u	"
Bygrove Mine	59.55	"	"	"
Fournier Mine			"	"
Foley Mine			"	"

The ores from the Chaffey, Yankee and Foley mines were all found to be titaniferous. That of the Chaffey mine is stated by Dr. Hunt to contain 9.80 per cent. of titanic acid (Report of Progress for 1866-69, page 257.)

Dr. Harrington finds 12.32 per cent. of titanic acid in the ore from the Yankee mine, and also a large amount of sulphur, which renders it altogether an inferior ore.

The ore from the Foley mine contains only 2.68 per cent. of titanic acid, which is not a sufficient amount to detract from its value.

The Chaffey and Yankee ores were also examined for phosphorus, but neither of them was found to contain a weighable amount.

The Bygrove and Fournier ores are free from titanium, and I think it extremely probable that they will be found to belong to beds somewhat higher in the series than the titaniferous ores.

II. Phosphate of Lime.—Last year I was enabled to determine the Phosphate of true position of the deposits of phosphate of lime, or apatite, in the townships of North Burgess, South Crosby and Bedford, and to establish the fact that, with very few exceptions, all of the workable deposits of this mineral occur in a certain belt or zone of pyroxenic and gneissic strata, and in the form of lenticular bedded masses, and irregular veins. This belt or zone, which was found to have a thickness of from 2,600 to 3,900 feet, lies in a long irregular trough, the axis of which may be Irregular described as running from the north-east to the south-west corner of North Burgess, thence south-westward through South Crosby, into the

south-east corner of Bedford township—between Devil and Opinicon Lakes—and still further in this direction, through the townships of Storrington and Loughboro.' All along this line, bed-deposits of phosphate of lime are of frequent occurrence. The width of the trough or basin seldom exceeds six or six and a-half miles, and is often narrowed to less than one-fourth the distance. In it the detailed sequence of the rocks has yet to be made out, but the available deposits of phosphate would appear to occur towards its outer rim, and within the 3,900 feet of pyroxenic and gneissic strata already alluded to.

Phosphate Locations.

The following list of *Phosphate Locations* comprises the most important of those examined by me last season, and in all of which work to a greater or less extent was being carried on:—

							WORKED OR OWNED BY
No.	. 1.	North	Burgess-	-Concession	VIII,	Lot	1.—Ed. Schultze.
"	2.	"	"	"	"	"	2.—R. Matheson.
"	3.	"	"	"	"	"	3Ritchie & Jackson.
"	4.	"	"	"	u	u	4.—Watts Brothers.
"	5.	ιι	"	"	44	44	5R. Matheson.
"	6.	"	- "	и	VII,	4.	10.—Ed. Schultze.
"	7.	"	"	"	"	"	11 & 12.—A. Cowan.
"	8.	"	u	¢¢	VI,	"	10.—E. Clark.
"	9.	u	"	u	"	"	13 $(W.\frac{1}{2})$ .—Ed. Schultze.
и	10.	"	££	"	"	"	13 (E. $\frac{1}{2}$ ).—J. F. Baker.
"	11.	* 6	u	"	u	"	14, 15 & 16Morris & Griffin
**	12.	46	££	"	"	"	18 & 19.—Matheson & Bell.
٠,	13.	46	"		"	66	21.—E. Clark.
"	14.	"	"	"	V,	44	16R. Leckie & Co.
u	15.	"	46	u	ü	"	18 & 19.—Matheson & Bell.
"	16.	"	"	"	IV,	"	11E. Clark.
"	17.	"	u	"	III,	u	15 & 16Moro Philips.
"	18.	South (	Crosby,	"	VΙ,	u	12.—Ed. Schultze.
"	19. ]	Bedford	i,	"	xvii,	u	1A. Cowan.

Schultze's Locations in Burgess.

Schultze's Locations.—The apatite on these locations, Nos. 1, 6, 9, in North Burgess, was being worked by Mr. Edward Schultze for export to Germany. The most promising location is that on the first lot of the concession, where bedded deposits of a beautiful green crystalline apatite, entirely free from calcite, strike almost east and west with a slight underlie to the northward. On the tenth lot of the seventh concession Mr. Schultze owns one hundred and fifty acres. Here, a bed of apatite was uncovered for a distance of about four hundred feet, having an average width of from two to three feet. In this bed, there is an abundance of tolerably transparent mica, in large crystals, which may yet be of economic value. The apatite is of the red variety, and both it and the mica are further colored red by the decomposition of a bluish-grey hematite, which is more or less mixed with the former. From the fact that the mica constitutes the larger portion of this vein, and owing to its low position, and consequent difficulty of On the road drainage, I hardly think it can be worked with profit.

allowance between lots thirteen, of the sixth and seventh concessions, a shaft has been sunk to a depth of thirty feet on an irregular vein of red apatite, from which about forty tons of the mineral have been raised, averaging as high as 90 per cent. of phosphate of lime. A number of small openings have also been made by Mr. Schultze on the thirteenth lot in the sixth range, and a considerable quantity of apatite raised, of the quality known as "seconds." It occurred in layers or beds of from eight to twelve mica and pink inches in thickness, and contained a large amount of black mica. Several bands of a pink calcite, highly charged with crystals of apatite, also occur on this lot. These crystals are very easily removed from the matrix, and although at present this form of deposit is looked upon by the miners as useless, there is little doubt that, at some future period, a simple process will be devised by means of which it will be treated with profit. Altogether Mr. Schultze has mined, raised and bought, in North Burgess, upwards of nine hundred and seventy-six tons (of 2,240 lbs.) of apatite, of which he has shipped six hundred to Germany.

Matheson's Locations, Nos. 2 and 5 of the foregoing list, namely, lots Matheson's two and five, in the eighth range of North Burgess, have been owned by Roderick Matheson, Esq., of Perth, for many years; but no work was done until the fall of the year 1870, from which period operations have been carried on, to a greater or less extent, up to the present. The rocks on the first of these lots are chiefly pyroxenic, with quartzose garnetiferous gneiss, and have a pretty uniform east and west strike, with uncertain dip. The apatite occurs in three bedded deposits, one of which has a breadth of nearly six feet. This has been opened upon for a distance of sixty feet on the strike, and to about fifteen feet in depth, and from it a large quantity of a beautiful green apatite has been raised and sold to Mr. Schultze for shipment to Germany. The deposits on the fifth lot are more irregular, and are much mixed with calcareous matter.

Ritchie & Jackson Location, No.3, lot three, in the eighth range of North Ritchie and Burgess, is at present being worked for Messrs. Ritchie and Jackson, tion. of Belfast, Ireland, by Mr. W. Hargreaves of Perth. Here, the strata are very quartzose reddish gneiss and pyroxene rock, striking almost east and west, and dipping to the northward < 45°. A considerable amount of work has been done on two bedded deposits of apatite, eight to nine feet broad, which, with the enclosing strata, strike almost east and west, with underlie to the northward. This location has already been alluded to by Mr. Broome, as McKinley's lot, in his notes on the Phosphates of this section of country, (Report of Progress, 1870-1871, page 320.) It was very actively mined during the season of 1871, but I have been unable to obtain any return of the exact amount of mineral raised.

Watt Location, No. 4, lot four, in the eighth concession, was leased for watt Location. twelve months, by two brothers named Watt, from Mr. Flaherty, for the

sum of eighty dollars. Work was commenced in the autumn of 1870, and was continued during the ensuing winter, and during the summer of 1871. With very little outside help, these two young men succeeded in mining and raising upwards of two hundred and twenty-five tons of a very pure apatite, which they sold to Mr. Schultze for export to Germany, at the rate of \$10.50 per ton, at the mine. The vein or bed from which this amount was raised is conformable with the adjacent strata, and runs in an almost east and west direction. Owing to the expiration of the lease, which ran out on the 24th September, 1871, and was not permitted to be renewed, the work was suspended. The vein, however, still holds forth good prospects.

Alex. Cowan's Locations in Burgess.

Alex. Cowan's Location, No. 7.—The lots worked by Alex. Cowan, Esq., and partners (Brockville Chemical and Superphosphate Company) are the eleventh and twelfth in the seventh concession, on the latter of which is situated the Victoria Phosphate Mine. This mine is nine miles distant from Perth, and about seven from the Rideau Canal. It is on a bed or vein, apparently conformable to the immediately surrounding pyroxenic and gneissic strata, striking in a N. N. E. direction, and having an average width of about three feet. This has been worked pretty steadily since the month of April, 1870. Two shafts have been sunk, one to the depth of about fifty-six feet, and another to about forty-eight feet, besides numerous other minor openings of varied extent. The total area worked over is about three hundred acres. From the main deposit there has been Quantity raised raised from April, 1870, up to April, 1871, upwards of eight hundred tons of apatite, averaging about 85 per cent. Work was also actively carried on here during the summer of 1871, and a large additional amount raised, the exact return of which I have not yet received. duce of this mine is shipped to the Brockville Superphosphate Works, near the town of Brockville, whence it is exported, as superphosphate, both to the United States and Europe.

J. F. Baker's

J. F. Baker's Location, No. 10, (Cambria Phosphate Mine).—This location is on the east half of the thirteenth lot in the sixth range of North Burgess. It is worked by Mr. J. F. Baker, for an English company, which commenced operations during the month of September, 1871. A number of bedded deposits occur here, varying in width from a few inches to seven feet. Seven of these have been opened, and, although the lowest point reached last fall was only fifteen feet, Mr. Baker had succeeded in raising about two hundred tons of first quality phosphate, - the result of about three months' working. The mineral here varies in character from green, coarsely crystalline and massive, to white, finely granular and saccharoidal. This would appear to be a very promising locality. It is only one mile from the Rideau, to which the apatite can be drawn by winter road, for fifty cents a ton. The general character of these deposits has yet to be investigated.

E. Clark's Locations, Nos. 8, 13 and 16.—The eleventh lot of the fourth, E. Clark's and the tenth and twenty-first lots of the sixth concession in North Burgess Locations. are three lots out of a number purchased by Mr. E. Clark, of Sherbrooke, from the Bank of Upper Canada. On these Mr. Clark, during the summer of 1871, commenced and personally superintended a series of experimental workings, and was fortunate enough to discover a number of most valuable deposits of apatite, especially on lots ten and twenty in the sixth concession. Those on the tenth lot were clearly seen to occur as parallel bedded deposits, alternating with bands of reddish gneiss and pyroxene strata. Towards the rear part of the lot the general strike is Apatite associated with N.N.E., and here some of the apatite beds are a good deal mixed with a fine hematite. bluish-grey hematite, in much the same manner as the deposit already noted on Mr. Schultze's property, on the tenth lot in the seventh concession. Towards the front of this lot, and approaching Long Lake, the strike of the rocks changes to almost east and west, and here further deposits of apatite were observed, also bearing in an east and west direction. Although the work on this lot was, as I have before stated, merely of an exploratory or experimental character, a very considerable amount of "first quality" red and green apatite was extracted, and piled on the ground for future disposal. There appear to me to be four distinct main parallel beds, besides Four distinct beds. a multitude of minor ones, some of the more important being of at least five feet in thickness. The work on the twenty-first lot, in the same concession, was also personally superintended by Mr. Clark, but was not commenced until late in the season, and after stormy and cold weather had set in. Here, however, a few days' work uncovered some very promising deposits, from some of which large masses of nearly pure apatite were extracted. At the time of my visit to this lot sufficient work had not been done to permit of my properly understanding the true nature of the deposits, but, from the openings which had been made, they appeared to me to consist of large bedded masses, striking and dipping with the enclosing rocks. Mr. Clark is at present, I understand, in treaty with an English company, which proposed purchasing these lots, with a view to their further development.

Matheson and Bell's Locations, Nos. 12 and 15.—The lots on which Matheson and Messrs. Matheson and Bell were at work during the year 1870 have Bell's Locations. been mentioned in the notes by Mr. Gordon Broome, already cited. During 1871, other deposits of apatite were opened up by them on the eighteenth and nineteeth lots, in the sixth, and on similarly numbered lots in the fifth concession of North Burgess. On the first-mentioned lot, a great number of openings have been made on a series of parallel and bedded deposits of this mineral, which strike, with the enclosing strata, in an almost east and west direction, along the point of land which here juts out into Black or Salmon Lake. Much of the apatite is very largely mixed with a pink or

Pink calcite with greyish pyroxene.

reddish calcite, which holds aggregations of large-sized crystals of a greyish pyroxene. A considerable quantity both of "firsts" and "seconds," has been raised on these lots, but I am not aware that any was shipped during last summer. Much of the work done has been, up to the present time, of an experimental character, but there can be little doubt that a large amount of marketable phosphate will yet be found here.

Morris and Griffin's Locations

Morris and Griffin's Location, No. 11.—During the year 1870, Messrs. Morris and Griffin, of Wolverhampton, England, manufacturers of artificial manures, purchased seven hundred and fifty acres of land in North Burgess; namely, the fourteenth, fifteenth and sixteenth lots in the sixth and seventh concessions. Early in the season of 1871, Mr. Wm. Davis, agent for these gentlemen, commenced a series of explorations on these lots, and succeeded in discovering on those in the sixth concession some important indications of phosphate of lime. These occurred towards the rear ends of lots fourteen and fifteen, and close to the line between concessions six and seven. The openings made during the season were chiefly shallow surface pits, many of which, however, gave considerable encouragement for the further prosecution of the work. The lots in the seventh concession have not, and are not likely to yield anything of importance, as they are chiefly occupied by the horizontal sandstones of the Potsdam formation. Messrs. Morris and Griffin, I am informed, will commence systematic work on the most promising portions of their lots

during the approaching summer.

Locations 14 and 17.

The remaining locations in North Burgess noted in the foregoing list, namely those of R. Leckie and Company, of Montreal (No. 14), and Mr. Philips of Philadelphia (No. 17), were not worked during the past summer, although both of them still hold out good encouragement for further development. From No. 14 upwards of sixty tons of phosphate have been extracted, and still remain on the ground at the mine. From No. 17 about one hundred tons have been shipped by Mr. Philips to the United States, via the Rideau No. 14 location, R. Leckie and Company, is, I believe, now in the market, but the price placed upon it is rather beyond the means of present purchasers of phosphate lands.

Schultze's Location in South Crosby

Schultze's Location, No. 18.—On this location, in South Crosby, Mr. E. Schultze has made a few experimental openings on the twelfth lot of the sixth concession, near Sand Lake. He has discovered a very fair show of apatite, Very little prospect. and already raised about fifteen tons of first quality. ing has yet been done in this township, but it is altogether likely that many large deposits of apatite will yet be discovered on the course of the pyroxenic and gneissic belt already alluded to, where it is not concealed by the sandstones of the unconformable Potsdam formation.

Sand Lake is a part of the Rideau waters, and from it the phosphate may be shipped by barges to Kingston, or to any other port on the St. 128

Lawrence.

Cowan's Location, No. 19.—This location in Bedford was first worked Cowan's Location in Bedford. in the fall of 1870, and is mentioned in my Report for that year (Report of Progress 1870-71, page 315); since that time there has been more or less work done. On the first lot in the seventeenth concession Mr. Alexander Cowan has opened some exceedingly promising bedded deposits of from two to four feet thick. The strata—consisting mainly of heavy, dark, hornblendic rocks, entirely free from limestone-lie in an almost horizontal position, the incline being to the north-westward. phosphate is of the red and green varieties, but principally the latter, and is of a very beautiful crystalline character. At the time of my visit about three tons a day were being extracted, and two hundred and thirty tons were piled on the wharf at Opinicon Lake, about half a mile distant from the mine. Altogether there had been mined and raised from this location, up to the fall of 1871, some five hundred and forty-nine tons of first quality phosphate. Mr. Oatey, the superintendent, has recently informed me that there is now visible a thickness of about twenty feet of phosphate. with but very little rock intervening. The beds, however, are very variable in their dimensions, often changing within a few yards from five or six feet in thickness to as many inches.

III. Gold in Marmora.—The geology of the townships of Madoc and Gold in Mar-Marmora has already been given in considerable detail in the Report of mora. Progress for 1866-69, pages 144 and following. Much additional information, however, and many important facts have been gathered since the publication of that Report, and more particularly during the past summer The portion of these townships to which I would at present refer, and in which the only mines now being worked for gold are situated, is that immediately surrounding the granite area known as the Huckleberry The Huckle-Rocks. These rocks have been shewn (Report of Progress already berry Rocks. cited, page 146) to occupy a very large part of the south-western quarter of Madoc, and the south-eastern quarter of Marmora, extending north-westward on the boundary line between these townships as far as the middle of the eighteenth lot, with a breadth of about four miles, the River Moira in Marmora forming their western limit.

Surrounding the granite mass, and apparently conforming to its general outline, occurs a series of stratified deposits, consisting of greyish talcoid mica-slates, opaque white and reddish felsites with epidote, greenstones or diorites, ferruginous dolomites, crystalline limestones and rusty quartzites, towards the base of which occur deposits of magnetic iron ore, and small quantities of red hematite. In the talcoid slates are found large hedded Quartz veins, quartz veins, holding sulphurets of iron and copper, and native gold. holding sulphurets of iron and All these deposits appear to me properly to belong to Division R., the gold. (Report of Progress for 1866-69, page 145, and Report of Progress for 1870-71, page 310.)

Map.

In the map accompanying the present Report, I have endeavoured to represent the western outline of the granite mass in Marmora, and to show the position of the various openings made for gold in its proximity. It will at once be observed that were a line drawn, connecting these openings, it would represent a zone conforming to the general contour of the granite, and be at a nearly uniform distance from it. The probability of the existence of such an auriferous zone or belt was first pointed out by me in the Report first before cited, which I had the honour to submit to Sir W. E. Logan, early during the year 1867, before openings of any consequence had been made in Marmora. In this Report, after giving a detailed description of the course of the iron-bearing rocks through these townships, pages 150 and 151, I further stated on page 169, that the various localities in which gold had been found appeared to have a nearly uniform relation to the ferriferous belt, "a close proximity to the summit of which" would "in my opinion afford the most probable positions for the discovery of gold." This view has been most satisfactorily borne out by the openings since made in Marmora, all of which, as represented in the accompanying map, occur close to the valley of the River Moira, "the course of which might almost be said to denote its further run through this township." (Same Report, p. 151.)

Uniform relation between the gold and the iron-bearing zone.

Age of the granite.

The age of the granite, on which these gold-bearing rocks rest, is not yet satisfactorily determined. That it is of more ancient date than the latter, is I think clearly shown by the manner in which they repose upon its flanks, and conform to its general outline. My own conviction is, that this, and other like masses of granite met with throughout the Hastings district, represent eruptions which probably took place towards the close of the Laurentian period, or at some time prior to the deposition of the greenstones, schists, dolomites and limestones, of DIVISIONS B. and C. For wherever these higher rocks are wanting, we find the Laurentian gneisses, quartzites, and limestones, where in proximity to, or even at a considerable distance from the granites, cut up by a perfect net-work of veins, which differ This is the case in from the parent mass only in being of finer texture. a very marked manner in the township of Burleigh, Peterboro' county, about twelve miles west of Marmera, where the Laurentian gneisses and limestones are seen intersected in every direction by veins of a pale red syenite, often containing tourmaline, which apparently emanate from the red granite area, known as the Pine Plains, in the township of Methuen; while immediately adjoining these Plains on the east side, in Lake, rocks of the same age as those of Marmora remain unaffected.

Syenite veins.

The general characters of the strata surrounding the Huckleberry rocks Mode of occurs in Madoc and Marmora have been already given. In them gold occurs gold in Madoc as follows: as follows: -

nd Marmora,

- 1.-In bedded metalliferous lodes.
- In slate bands, impregnated with sulphurets.
- 3.—In nests, or bunches with quartz and sulphurets in dolomite.
- 4.—In cross or fissure veins (of minor importance.)
- 1. Bedded Metalliferous Lodes .- As in Nova Scotia, so in the township of Marmora, the most productive quartz lodes are conformable with the stratification. They consist chiefly of translucent vitreous quartz, coarsely crystalline masses of mispickel with black mica, sulphurets of iron Tin ore. and copper, more rarely of zinc, and in one instance oxide of tin. oxide of tin occurred in a specimen submitted to Prof. James Bell, of Belleville, for examination, who, in a letter to me, dated February 6th, 1871, stated that on one occasion he had found a few small crystals of tin ore, adhering to a specimen of iron ore containing arsenic, and associated with quartz and mica. Unfortunately, the locality from which this specimen was obtained was rather doubtful, but it was among a number sent from Madoc and Marmora. The gold occurs visibly both in the quartz and the mispickel. In the former it is in very minute particles, but in the latter often in irregular lumps of considerable size. The foot-wall is generally the grey talcoid or unctuous mica-slate, and the hanging-wall either a greenstone, or a feldspathic band with disseminated pyrites. In some instances the mica-slate is wanting, and then both walls of the vein are of a dark grey hornblendic gneiss, which is slightly calcareous, as at the Williams mine in Marmora.

These bedded lodes have been traced continuously all along the Marmora Character of the bedded lodes. side of the Huckleberry rocks, and are represented in the accompanying map by disconnected black lines. They are not of uniform thickness, but assume more the character of a series of lenticular patches, which in some instances have an extreme thickness of from ten to fifteen feet.

2. Slates impregnated with Sulphurets.—These are next in importance to the quartz lodes, of which they generally form the foot-wall, and in some instances both walls. They resemble somewhat the gold-bearing slates of Nova Scotia, and contain interposed layers of vitreous quartz, holding mispickel, sulphurets of iron, and free gold. Sometimes instead of the sulphurets, layers of magnetic oxide of iron occur, to such an extent as to form deposits of economic importance, in which cases the gold and iron are intimately associated in the same horizon, specimens having been obtained in more than one locality, where small grains of the precious metal were seen to be embedded in the iron. In places, on the run of the unctuous slates, occur deposits of steatite or soapstone, a fact which has already been pointed out in my Report for 1870. Soapstone.

3. In nests with Quartz in Dolomite.—This is an exceptional form in which the gold occurs in some few localities, and generally of too irregular Limestones and a description to be worked with profit. Examples of this mode of occurrence

are the Richardson and Empire mines in Madoc, in both of which instances, although gold was found in comparatively large quantities at the outset -as shown in the Report of Progress for 1866-1869-it was subsequently found to be of too irregular and uncertain occurrence to be mined with profit.

Limestones and dolomites.

- It is only towards the summit of the auriferous horizon that limestones and cavernous dolomites make their appearance. Through Marmora, numerous small openings made on the course of the latter have yielded small amounts of gold, more interesting, however, in a geological point of view, than profitable to the miner.
- 4. Cross or fissure-veins.—A few of these cross or fissure-veins, or, as the miners term them, spurs and leaders, are met with, crossing from one bedded lode to another, and cutting the intervening strata at various In them gold occurs both in the quartz and the sulphurets, but they are generally of so limited an extent that they rather serve as guides to the discovery of the main veins than as workable deposits themselves.

Ore district in Madoc and Marmora.

In Von Cotta's Treatise on Ore-Deposits, page 120, he describes a certain ore-district in the Schwarzenberg, Germany, which, in a very berg, compared marked manner, resembles those of Madoc and Marmora. The Schwar-with those of zenberg district consists, according to him, of a series of crystalline mica-schists, through which protrude several masses of granite, "the most important of which is the Rackelmann......The crystalline schists all have a gentle slope away from this granite dome, so that their lines of strike surround it concentrically. The ore-deposits of this district occur as :

- 1. Bedded veins, combined with greenstone, and containing many different ores.
- 2. Hematite lodes.

The bedded veins surround the granite of the Rackelmann also concentrically, as they follow the schistose structure of the mica schist, not as a continuous circle, but as small fragments of rings. These often attain a great breadth in the central portion of their extent; and from this cause approach, in horizontal section, an irregular lenticular form. always so firmly combined with the greenstones, that they are only with cifficulty separated from them, and are frequently accompanied by granular limestone, or dolomite." This description may be said to apply, word for word, to the Marmora ore-district, which, however, contains in addition deposits of magnetic iron.

Gold-workings in Marmora

During my exploration in 1871, the workings for gold were confined to the Marmora side of the Huckleberry rocks. The feverish excitement which pervaded this district in 1868, has entirely subsided, and is now replaced by steady working in some three or four localities. though similar deposits to those of Marmora are known to exist (Report of Progress for 1866-69), they are unfortunately so much concealed by the

horizontal limestones of the Trenton group, which overlie them unconformably, as to render it impossible to trace out their distribution, or to mine them profitably. A glance at the map accompanying the Report on the county of Hastings (Report of Progress for 1866-1869, page 143) where these higher limestones are represented by the dark blue colour, will at once make this fact evident.

The following is a list of the lots in Marmora, on which work is now, or has recently been in progress, and where openings of some importance have been made; commencing with the most southerly:-

1. The Cooke, or Williams Mine	Lot	7	Con.	IX	Marmora.
2. The Gillen Mine	"	6	"	VIII	"
3. The Severn Mine	٠ ن	8	"	VIII & II	X "
4. The Gatling Mine	"	9	"	"	"
5. The Hawk-eye Mine	"	10	"	<b>c</b> c	"
6. The Neill Mine	"	14	"	X	"
7. The Powell Mine	. "	17	"	XI	££

The Cooke, or Williams Mine, is situated on the south-west corner of Cooke, or Wilthe seventh lot in the ninth concession of Marmora, and was mentioned in liams Mine. the list of localities in which the presence of gold had been verified, in the Report of Progress for 1866-69, page 168, and again on page 171. The mine is owned by Cooke Brothers, of Toronto, and is superintended by J. D. R. Williams, M.D. It is on a vein of quartz and mispickel, with black mica and suphurets of iron and copper, the whole having an average width of from four to five feet, striking about N. 17º W., and dipping to the Character of the westward > 45°. The immediately adjoining rock is a heavy, dark grey, hornblendic gneiss, and the total absence here of the unctuous slate is a noteworthy fact. On this vein, a shaft, six feet by ten, has been sunk to a depth of seventy feet, and levels driven on either side to an extent, in all, of ninety feet. A large quantity of ore, chiefly quartz and mispickel, has been raised; but the greater part of it still lies on the ground awaiting treatment. Up to the winter of 1872, the work carried on here, apart from the mining and raising of the ore, has been chiefly experimental, and although the results arrived at by Dr. Williams, from time to time, exceeded his expectations, he still found by further treatment of the tailings resulting from his mill process, that a large percentage of the precious metal was being lost. The first mill used was Loss of gold. one that had formely been worked by Mr. Berry, in the township of Barrie, near the Addington Road, in Frontenac County, but was subsequently sold and removed to Dr. Williams' location. It was of the ordinary form, consisting of one battery with five circular rotating stamp-heads, worked by an engine of fifteen horse-power. I saw it in operation during the month of January, 1870, when some two hundred and fifty tons of ore were put through. The shaft then was sixty feet in depth, and numerous beautiful specimens were shown to me, which had been recently

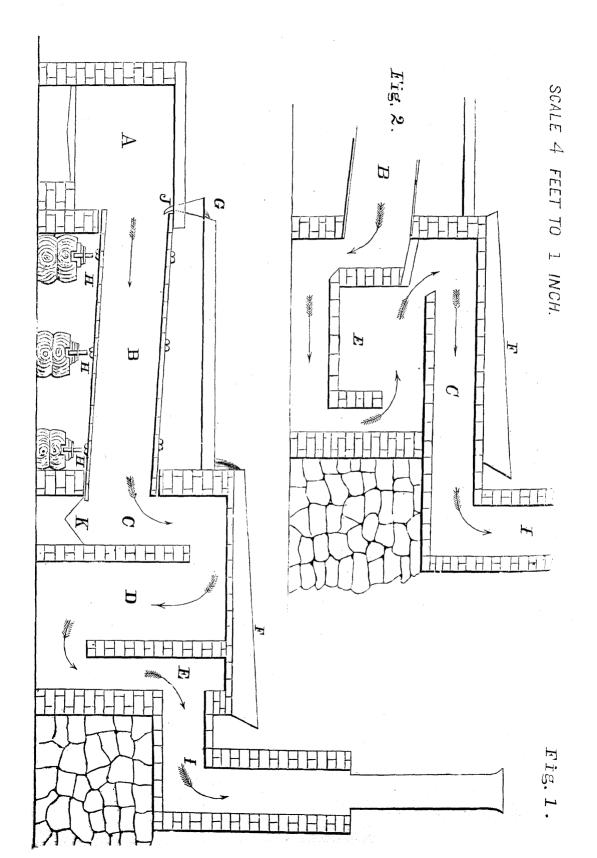
extracted, composed of quartz and mispickel, with visible gold. ore was being calcined in an open kiln, prior to its entering the mill. The kiln, when filled, held forty tons of ore, which it took four days to calcine properly. Before its erection, the ore had been taken to the mill without previous calcination, and a cleaning up, shortly before my arrival, after the treatment of four and three-quarter tons, had resulted in the yield of a little over \$10.00 to the ton. This mill remained in use during the ensuing summer of 1870, with variable results, all the ore being first calcined in the open kiln. During the month of September, of the same year, another cleaning up, after the treatment of one hundred and seven tons and three-quarters of ore-quartz and mispickel—yielded \$1,035.00. The depth at this time was sixty-six feet, only six feet deeper than during my visit in the previous January, but a considerable quantity of ore had been extracted by drifting. Still later, in February, 1871, this lode continued to be worked with profitable results. At this time Dr. Williams made arrangements for the introduction of J. W. Forbes' Automatic Steam Quartz Crusher, in This invention was warranted, with place of the ordinary five-stamp mill. matic Steam Quartz Crusher, two stamps, and a five horse-power engine, to do the work of an ordinary mill of twenty stamps, with twenty-five horse-power engine. The patentees further offered to put it up on trial, free of cost, and to remove it if not approved of. It was accordingly put into operation during the month of March, 1871, but, after a very short trial, was abandoned in the ensuing month of April as quite unsuitable, and the old stamps replaced. The open kiln was also set aside, and preparations made for erecting a suitable reverberatory furnace for roasting the ore. During the fall of 1871 and commencement of 1872, Dr. Williams was

Forbes' Automatic Steam

Dunstan's Revolving cylinder-furnace.

Treatment of the quartz,

engaged in enlarging and improving his mill, by the addition of fifteen stamps, making in all twenty stamp-heads, and in the erection of a revolving Cylinder-furnace, recently patented by Mr. John H.Dunstan. These changes were completed early in the month of February, 1872, at which time I again visited the mine and collected some further information. About thirty-five men were being employed in the mill and shaft. The mill i erected a short distance to the south-west of the shaft, and close to the east bank of the Moira River, on the sixth lot of the eighth range. The stamps are all of the circular rotating description, arranged in four batteries of five each, and are similar to those in use in many parts of Nova Scotia. They are worked by an engine of fifty horse-power, which is also used to turn the revolving cylinder of the roasting furnace, erected in the same building and close to the batteries. The quartz is crushed in the batteries with water, and the pulverized ore passed over a set of blanket troughs previous to its treatment in amalgamating pans of the Wheeler pattern. The other internal arrangements of this mill are much the same as in stamp 134



mills used in Nova Scotia and elsewhere, and being well known need not be further described.

In the Dunstan Cylinder-furnace no new principle is claimed by the patentee, but merely a simpler combination of those already well known, and applied in the Stetefeldt, Keith, Whelpley & Storer, and Brückner furnaces, to which he has added some details of his own invention. The accompanying plan, Fig. 1, drawn to the scale of four feet to one inch, will give a good general idea of the furnace :-

In Fig 1, A is a brick fire-box; B, a revolving sheet-iron cylinder, in-Description of the Dunstan clined from the fire-place, and in which are built six shelves of fire-brick, Cylinder-fur-nace. the whole interior being also lined with the same material; C, a chamber in which is a water trough K, with a running stream of water; D, a dust chamber; E, an arsenic condensing chamber; F, a sheet-iron drying tray or pan, furnished with a mechanical rake; G, a hopper into which the ore is raked, and from which it passes, through the tube J, into the cylinder, being at the same time scattered by a fan-blast, from another tube enclosing J; HHH are friction rollers on which the cylinder B revolves; I, the flue.

The pulverized ore, coming from the batteries wet, is spread out in the drying pan F, being at the same time slowly raked towards the hopper G, from which it passes into the cylinder. The cylinder turns at the rate of five revolutions per minute, or faster if necessary, and in it the ore 18 tossed from shelf to shelf through the flame, which passes through the centre, and, after about twenty revolutions, reaches the further extremity, and falls into chamber C, and the tank K. In this tank or trough, Mr. Dunstan contends that the pulverized and roasted ore is yet more finely divided, and is also freed from a coating which appears to render it unfit for amalgamation. In any case, the tank, if of no other use, saves a considerable amount of manual labour, as the water passing through it carries the ore to the amalgamating pans. Instead of chambers C, D and E, Mr. Dunstan has devised another plan, Fig. 2, dispensing with the tank, and in which the pulverized mineral passes at once into a chamber, where it is treated as in an ordinary reverberatory furnace, and which has also combined with it a chamber E, for condensing the arsenic.

The cost of erecting this furnace is nearly as follows:

Iron-work......\$200.00 Fire-brick (6,000)...... 60.00 Sand and lime..... Total.....\$375.00

All the iron-work is protected from fire and fumes by fire-brick. pecting the working of this furnace, but little can be said at present, it having been so short a time in operation. That it has defects, and that

Cost.

it will yet require some very important alterations, seems to me evident; but the fact that it has already effected a considerable saving in gold, indicates the trial to be in the right direction.

At the time of my last visit to the 'Williams' mill, the furnace had hardly been fairly put into operation, but after some weeks working, Mr. Dunstan furnished me with the following information. The furnace burns one cord of soft wood in twenty-four hours, and the whole of its machinery and connections can be worked by about two and a-half horse-power. From partially concentrated tailings—say 60 per cent. of sulphurets—which had previously yielded from \$9.00 to \$11.00 per ton, a trifle over \$18.00 per ton was extracted, after treatment in this furnace. The average yield of the ore as it comes from the mine would appear to be from \$17.00 to \$20.00 per ton.

Oxland's furnace. A furnace which would, perhaps, much better suit the ores of Marmora is one known as 'Oxland's furnace,' in very general use both in Europe and America. In this, the revolving cylinder inclines in the opposite direction to 'Dunstan's,' namely, towards the fire place, instead of from it, the ore being introduced at the end farthest from the fire, and brought from lesser to greater heat; whereas, in the furnace first described, the ore being introduced into the flame is subjected to an extreme heat at the outset, and gradually cools on its passage through the cylinder.

The Gillen Mine. 2. The Gillen Mine is situated in the north-eastern corner of the sixth lot, in the eighth range, and about twenty-four chains south-west of the Williams shaft. The lode is a parallel but somewhat higher one in the series than the one last described, being separated from it by about seven hundred feet of a grey hornblendic rock, surmounted by a band of greenish-gray talcoid slate. It is clearly an interposed or intercalated lode, striking with the associated rocks to the west of north (N. 17°—20° W.) and dipping to the westward 30°—35°, and is from four to six feet wide. The foot-wall is the talcoid slate with interposed layers of quartz and sulphurets, and the body of the vein is chiefly quartz, carrying about 10 per cent. of mispickel, with sulphurets and free gold. The rocks immediately overlying this, are greenstone and opaque white felsites, above which occur dolomite and limestone.

During the year 1870, a mill of five stamps, worked by water-power, which had formerly been in use at Eldorado in Madoc, was used by Mr. William Gilbert in connection with this mine. Two small openings were at this time made in the vein, and some ore extracted, of which about two hundred tons were put through the mill, and returned from \$5.00 to \$9.00 per ton. Mr. Dunstan, however, succeeded afterwards in obtaining upwards of \$20.00 per ton, from samples of concentrated ore, which had already been twice worked through this mill. Shortly after, owing to the breaking down of the water-dam, work was suspended on this location.

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In 1871, Mr. Andrew White, contracted to raise one hundred tons of ore from the Gillen lode, which was to be tested in the mill at the Williams mine. An opening was made on the course of the vein. of about fifty feet in length, five or six feet in width, and of irregular depth, the lowest point reached being about twenty feet, and the cost of mining and raising the ore only \$1.50 per ton. The mill return on the one hundred tons averaged \$6.00 per ton, which, there is very little doubt, was considerably less than the actual contents of the ore. The property is now in the possession of W. J. Gatling and partners. Numerous laboratory assays have been made of the ore from this mine. and are reported to have shown a large yield in both gold and silver. assays given below are taken from a Report on this location recently made by Professor E. J. Chapman, of University College Toronto.

Professor Chapman says: "In order to obtain a fair average sample of Assays by Professor Chapman says: the vein, as at present opened, I had two biasts put in at a distance of man. about twelve feet apart, and about six feet below the surface of the ground. From the fragments thrown out by these blasts, I broke off between 30 and 40 lbs. of ore, taking a piece or two from each fragment.

"A single trial-assay made from a selected piece of the pyrites, free or nearly so from quartz, (but in which no visible gold could be detected by the magnifying glass), gave me, per ton of 2000 lbs., the extraordinary yield of 8 oz. 3 dwts., equivalent to \$168 per ton.

"This, however, can scarcely be regarded as a fair criterion of the yield of the vein, and it is only mentioned here to show the actual amount carried by some portions of the ore. But the following results were obtained from portions broken fairly from every piece of the ore thrown out by the two shots or blasts, (from all, at least, that could be collected.) Several fragments were thrown to a great distance, and oculd not be found.

"Assay 1.—(Portions of powdered ore from both shots.)

Gold......6 oz., 10 dwts., 16 grs.=\$134 per ton of 2000 lbs. of ore. Silver...... 9 dwts, 8 grains.

Assay 2.—(Portions of powdered ore from both shots.)

Gold...... 6 oz., 8 dwts., 8 grs.=\$132.56 per ton of 2000 lbs. of ore. Silver..... 7 dwts.

Average yield of gold per ton of ore=\$133.28.

"These results, obtained by the most scrupulously fair treatment of the ore, are decisive as to the general richness of the vein. If at other parts general richness of the vein. at present unopened, the yield sink to even a third or fourth of the above, ness of the vein. the ore would still be of more than average quality."

During the summer of 1867, while engaged in mapping the distribution of these gold bearing rocks in Marmora, I succeeded in tracing the Gillen vein through the seventh, eighth, ninth and tenth lots, in the eighth con-

cession, its course being plainly indicated by broken fragments of rusty surface-quartz, holding mispickel. Through lots nine and ten the course chan ged from N, 17° W. to almost north and south magnetic, and the vein disap peared beneath an extensive swamp in the south-west corner of lot eleven, in the ninth concession, beyond which all trace of it was lost for some distance, owing to low swampy ground, which continues northward through lots eleven, twelve and thirteen of the same concession. On reaching, however, the fourteenth lot, in the tenth concession, I again found loose fragments of quartz and mispickel, and shortly afterwards, on the same lot noted a well defined vein, striking N. N. E., doubtless the continuation of that already traced up to the swamp commencing on the eleventh lot of the ninth concession.

The Severn Mine.

(3). The Severn Mine is situated half way up the line between the eighth and ninth concessions, about the eighth lot, but no work has been in progress recently. At the time of my visit, the shaft, which has, been sunk to the depth of about fifteen feet, on a vein of quartz and mispickel, was filled with water; but, from an examination of the immediately adjacent strata, the vein appears to me to be on the run of that from the Williams shaft. During the winter of 1870, about three hundred tons of ore from this mine were put through a small stamp-mill, which had formerly been in use at Eldorado, and I am informed that yields have been obtained, varying from \$4.00 to \$12.00 per ton.

The Gating Mine.

4. The Gatling Mine, the property of W. J. Gatling and partners is situated on the north-eastern corner of the ninth lot, in the eighth con-It is on a bedded vein, striking nearly north and cession of Marmora. south magnetic, and having a dip to the westward < 30°. The vein is composed largely of white translucent quartz and mispickel, with abundance of a very black mica, and has an average width of from seven to ten feet. On this lode, besides a number of small openings, two shafts have been

Character of the sunk, No. 1, to the depth of sixty-eight feet, and No. 2.—eighty feet distant from No. 1.—to the depth of sixty-four feet. Another shaft, No. 3, has been sunk on a parallel vein, three hundred feet west, to the depth of twenty feet. The foot-wall of both these veins is composed of a greyish-blue nacreous or talcose schist, similar to that accompanying the Gillen vein; it is intercalated with layers of quartz and sulphurets, through which gold is very frequently visible. The hanging-wall is a greenstone or diorite with disseminated pyrites. In making a section across the northeastern quarter of this lot, there appeared to me to be evidence of at least three distinct and parallel ore-zones, within a distance of three hundred feet, in each of which gold had been found by Mr. Gatling and Mr. O'Neill These zones are separated from one another by bands of greenstone, fel-Limestones do not occur in their immediate vicinity, but site and slate. rather more to the westward, and a few hundred feet higher in the series.

Limestone.

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From shafts Nos. 1, 2, 3, about two thousand tons of ore have been mined and raised, of which the greater part still lies on the ground awaiting treatment. From this pile, however, Mr. Gatling has sent to Mr. Balbeck & Brothers, of Newark, N. J., two barrels of samples, amounting to about 1700'lbs.-one lot, representing ore taken from the east, and the other from the west vein. By smelting, Mr. Balbeck obtained from the former about \$28.00, and from the latter upwards of \$30.00 per ton, \$4.00 of Yield of gold by which was in each case silver. Numerous beautiful shows of gold were found all along the course of the veins on this lot by both Mr. Gatling and Mr. O'Neill, who also panned out considerable quantities of gold from the decomposing ferruginous vein-stuff. Mr. Gatling has made many improvements on the property, having cleared over six acres, and Improvements. erected a number of substantial and neat frame buildings in proximity to Among these, are a dwelling-house, a boarding-house with accommodation for thirty workmen, a work-shop, stable, carriage-house, and smith's forge. A good road has also been constructed, connecting with the main travelled road from Madoc, to the village of Marmora. Preparations have already been commenced by Mr. Gatling for the erection of a twentystamp mill and suitable roasting-furnace, and there is little doubt but that this mine will be in full working order within a very few months. Followon the strike of these bedded lodes in a northerly direction, we next come to the Hawk-eye Co.'s mine.

- 5. The Hawk-eye Co.'s mine is situated on the east quarter of the The Hawk-eye tenth lot, in the eighth range, and less than one-quarter of a mile north of Mine. Mr. Gatling's mine. Here, gold occurs under conditions similar to those last described. Slate, greenstone and felsite bands are interstratified and accompanied with veins or beds of quartz and mispickel. Two shafts have been sunk on one of these veins by Mr. Jones of Iowa, one to the depth of forty-six feet, and another to thirty feet. From these openings a considerable amount of ore has been raised, but has not yet been milled. During my visit no work was in progress, but I was informed that operations were to be commenced early in the spring of 1872, on the return of the proprietors. Beyond this lot the gold-bearing zones are lost sight of, in the swamp already noted as covering the greater portions of the eleventh, twelfth, and the thirteenth lots, of the ninth range. Proceeding northward we next come to Neill's mine.
- 6. Neill's Mine is situated on the west half of the fourteenth lot, in the Neill's Mine tenth concession of Marmora. I discovered and traced out the vein on this lot in September, 1867, before any mining locations were being worked in Marmora. Specimens of quartz with mispickel, brought down at that time, and subsequently examined, yielded me by assay, in the laboratory of the Geological Survey Office, upwards of \$5.00 to the ton. During the years 1870 and 1871, an opening was made on the vein by Mr.

Neill, the owner of the lot, but with what result, I have not been informed. The geological conditions of this deposit resemble those of the Williams vein, on the seventh lot of the ninth concession. It almost immediately borders on the great granite area existing to the eastward, but from which it is separated by a granitic and greenstone breccia, to which I have already referred. (Report of Progress for 1866-69, pages 146, 147.) There is little doubt but that mispickel zones or belts carrying gold will yet be discovered above the horizon of Neill's vein, on the eastern portion of the fourteenth lot in the ninth, and probably on the western portion of the fifteenth lot in the tenth concession, corresponding with the upper zones on the Gatling lot.

The Powell Mine.

7. The Powell Mine is situated about one mile and a-half N. N. E. from Neill's mine, being on the western portion of the seventeenth lot of the eleventh concession of Marmora, and more or less work has been done there since the year 1867. During the fall of 1866, while mapping the distribution of the ferriferous belt of rocks through Madoc, I succeeded in tracing a band of sulphurets—mispickel and iron pyrites—through this lot, and noted the occurrence of some deposits of magnetic iron-ore. (Report of Progress for 1866-69, page 151.) A shaft, now about fifty feet deep, has been sunk on a vein of quartz and mispickel, in greyish talcose slate, which strikes nearly due north and south, magnetic, and dips to the westward  $<25^{\circ}$ —35°. The vein is said to average about ten feet in width. A temporary stamp-mill with five stamps, worked by an engine of twenty horse-power, has been erected for testing the ore. The pulverized mineral is roasted in a small, ordinary reverberatory furnace, previous to its treatment in the mill. Mr. Jenkins, who is at present superintending the work informs me that the mill crushes about five tons in the twenty-four hours. The proprietors intend, however, should they meet with sufficient encouragement, to erect a mill of at least twenty stamps. Only a small quantity of surface ore has yet been operated on, but has yielded on an average about \$5.00 to the ton. Some seven or eight men are at present employed on the location.

The table on the following page contains the results of assays made by Dr. B. J. Harrington, in the laboratory of the Geological Survey Office. The specimens were all collected by myself, with the exception of the ore from the Cooke or Williams mine, and the poorer of the tailings from the same place.

I have the honor to be,

Sir,

Your obedient servant,

HENRY G. VENNOR.

Geological Survey Office, 1 st May, 1872.

### ASSAYS BY DR. B. J. HARRINGTON.

In the foregoing Report nothing is said with regard to gold localities outside of Marmora; but a few specimens from the Townships of Levant and Elzevir having been examined at the same time as those from Marmora, it has been thought advisable to include the results in the following table. In most cases silver was absent, or, if present, occurred in such minute quantity as to be of no economic value:—

Names of Mine or of Proprietors		Character of Ore.	Ounces of Gold per ton 2000 lbs	Value per ton. (2000 lbs.)	Remarks
Gillen Mine	. Marmora, 6, 8.	( and quartz)	4.90	\$101 23	A vein worked at presen
	. " "	Mispickel and quartz	0.6125	12 65	Not from the same vein a the above.
Gatling Mine	. " 9, 8.	( Ordinary and )	3.736 No	77 18	Now being worked.
Williams & Co	. " 8, 9.	chloriticmat-	trace of gold or silver.		Occurs in magnetic iron is the vicinity of the Mars Ore Bed.
u	66 66	finely gran- ular mis- pickel	"		This, like the last, was a surface specimen, no openings having been
Cooke or Wil- liams' Mine.	" 7, 9.	Mispickel and Vitreous quartz	4.14	85 <b>5</b> 3	made. Worked at present.
st et		tailings form   Dr. Williams'   Mill, chiefly   quartz and   mispickel	0.8458	17 47	Trials on a large scale are said to have yielded a much larger amount of gold; but the quantity of course varies according to the degree to which the tailings have been
" "	ι	Similar to the last, but not so well concentrated	0.466	9 71	concentrated.
Williams, Dean & Co. }	" 20 5.	Mispickel with a little quartz	1.545	31 92	From a locality not yet described, and belong- ing apparently to a dif- ferent horizon from any of the above.
Esq	Levant, 6, 7.		No coldor ilver.	s	Some years ago a few small openings were made on this and the following lots for cop- per.
u	" 4 or 5, 7.		race f gold		•
u u	" 8, 7.	Compact quartzose do- lomite, hold- ing sulphides of iron and copper	0.255	5 27	

# REPORT

OF PROGRESS

### OF GEOLOGICAL INVESTIGATIONS

IN

# NEW BRUNSWICK.

PROFESSOR L. W. BAILEY, A.M.,

ADDRESSED TO

ALFRED R. C. SELWYN, ESQ., F.G.S.,

DIRECTOR OF THE GEOLOGICAL SURVEY OF CANADA.

SIR,—In accordance with a request conveyed to me in your letter of the 4th inst., I beg leave to lay before you the following general statement of the progress of geological investigation in this Province during the summer of 1871, and some of the results at that time obtained.

Geological Map.

Having been honored with your instructions, in the month of May last, to direct my efforts during the ensuing season towards the preparation of a geological map of southern New Brunswick, supplementary to, and illustrative of the general Report submitted by Mr. Geo. F. Matthew and myself relative to that region, the greater portion of my time was devoted to the obtaining of the materials necessary for that purpose. object in view, not only was attention paid to the more accurate limitation of the different groups of strata in the region to which that Report particularly relates, but an effort was at the same time made to trace them in their eastward extention through the counties of St. John, King and Albert, of which but a limited portion had been previously examined. Many additional details, relative both to the character and distribution of the formations in question, were thus obtained. Before attempting, how ever, to represent these, and the previous conclusions, in pictorial form, it seemed essential that certain difficulties, to which reference has been made in the preceding Report, and upon the solution of which depended the correct delineation of considerable areas within the region under consideration, should, if possible, be removed. In endeavouring to effect this object, I have, during a portion of the summer, been accompanied by Assistance from Dr. T. S. Hunt, to whom I am indebted for much valuable advice and Dr. T. S. Hunt. knowledge assistance. adding to our previous Though much

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upon the subject, I regret to say that our labours in this direction have not as yet proved entirely successful, several important questions still remaining, for the solution of which additional study is required. Under these circumstances, and until such investigation shall have been made, it has been thought advisable to defer for the present the farther preparation of the map alluded to, the presentation of which has, accordingly, and with your consent, been postponed.

Among the subjects remaining open for determination is that relating to the age and relations of the different bands of schistose rocks lying to the northward of the great belt of intrusive granites which traverse the central portion of Charlotte, and parts of King's and Queen's Counties, and in some of which organic remains [See Report of Progress, 1870-71] of Upper Silurian and Devonian aspect have been observed. This determination is the more important from the fact that upon it depends also the determination of the age of similar strata extending over large districts in the central and northern portions of the Province. The latter were observed by Dr. Gesner, Sir William Logan, Professor Hind and others, as well as by the writer, and in them Mr. Charles Robb has recently discovered fossils belonging to a type similar to that of the organic remains mentioned above. It is accordingly proposed, with your permission, to devote a portion or the whole of the coming season to a minute and critical study of the region in question, with a view to determine whether more than one series is here represented, and, if so, to ascertain their true age and relations.

A second subject, to which a considerable share of my attention has been devoted during the past season, is that of the Huronian series, more Huronian particularly as regards the features and distribution of its different subdivisions in the hilly region lying to the eastward of the city of St. John, and along the northern shore of the Bay of Fundy. Among the more important results attending the examination of this region may be mentioned, the confirmation of the view expressed in the Report of last Year, as to the probable identity of the rocks of eastern St. John county with those to which the designation of the "Coastal Group" has been applied in other parts of the southern metamorphic district, as well as the recognition of the latter in portions of King's, and over a large part of Albert County. The rocks in question being those in which are contained the principal deposits of copper ore in the last-named county, copperas well as in that of St. John, this recognition is important, not only as establishing their relationship to the similar copper-bearing rocks of Charlotte, but also as indicating the wide area over which such deposits may be looked for. It should, however, be mentioned that, although indications of this metal have been observed at many different points over this region at but few of these does it appear to be present in quantities sufficient to warrant its profitable extraction. Where most abundant, it

A. 1872

is usually in connection with the more chloritic members of the group especially where these, as in the southern part of the parishes of Alma and Harvey, in Albert county, are associated with granitoid and dioritic rocks.

Allusion may be made in this connection to the probable want of conformity between the coast rocks last mentioned and those of the Coldbrook group, as indicated by the want of parallelism in their geographical distribution, and the entire absence of the former, as far as known from among the folds by which the latter has been made to spread over so extensive an area. It is to be observed, however, that no direct proof of such uncomformability has as yet been obtained, the contact of the two groups being obscured in all those cases where an attempt has been made to determine their relations, in some instances by over-lying Carboniferous or Devonian sediments, and in others by the presence of intrusive syenites.

In addition to the subjects referred to above, and upon which farther information is required, the following may be mentioned as among other results of the last season's explorations:-

(1.) The determination of the exotic origin of much of the so-called

granite of southern New Brunswick. In addition to that of the Nerepis Hills and the St. Croix River, alluded to last year, may be mentioned Exotic granites. several large areas of such rocks in eastern King's and Albert Counties, not before represented in the geological maps of the Province. western frontier the intrusion of these masses (which include both true granites and imperfect syenites, the latter usually of a bright red colour) has been in part through the mica-schists and imperfect gneisses, to which allusion has been made in a preceding paragraph as of uncertain age, and in part through dioritic rocks, holding serpentine and diallage, which, on lithological grounds, are regarded by Dr. Hunt as probably Huronian, those of the last named counties are in part through the petrosilicious rocks of the Coldbrook series, and in part through the chloritic and nacreous schists

Carboniferous

rocks.

of the Coastal group.

(2.) The existence of a considerable area of true carboniferous rocks, marked by the presence of plants of the type of the Middle or Upper Coal formation, in the eastern part of King's County, and indications of a probable want of conformity, both in this county and in that of Albert, between the coal measures and the Lower Carboniferous formation. made several years since in the rocks first mentioned (at Dunsinane Station, on the line of the European and North American Railway), showed the presence, near the surface, of thin beds of coal, similar in composition to that of Springhill in Nova Scotia, but the locality has not yet received the attention which it apparently deserves.

Coal

Lastly, the occurrence of trappean rocks similar to those of the North Trappean rocks. Mountains of Nova Scotia and of the island of Grand Manan, near

Shepody Mountain in Albert County, an observation of some interest as tending to confirm the view expressed by Mr. Matthew and myself in earlier publications as to the Mesozoic age of a portion of the red sand-stones occurring along the north shore of the Bay of Fundy.

Fuller details upon the several points above referred to are, with your permission, reserved until a more complete examination shall have been made of the districts to which they relate.

I have the honour to be, Sir,
Your most obedient servant,
L. W. BAILEY.

### RECORDS OF MINES AND MINERAL STATISTICS,

COMPILED BY

### MR. CHARLES ROBB.

THE following Tables exhibit in a concise form the results of Mining operations during the last three years throughout the Dominion of Canada and the British American Provinces. They have been compiled chiefly from information obtained by the Officers of the Geological Survey, under the arrangement specified in Mr. Selwyn's Summary Report, addressed to the Legislature, and dated May 2nd, 1870, pp. 13 and 14; and partly from the Reports of the Commissioner of Mines for Nova Scotia, supplemented by other authentic sources of information. In some cases, in order to render the Tables more complete and uniform, it has been deemed necessary to fill up some of the items by estimating according to the compiler's best judgment. In such cases, the figures are marked by an It is to be regretted that the returns are so incomplete as to render such an expedient necessary; and it is hoped that, when the importance and value of such records are duly recognized, the parties more immediately interested will give their cordial co-operation. Tables comprise the records only of such mines as have been in operation during the whole, or any part of the three years referred to; and in some instances where it has been impossible to obtain any information all notice has necessarily been omitted. In the column indicating the year, the brackets denote that the "aggregate" production, number of men, etc., for each year of all the mines of the class referred to is recorded.

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				1	Munoer	15	Value	Onan-	to sts		Destination	Ę.	
Description of Mineral Product.	Designation of Property or Company.	LOCALITY. Lot, Range, Township, County.	Year.	Men. Horses		Engines.	of Plant and Ma- chinery.	# 0	Value Produc		or Frounce.	. I e I	REMARKS.
богъ.	Gold Mine (Silver Islet Mining Co	7 in 9th, Marmora, Hastings Woods Location, Thunder Bay, L. S.	8 yr 1869 1870	Ja 88	9 = <del>4</del>	8 (9	10000	*500 oz. 10791 lbs. 172825 ''		\$ 9250 A11 89760	All	In op	In operation during three years. First opened by Montreal Min- ing Co.; afterwards sold to
	Thunder Bay " " Frontenac Lead Co	Thunder Bay "Thunder Bay, Lake Superior	1871 1869 1869 1869	3882 3882		<del>484</del> :	*80000	*80000 969454 '' 8294 '' *550tons 17200 167 ''	645897 2592 4100 2000	TA TA	<b>A</b>		American Co.  Total to end of 1871, \$820,485. Operations suspended since 1869. Do. Work suspended, but to be re-
Onni.	Chaffey & Mathews Mines Blairton Iron Mines Cowan Iron Mines	Chaffey & Mathews Mines Near Newboro', Crosby, Leeds ( Blatton from Mines (8 mi sit, Belinout, Peterboro' Cowan Iron Mines (E. 4, 1 in 4th, Dalhousle, Lanark		2222	കയ്യ	<del>444</del>	114000		56800 44300 62500	56800 44300 62500		Has b	sumed. Has been worked for many years Cobourg Peterboro, M'mora Co
IRON PYRITES	Elizabethtown Mine Do do Brockville Chemical Co	19 in 2nd, Elizabethtown, Leeds Do do do do	1870 1781 781	ے صور		<u>; ; ; </u>	200	460 150 	*3000 1000				Used at Brockville with produce of two following phos-
OF LIME.		Mine 12 in 7th, "" "" "" "" "" "" "" "" "" "" "" "" ""	1870 1781	212			1200		8400 2100	~_~	9	In in i	of Superphosphate (685 tons in 1870,
PLABTER. 4	Grand River Plaster Beds Alexander Taylor's	Beds Near Cayuga, Haldimand	1869 1870 1871	ន្តន្តន	0000	$\widetilde{\vdots}$	15000	5006 5000 5000 5000 5000	10000 10000 8500	444		In o	In operation for many years, with little variation in pro-
HYDRAULIC CEMENT	Brown's Quarry and Mill	d Mill Thorold, Lincoln	1869 1870 1871		200	<del>288</del> %	28000	17000 bu. 22000 52000		44			чиской. Do. Do.
MIGA	New York Mica Co	MICA New York Mica Co 16 in 9th, North Burgess, Lanark	1869	22	63		250	4000 lbs.			ck-	But 1	But little worked since 1870.
PETROLEUM.	PETROLEUM. Enniskillen Companies	Petrolia, Enniskillen, Lambton		25 750	0 400	*		000008	375000	-64	:	The I	The return for 1870 is the only
SALT.	SALT Huron & Bruce Co.'s	's Salt Wells in Huron and Bruce Cos.	1869 200 1870 *200 1871 *150		222 282	888 888	190000 90000 *140000 100000 *16:000 70000		.: 108000 .: 120000 .: 73000	<b>444</b>		Prod	Production limited from want of adequate market.
COPPER ORE.	COPPER ORE. West Canada Co	Lake Huron	1869 1870 1871	205 205 194	909	387	170000 237000 257000	2180 t'ns 141000 1945 " 118645 2356 " 117800	118645 117800	:::	All	<b>~</b>	All Recently this Co. have erected at their mines works for the reduction of the copper, in
		Annual Average		6495 820	0 423	1	2,270,817	6734 2,270,817	966982			E.	part by a humid process.
In the To.	In the Township of Marmora, in Ha	in Hastings County, within the last three years, most important discoveries of auriferons veins have been made and operations commenced	ars, mo	at imi	ortan	t disco	veries of	ouriferon	a voine	104	Popul	0000	conoming configurations

for developing them on an extensive scale, and with good prospects of success.

In the Thunder Bus allver also, Mining operations are in progress at several other points besides those indicated, and most important results are auticipated; but with the exception of those in the table, no authentic records have as yet reached us. In Marinora, a quarry of excellent lithographic stone has lately been opened, and in Burgess a plumbago mine and mill are in successful operation, of which we have no specific details.

† Rot other facts with regard to Iron Ores and Phosphate of Lime, see Mr. Vennor's Report.

# TABLE II. - PROVINCE OF QUEBEC.

									-			
				Ñ	Number of		Value		To is it.	Dest of Pi	ination oduct.	
Description of Mineral Product.	Designation of Property or Company.	LOCALITY. Lot, Bange, Township, County.	Year.	мел. Нотеев		Engines. No. H. P	of Plant and Ma- chinery	tity Produced.	Value Production Dinger DOC CC CC CC CC CC CC CC CC CC CC CC CC CC	D.C	.8 G.B	REMARKS.
фогъ	Chardiere Gold Mining Dis- triot. Do. Do.	ining Dis- Seigniory Vaudreuil, Beauce	1869 1870 1871	\$25 :::			20,000 20,000 20,000	20,000 1050} oz 20,000 5815 " 20,000 115	18.909 10.467 2,070			The produce of desultory alluvial washing; a quartz crushing in quartz crushing in the perected, but is not now in operation.
COPPER	Harvey Hill Mine Capel and Hartford Mine Huntingdon & Ives do	Harvey Hill Mine 17 in 15th, Leeds, Megantic (Sppel and Hartford Mine. 8, 4, in 8th, 9th, Ascot, Richmond Huntingdon & Ives do 8 in 8th, 9 in 9th, Bolton, Brome	1869 1870 1871	842 187 60	1088	5 5 190 190		120, 900 12800tns 150000 120, 900 10568 " 137447 120, 900 8714 " 46.370	150000 137447 46.370	<b>~</b> 2.~2. :	A0140-40	Owing to the low price of copper, these mines have been worked on a very limited scale during the last three years.
<b>Твоя</b>	Forsyth Iron Mine. St. Maurice, St. Joseph, and St. Francis Iron Mining Cos.	Foreyth Iron Mine. 11 in 7th, Hull, Ottawa St. Maurlee, St. Joseph, and Champiain County St. Rands Iron Minding Cos. Famaska County.	1869 1870 1871	876 876 890	333	4 4 4 8002 0000		*100,000 10400tns 100,000 10400 ·· 100,000 15400 ··	72,250 72,250 98,924	rd c vic	-to-to-to	
PLUKBAGO	PLUMBAGO Canada Plumbago Co	28 in 6th, Buckingham, Ottawa	8yrs	18	4	1 50	*50,000	450 "	*00009	2400	:	Worked only on a limited soule.
BOOFING SLATE	uarry	E in 6th, Melbourne, Richmond	1869 1870 1871	2236	∞ ∞ ∞	8888		8,500 7670 sqs. 8,500 4568 ". 8,500 4765 ".	82.600 19,414 19,625	c4morran	-4m-4m-4m	The Danville school-state quarry is in operation, but no authen- tio returns have been obtained.
HYDRAULIO CERCERT	Orleans Cement W	orks Parish St. Pierre, Orleans Island 3718	3yrs	14	:	1 16		11,000 3000 bls.	4,200 All	AII].	<u>:</u> :	This is the annual production, &c., which varies very little from year to year.
PRAT	Canada Peat Fuel Co	Chambly, Napierville, Missisquoi ( Champlain Parish, Seigniory & Co. (	1869 1870 1871	888	91-10	20 80 80 80 80 80	70,000 70,000 70,000	14000tns 15000 " 16300 "	42,000 48,000 30,900	A THE	;- <del>++</del>	Operations latterly confined to the St. Hubert and Ste. Brigide bogs.  None produced in 1871 from this
BOAPSTONE.	SOAPSTONE. Slack & Whitney's Mine	24 in 7th, Bolton, Brome	. 1871	4	:	1 10	8,000	300	1,800	:	<u>                                     </u>	Mine only opened late in 1871.
		Annual Average	1 PH	1384	88	17 660	, ,	876,400 830,209	330,209	+		

In addition to the above we have to note the following, of which, however, we have no authentic details:—

In addition to the chaudisee Gold District, besides the desuitory operations of which the results are given above, an English Company have acquired territorial rights, and the constitution of the constitution of the constitution of the constitution of the constitution of the constitution of the constitution and consequently we have no definite results to record.

Sudden the works are not yet in full operation, and consequently we have no definite results to record.

Sudden to the manufacture of the constitution of the manufacture of the constitution of axies and other wrought iron articles from the iron sands of Moisie.

Sudden to the manufacture of seel by a new process, from the iron sands in under the direction of M. Labreche Viger, not yet in full operation.

Sth.—There is a milk at the observation been worked on a small scale for several years, and Mr. J. S. Miller is now working a plumbage mine in the same locality.

TABLE III.-PROVINCE OF NOVA SCOTIA.

SUMMARY of the Production of Coal in each County in Nova Scotia and Cape Breton in 1869-70-71, condensed and compiled from Official Records contained in the Reports of the Chief Commissioner of Mines for the Province of Nova Scotia.

			Num	Number of		Tol	MA 6	īty d.		tity (tthe	Total Quantity	uantity	tity	Sales co with pr	Sales compared with previous	Destinal	Destination of Product	roduct.
COUNTY.	Year.	Mines.	Men.	Ногвев.	Engines	Aggred Swo'I Ligail	Expend on Mo	duanQ esisH	duanQ Sold.	e blos a blos a prim	Raised.	Sold.	ulsV nauQ olos	Iu- crease.		Scotia& Cape Breton.	cent Prov- inces.	Other Coun- tries.
CUMBRRIAND	1888 1781 1781	444	57 86 118	82.54		H 5.444	4474 21 2194 21 9609 25	Tons. 15066 9053 12382	Tons. 8515 7884 11737	\$ 16168 14790 22742	Tons. 36451	Tons. 28136	# 53695	Tons. 4153	Tons. 1586 931	Tons. 1979 1137 1655	Tons. 5139 5801 9757	Tons. 1837 446 290
Protou	1860 1870 1871	<b>~</b> ∞≎	881 1044 937	87. 80.	888	1585 1520 1520	71464 29 67784 47 87991 84	218678 248880 285994	198212 226525 245800	878498 417992 456801	753547	670537	1247791	53360 28813 19275		29810 47364 67147	60093 86802 82478	84026 92178 97162
CAPB BRETON	1869 1870 1871	123	1486 1486 1488	210 197 192	888	1274 1487 1417	45949 79 95713 60 122767 60	843899 867373 870948	804320 883578 888431	591346 639676 659428	1081720	976329	1890450	7575 29259 4854		83171 81372 81795	74089 79873 68160	157064 158526 82904
INVERNESS and VICTORIA	1869 1870 1871	616161	877	00 00 00 00 00 00 00 00 00 00 00 00 00	ннея.	2-1-2	18582 80 24374 00 5415 00	895 463 4018	749 290 450	1409. 575 894	5376	1489	2878	160	1176	498 286 63	262	
Annual Average		88	2614	294	19	2956	167,107 02	625,698	558,830	1,064,988	:					182,092	157,612	222,998

OTHER MINERALS IN NOVA SCOTIA.—Apart from coal and gold, the only other minerals which have been made available in Nova Scotia during the last three years, are from and gypaun; the former chiefly at the Intervolonial from and Sciel Company's Works (fortherly called the Acadia Iron Works), meat Londonderry, in the Country of Colchester, and the latter at and in the neighborhood of Windsor, in Haust Country where gypaun has been quarried for a century. In The returns for both products are very imperfect. From the most reliable information we can obtain, the annual products of the Intercolonial Iron and Steel Company of which about two-thirds are very imperfect. From the most reliable information we can obtain, the annual products of the Intercolonial Iron and Steel Company of which about two-thirds are consumed in Canada, one-exist exported to England, and one-sixth to the United States. The average number of menemployed is 800; increased in the port of gypaun, which is a most important article of export, are more imperfect. From the best information we can obtain, we may state that from the port of Windsor alone, at less 125,000 tons of raw gypaun are annually exported, being exported to the United States. The number of men annually employed in this branch of mining industry may be estimated at 300.

# TABLE IV.—PROVINCE OF NOVA SCOTIA.

CONDENSED and compiled from the Reports of the Chief Commissioner of Mines for Nova Scotia.

DISTRICT.	Year.	Eq.	Number of		Ouartz	AVE	AVERAGE	Total Yield	Total Value	Yiel	d compared with that of previous year.
		Mines.	Men.	Mills.	Crushed.	Yield # Ton	Yield & Ton Val. & Man	of Gold.		Increase.	Decrease.
BREEBROOKE.  WAVERLEY  WAVERLEY  WINE HARBOUR  UNIAGER.  OLDHAM.  Brornowr  LAWERGHODOLY, OF CARLEDO.  WEROTAINED and other DISTRUCTS.  TRUCTS.  Annual Average.		####################################	\$27112888445888248818484588458884588845888	HHIIO D D D D D D D D D D D D D D D D D D	Tons. owter 11550 11	1870   17   184   11   11500   11   11500   11   11500   11   11	865217856745666456767676866525667676767686767676767676767676767676767	0.2. dwts. g 715.4. d 715.4. d 715.4. d 715.4. d 1171   171   175	100   100	0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  0. dwte, gra.  1. dwt	20. dwts. grs. 1523 dwts. grs. 1523 dwts. 13 125 14 17 125 16 20 18 18 18 18 18 18 18 18 18 18 18 18 18

# TABLE V.-PROVINCE OF NEW BRUNSWICK.

Description		LOCALITY	JITY.		No. of		pu	•pe	ър. Рго-	Destinat	Destination of Product.	roduct.	
!	Designation of Pro- perty or Company.	District.	County.	Year.	Men.	Horses.	Value of Plant ar Machine	Quantity produce	Value of duct at Mine.	Canada	United States.	Great Britain.	Ветагкя.
COFPER Ada ORB ALIM MALI MALI NESS NESS NESS NESS NESS NESS NESS NES	ne anga- npany.	Adams Island Charlott Salmon River Albert Markhamville Kings	Charlotte Albert	1869 1870 1870 1870	84888	HHPPP	2000 2000 2000 2000	170 tons 50 " 800 " 800 "	2000 2000 11700 11700 11700	## 1700 2000 1700 1700	- totalescársodos	A T	Work was suspended in 1869.  Of of the desire of the second of the return for 1870 is the only one obtained, but the works are supposed to have been in operation for three
Prin Spli Gra Alb Suse	Org. Prince William Mines. Pydrafago. Split Rock Mine. Grand Lake Mines. Grand Lake Mines. SALT. Bussex Salt Works.	Mines. Prince William. York.  Portland R. John Grand Lake Queens Near Hillsboro Albert Ks Sussexvale Kings	YorkSt. John Queens Albert	1869 1869 3 Yrs.	20222	ळ ख ळ <del>४</del> ख	*6000 1000 *30000 11000	2000 186 " 700 6000 bris 1000 22060 tons 0000 19267 " 1000 4500 bus	2000 12000 26600 192670 8618	A III	t t		yrs. with little change. Suspendel since 1869. Tregularly worked; now suspended. Partially worked, with little change. Total from 1862 to 1872, 210, 374 tons.
		Annual Ave	Annual Average		108	83	47,700	47,700 262288	262288				
ard	There are important works near Hillsboron statements regarding them have been obtained.	llsborough, in A btained.	Ibert County,	for the	man	ufact	ure of 1	plaster fro	m the	gypsum	which al	spuno	near Hillsborough, in Albert County, for the manufacture of plaster from the gypsum which abounds in that neighborhood, but no detailed been obtained.

TABLE VI.—BRITISH COLUMBIA.

Pecription	Poori pelon	Δ.		Number of	er of		Value of	Oughtite	Value of	REWARKS
Product.	Designation of Company, &c.	T GME.				Engines	Machinery	Produced.	Products.	
			Men.	Men. Horses.	No.   H. P.	H. P.				
	distant the spirit is after the factories and the spirit spirit in the spirit s						<b>\$</b>		<b>6</b> 0	4
Gotto	Gold Mining gene-	1869	000's	:	:	:	:	::	1,824,871	+ Wells, Fargo & Co.'s Returns.
5	rally throughout the Pro-	1870	2,000	:	:	:	::	:	1,888,740	Hon H.L. Langevin, C.B., Minister Full, Works.
2	vinee	181	90,00	:	:	:	:	:	1,849,581	Wells, Fargo & Co.'s Keturus.
COAT	Vancouver Coal Mining and			:	•	:	:	35,802 tons	147,504	Sales in the last ten years, 800,000 tons.
	Land Company (Limited.)	1870	: :	:	:	:		29,848	122,968	There is one other Coal Company in the Pro-
			8	ı.c	2		94,000	45,000 "	185,400	vince, from which no returns.
	Annual Average		2,194	70	2	222	:	96,882 coal 1,488,014	1,488,014	+ Probably one-fourth more gold is taken away by private hands.
The or	oal produced by the Vancouver	Coal Mi	ning Cor	npany a	t Nanah	no and l	Newcastle Islan	d is supplied to	o the Town of	The coal produced by the Vancouver Coal Mining Company at Nanaimo and Newcastle Island is supplied to the Town of Victoria, and to Steamers calling at the place

TABLE VII -NEWFOUNDLAND

The gec include in this gypsum, &c., a	ological structure Report the record are known to exist	The geological structure and economic interests of this Island are so closely alited with those of the Dominion, that it has been deemed desirable to include in this Report the record of its most important mineral products. Although various other minerals of economic importance, such as coal, galena, grysum, &c., are known to exist in the Island, the Copper Mines of Tilt Cove are the only ones now systematically worked.	this Isle ineral p Mines of	and are roducts	so close t. Altho ove are tl	ly alliec	d with 1 rious ot] ones no	hose of her min w syster	the Do	minion, econom y worke	that it ic impo id.	has been rtance,	a deemed desirable to such as coal, galena,
Description of	Description of Designation of	Addition	3		Number of	er of		Value of Plant	Quan- tity of Copper	Value tity of Value of tity of Value of Light of Copper Copper Nickel	Quan- tity of Nickel	Value of	o A G T Fra G
Sc. duet.	Topens.		. car.	Men.	Men. Horses. Engines M	Engines No.   H.	nes H. P.	Machi- nery.	pro- duced.	Machi pro- the pro- Ore, nery, duced.	pro- duced.	Ore.	KEMAKAS.
COPPER	Union Mine		1969	288	-	-	88	80,000	Tons. 45,091 4	\$ 48,242	Tons. 87	\$ 11,964)	
AND NICKEL.	AND DO. NICKEL, DO.	Do. Do. 1870	1870	288 140	-31		88	80,000 80,000	8,000 9,000	20,000 30,000	55 S	26,600 <del>{</del> 4,300 <del>}</del>	All shipped to Swansea, Wales.
		Annual Average		239	1	1	188	80,000	17,364	80,000 17,364 219,414 64	2	14,288	

TABLE VIII.

GRNERAL SUMMARY of Mining Statistics for the Dominion of Canada and British Provinces.—Average of the years 1869, 1870 and 1871.	the Do	minion	of Cana	da and	British Provine	ss.—Average o	f the years 1869, 1870 and 1841.
HIVE ALL OWNER AND A COMMITTEE		Num	Number of		Value of Plant Value of Pro-	Value of Pro-	REWARKS
NAME OF TROVINCE.	Men.	Horses.	Horses. Engines H. P.	H. P.	and brachinery.		
CONTARIO  CONTARIO  NOVA SCOTIA  NOVA SCOTIA  COAL  Do.  OTHER MINERALS  NEW BRUNSWICK  NEWFOUNDLAND  BRITISH COLUMBIA. GOLD  Do.  Do.  Do.  Do.  Do.  Do.  Do.  D	6495 1264 2514 2514 588 500 108 239 2000 194	88 88 88 1 :88 1 :88	423 17 65 66 6 6 10	6734 650 2966 *1000 200  85	2270816 376400 167107 47700 89600	\$ 966952 897209 11192345 551266 551266 262288 233702 1338066 151852	Expenditure on new works only included.  Total in ten years from 1882, 196,776 oz. 1 dwt. 17 grs.  Total in six years, beginning 1866, \$1,274,746.  Total sales in ten years, 300,000 tons.
Grand Total, Annual Average 13,902	13,902	1,266	577	11,697	3,036,023	5,044,830	

Some of the above figures are probably too low, as it has been impossible in many cases to obtain complete returns.

THE GEOLOGICAL SURVEY, in Account with the Dominion of Canada, for the year ended 30th June, 1871.

<b>\$</b> c	\$ cts.	DR.
1,640 6		1870. 'uly 1. To Balance
1,010	100.05	Amount received from Dawson Bros., on account sales of Survey
	133 35	Publications
	6 43	foundland
		charged in account rendered 30th June, 1870, for advances to explorers, but included in ex-
0.210.0	2,180 04	penditure of present year
2,319 8 36,400 0	, , , , ,	Warrants issued during the year
602 1	•••••	Cheques unpaid, 30th June, 1871
40,962 5		40
1,488 0		1871. lly 1. To Balance from last year's account
		y 1, 10 Buttered Holl test , cut is account.
		CR.
	2 000 00	
	3,000 00	y paid A. R. C. Selwyn, 12 months salary as Director, to 30th June, 1871.  T. Sterry Hunt, 12 do Chemist & Mineralogist, to 30th
	2,800 00	June, 1871
	1,600 00	to 30th June, 1871
7,400 0	,200 00	R. Barlow, 12 months salary
	945 83	Scott Barlow, 12 do
	733 26 716 62	H. S. Smith, 11 do
	8 33	do extra services
	699 96 384 00	H. G. Vennor, 12 months salary M. McFarren, 12 do
	740 47	do petty disbursements of office
	550 00 120 00	G. R. Grant, Book-keeper G. A. Barlow, 12 months salary
	L.200 00	J. Richardson, 12 do
	,200 00   361 09	R. Bell, 12 do E. Hartley, 12 do
	360 00	J. Lowe. 12 do
	483 28 416 65	W. WcOuat, 12 do G. Browne, 12 do
	,062 44	Sundry persons mapping and preparing plans
13,025 4	1,843 47	Arrears of contingencies for 1869-70
10,020 1	,156 61	For provisions and other exploration expenses
	,924 97 395 28	Printing, advertising, stationery, engraving & lithographing  Maps
	400 00	Translation
	375 00   281 55	Carpenters, bricklayers, plumbers, and blacksmiths' work  Instruments, tools and repairs
	561 86	Fuel, gas, water, and removing snow
	210 90 55 90	Insurance \$178 15 freight and cartage \$32.75
	110 48	Specimens and trays, \$105 12, chemicals, \$5 36
	163 20 166 66	One-half disbursements of joint office with Sir W. E. Logan
	133 33	Subscriptions to publications Specimens and trays, \$105 12, chemicals, \$5 36 One-half disbursements of joint office with Sir W. E. Logan Gratuity to estate of E. Hartley, 2 months salary do H. S. Smith,
10,935 7	901 63	1-
	395 84	A. R. C. Selwyn, travelling expenses
	198 50	T. C. Westor, do
	161 72 147 39	S. Barlow, do
	114 58	R. Barlow, do
31,361 14	,919 66	Carried forward

### GEOLOGICAL SURVEY, &c.—Continued.

		A A SEC VALUE OF THE SE
CR.—Continued.	\$ ets.	\$ cts.
By paid Gordon Browne, travelling expenses.  E. Hartley, do L. W. Bailey, do E. Billings, do	1,919 66 88 20 386 46 57 80 3 62	31,361 14 2,455 74
Advances on account exploration expenses for year 1871-2, as follows:—  To E. Billings L. W. Bailey, New Brunswick A. R. C. Selwyn, British Columbia J. Richardson, do A. Webster, Eastern Townships H. G. Vennor, Ontario W. McOuat, Lake Misstassini R. Bell, Nipigon S. Barlorw, Nova Scotia J. Lowe, Upper Rouge	24 95 200 00 3,802 70 50 00 110 00 430 00 200 00 500 00 250 00 90 00	5,657-65
Balance unexpended		1,488 03
·		\$40,962 56

JOHN SIMPSON,
Assistant Auditor.

# RETURN.

(No. 32.)

To an Address of the House of Commons, dated 22nd April, 1872:—For copies of all Reports made by Mr. Perley, C. E., on the most practicable and effectual means of securing and maintaining the unimpeded navigation of the River St. John, at or near the Oromocto Shoals (so called).

By command,

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 2nd May, 1872.

[In accordance with the recommendation of the Joint Committee on Printing, the above Return is not printed.]

# PROGRESS REPORT

ON THE

# CANADIAN PACIFIC RAILWAY

# EXPLORATORY SURVEY.

ADDRESSED TO THE HON. H. L. LANGEVIN, C. B., MINISTER OF PUBLIC WORKS.

# BY SANDFORD FLEMING,

ENGINEER-IN-CHIEF.

OTTAWA:

PRINTED BY I. B. TAYLOR, 29, 31 AND 33 RIDEAU STREET.

1872.

# PROGRESS REPORT

OF THE

# CANADIAN PACIFIC RAILWAY

### EXPLORATORY SURVEY.

### CANADIAN PACIFIC RAILWAY,

OFFICE OF THE ENGINEER IN CHIEF

Оттаwa, 10th Apri., 1872

SIR,—I have the honor to submit the following preliminary Report on the Canadian

Pacific Railway Exploratory Survey, commenced in June, last year.

According to the terms upon which British Columbia entered the Dominion of Canada, it became necessary to construct a railway through to the Pacific coast, from some point which would form a junction with the existing railway system in the Provinces of Ontario and Quebec.

The first important step towards the construction of the railway being to ascertain, by instrumental and other examination, where a practicable and eligible line could be

found, a survey became necessary.

The Parliament, at the last Session, made a grant of money towards the survey, and the Government subsequently appointed the undersigned to conduct it, and to carry into execution such steps as might be considered best, in order to discover the most practicable line for the proposed railway, and obtain information respecting its general engineering features.

It was deemed important to take such prompt and energetic action as would secure as much information on the subject as possible, before the next meeting of Parliament.

The object of this report is to give a brief outline of the steps which have been taken to accomplish the desired objects, and likewise to present, in a concise form, the general results of the survey up to the present time.

A point near the River Ottawa, opposite Lake Nipissing, was selected as the eastern end of the survey, this point, named "Mattawa," is common to and easily connected with

the railways built and projected in Ontario and Quebec.

The terminus on the Pacific coast is still an open question; its selection will probably be governed, to a considerable extent, by the comparative facilities for railway construction presented by various projected routes through British Columbia.

At the outset of the enquiry all such information regarding the country extending from Mattawa to the Pacific coast, as it was possible to obtain, was carefully considered, in order to discover where the surveys should be made with the greatest hope of success.

It was found that the general direction of the railway line would be governed, by certain important physical features at various points through the country to be traversed.

Prominently among these may be mentioned; 1st, the very rugged country along the shores of, and for some distance back of Lakes Huron and Superior; 2nd, Lake Nepigon; 3rd, Lake of the Woods; 4th, Lake Manitoba; 5th, the Rocky Mountains, and lastly the Gold, Selkirk and Cascade ranges of mountains in British Columbia.

The leading features of the country naturally divide the survey into three great

divisions :-

First.—From Mattawa to Fort Garry.

Second.—From Fort Garry to the Recky Mountains.

Third.—From the Rocky Mountains to the Pacific Coast.

It will be convenient to refer to the subject under these separate heads:—

### MATTAWA TO FORT GARRY.

Very little information could be obtained respecting a great extent of the country between Mattawa and Fort Garry. It had scarcely been penetrated more than a few miles back of the River Ottawa, and the Lakes Huron and Superior, except on the canoe routes which lead to the outlying posts of the Hudson Bay Company. Along the chain of lakes extending from Fort William to Manitoba, however, its character was better understood.

What was really known of this country, particularly that long stretch between the Ottawa and the northern bend of Lake Superior, indicated that it was not favourable for railway construction. Along the coast of Lake Superior the ground was reported most

impracticable and forbidding.

It was deemed advisable therefore in projecting a chain of surveys, to make the attempt of piercing through the interior at a considerable distance back from the Lake, in the hope of finding ground free from those serious obstacles which presented themselves on or near the coast.

It was at the same time considered important to make the attempt of finding a practicable line which would touch the navigable waters of Lake Superior at the nearest point to

Fort Garry, viz:—At Nepigon or Thunder Bay.

The whole distance from Mattawa to Fort Garry was sub-divided into eleven different surveys or divisions, each from 75 to 90 miles in length, with the view of securing a continuous chain of instrumental measurements, with as little delay as possible.

The whole country along the line of projected surveys, embracing an extent of not far short of one thousand miles, being densely wooded and without a road or trail of any

description, made the prosecution of the work unusually difficult.

A branch survey was authorised from the Nipissing district to Sault Ste. Marie, to connect with lines projected south of Lake Superior, and with steamboat navigation to Nepigon or Thunder Bay.

To obtain as much information as possible within the year, an expedition was also

sent northerly to James' Bay.

The last named expedition ascended to the head waters of the River Ottawa, and northerly by the river Abbitibbe to Moose Factory, returning by Moose River and Michipicoten River to Lake Superior.

### FORT GARRY TO THE ROCKY MOUNTAINS.

The country west of Fort Garry, consisting for the most part of open prairies, and being characterized, even up to the base of the Rocky Mountains, by physical and engineering features, remarkable for their simplicity; a continuous instrumental survey was not for the present deemed necessary.

A careful examination of all the information obtainable, showed, however, that as a general rule the rivers of the plains west of Fort Garry flow in deeply eroded beds of

great width, suggestive of bridging on a gigantic scale.

It was found, chiefly from the reports of the Palliser expedition, that the great troughs or valleys through which the streams flow, range over a wide extent of country, from 150 to

300 feet and even 400 feet in depth under the level plateau on each side; these great river troughs are at the same time reported, not unfrequently, to be about a mile and a mile and three quarters in width.

It appeared, therefore, of the utmost importance to examine further into this subject with the view of finding a route for the railway through the central plains as direct as possible, avoiding, as far as practible, the obstacles referred to, or overcoming them at the

least difficult points.

A double expedition was organized to proceed by different routes, between Fort Garry and the two most eligible passes through the Rocky Mountains, viz: The Howse Pass and the Yellow Head Pass.

The instructions given this expedition were such as to elicit the desired information.

### THE ROCKY MOUNTAINS TO THE PACIFIC.

It appeared from all the information that could be gathered from different sources that, of all the passes through the Rocky Mountains, those named the Howse and the

Yellow Head Passes would prove most eligible for the railway.

Within the Province of British Columbia other most serious obstacles to railway construction in any desired direction presented themselves, and the selection not only of one of these passes, but also of a terminal point on the Pacific coast, seemed to depend on the success which might attend any attempt to discover the most practicable line for a railway across the interior of the Province.

The survey in British Columbia was divided into districts, one between Howse Pass and Shuswap Lake, a second between Shuswap Lake and the Straits of Georgia by the Lower Fraser River, a third between Yellow Head Pass and the Upper Fraser River

through the Cariboo country.

Engineers were appointed to conduct the surveys in each of these districts, and six surveying parties were organized, with the view of thoroughly exploring the country, and gaining information which would lead to the selection of the most eligible line for the railway.

### GENERAL ORGANIZATION OF STAFF.

In a work of such magnitude, beset with difficulties of no ordinary kind, and under circumstances which called for as much information as possible, with the least possible delay, it was important to organize the staff on a scale and in a manner calculated to secure satisfactory results.

The uninhabited, trackless and seemingly impenetrable nature of a great deal of the country to be explored, rendered it the more important that every means should be taken to prevent failure in obtaining the information sought for, or disaster to any of the parties

engaged on the several branches of the survey.

A Commissariat Department was organized to attend to all matters connected with the procuring and transportation of supplies.

As far as it was possible or expedient, a uniform system was instituted for operations

in the field, and for recording information obtained.

General and special instructions were drawn up for the guidance of every member of the staff.

To simplify correspondence, and lessen the chances of mistakes in connection with the Commissariat Department, and also for easy general reference, the several divisions of the Survey were designated by letters of the alphabet, and as reference will-frequently be made to them in the detail Reports which accompany this, the following explanation is here presented:—

Division B. Extending from Mattawa to the confluence of the Montreal and Ottawa Rivers.

Division C. Extending from the Ottawa to a point near the head of the Montreal River.

Division D. From the Montreal River to a point about midway to the west branch of Moose River.

Division F. From the last named point to Moose River.

Division F. From Moose River to Small Black River, north of Lake Superior.

Division G. From Small Black River to Long Lake.

Division H. From Long Lake to Red Rock, at the mouth of Nepigon River.

Division I. From Red Rock to Lac des Iles.

Division K. From Lac des Iles to the canoe route to Lac Seul.

Division L. From Canoe Route to Lac Seul, to White Fish Bay, Lake of the Woods.

Division M. From White Fish Bay to Red River, near Fort Garry.

Division N. Expedition northerly by Rivers Ottawa, Abbitibbe, Michipicoten and Moose, to James' Bay.

Division O. Expedition to examine the country west of Fort Garry to Kootanie P. Plain, near the Howse Pass, and Jaspar House, near the Yellow

Head Pass.

Division Q. Between the North Thompson and Yellow Head Pass.

Division R. Between Cariboo and Tête Jaune Cache.

Division S. Between the Columbia River and Howse Pass.

Division T. The Eagle Pass between Shuswap Lake and the River Columbia.

Division U. Between Lytton, on Fraser River, and Shuswap Lake.

Division V. From Lytton southerly toward Burrard Inlet.

Division W. From Sault Ste. Marie, along the north shore of Lake Huron, to French River.

As rapidly as the various parties were organized and commissariat arrangements made, they began to move forward each to their respective field of operations.

The total number of engineers, surveyors, levellers and assistants employed, together

with axemen, boatmen, packers, &c., would not be far short of eight hundred.

The first detachment left by the River Ottawa for the interior on the 10th of June. Those for the region north of Lake Superior left Collingwood on the 20th June. In British Columbia, a portion of the staff left Victoria for the Mountains on the 20th of July.\*

### PROGRESS OF THE SURVEY.

Some general observatious respecting the progress made in the prosecution of the survey may be now submitted.

Full detail information may be had on reference to the reports and documents which

accompany this.

It has been found impossible to maintain regular communication with many of the parties engaged on the survey during the winter, but judging from the Progress Reports last received, the undersigned feels confident in stating that the surveys projected in June last between Mattawa, on the Ottawa, and Nepigon Bay, on Lake Superior, are now, with one exception, completed, and that only two breaks in the survey exist between Nepigon Bay and Fort Garry.

No serious engineering difficulty has been met with in passing from the valley of the Ottawa to the country north of Lake Superior; it is impossible, however, to speak so favorably of the country covered by Divisions G. and H. of the survey, embracing over one hundred miles easterly from the River Nepigon. This section is excessively rough and mountainous, and the survey made through it did not result in finding a practicable

line for the railway.

Although the attempt made last year to find a short line across the Cariboo country in the required direction, proved unsuccessful, all farther efforts have not been abandoned. The work of exploration has been carried on during the winter, and a diligent search will be continued wherever success is at all possible. Some hopes are entertained that a line may be found from the North Thompson across the Selkirk Range to the Quesnel Lakes and thence vià Quesnel Mouth to Bute Inlet but should this fail, a careful examination will be made about fifty miles farther to the south on a line projected through by Horse

<sup>\*</sup> The day on which British Columbia entered the Dominion.

Lake and Lake La Hache. Should all these explorations prove failures, it is confidently believed that it will be quite possible to reach Bute Inlet by a practicable line from Tête Jaune Cache, going round the Cariboo country on the north side along the banks of the Fraser River, and thence across the Chilcotin Plains. The only serious objection to the latter route will be its length. The gradients can scarcely fail to be favorable, on account of the line following the river for over 250 miles on a uniform and gradual descent.

Beside Burrard's Inlet and Esquimalt, other harbours accessible from the Pacific have been spoken of for the terminus. Of these may be mentioned Alberni, at the head of Barclay Sound, another harbor at Nootka Sound, Bentick Arm, also Port Essington, or some suitable point at the mouth of the Skeena River; it is somewhat premature, however, to discuss the merits of any of these points without further information respecting

the means of reaching them from Tête Jaune Cache.

In concluding a summary of what has been accomplished since the survey was instituted in June last, it is greatly to be regretted that more definite information has not yet been received respecting the explorations now in progress east and west of Lake Nepigon,

in the rear of the rugged belt along Lake Superior.

Assuming, however—and enough it is believed is known to warrant the assumption—that all difficulties in this quarter will be obviated, it may be claimed that the practicability and the general direction of the railway line from Ottawa to Fort Garry, thence across the great plains and the Rocky Mountains to Tête Jaune Cache has approximately been determined, and that from the last named point at least one line to the waters of the Pacific Ocean has been found practicable.

It will be interesting to compare some of the features of the line referred to in the last paragraph with the Union Pacific Railway in the United States, for this purpose a

diagram accompanies this, showing thereon profiles of both.

From this diagram it will be seen that the Union Pacific Railway, extending from Omaha to San Francisco, runs, for 1,360 miles, or three-fourths of its entire length, at a higher level than the Yellow Head Pass, and that this point, the *great summit* of the Canadian Pacific Railway line, is less than half the elevation attained at several points on the line

now being operated across the Continent.

A table giving the distances between some of the principal points in the country extending from the Ottawa Valley to the Pacific coast is appended hereto. It is not to be supposed that this table has any great pretensions to accuracy, except in the case of railways built or surveyed, in other cases the distances are simply ascertained by measurement on the maps of the country, and it is not at all certain that even the best maps are free from grave errors. Be this as it may, there are no means of checking the distances, until the chain of surveys are connected from end to end and the results known. It is believed, however, that even rough approximate distances may be useful to the Government in considering the question of the railway, and for this purpose they are presented.

One or two points brought out by the table of comparative distances are worthy of

note.

Montreal and Toronto are the chief commercial centres in the Provinces of Quebec and Ontario, and it is important to ascertain how they can best be reached from the

interior, say Fort Garry.

According to the Table, the distance between Montreal and Fort Garry by the line of the Canadian Pacific Railway, is 1,180 miles, while by railway projected through Sault Ste. Marie, Duluth and Pembina, the distance is 1,440 miles, and by way of Chicago and St. Paul, the distance is 1,843 miles—showing that by the three all-rail routes, made or projected between Fort Garry and Montreal, the Canadian Pacific line is 260 miles shorter than the line passing through Sault Ste. Marie, and 663 miles shorter than the route at present travelled vià Chicago and St. Paul.

Taking Toronto as a starting point, and using the Northern or Nipissing Railways as far as Bracebridge, thence connecting them with the Canadian Pacific Railway at Mattawa, it appears from the Table that the total distance to Fort Garry, is 1,110 miles, while by way of Bracebridge, Sault Ste. Marie, Duluth and Pembina, the distance is 1,290

miles, and by way of Chicago and St. Paul, the distance is 1,507 miles, thus establishing the fact, that of the three *all-rail* routes, made or projected between Fort Garry and Toronto, the Canadian Pacific is 170 miles shorter than the route *via* Sault Ste. Marie and Duluth, and close on 400 miles less than the railway route *via* Chicago and St. Paul.

It will be further seen, that during the season of open navigation, the distance between Toronto and Fort Garry viâ Nepigon, is 1,074 against 1,274 miles viâ Duluth and that part of the Northern Pacific Railway east of Pembina—giving a saving of 200 miles in favour of the Canadian Pacific, and Branch to Nepigon, of which saving 40 miles is rail and 160 miles water.

Viewing the Canadian Pacific Railway as a "through" route between ports on the Atlantic and Pacific Oceans, the comparative profile referred to in a previous paragraph, and which accompanies this, illustrates the remarkable engineering advantages which it possesses over the Union Pacific Railway. The lower altitudes to be reached, and the more favorable gradients, are not, however, the only advantages.

A careful examination into the question of distances, shows, beyond dispute, that the continent can be spanned by a much shorter line on Canadian soil than by the

existing railway through the United States.

Referring to the Table again, it will be seen that the distance from San Francisco to New York, by the Union Pacific Railway, is 3,363 miles, while from New Westminster to Montreal it is only 2,730, or 633 miles in favor of the Canadian route.

A closer examination of the Table will show that by the construction of the Canadian Pacific Railway, even New York, Boston and Portland, will be brought from 300 to 500 miles nearer the Pacific coast than they are at present.

A comparison of distance between distant points which may form traffic connections with the Inter-Oceanic Railways of North America, bring out some important facts referred to in the Table.

Compared with the Union Pacific Railway, the Canadian line will shorten the passage between Liverpool and China, in direct distance, more than one thousand miles.

When the decidedly better grades obtainable on the Canadian line are taken into consideration, with the saving in actual distance above referred to, it cannot be doubted that the Canadian Pacific Railway, in entering into competition for the through traffic between the two oceans, has the fairest possible prospects of success.

It has been found impossible to make any comparison with the Northern Pacific Railway, projected through the Territories of the United States to Puget Sound, as no reliable information could be obtained respecting distances, gradients, elevations, or probable route, except on that portion of the undertaking east of the Red River.

In concluding this Report it may not be out of place to remark that a survey of such magnitude through a country for the most part uninhabited and destitute of the means of shelter or subsistence could not be prosecuted without encountering risks and

hardships to the individuals engaged.

The serious responsibility of keeping all the various parties properly supplied with at least common necessaries of food was fully appreciated from the beginning, and although supplies may, in isolated cases, have run short, no actual suffering from want has been reported.

It greatly grieves me to report the loss of seven poor men, who perished last summer through forest fires while engaged in carrying provisions to one of the surveying

parties north of Lake Superior.

No other very serious disaster has occurred, although several narrow escapes have

been met with. Since the winter set in several men have been badly frozen.

It is impossible to speak too highly of the courage and endurance displayed by members of the staff, more especially of those who, in order to carry out the wishes of the Government with as little delay as possible, did not hesitate, after the summer's campaign had terminated, to remain out on the exploration during the winter.

Some of these parties have been out for nearly ten consecutive months, embracing the whole of winter with all its severity. The service under the circumstances of country and climate could not fail to be a very severe one. It was impossible to supply them adequately with shelter or change of diet, in consequence of which several painful cases of scurvy have resulted.

All hardships and deprivations have, however, been braved and endured in a manner

deserving of the highest commendation.

It is extremely gratifying to be able to report that, with very few exceptions, all the members of the staff, including those engaged in the Commissariat Branch, entered on their several duties with great zeal, and exerted themselves in every possible way to bring the work to a successful issue.

It is due to the officers of the Hudson Bay Company to state that wherever they were met with, they extended to the parties engaged on the survey much very acceptable

kindness and assistance.

The Indians along the whole route proved remarkably friendly when the nature and objects of the several expeditions were explained to them. Many of them rendered valuable service in various ways, in connection with the work of exploration.

I have the honour to be, Sir,
Your obedient servant,
SANDFORD FLEMING,
Engineer-in-Chief.

Hon. H. L. Langevin, C. B., Minister of Public Works, &c., &c., &c.

### APPROXIMATE DISTANCES.

# Canadian Pacific Railway, as projected on Plan.

(See explanation, pages 7 and 8 of Report.)

	Names of Places.	Intermediate distances.		Total Dis- tances.
		Miles.	Miles.	Miles.
	Mattawa to junction of Nipigon branch.  Junction of Nipigon branch to Fort Garry.  Mattawa to Fort Garry.	320	900	
	Nipigon branch	120		
	Fort Garry to Jasper House.  Jasper House to Yellow Head Pass.  Yellow Head Pass to Tête Jaune Cache.	40	1,000	
	Jasper House to Téte Jaune Cache		100	
	Mattawa to Tête Jaune Cache		2,000 450	
<b>1</b>	Mattawa to New Westminster	·		2,450
	Mattawa to Tête Jaune Cache (as above) Tête Jaune Cache to Bute Inlet, via North Thompson and Lac la Hache	•••••	2,000 450	
2	Mattawa to Bute Inlet	• • • • • • • • • • • • • • • • • • • •		2,450
	Mattawa to Tête Jaune Cache (as above)	•••••	2,000 450	
3	Mattawa to ButeInlet,	•••••		2,450
	Mattawa to Bute Inlet (as above)	•••••	2,450 150	
4	Mattawa to Alberni Canal			2,600
	Mattawa to Bute Inlet, (as above)	•••••	2,450 250	
5	Mattawa to Victoria			2,700
	Mattawa to Tête Jaune Cache (as above)	• • • • • • • • •	2,000 500	
6	Mattawa to Port Essington,			2,500

### COMPARATIVE DISTANCES.

	Names of places between Montreal, Toronto and Fort Garry.	Rail or Water.	Inter- mediate Distance.	Tota Dis- tanc
Mor Mat	ntreal to Mattawatawa to Fort Garry (Canadian Pacific)	Rail do	Miles. 280 900	Mile
Mor	atreal to Fort Garry (viâ MATTAWA)			1,18
Mor Mat	ntreal to Mattawa. tawa to Sault Ste. Marie. lt Ste. Marie to Nipigon. igon to Fort Garry (Canadian Pacific).	do do Water.	280 280 260 440	
Mon	ntreal to Fort Garry (viâ MATTAWA, SAULT, and NIPIGON)			1,20
Mat Saul Dul	ntreal to Mattawa	Rr. or W. Rail.	280 280 400 243 237	
Mon	treal to Fort Garry (viâ Mattawa, Sault, Duluth, and Moorhead			1,4
Chie	atreal to Chicago	Rail.	848 491 504	
Mon	treal to Fort Garry (via Chicago and St. Paul)			1,84
Toro Colli	treal to Toronto	Rail. do Water. Rail.	333 94 540 440	
Mon	treal to Fort Garry (viâ Toronto, Collingwood, and Nipigon)	<b></b>	••••	1,40
Brac	onto to Bracebridge (via Northern and Toronto and Nipissing Railway)ebridge to Mattawatawa to Fort Garry (Canadian Pacific)	Rail. do do	130 80 900	
Toro	nto to Fort Garry (via Bracebridge and Mattawa)			1,11
Brac Saul	onto to Bracebridgeebridge to Sault Ste. Mariet Ste. Maria to Nipigongon to Fort Garry (Canadian Pacific)	Rail, do Water. Rail,	130 280 260 440	
Toro	nto to Fort Garry (via Bracebridge, Sault, and Nipigon)			1,11
Saul Dult Moo	nto to Bracebridge  bridge to Sault Ste. Marie  t Ste. Marie to Duluth  th to Moorhead  chead to Fort Garry	Rail. do R. or W. Rail. do	130 280 400 243 237	
Toro	nto to FortGarry viâ Bracebridge, Sault, Duluth, and Moorhead		• • • • • • • • • • • • • • • • • • • •	1,29
Toro Chic St. I	nto to Chicagoago to St. Paul	Rail, do do	512 491 217 287	
	nto to Fort Garry (viâ Chicago and St. Paul)			1,50
	onto to Collingwood	Rail.	94	

# COMPARATIVÉ DÍSTANCES.—Continued.

	Names of places between Montreal, Toronto and Fort Garry.	Rail or Water.	Inter- mediate Distances.	Total Dis- tances.
	Torontoto Fort Garry (via Chicago and St. Paul).—Continued.		Miles.	Miles,
10	Collingwood to Nipigon	Water, Rail,	540 440	
	Pacific).  Toronto to Collingwood.  Collingwood to Duluth.  Duluth to Moorhead.		94 700 243	1,074
11	Moorhead to Fort Garry  Toronto to Fort Garry (viâ Collingwood, Duluth, and Moorhead)	do	237	1,274
ĺ	Fort Garry to Duluth (Railway made or projected)		480 440	

Note.—Wherever Fort Garry is mentioned in the above distances, the Lower Fort Garry or Stone Fort is the place meant, this being found the most eligible point for crossing Red River.

## COMPARATIVE DISTANCES.

_		
	Descripton of Route between Atlantic and Pacific Ocean Ports.	
		Miles.
1	San Francisco to New York.—Union Pacific, Michigan Central and New York Central New Westminster to Montreal.— Canadian Pacific, and Line to Montreal viâ Ottawa	3,363 2,730
	Difference in favor of Canadian Route	633
	San Francisco to New York.—Union Pacific, Michigan Central and New York Central  New Westminster to New York.—Canadian Pacific, St. Lawrence and Ottawa,	3,363
	Ogdensburgh and Rome, and New York Central	3,058
	Difference in favor of Canadian Route	305
3	San Francisco to Montreal.—Union Pacific, Michigan Central, Grand Trunk Railway New Westminster to Montreal.—Canadian Pacific, Montreal and Ottawa	3,251 2,730
	Difference in favor of Canadian Route	521
4	San Francisco to Boston.—Union Pacific, Michigan Central, New York Central, to Troy,	•
	Troy to Boston New Westminster to Boston.— Canadian Pacific, Ottawa to Montreal, Montreal to Boston	3,422 3,087
	Difference in favor of Canadian Route	335
5	San Francisco to Portland.—Union Pacific, Michigan Central, Grand Trunk Railway Westminster to Portland.—Canadian Pacific, Ottawa and Montreal, Grand Trunk Railway	3,548 3,027
	Difference in favor of Canadian Route	521
	:	

Note.—The distance from Japan, China, or the Asiatic coast generally, to Liverpool, is from 1,000 to 1,200 miles less by the Canatian Pacific than by the Union Pacific Railway. In reference to this point, Professor Maury, U.S., writes:—"The trade-winds place Vancouver's Island on the way side of the road from China and Japan to San Francisco so completely, that a trading vessel under canvas to the latter place would take the same route as if she was bound for Vancouver's Island—so that all return cargoes would naturally come there in order to save two or three weeks, besides risk and expense." It must, however, be clearly understood that this advantage, equivalent to the distance between Vancouver Island and San Francisco, viz., about 800 miles, is independent of and in addition to the saving of direct distance by the Canadian Route, given above.

#### LATITUDE AND LONGITUDE.

NEW YORK	Lat. 40°-42'-42" N. Lon. 740000 W.
MONTREAL	Lat. 45 -36 -17 N. Lon. 73 -58 -30 W.
San Francisco	Lat. 37 -49 -12 N. Lon, 122 -30 -42 W.
New Westminster	Lat. 491300 N. Lop. 1225430 W.

# RETURN

To an Address of the House of Commons, dated 25th April, 1872; asking for copies.—1st. Of all instructions to, correspondence with, and reports of progress of the Engineers in charge of Divisions B. C. D. and E. of the Canadian Pacific Exploratory Survey. 2nd. Of any correspondence between the Minister of Public Works or the Chief Engineer of the Canadian Pacific Exploratory Survey, and any person engaged in any other capacity on the survey of either of the said divisions. 3rd. Of any report of investigation into the cause of the failure of Division C., of said survey; of minutes taken and papers submitted as evidence in the said investigation, and of all correspondence between the Minister of Public Works, the Chief Engineer, and the Engineer in charge, relating to the said investigation.

By Command.

J. C. AIKINS,

Szcre'ary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 12th June, 1872.

# RETHRN

To an Address of the House of Commons, dated 17th April, 1872;—For a Return of all Correspondence between the Government and the Windsor and Annapolis Railway Company, including any memorials or protests addressed to the Government by the Company, and of any agreements made between the Government and the Company relative to the use by the Company of the Government Railway between Windsor and Halifax, or their enjoyment of running power over the said Road.

By Command.

J. C. AIKINS,

Secretary of State

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 6th May 1872.

DEPARTMENT OF PUBLIC WORKS,

OTTAWA, April

. 1872.

Sir,—I have the honor to transmit herewith the Return in relation to the Windsor and Annapolis Railway Company, called for by an Address of the House of Commons, dated the 17th April, 1872, also herewith.

I have the honor to be, Sir,

Your obedient Servant,

F. BRAUN,

Secretary.

Honorable the Secretary of State

For Canada.

Ottawa.

#### WINDSOR AND ANNAPOLIS RAILWAY.

"Running powers" on the Nova Scotia Railway.

1871, March 1st, from L. Carvell and G. Taylor 2,404.—Give the history of the Windsor and Annapolis Railway from its inception, and report on that Railway's application for running powers on the Nova Scotia Railway, and are of opinion the granting of that application would prove detrimental to the interest of the Nova Scotia Railway.

March 13th, from E. Parent, 2,417.—Transfers a memorial from Vernon Smith, submitting to Council his application for "running powers" on the Nova Scotia Railway, which he claims under the agreement entered into for the construction of the Windsor

and Annapolis Railway.

March 14th, Report to Council, 1,352.—To reject the application made by the Windsor and Annapolis Company for "running powers" on the Nova Scotia Railway.

April 17th, from J. A. Mann, 2,571.—Urges the claim of the Windsor and Annapolis Railway Company to obtain "running powers" into Halifax, failing which, he submits the Government should exercise the power of purchase conferred upon them by the Local Act of 1866. Solicits an interview with the Government.

April 19th, from J. A. Mann, 1,425.—Stating what action will be taken on his

letter of 17th instant.

April 19th, from J. A. Mann, 2,583.—Acknowledging, Letter of 19th instant. Gives his address.

June 23rd, to the *Minister of Justice*, 1,549.—Referring, with other documents, the application of Mr. Mann on behalf of Windsor and Annapolis Railway for "running powers," &c., &c., into Halifax.

July 4th, from *H. Bernard*, 2,849.—Acknowledging, No. 1549, and states that the Minister of Justice has already fully reported on the Windsor and Annapolis Railway application for "running powers" into Halifax. The report referred to is in No. 2,417.

July 26th, from J. A. Mann, 2,895.—Submits, on behalf of the Windsor and Annapolis Railway Company, a printed Memorial, setting forth the grounds upon which the Company base their claim to "ruuning powers" into Halifax, and proposing certain arrangements, &c.

July 27th, from J. A. Mann, 2,901.—Has received a telegram informing him that the appeal upon the question of the liability of the Railway in the Company's favor, the judges deciding unanimously that the railway is a public provincial work, and as such

exempt from taxation.

July 28th, Report to Council, 1,602½.—To make with the Windsor and Annapolis Railway the traffic arrangement, including "running powers" mentioned in their charter, and to have the matter adjusted by arbitration should the Minister and the Company be unable to settle it otherwise.

July 28th, Order in Council, 2,916.—Authorizing the Minister to make with the Windsor and Annapolis Railway Company the traffic arrangements, including "running powers" mentioned in the charter of Railway Company, and to appoint any officer or arbitrator for that purpose, should the Minister and the Company be unable to make their traffic arrangements without arbitration.

August 1st, from J. A. Mann, 2,920.—Requests that the decision arrived at by the Government in regard to the Windsor and Annapolis Railway Companies' claim, may be

reconsidered, and proposes certain arrangements.

August 8th, to J. A. Mann, 1,617—Informing him that Mr. Fleming has been appointed to confer with him to make preliminary arrangements, with a view of carrying out the Order in Council of 28th ultimo, authorizing certain traffic arrangements and "running powers" with his Company.

August 11th, to Sandford Fleming, 1,623.—Appointing him to confer with the Windsor and Annapolis Railway Company or its authorized Agent, and instructing him to report to this Department what understanding and agreement can be arrived at with

the Company, with regard to the traffic arrangements and "running powers" authorized by Order in Council of 28th ultimo. Papers are euclosed.

August 14th, from J. A. Mann, 2,946.—Acknowledging, Letter of 8th instant. Will be happy to meet Mr. Fleming to make preliminary arrangements as to "traffic" and "running powers," but regrets that the proposals made in the 7th paragraph of his letter of 1st instant are not to be entertained, and submits new propositions for the consideration of the Governments of the Dominion, Nova Scotia, and New Brunswick.

August 28th and 29th, from Hon. Sir F. Hincks, 2,965.—"Telegraph"—S. Fleming and Mann have agreed on "running powers" between Annapolis and Windsor Railway Company, to give Dominion one-third gross receipt. Would there be any chance of acting Minister recommending this at once, as Mann wants to leave? The promise of recommendation might answer without an Order in Council. It will be a pity to hang this up if it can be avoided.

August 30, to Hon. Sir Francis Hineks, 1,639.—"Telegraph"—Sir Geo. E. Cartier will recommend adoption of agreement as soon as Mr. Fleming's report is sent. Mr. Mann

Sept. 2, to J. A. Mann, 1,647 $\frac{1}{2}$ .—" Telegraph"—By Sir G. Cartier—That as soon as Mr. Fleming has reported, matter will be submitted to Council, and that Mr. Fleming has received instructions to confer with him.

September 4, to J. A. Mann, 1,648½.—"Telegraph"—By Sir G. Cartier—You are under misapprehension. Fleming's report must be submitted for approval by Council. Will leave, this morning for Ottawa. Since your last visit to Ottawa all due diligence made in your Railway matter. Government not responsible for any delay.

September 7, from J. A. Mann, 2,990.—"Telegraph"—It appears that no one here

has authority to arrange "running powers" with me. Pray instruct Fleming.

September 8, to Sandford Fleming, 1654.—"Telegraph"—As suggested in your "telegram" to Sir Francis Hincks, Taylor is instructed to come here.

September 7, from J. A. Mann to Sir George Cartier, 3,002.—"Telegram"—Your telegram received. Fleming posted his report last Tuesday. I venture to hope that you will not think it necessary to delay matter for the meeting of another Council.

September 10, from J. A. Mann, 3,011.—"Telegraph"—I meet with no attention here, but plenty of frivolous objections. The line must be closed unless the Company get their rights.

September 13, to Sandford Fleming, 1,656.—"Telegraph"—Your report concerning

agreement with Mr. Mann not yet received.

September 14, from S. Fleming, 3,026.—"Telegraph"—My report was prepared a week ago. Fear some bungling with mail; however, Taylor has copy. He should reach Ottawa to-morrow. I am now going over Intercolonial. If Sir George wishes, will go direct to Ottawa, leaving Shediac by steamer to-morrow. Answer to Amherst to-night.

September 14, from Hon. Jos. Howe, 3,028.—"Telegraph"—No concessions should be made to Mann which are not well considered. Mistakes may lead to great embarass-

ment here (Halifax.)

September 15, from S. Fleming, 3,030.—Reports on his conference with Mr., Mann, and submits the arrangements proposed to be made with the Windsor and Annapolis Railway Company, as regards "running powers." The agreement B. was modified and finally adopted, as herein, on the 21st September, by Messrs. Carvell and Fleming, for the Government, and by Mr. Mann, by the Railway Company.

September 15, to J. A. Mann, 1,667.—Enclosing for his information copy of appendix B. attached to Mr. Fleming's report No. 3,030, being the arrangement proposed to be

made with the Company, in respect of "running powers."

September 18th, from J. A. Mann, 3,038.—Has examined the draft agreement prepared by Mr. Fleming in respect to the traffic arrangement proposed to be made with his Company, and requests that it may be modified in the manner herein shewn.

September 19th, to S. Fleming, 1,672.—Enclosing for his information and report, Nos. 3,006, 3,030, and 3,038.

September 19th, Report to Council, 1,673.—Submitting for approval the articles of agreement prepared by Mr. Fleming, with the concurrence of Mr. Carvell, in respect of the traffic arrangement including "running powers" to be made with the Windsor and Annapolis Railway Company.

September 21st, J. A. Mann, 3,044.—Refers to his letter of 18th instant, and requests that clauses 7 and 17 of the draft agreement for "running powers" be altered as herein shewn, and the amount to be paid by the Company to the Government be fixed by the Order in Council, at 30 per cent. of the gross earnings. Also, that the agreement be made for 21 years, and renewable.

September 14th and 21st, from J. A. Mann, 3,045.—Suggests the adoption of certain steps in order to expedite the settlement of the question of the traffic arrangements and "running powers."

September 6th and 21st, from S. Fleming to Sir Francis Hincks, 3,046.—
"Telegraph"—Taylors' objections to several clauses have much force in them when examined. I have prepared an agreement embracing all contemplated by Order in Council; and essential points in Mann's agreement which should meet the case. I think you should have Taylor at Ottawa, as he is familiar with the whole subject. Will report by 1st mail.

September 21st and 22nd, from W. H. Lee, 3,047.—States that the report to Council submitting for approval the agreement in respect of "running powers" has been adopted.

September 22nd, to J. A. Mann, 1,674.—Informing him of the Order in Council passed this day sanctioning the articles of agreement mentioned above.

September 22nd, to George Taylor, 1,675.—"Telegraph"—Agreement concerning

"running powers" is passed; therefore, you need not come.

October 2nd and 6th, from J. A. Mann, 3,074.—Request that the claims of his Company was enumerated in the 3rd paragraph of his letter of 1rt August last may receive attention; is willing to have them adjusted by independent arbitrators.

October 13th, to J. A. Mann, 1,699.—Acknowledging, No. 3,074.

November 21st and December 7th, from J. A. Mann, 3,204.—Urges that instructions be given for giving effect to the agreement made with his Company.

December 7th, to the Minister of Customs, 1,751.—Submitting for consideration and

report copies of documents out of No. 30 and 3,006.

December 7th, to the *Minister of Finance*, 1,752.—Submitting for consideration and report copies of documents out of Nos. 30 and 3,006.

December 7th, to the Minister of Justice, 1,753.—Submitting for consideration and

report copies of documents out of Nos. 30 and 3,006.

December 11th, from Sandford Fleming, 3,217.—"Telegraph"—Pray suggest to the Minister that Taylor should have instructions at once about Annapolis Railway, which, I think, takes effect on the 1st January.

December 22nd, Order in Council, 3,226.—Approving and ratifying the agreement made between Messrs. Fleming and Carvell for the Government, and Mr. Mann for the Company, as regards "running powers," &c., &c., and it being understood that the payment of the one-third of the gross earnings be adhered to.

December 20th, to J. A. Mann, 1,766.—That Mr. Taylor has been furished with an

copy of the agreement with request to give effect to it.

December 20th, to George Taylor, 1,767.—Enclosing copy of agreement, with request

to give effect to it.

December 29th.—1872. January 5th.—from Hon. S. L. Tilley, 3,291.—Acknowledging, No. 1,751, and is of opinion that under clause 9 of the agreement between the Company and the Government of Nova Scotia, of 22nd November, 1866, the Company is entitled to a draw-back of all duties paid them on articles used on construction

or necessary for working line, but all such refunded duties should form a charge by the Dominion Government against the Government of Nova Scotia.

January 8th and 20th, from Vernon Smith, 3,341.—Submits that the 8th clause of the agreement with his Company should be altered, so that the Company could book passengers and freight between Halifax and the way stations on the Grand Trunk line,

and get a share of the revenue arising therefrom.

January 22nd, to George Taylor, 1837.—"Telegraph"—Since the agreement with Windsor and Annapolis Railway and Government, trains from Halifax to Junction and Truro continue as before,—and is the local traffic, in passengers and freight, between Halifax and Windsor attended to, and has it the same facilities as before the agreement?

January 22nd and 23rd, from George Taylor, 3,350.—"Telegraph"—Since the agreement with Windsor and Annapolis Railway and Government, trains to Junction and to Truro run as before. The same number of trains carrying passengers are run by the Company, between Halifax and Windsor as heretofore, but cannot say whether the Company have sufficient plant to move the freight traffic.

January 28th, to George Taylor, 1,838.—"Telegraph"—Have Government trains

stopped at the same number of stations as before agreement?

January 23rd and 24th, from George Taylor, 3,352,—"Telegraph"—Yes. Government trains stop at the same number of stations now as before the agreement. The same regulations as to stopping are pursued at present as has been observed for

February 6th, to Vernon Smith, 1,872.—Informing him that complaints are made that his Company is charging higher rates than those agreed upon, and requesting him to furnish explanations on the subject, and to send a copy of his Company's Supplementary Tariff.

March 6th and 11th, from Vernon Smith, 3,528.—Acknowledging, No. 1872, and gives the explanations called for in regard to the Tariff, of which a copy is herewith.

(No. 2404.)

OTTAWA, 1st March, 1871.

SIR,—Having reference to the instructions with which we have been charged in the matter of the Windsor and Annapolis Railway, we have the honor to state that by an Act of the General Assembly of the Province of Nova Scotia, 28 Vic. Cap. 13, provision was made for the construction of this line, and the "Chief Commissioner" was authorized to contract with reliable parties to build it.

On the 26th October, 1865, an agreement was made between the Chief Commissioner and Messrs. Edward Harris and J. J. V. Smith, on behalf of Messrs. George Knight and Co. of London, to construct the "Windsor and Annapolis Railway," upon certain conditions. The work was to be commenced before the first day of May then following, and to be fully completed and ready for traffic on the first day of May, 1868.

This agreement was subsequently confirmed by Mr. George Knight; but, as he

failed to commence the work, the agreement was cancelled.

On the 22nd November, 1866, Messrs. Tupper, Henry and Ritchie, then in England, having been authorized by an "Order in Council" and acting on behalf of the Chief Commissioner of Railways, entered into an agreement with Messrs. Punchard, Barry and Clark, by which the latter were to construct the works which were to become their property, or that of a Company to be formed by them.

The works were to be commenced not later than 1st January, 1867, and to be fully

completed and ready for traffic on or before 1st December, 1869.

Subsequently, on the 7th May, 1867, the "Windsor and Annapolis Railway Company," was duly chartered in pursuance of an Act of the Assembly of Nova Scotia, 30 Vic. Cap. 36, the agreement of 22nd November, 1866, having been made "part and parcel" of the Act.

The line was opened for traffic on the 18th December, 1869. "Traffic arrangements" having been made on the 13th of the same month by Mr. Vernon Smith, on behalf of the "Windsor and Annapolis Railway," and Mr. Lewis Carvell on the part of the "Nova Scotia Railway."

A copy of these traffic arrangements are herewith submitted.

Section II. of the agreements of 22nd November, 1866, provided "That prior to the "opening of the Railway, a traffic arrangement shall be made between the said parties for "the mutual use and employments of their respective lines of Railway, between Halifax "and Windsor and Windsor and Annapolis, including running powers, or for the joint "operation thereof, on equitable terms," to be settled in case of difference by two arbitrators who are authorized, if necessary, to chose an umpire.

This section appears to contain two propositions, one being that traffic arrangements, "including running powers" shall be made for the "mutual use and employment" on "equitable terms" of the respective Railways. The alternative being that "traffic arrangements" for the "joint operations" of these lines, on "equitable terms," may

be made.

We submit that as the two lines had a separate management, one of two courses

might have been pursued under the agreements.

The first is covered by the "traffic arrangements" already made under which the lines are "jointly operated," as the cars and trains of the respective lines pass freely from one road to the other without change and without breaking bulk.

By another plan, the lines would be mutually used and employed if the trains and engines belonging to either road were permitted to pass to or from their own stations or depots on the connecting line under "equitable" traffic arrangements" and the immediate direction of the manager of such line.

This course is sometimes pursued in populous countries where an extensive traffic

exists and "running powers" are necessary.

In the absence of data from which to make reliable calculations, we are at present unable to state the terms which would be "equitable" under a "traffic arrangement" to

include "running powers."

If "running powers" were sanctioned, the "Windsor and Annapolis Railway" would at the proper time, be in a position to compete successfully with the Government Railways for all through traffic to the manifest disadvantage of the latter, and even upon the assumption that the "equitable terms" would compensate the Government lines for loss of traffic, and that they would be in no worse position, financially, than if the privilege were withheld, the presence of strange engines and trains, manned by persons beyond the control of the Manager, would create a feeling of uncertainty, and might result in disaster which would be otherwise avoided.

We have the honor to be, Sir.

Your obedient Servants,

(Signed,)

LEWIS CARVELL, GEORGE TAYLOR.

To the Honorable

H. L. Langevin, C.B.,

Minister of Public Works, Ottawa.

It should be remembered that the portion of the Nova Scotia Railway, which lies between Windsor Junction and Richmond, will form a portion of the Main Trunk Line between Halifax and Quebec.

(Signed,)

L.C. G.T. (No. 2,417.)

DEPARTMENT OF JUSTICE, June 21st, 1871.

The undersigned has the honor to report, that the memorandum of the Minister of Public Works, of 14th March last, upon the application of Mr. Vernon Smith, Manager of the Windsor and Annapolis Railway Company, and the correspondence which has thereupon ensued, in effect submits the question, whether the traffic arrangements of 13th December, 1869, between Mr. $\mathbf{Smith}$ behalf of that Company, and Mr. Carvell on behalf of the Nova Scotia Railways, and made under the articles of agreement of 22nd November, 1866, of the Nova Scotia Government and the contractors for building the road, Section Eleven was a permanent one, binding on all parties for all time, or whether it was, as alleged by Mr. Smith, merely provisional; and if provisional merely, then in what position the Windsor and Annapolis Railway stands with regard to the Nova Scotia Railways, as regards traffic arrangements under Sect. 11 of the agreement?

The undersigned is informed that the traffic arrangement of 13th December, 1869, was marked as being provisional. If this be so, or if without being so, it was in fact provisional and temporary, the undersigned is of opinion that an arrangement must be made as if the road had not been yet opened. This arrangement must be in the alternative; either (1) for the mutual use and employment of their respective lines of Railway between Halifax and Windsor, and Windsor and Annapolis, including running powers, or (2) for the joint operations of the Railways. Whichever alternative be adopted, the traffic arrangement must be on equitable terms to be settled by arbitration, as specified in the

Eleventh Section of the agreement.

(Signed),

JOHN A. MACDONALD.

OTTAWA, March 8th, 1871.

Sir,—As I have already waited a month in attempting to get a decision from the Department of Public Works on the case within submitted, you will, I trust, not think it unreasonable if I venture to ask you to be good enough to lay before His Excellency the Governor General in Council, the accompanying memorial, with the least possible delay, in order to secure an early, and as I trust, a favorable answer.

I have the honor to be, Sir,

Your obedient servant,

(Signed),

VERNON SMITH.

Honorable J. C. Aikens, Secretary of State, Ottawa.

To His Excellency, the Right Honorable John Baron Lisgar, of Lisgar and Bailieborough, in the County of Cavan, Ireland, in the Peerage of the United Kingdom of Great Britain and Ireland, K.G.C.B., &c., &c., Governor General of the Dominion of Canada in Council.

The Memorial of Vernon Smith, Agent of the Windsor and Annapolis Railway Com-

pany, humbly sheweth as follows:

MAY IT PLEASE YOUR EXCELLENCY:

I have the honor to lay before Your Excellency the following statement, to which I

beg to be peak immediate and favorable consideration:

On the 22nd of November, 1866, articles of agreement, for the construction of the above line, were entered into by Messrs. Wm. Henry Punchard and Edward Clark, of London, with the then Chief Railway Commissioner of Nova Scotia, by the direction and authority of the Governor in Council of that Province, under which the Railway was

This agreement was made a part of the Act of Incorporation, as appears by the Nova Scotia laws of 1867, Chapter 36, and may be read in full in the Appendix No. 15, to the Nova Scotia Assembly Journals of the same year. Section 11 of this agreement runs as follows: "And it is hereby mutually agreed that prior to the opening of the Railway, a "traffic arrangement shall be made between the said parties of the second part and the "Provincial Government, for the mutual use and enjoyment of their respective lines of "Railway between Halifax and Windsor, and Windsor and Annapolis, including running "powers, or for the joint operations thereof, on equitable terms, to be settled by two arbi-"trators, to be chosen by the said parties in the usual way, in case of difference; and in " case of failure of the said arbitrators to make an award, or to chose an umpire in the pre-"mises, it is further agreed that the said traffic arrangement shall be settled by such "third person, together with one or both of the said arbitrators, as the Board of Trade in "England shall, on the application of either of the parties hereto for that purpose, "appoint."

So indispensable was this clause deemed, that I do not hesitate to say, no agreement could have been made in England without it, nor could the money have been raised for

building and operating the road without some such provision.

In the summer of 1868, prior to the opening of the road, I made a journey to Ottawa expressly for the purpose, if possible, of securing an arrangement for these running powers with the Board of Works. The then Minister of the Department, Hon. Wm. McDougall, postponed the matter by promising to examine this line in person, in order to ascertain what ought to be done by the Government. He accordingly visited portions of the line the following autumn, but again deferred entering into an arrangement, as there

was no immediate necessity, the line being not then ready for traffic.

In August, 1869, before the Avon bridge was finished, a portion of the line between Grand Pre and Annapolis was opened in Your Excellency's presence, but the whole line was not finally opened to Windsor until the following December, a few days prior to which Lewis Carvell, Esq., then Superintendent of Nova Scotia Government Railways, called on me for the purpose of entering into traffic arrangements over the line between Halifax and Annapolis. I again for the third time, applied to the Superintendent to give the Company the running powers to which they were entitled under the agreement, but this, he said, was beyond the scope of his instructions, and could only be dealt with by the Department at Ottawa. Until this could be done, he proposed that a provisional agreement should be entered into between us for traffic arrangements, and as it was absolutely necessary to open the line before I could again go to Ottawa, I agreed to this, and we entered into a written agreement marked "Provisional agreement," under which the traffic has been conducted ever since.

It is indispensable to the efficient and economical working of the whole line that the Company should have the working powers secured to them by the agreement. prepared to deal in a liberal spirit with the Government, and trust that as a body of gentlemen who have expended their capital in developing the rich resources of the western counties of Nova Scotia, they will be met by the Government in a similar spirit; but they respectfully insist that they are entitled to these running powers by virtue of the agreement on the faith of which they expended their money. I am prepared on their behalf to enter at once into an arrangement satisfactory to Your Excellency and your Government, or failing that, to enter upon the choice of arbitrators.

In the working of the English railway system, it constantly becomes necessary, with a view to advantageous working, to give these running powers over neighbouring lines, and I doubt not the same system applied to the lines between Halifax and Annapolis

would equally redound to the advantage of Government and Company.

If any doubts exist as to the facts I have stated, or the mode of carrying out these arrangements in England where this contract was made, I ask to be allowed an opportunity of establishing both by proof.

Finding that the Hon. Minister of Public Works hesitates to come to a conclusion on this subject so important to the interests of my principals, I feel that I may best subserve their interests by appealing at once to Your Excellency and your Council for that justice to which an association of English capitalists who have laid out their money in good faith are, I humbly conceive, entitled.

May it therefore please Your Excellency in Council to take the foregoing case into your favorable consideration, and allow your momorialist the privilege of being heard by

Counsel and proof, in vindication of their clear contract rights.

And, as in duty bound, &c.

ned,) VERNON SMITH, General Manager and Agent, Windsor and (Signed,) Annapolis Railway Company.

OTTAWA, March 8th, 1871.

(No. 1,352).

DEPARTMENT OF PUBLIC WORKS, OTTAWA, November 14th, 1871.

Memorandum.

The undersigned has had under consideration the application of Vernon Smith, Esq., General Manager and Agent of the Windsor and Adnapolis Railway Company, claiming, in virtue of an agreement under date the 22nd of November, 1866, "running powers" over the Nova Scotia Railway, between Windsor and Halifax, and the petition from the same, praying Your Excellency to hear the petitioner by Counsel and proof in vindication of the Company's rights.

Section 11 of the agreement referred to, which forms "part and parcel" of the Act, 30th Victoria, cap. 36, of the Statutes of Nova Scotia, intituled: "An Act to incorporate

the Windsor and Annapolis Railway Company," is as follows:-

"And it is hereby mutually agreed that prior to the opening of the railroad, a traffic arrangement shall be made between the said parties of the second part and the Provincial Government, for the mutual use and employment of their respective lines of railway between Halifax and Windsor, and Windsor and Annapolis, including "running powers," or for the joint operations thereof on equitable terms, to be settled by two arbitrators, to be chosen by the said parties in the usual way in case of difference; and in case of failure of the said arbitrators to make an award, or to choose an umpire in the premises, it is further agreed that the said traffic arrangement shall be settled by such third person, together with one or both of the said arbitrators, as the Board of Trade in England shall, on the application of either of the parties hereto for that purpose, appoint."

It will thus appear that this section provides that a traffic arrangement should be made between the Provincial Government and the Windsor and Annapolis Railway, prior to the opening of the latter, for the mutual use and employment of their respective lines between Annapolis and Halifax, including "running powers," or for the joint operations

thereof on equitable terms.

On the 13th of December, 1869, traffic arrangements were made between Mr. Vernon Smith on behalf of the Windsor and Annapolis Railway, and Mr. Lewis Carvell, on behalf \*of the Dominion Government, under whose charge is the Nova Scotia Railway, by which the two lines are jointly operated; the cars and trains of the respective lines passing

freely from one road to the other without change and without breaking bulk.

Messrs. Carvell and Taylor, the present Superintendents of Government Railways in Nova Scotia and New Brunswick, in their Report of the first of March, instant, submit, that under the existing traffic arrangements both railways are jointly operated, that they are not prepared, owing to the present want of data, to say what equitable terms would compensate for the loss that would be occasioned by granting "running powers" to the Windsor and Annapolis Railway; and that the presence of strange engines and trains, manned by persons not under control of the manager, would create a feeling of uncertainty and might result in disaster.

And they add, as will be seen by their annual report, that the traffic arrangements made on the 13th of December, 1869, and now existing, are the traffic arrangements which

under the above cited eleventh section of the articles of agreements of November the 22nd, 1866, constitute the second alternative open to the parties of the said agreement.

The undersigned therefore does not see that the Windsor and Annapolis Railway have cause of complaint under existing arrangements, which are similar to those in force on the American and on the Grand Trunk of Canada railways, and he recommends that the petition of the Windsor and Annapolis Railway be not entertained.

Respectfully submitted,

(Signed,)

H. L. LANGEVIN,

Minister of Public Works.

(No. 2,571.)

OTTAWA, 17th April, 1871.

SIR,—Referring to the conversation which I had with you this morning on the subject of the Windsor and Annapolis Railway, I venture, in obedience to the suggestion made by you, to submit to you in writing the main points which I brought to your attention.

As you are aware, I occupy the position of Special Commissioner of the Windsor and Annapolis Railway Company, which Company, I may add, is composed of gentlemen of position, means and character, who desire nothing but what is fair and right.

The capitalists, through the Company, embarked their capital in the construction of the railway on the faith of the Acts of the then Local Legislature, which expressly enacted that it should be a Provincial Government Railway (Vide Clause 1, Act 1864, and Clause 3, Act 1865.) They reckoned therefore, and with good reason, on the Government influence and assistance, and most certainly never contemplated that the Government were to become competitors as the owners of rival lines of railway.

In these reasonable anticipations the Company have been disappointed; the Government have so far declined to allow the Company to exercise the running powers or the joint operations to Halifax, which were expressly conferred both by the concession and by the Local Acts, they have become the promoters and owners of a large competitive system of Railways to Canada, now to be extended to the Pacific, which must withdraw a considerable amount of traffic from off the Company's Railway; they have subsidized steamers from Halifax and Windsor to St. John's; they have appointed as their Acting Commissioner the Managing Director of another enterprize, whose interests cannot be regarded as parallel in all respects with those of the Company; and in short, the whole energies of the Government are now directed to a keen competition with, and the crushing out of the Company.

I submit with great respect that the Company have allowed themselves to be misled—the career they have before them if the Government refuse them redress is an unpleasant one. They have no alternative but to claim a free and equal use of the Government Railway into Halifax; they must put on a line of first class steamers between Annapolis and Boston; they must endeavor to amalgamate or to make arrangements with one or other of the Great American Railways,—such for instance as the New York Central or the Erie,—and with all this prefer a claim upon the Government for the loss which they have suffered and must still suffer from the opposition of the Government Lines.

This I need hardly add is not what the Company were led to expect, or what they desire. They believe that if they have their rights they have a good property; but rather than continue in a concern which must fight for every ton of traffic, and that to against so powerful an adversary as the Government they would prefer much that the Government should exercise the powers of purchase conferred upon them by Clauses 7, 8 and 10 of the Local Act of 1865, and they submit that upon every principal of equity, the Government are in honor bound to do so.

Having came out from England specially to make these representations to the Government, I venture to hope that I may be permitted to supplement these remarks by a viva voce explanation before the Council, and that I may obtain for my request a favorable consideration.

And I have the honor to be, Sir,

Your obedient Servant,

The Honorable H. Langevin,

(Signed,)

J. A. MANN.

Minister of Public Works, Ottawa.

I would point out that while the advantage to accrue to the Company from any traffic withdrawn from the Government Line proper cannot exceed 85 miles, the injury to the Government may, in the case of traffic for Montreal, involve a loss of upwards of 600 miles, and for the Pacific of 3,200 miles.

(No. 1,425.)

DEPARTMENT OF PUBLIC WORKS,

OTTAWA, April 19th, 1871.

SIR,—1 am directed by the Minister of Public Works to acknowledge the receipt of your letter of the 17th instant, on the subject of the Windsor and Annapolis Railway, and to state that it has received his best consideration.

The question of purchase of the line cannot be taken up by a mere quorum of the Privy Council, but will be submitted to a full meeting of the Cabinet, as soon as possible. Should the Council decide upon purchasing, the matter will, of course, have to be laid before Parliament for approval; but should it not so decide, then the question of the "running powers" referred to in your late interview with the Minister and the members of a Sub-Committee of the Privy Council, will be submitted to the Honorable the Minister of Justice, for his opinion and advice.

I am further to assure you that the Minister will use his best endeavors to have the

matter settled with as little delay as possible.

I have the honor to be, Sir,

Your obedient Servant, (Signed,)

F. Braun,

Secretary.

J. A. Mann, Esq.,

Special Commissioner of the

Windsor and Annapolis Railway, Nova Scotia.

(No. 2,583.)

THE RUSSELL HOUSE,

OTTAWA, 19th April, 1871.

Sir,—I am in receipt of a letter from Mr. Braun, of this day's date, informing me that you will submit the questions which I had the honor to lay before you, for the consideration of the Cabinet.

As I leave to-day for New York, en route for England, I venture to ask that you will be good enough to direct that the result may be communicated to me by letter, addressed to me at the office of the Windsor and Annapolis Railway Co., Westminster Chambers, Victoria Street, London.

I trust that the decision may be such as to render it unnecessary for me to return

here, but I need not say that if necessary, I will endeavor to do so.

With great respect,

I am, Sir,

Your obedient servant,

(Signed,) J. A. Mann.

The Honorable H. Langevin, C. B., &c., &c., &c., Ottawa.

(No. 1,549.)

DEPARTMENT OF PUBLIC WORKS, OTTAWA, June 23rd, 1871.

SIR,—Having reference to the Windsor and Annapolis Railway Cempany's claim to be allowed "running powers" over the Nova Scotia Railway, and to the Report to Council by the Hon, the Minister of Public Works on that subject, dated the 14th of March, 1871, and referred for your opinion, I have now the honor to transmit you a further application made by Mr. Mann, Special Commissioner of the Company, proposing that the Government of Canada should purchase the Windsor and Annapolis Railway, in the event of the claim for "running powers" being refused.

I also transmit you the following papers on the subject, viz: Nos. 1,349, 1,403, 1,485,

1,553, 1,628, 2,053, 2,142, 2,360, and 2,571, with 2,404, 2,417.

I have the honor to be, Sir,

Your obedient servant, (Signed),

F. Braun, Secretary.

The Honorable,
The Minister of Justice,
&c., &c., &c., Ottawa.

(No. 2,849.)

DEPARTMENT OF JUSTICE, July 4, 1871.

SIR,—The Minister of Justice has had before him your letter of 25rd June last, in

reference to the Windsor and Annapolis Railway.

But he is not aware with what object the documents herein referred to have been submitted to him, as he had the case previously before him, and fully reported thereon upon 21st June last, which report, I notice, is attached to No. 2,417 of your references, enclosed with your last letter.

I return the several documents submitted by you.

I am, Sir,

Your obedient servant,

H. BERNARD.

F. Braun. Esq., Secretary, Department Public Works.

(No. 2,895.)

Russell House, Ottawa, 26th July, 1871.

SIR,—I regret exceedingly that it has become necessary for me again to return to Ottawa to urge the claims of the Windsor and Annapolis Railway Company upon the Government.

The capitalists interested in the railway, among whom I may mention Sir John Lubboch (Robartes, Lubboch & Co., Bankers); A. Leonini (Italian Merchaut); A. D. DePass (DePass & Vores, Shipowners); A. Ricarde (A. & W. Ricarde, Stock Brokers); and of the Stock Exchange Committee, London, J. Field (Stock Broker); J. Bravo (Bravo Bros. & Co., Bankers and Merchants), have however well considered the matter, and have determined that they cannot offer to continue to work the line under the present unsatisfactory arrangements with the Dominion Government, and they have empowered me to communicate that decision to the Government, and to make any arrangements that may be necessary in the matter.

In the few days since my arrival at Halifax, I have occupied myself by preparing a

Memorial to his Excellency the Governor General in Council, setting forth the grounds on which the claim is based; but hearing that you are likely to be absent from Ottawa for some time, and that a Cabinet Council will meet to-day, I deemed it better to come on here with a rough point of the Petition in its incomplete and unfinished state, and of which I now beg to enclose a copy.

I trust you will, under the circumstances, excuse my laying before you so rough a Memorial. From it, I doubt not, you will be able to glean the main points of the case; and as the subject is a very pressing and a very serious one, both to my friends and to the Provinces of Nova Scotia and New Brunswick, I venture to ask that it may be brought before the Council to-day, and that I may have their decision upon it. I need hardly say that I should be glad of the honor of an interview with the Council to enable me to offer any explanations which they or you may require.

And I have the honor to be, Sir,

Your obedient servant,

(Signed,)

JAMES A. MANN.

To the Hon. H. Langevin,
Minister of Public Works, &c., &c., &c.:

THE MEMORIAL OF THE WINDSOR AND ANNAPOLIS RAILWAY COMPANY (LIMITED).

To His Excellency The Right Honorable LORD LISGAR, G.C.B., G.C.M.G., Governor General of Canada, &c., &c., In Council:

Humbly Sheweth :-

1. That your memorialists are a Company, composed for the most part, Memorialist as of capitalists resident in Great Britain, registered in England on the first of Corporate Company, March, 1867, as a "Limited" Company, under an Act of the Imperial Parliament, entitled "The Companies' Act, 1862"; and incorporated by an Act of the Legislature of Nova Scotia (30 Vic., Cap 36) on the 7th of May, 1867. Object of their

2. The object for which your memorialists were incorporated, was the innorporation. Construction and the working of a portion of one of the sections of the Government Railways of the Province of Nova Scotia, extending from Windsor to Annapolis, a distance of eighty-five miles, under an agreement made between the eminent contractors, Messrs. Punchard, Barry and Clark, of London, and the Government of the Province of Nova Scotia, on the 22nd of November, 1866.

3. The capital embarked in the enterprize by your memorialists amounts Capital invest-to £300,000, represented by fifteen thousand shares of £20 each. Capital invested by them.

4. Your memorialists have, as provided for by their Articles of Associa-Debenture tion, also raised the further sum of £200,000, by the issue of terminable by them. debentures, carrying interest at the rate of 6 per cent. per annum.

5. Your memorialists, when they embarked their capital, had before Documents on them the Acts of the Legislature of the Province of Nova Scotia, having which they reference to the Railway, namely: of the Sessions of 1854, 1864 and 1865, to embark together with the before-mentioned agreement of 22nd November, 1866; the their capital main points of which bearing on your memorialists' case, they crave leave to quote:—

The Act of 1854, 17 Vic., Cap. 1, Legislature of Nova Scotia, 31st of March, 1854.

- "Preamble. The construction and maintenance of a trunk line of railway from the Har-
  - "bour of Halifax to the frontier of New Brunswick, with branch lines extending to "the Harbour Pictou and to Victoria Beach (near Annapolis) will greatly facilitate "the internal trade of Nova Scotia—will develope her resources—enlarge her Revenue,
  - "and open more frequent and easy communication with the neighbouring Frovinces and States."

- Section 1. "The lines of railway to be constructed under the provisions of this Act "shall be Public Provincial Works."
- Section 4. "The construction and management of such railways shall be under the "charge of six Commissioners."
- Section 5. "The Commissioners shall build such railways by tender and contract."
- Section 10. "The Commissioners or Contractors are authorized to enter upon and take "possession of any lands required for the track of the railways or for stations."
- Section 16. "The Commissioners or Contractors may make an agreement in writing "with the proprietors of lands so taken for damages and fencing."
- Section 17. "Where no agreement shall be made appraisers shall make a valuation as to "the damages to lands and fencing."
- Section 18. "In making such arrangement or appraisement, the benefit likely to be "derived by the proprietor from the railway running through his land, shall be "taken into consideration, and the damages thereby reduced or extinguished."
- Section 19. "The monies payable for such lands and fencing shall form a county "charge."
- Section 20. "Whenever the railways or any portion of them shall be completed, it shall "be lawful for the Governor in Council to make such arrangements as may be suit"able for working the railways as one line by a common management, or for working "the trunk line and branches by separate Commissioners."

Another Act of the same Session, 17 Vic., Cap. 2, Legislature of Nova Scotia 31st of March. 1864:—

- Section 1. "It shall be lawful for the Governor, by and with the advice of the Executive "Council, to contract a loan, on the pledge of the revenue of this province, whether "arising from the duties upon imports, the sale of crown lands, the royalty paid by miners, or the tolls to be collected on the railways constructed with the monies
  - "to be borrowed under this Act."
- Section 2. "Certificates of debt to be called Debentures bearing interest at six per cent. "may be issued from time to time, at par, or at such premium as the same may "command, as the Railways proceed."
- Section 3. "The principal of such Debentures shall be paid in full, at the expiration of "twenty years from the date of their respective issues."
- Section 4. "The whole of the revenues to arise from the receipts of tolls on such "railways shall, after the expense of working and maintenance have been paid, be "applied towards the payment of interest on the Debentures, and the surplus shall "form a reserve fund for the redemption of the loan.

The Revised Statutes of 1864, 27 Vic., Cap. 70, Legislature of Nova Scotia, 10th of May, 1864, included, among others, a chapter devoted wholly to the subject of Railways. In it the provisions of the Act of 1854, before referred to, were re-enacted.

The Act of 1865, 27 Vic., Cap. 13, Legislature of Nova Scotia, 2nd of May, 1865:

- Section 1. "The Chief Commissioner of Railways, by direction and authority of the "Governor in Council, may contract for and on behalf of the Province, with any "responsible party or parties, for the construction of the following Sections of the "Provincial Railway, that is to say,—from Truro to the boundary line to New "Brunswick, and from Windsor to Annapolis; and for the payment of the subventions on the terms and under the provisions and stipulations hereinafter set forth and "contained. The location of the lines of the said railways to be subject to the approval of the Governor in Council."
- Section 2. "The Contractors for the Section first mentioned (i. e. between Truro and "Amherst), to receive a subvention, of not more than 4 per cent. per annum, for twenty
  - "years, on \$40,000 per mile of the whole length of said section, and the Provincial "Government, to take on behalf of the Province, stock in the said undertaking, with

"such contractors, to the extent of \$400,000."

- Section 3. "The Contractor or Contractors for the section last mentioned (viz.—between "Windsor and Annapolis) to receive a subvention of not more than 4 per cent. per "annum, for twenty years, on \$24,000 per mile of the whole length of the said section, "with the exception of a bridge, viaduct, or other erection suitable for a railway "across the River Avon at or near Windsor, the latter to be built at the expense of "the Province."
- Section 4. "The first annual payment of such subventions to fall due, and to be made, at "a period not less than twelve months after the bonâ fide commencement to build such "sections respectfully."
- Section 5. The Governor in Council may, after such contracts or either of them are "entered into, by an Order in Council, declare that the subventions or either of them "shall cease, and at what time; and, in lieu of such subventions or either of them, "pay to the Contractor or Contractors the amount or balance, as the case may be, of "such subvention, or either of them, capitalized either in cash or Provincial "Debentures."
- Section 6. The Governor in Council, as soon as a contract has been entered into for build"ing the said section last mentioned from Windsor to Annapolis, may make pro"vision, either by contract or otherwise, for the building of a suitable bridge, viaduct,
  "or other erection across the said Avon River, at or near Windsor aforesaid."
- Section 7. "The Governor in Council may at any time, before or after the said sections "or either of them are or is completed, by an Order in Council, assume, on behalf of "the Province, the ownership of the said section or either of them, by paying to the "owners thereof of the value of the same, to be ascertained as hereinafter provided, "either in cash or Provincial Debentures, at the option of the Governor in Council."
- Section 8. "The amount to be paid under the next preceding section shall be ascertained "by the decision of three arbitrators; one of whom to be appointed by the Governor "in Council, one by the owner or owners of the section, and one by the principal "Secretary of State for the Colonies."
- Section 10. "The Governor, by and with the advice of the Executive Council, may, for "the purposes of this Act, contract a loan on the pledge of the revenues of this "Province, whether arising from the duties upon imports, the sale of crown lands, "the royalty paid upon minerals, or the tolls to be collected on the railways owned "by the Province."
- Section 13. The provisions of chapter 70 of the Revised Statutes (1864) referring to Government Railways, were, with certain exceptions in cases where not bearing on the subject, made applicable to the railways to be built under this Act, the terms "Commissioners" and "Railway Department" therein used, were respectively to include the "contractors or owners of these Railways," and "property belonging to "the contractors or owners of the said section of Railways."
- Section 14. "The Chief Engineer of Railways shall report to the Government on the "route or routes proposed, and during the construction of the said lines of railway "respectively, shall have power at any time, and at all times, to enter upon the same, "and examine the works; and it shall be his duty to report to the Government "from time to time, the state and condition of such works; and any failure in the "execution, or in carrying out any of the provisions of such contracts, and generally "to watch over the interests of the Province in reference thereto."
- Section 15. "Contractors shall furnish names of claimants for damages, instead of Board of Railway Commissioners, as mentioned in section 47 of said Chapter, and shall do all Acts in said section provided to be done by the Board of Commissioners."
- Section 16 "The moneys payable for lands for the sections hereinbefore mentioned shall "form a county charge."
- Section 18. "The contracts to be made under this Act, shall contain stipulations and "provisions for the regulation of the tolls and rates for passengers and freight, the "carriage of mails, troops, munitions of war, and other Government property on the "said lines, and generally for guarding the interests of the Province."

# THE AGREEMENT OF 22ND NOVEMBER, 1866, MADE WITH MESSRS. PUNCHARD BARRY AND CLARK.

Section 1. "Whereas, an Act of the Legislature of Nova Scotia was passed on or about "the second day of May, one thousand eight hundred and sixty five, entitled 'An "Act to provide for the construction of two other sections of Provincial Railway," and by such Act provisions were made for the construction of a certain railway.

Section 2. "And whereas, in pursuance of the provisions of the said Act, a negociation

"from Truro to the boundary line of New Brunswick, and of a certain other rail-

" way from Windsor to Annapolis."

"has been entered into between the said parties hereto, having for its object an "arrangement by which the said parties of the second part, or their assigns, shall "undertake the construction and (although not authorized by the Act) working of "the said section of the said railway from Windsor to Annapolis, under the pro"visions of the said Act, subject to the terms and conditions hereinafter mentioned."

Section 3. "The before recited Act (namely, of 1865) shall be the basis of the agreement, "so far as it relates hereto, except so far as the same may by this agreement be

"so far as it relates hereto, except so far as the same may by this agreement be "modified."

The Contractors, in consideration of the premises, and of the agreement hereinafter contained, agree to construct the said railway from, at, or near the present Windsor Station to Annapolis, or such variations thereof as may be agreed upon between the The said works to be diligently prosecuted, and fully completed, and ready for traffic on or before the first day of December, 1869. The rails to be of good quality, and to be not less than 42 lbs. weight per yard. The stations and depots to be not less than ten in number; and the said parties of the second part (i.e. contractors) to effectually manage and operate the said railway when completed, at the proper expenses, at such rates, tolls, and charges as hereinafter provided (see clause 8) for their own benefit, that is, To carry Her Majesty's servants at two cents per mile, and their children, of from three to twelve years of age, at half price, and those under three, free; officers to carry one hundred weight of baggage, and privates half that quantity; excess baggage to be paid for at eighty cents per hundred weight per one hundred miles; also to carry Her Majesty's mails at a rate of charges to be agreed upon by the parties hereto, or by an umpire to be chosen by them in the usual way in case of difference, prior to the opening of the railway; and in case an umpire cannot be agreed upon, and such charges fixed by him, then such charges shall not exceed the rates charged for such service in the Province of Canada.

Section 5. "The contractors to erect and build over the Avon River, near Windsor, a

" good and sufficient bridge."

Section 6. "The subvention, as sanctioned by the Legislature, shall be capitalized at the "agreed sum of £188,600 sterling, instead of the payment of the sum of sixteen "thousand three hundred and twenty pounds sterling, per annum, and the Pro-"vincial Bonds or Debentures for the above sum, issued in the ordinary form, " bearing six per cent. interest, shall be delivered at par, to the parties of the second " part, or their assigns or nominees; but such bonds shall only be delivered to the "said last mentioned parties, with the coupons attached, bearing interest from the pre-"ceding first of January, or first of July, as the case may be, prior to such delivery, "according to the amounts from time to time to be expended by them in the con-"struction of the said railway, or work, according to a scale of prices to be agreed "upon: the amount of such expenditure to be certified monthly by the Chief "Engineer, or his Resident Engineer of the parties of the second part (i.e. the con-"cessionaires), and concurred in by the Chief Railway Engineer of the Province, "or any other engineer to be appointed by the Governor of the Province, "and that such delivery to the said parties shall be within fourteen days from the "date of such certificate; but the amount of such bonds shall never exceed fifty per "cent. of the whole amount expended, according to the said monthly certificates, and

"the balance, if any, shall be paid when the railway is completed and opened up for "traffic."

Section 7. "All lands required for the railway track and appurtenances, shall be pro-"vided gratis as under the provisions of section 11, chapter 70 of the Revised "Statutes," (the said section 11 providing that the commissioners or contractors are " authorized to enter upon, and take possession of any lands required for the track of "the railways or for stations; and they shall lay off the same by metes and bounds, "and record a description and plan thereof in the Registry of Deeds for the County "in which the lands are situate, and the same shall operate as a dedication to the " public of such lands: the lands so taken shall not be less than four rods—i.e. 65\frac{1}{2} "feet,—or more than six rods—i. e. 97 feet—in breadth, for the track, exclusive of " slopes of excavations, and of embankments, except where it may be deemed advisable "to alter the line or level of any public or private carriage road, or divert any stream " or river, in which case it shall be competent for the Commissioners to take any such "further quantity as may be found necessary for such purposes; also at each station "a sufficient extent for depot and other station purposes; provided always, that "excepting at the termini or junction of the railways, the quantity so appropriated " shall not exceed five acres.")

Section 8. "The Contractors shall be entitled to make and enforce a tariff of charges for "fares and freight (except as aforesaid,) to be mutually agreed upon between the "parties, prior to the completion of the said railway and opening the same for "traffic."

Section 9. "All materials and stores required for the construction and working of the rail"way, shall be entitled to a drawback for the amount of import duties paid thereon by
"the said parties of the second part (i.e. the concessionaires.")

Section 11. "And it is mutually agreed, that prior to the opening of a railroad, a traffic "arrangement shall be made between the said parties of the second part of the Pro"vincial Government, for the mutual use and employment of their respective lines of 
"railway between Halifax and Windsor, and Windsor and Annapolis, including run"ning powers, or for the joint operations thereof on equitable terms, to be settled by 
"two arbitrators to be chosen by the said parties in the usual way in case of dif"ference; and in case of failure of said arbitrators to make an award, or to choose an 
"umpire in the premises, it is further agreed that the said traffic arrangement shall 
be settled by such third person, together with one or both of the said arbitrators 
as the Board of Trade in England shall, on the application of either of the parties 
hereto for that purpose, appoint."

Section 12. "The Government of the said Province shall, and will well and truly pay, for "the building and maintenance of the said bridge across the said River Avon, the "sum of £32.000."

Section 13. "And it is further mutually agreed between the said parties that the saidline "of railway, including the said bridge, viaduct, aboiteau, or other suitable erection "across the said River Avon, with all and singular the appurtenances when built, "shall be the property of the said parties of the second part (i.e. the contractors), or "their assigns, and shall be operated, managed, and upheld by them, at their own "proper costs and charges."

Section 15. "And it is further mutually agreed, that for the purpose of carrying out the "agreement, the said parties of the second part, or their assigns, shall have power to "form a joint stock company, to be incorporated by Act of Parliament of Nova Scotia, "and when and so soon as such company is formed, and capital subscribed to the sat-"isfaction of the said Chief Commissioner of Railways of the Province of Nova Scotia, "The said intended company, so to be formed, shall possess the said railway and

"works for the purpose aforesaid, subject to the terms of this agreement.
Several Acts have since been passed by the Legislature of Nova Scotia, with the view of reconciling the analomies apparent in the before recited Acts and Agreement; but though they in some respects support, still more strongly, the claims of your memorialists,

yet, as it was on the faith of the Acts and Agreement before quoted (no other acts having then been passed) that, your memorialists were induced to embark their capital, they rest their case upon, and confine their remarks to these.

6. Your memorialists were led to believe that they were embarking in the construction of a Government Railroad, for all the Acts expressly designated interpretation nated it as a Public Provincial Work. The Acts further declared, that it was of the designed to benefit the Province, and to open up through communication Documents. with the neighboring Provinces and States. It appeared to your memorialists, an important portion of the Government system of Railroads, designed to form the Main Trunk of the best through route—as it undoubtedly is—between Halifax and St. John, New Brunswick. Your memorialists also observed that the Government were to locate the line; that the Counties through which it passed were to provide the land; that such provision was to operate as a dedication to the public; that the Government Engineer was to supervise the work of construction, and to certify the value thereof. enterprise, it appeared to your memorialists, was only required to provide a portion of the capital required for the work of construction, the Governmentadvancing £188,600 towards And, in reliance on the good faith of the Government, your memorialists concurred in the condition which required them, so long as they might continue to work the railroad, to carry the Government troops, baggage, stores, and mails at defined and very low rates; and in the restrictions which bound them, on the one hand, to obtain the concurrence of the Government to the tolls to be charged to the public, and on the other, not to sell the line, except to the Government themselves, who reserved the power to enter into possession of the railroad at any time on payment of the cost.

7. Your memorialists relied therefore upon the Government both as to the work of construction, and as to the remunerative working of the Rail-Memorialists road when constructed. They also believed that the Government would tection of the secure to them a fair interest upon their capital; and they further believed Government that as the Government could, and no doubt would, take possession of the property whenever it became remunerative enough to tempt them to do so, so also they would take to the property whenever it failed to yield a fair interest on the money embarked in it, and especially so if that failure was brought about by any action of the Government.

8. Your memorialists, immediately on their incorporation, and on the faith of the Acts and Agreement before quoted, provided the capital for and Memorialists proceeded vigorously with the construction of the railroad. The final report completed of the Government Engineer, presented to the Legislature of Nova Scotia on the contract the 25th of January, 1870, will show, that your memorialists more than complied with the terms of their contract, both in letter and in spirit. The following extracts from that document will, however, suffice to demonstrate this. Grades and Curves.

"In this respect the Windsor and Annapolis Railway' compares very favorably with the Nova Scotia Railways, particularly with the Windsor Branch, over which all the traffic for the western counties from Halifax must be carried."

Earthwork.

"The width of cuttings average about eighteen feet, but in many of the clay cut"tings this has been increased. The formation width of embankments is from fifteen
"to sixteen feet. Nearly all the embankments were made by carts, and are stand-

"ing well"

The Aven Bridge.\*

"The whole of the masonry is built of good sound sandstone and Portland cement,

"is first-class quarryf-aced ashlar, well backed with flat bedded stone, and the

"whole of the joints and interstices filled with cement." Great care was taken in

"its construction and erection. Every arrangement was made for the vigorous

- "prosecution of the work. The ironwork always arrived from England before it
- "was required, and in order to avoid the risk of being behind time, the last two
- "large spans were sent from England by the Inman Steamships. Thus in about two "years this important work was completed."

Timber Bridges.

- "The timber used in the construction of all the bridges is the best the country affords, and is principally black spruce. Every precaution was taken by the Contractors to have all piles well driven. All the bridges have been thoroughly
- "tested by the passage of heavy trains, and have stood well."

Bullasting

"By the schedule, a quantity of ballast, not less than two thousand five hundred cubic yards to the mile, was required. This has generally been exceeded."

Permanent Way.

"The whole is laid with the 1 rail of two patterns, one weighing sixty-seven pounds to the yard—the heaviest rail laid in the country; the other weighing "fifty pounds to the yard. The sleepers are principally of black spruce, nine feet long, "ten inches wide, and five inches deep, half round or flatted, and the rails are "carefully bedded in each. There are over two hundred thousand sleepers in the "road. The trains run very smoothly, with remarkable freedom from oscillation, "even when a good rate, of speed is maintained; and the fish plate gives a smooth "running road."

Stations.

"The contract specified that the Contractors were to provide ten stations. There "are now twenty-one on the line. Of these, the principal ones are at Kentville "and Annapolis. At both these stations, in addition to the platform and siding "accommodation, there are roomy engine sheds, each to hold three engines, turn-"tables, &c. At Kentville, a large addition has been made to the engine shed for "the purposes of a work shop."

Annapolis Pier.

"At Annapolis a goods' shed has been erected, and a first rate timber pier, built "with rib work well ballasted. It is four hundred and fifty feet long. It has a "fleating landing stage, and is a very substantial work. This was not required by "the contract."

Rolling Stock.

"The quantity in list annexed has been provided by the Contractors. Six of the "engines were sent out from England, and are specially designed for heavy work. "They burn either coal or wood, weigh about fifty tons, and in their design the latest "improvements were introduced. The boilers are remarkable for their strength." Completion of the Live.

"On the 18th of August, 1869, (viz., four months before the contract time), seventy miles of line, from the Gaspereaux to Annapolis, were formally opened by the Gov"ernor General. Since that time, a portion of the line between Horton and Wolfville has, however, been damaged by the breaking of the dykes from high tides. The injury done was immediately repaired by the Company, so that in December everything was ready for the opening, and on the 18th of December, a few days later

"than the contract time, the whole road was open for traffic."\*

9. Your memorialists having thus completed the construction of the Memorialists railroad, proceeded to operate and manage it in the best possible manner; have continued to work it with energy and regularity now line. Result for more than eighteen months, it is with regret that they find, as already unsatisfactory. communicated to the Government, that the income, after payment of expenses, is insufficient

<sup>†</sup> It will be observed that your memorialists were only required to lay down rails weighing forty-two pounds to the yard.

But for the breaking of the dykes, over which your memorialists had no control, the whole of the road would have been opened considerably before the contract time.

not only to permit of any return upon your memorialists capital, but also of the payment of any considerable portion of the interest upon the debenture debt. Your memorialists are also, as a consequence, unable to raise the capital with which to discharge the principal of the debenture debt; and they have therefore been obliged to embark further capital, and incur further liabilities, together amounting to about £50,000, in order to provide for the wants of the railway, and to meet the accruing debenture interest; and your memorialists venture to submit, as some proof that this deficiency is not due to want of management on their part, that the result of the working of the 145 miles of the Government Railways in Nova Scotia in the year ending the 30th of June, 1869, was a gross income of \$272,237, obtained upon an expenditure of \$268,560. (Vide Appendix No. 17 to the General Report of the Minister of Public Works for the year ending 30th of June, 1869)—whilst in the preceding year, the income was but \$253,994, obtained upon an expenditure of \$255,530.

10. Your memorialists, under these circumstances, feel themselves compelled, with great regret, to state that they cannot offer to continue to work the railroad under the present unsatisfactory arrangements with the protection of Government; and they therefore throw themselves upon the protection of the Government, to which they humbly submit they are entitled.

11. Your memorialists venture to submit, that their embarrassments have Embarrass-been greatly increased by the action of the Dominion Government, (who have ments increasing this matter become the successors of the Government of the Province of Government. Nova Scotia), who, in ignorance doubtless of the circumstances under which your memorialists were lead to embark their capital in the railroad, have not only deprived your memorialists of all protection and support but also denied them rights and facilities specifically conceded by the Legislature of the Provivince of Nova Scotia, and have further fostered and subsidized rival enterprizes contrary to the spirit and intention of the agreement entered into with that Legislature.

12. Your memorialists are impressed with the belief that the lukewarm and even hostile attitude assumed by the Government towards them, has harden the arisen in the main with Confederation, which has made the Government views of the interest in the Intercolonial line of paramount importance. At the time when Government, the Annapolis line was first designed, the Government of the Province of competitors. Nova Scotia intended to construct, own, and work the line to Amherst, on the New Brunswick frontier, as well as that to Annapolis, on the Bay of Fundy; their interest, therefore was, if anything, greater in the Annapolis route than in the Amherst route,—

And even when in 1865 the Act was passed authorizing the construction of the lines from Windsor to Annapolis and from Truro to Amherst, by private enterprize, the interest of the Government, viewed in its narrowest and most mercenary light, was but a trifle greater in the Amherst route, seeing that the distances which would then have had to be traversed over the Government lines proper, would have been

By the Annapolis route:

Halifax to Windsor, 45 miles, and
By the Amherst route:

Halifax to Truro, 61 miles;

And as it was then clearly the intention of the Government to acquire both the Windsor and Annapolis and Truro and Amherst Railroads, which, for financial reasons, were at that time designed to be made by private enterprize, in the first instance; the edimete interest of the Government in the two routes was, as before stated, somewhat greater in the Annapolis than in the Amherst route. By the Act of Confederation, the interest of the Government has become absorbed in the Amherst route. In the first place the railroad from Truro to Amherst, which in 1865 was to have been made by private enterprise.

in the same way as the Windsor and Annapolis railroad, was incorporated into, and made part of the Intercolonial System, which at once gave the Government a preponderating interest in the Amherst route; the interest in the Amherst route being thereby extended from

In the second place, Confederation still further increased the preponderence of interest in the Amherst route, for by it the whole Intercolonial system from Halifax to Rivière de Loup, and from Shediac to St. John, 498 miles, has become the property of the United or Dominion Government, so that it is now the policy of the Government, as has been stated by its officers, to crush out the opposition of the Windsor and Annapolis line.

13. Your memorialists, however, submit that such considerations cannot weigh with a Government so enlightened as that of the Dominion, when once they have the circumstances brought to their notice. Your memoralists submit, that, on the grounds of justice and equity, the Government are bound should be either to protect your memorialists, or to exercise the right of purchase, which they have; and further, that on public grounds, the railroad deserves the utmost support from the Governments, as being a great benefit to the Provinces, both of Nova Scotia and New Brunswick. The Superintendant of the Nova Scotia Railway in his Report of October, 1870, to the Minister of Public Works, speaking of the Windsor and Annapolis Railway, states—

"When this line was opened for traffic, the steamer plying between St. John, N.B., "and Windsor, N.S., during the summer months, was withdrawn from the route, and "placed on the route between St. John and Annapolis, connecting with the railway at "the latter port. By this arrangement, a regular communication was kept up, during the "winter months, between Nova Scotia and New Brunswick, thereby supplying a want

"long and seriously felt in both Provinces."

But beyond this, it is a fact, that the revenues and the value of lands and all other property in the counties through which the railway runs have been doubled and even trebled since the projection of the railway. And though your memorialists admit that for military purposes, and as a means of communication with the more distant portions of the Dominion, the Intercolonial Railroad is of great value, yet, for the more important purposes of trade and commerce, the Windsor and Annapolis Railroad supplies, not only a great and pressing local want of the western counties of the Province of Nova Scatia, but affords a route shorter by 84 miles, more expeditious, and considerably cheaper than the route viâ Amherst, between those two most important centres of trade—Halifax and St. John, New Brunswick.

14. Your memorialists further submit, that apart from any hopes of assistance to which they may have been led to look forward, the Government Insufficiency contribution of £188,600 was most inadequate, amounting as it did to but of original £2,200 per mile, out of a total cost of upwards of £9,000 per mile.\* Your grant. memorialists also submit that the subvention sanctioned by the Act of 1865, viz.—of 4 per cent. on \$24,000 per mile, equivalent to a total subvention of £16,320 sterling per annum, although terminable in twenty years, would have been more advantageous to your memorialists; and further, that if such subvention had been capitalized in the terms of clause 5 of that Act, the capitalized sum to which your memorialists would have been entitled would have been £326,400. Your memorialists further submit that even the original subvention was very small, when compared with that offered for the construction of the railroad between Truro and Amherst, which amounted to 4 per cent. on \$40,000 per mile, being equivalent to an annual payment of

The one hundred and forty-five miles of Railroad constructed by the Government of News Scotis 26,731,254, or equal to \$46,637, or £9,367, sterling, per mile. (Vide Appendix, No. 17, to the General Report of the Mainteer of Public Works, 1869.)

£19,200, sterling, for twenty years, besides which the Government granted a subscription of \$400,000 or £80,000 sterling, towards its cost; whilst, on the 4th of March, 1864, the then Provincial Secretary of the Province of Nova Scotia, in a letter written by him to the European and North American Railway Company (vide Appendix No. 7 to the Journal of the House of Assembly of Nova Scotia for the year 1865) offered a perpetual subvention of £16,000, sterling, to facilitate the construction of the same railroad.

15. Your memorialists would humbly beg to point out that numerous unsuccessful attempts were made to induce capitalists to embark in the Failure of enterprize, even on terms much more advantageous than those granted to previous your memorialists. Before your memorialists were led to embark their contractor, capital, an agreement had been entered into with the Contractors, George Knight and Co., of London; and on the 14th of March, 1866, an Act was passed by the Nova Scotia Legislature, incorporating a company, with the object of giving effect thereto, a clause being inserted, however, providing that—

"This Act shall cease and determine if the railroad herein contemplated and mentioned shall not be effectually commenced and vigorously prosecuted within six months

"from the passing hereof."

Another clause also provided-

"That the amount of the subvention to be paid hereunder shall be reckoned on eighty-five miles, or £16,320 sterling per annum, to be paid half yearly in London, the

"first payment thereof to fall due six months after the commencement of the work."

And yet on these more favorable terms the arrangement fell through from the inability of those contractors to give effect to it. As showing further the difficulty experienced by the Province in inducing capitalists to embark in the enterprize, they venture to refer to the Report of the Chief Commissioner of the Government Railways of Nova Scotia, bearing date the 31st of October, 1866. (Vide Appendix No. II to the Journal of House of Assembly of Nova Scotia, 1867), which contains the following paragraph:

"I regret to say that owing to the financial panic which occurred in England during the early part of the present season, under which several of the most noted railway firms succumbed, and which spread general distrust throughout money circles in England and on the Continent, the parties who contracted to build the Windsor and Annapolis Railroad were unable to fulfill their engagement. The Honorable Provincial Secretary and other members of the Government who have been in London since July last on other important business, have been indefatigable in their exertions on behalf of this line. I think I may say this, that the people of the western part of the Province may rely upon some means being found to push on the work with vigor during the ensuing year. The Government is virtually committed to the undertaking and will not see it abandoned."

16. Your memorialists also submit, that their interests were most seriously affected by the pressure on the financial affairs of the Province, at Financial the time they embarked in the enterprize; of the 288 miles of railroad pressure in sanctioned in 1854, but 95 miles had been completed, yet the debt of the province. Province had increased to nearly five million of dollars. And it appears from a minute of the Chief Engineer of the Government Railways of the 10th of December, 1864 (vide Appendix No. 7 of the Journals of the House of Assembly of Nova Scotia, 1865), that considerable difficulty was experienced in providing the capital to secure the completion of the Windsor and Annapolis Railroad, after an adequate provision was made for the completion of the Pictou branch, without making the debt of the Province to exceed the figure of eight million dollars, with which it had been agreed the Province should enter the Dominion. This minute is as follows:

" Nova Scotia Railway.

"The Government of Nova Scotia desires to secure the construction of a Railway from Truro to Moncton; this, forming part of the Intercolonial, would be

"built at the expense of the United Provinces. In anticipation of an union at an "early date; this line may enter into a general arrangement now proposed and its "construction be commenced under the subvention resolution of last Session.\* The "Government desire to secure the construction and completion of a branch to Pictou, "and a branch to Annapolis, for a sum which added to the present debt of the

"Province would not exceed	\$8,000,000
" Present debt	
"Pictou line estimated to cost	3,141,453 2,000,000
	\$1,141,453

"The balance \$1,141,453 for the Annapolis line, would not at present be "available and this work would have to be commenced under the subvention reso-"lution passed by the Legislature last session."

"On the union of the Provinces, the existing railways and the Pictou extension will belong to the Confederation Government. In the meantime, the Government of Nova "Scotia, in order to facilitate arrangements with parties disposed to carry out these extensions, will be disposed to lease these lines, receiving therefor the actual net carnings "until the union of the Provinces be effected. Upon the union of the Provinces these "railways to be held under the Confederate Government upon such equitable terms as "may be agreed upon. In the event of the Annapolis line being completed before the "union of the Provinces is effected, it will be operated in connection with the other lines "and under the same management, the actual receipts of the whole to be allotted as under. "After the Union a similar equitable arrangement to be made.

"Pictou line			"	143
Amapons	**************************************	228		$\frac{-3}{228}$

" Due to the Province  $\frac{1}{2}\frac{1}{2}\frac{4}{8}$  of net earnings.

"Do. Annapolis line  $\frac{86}{228}$  do. do.

"In the construction of these lines the Province to furnish right of way and fencing free, "and materials for construction to be carried on existing lines free of charge (handling not "included.) In the union of the Provinces, the balance, \$1,141,453, may be paid for the "Annapolis line in lieu of the 20 years' annual bonus of £240 per mile under the sub-"vention resolution.

"The proposed arrangements embrace the following points:-

"1. The working of existing lines in the Province, and all lines to be constructed, under one management, on equitable terms."

"2. The building of the Annapolis road under existing Legislative enactments."

3. The commencement of the Truro and Moncton sections under the authority of

"3. The commencement of the Truro and Moncton sections under the authority of the legislation already obtained."

"4. The completion of the branch to Pictou and Annapolis for such a sum as will allow Nova Scotia to enter the Union with a debt not exceeding \$8,000,000."

This document, though ambiguous in some respects, shows conclusively that in order

The Resolution above referred to was passed by the Honorable the House of Assembly of Nova Scotia on the 11th of April, 1864, and was as follows:—

"Persived, That the Encousive Government be authorized to secure the construction of the railroad from true, or from the point of junction with the main line to the border of New Brunswick, through the agency of any responsible company, provided no greater liability is incurred that per cent. per annum, upon a capital of \$10,000 currency per mile, for a period not to exceed twenty years; and provided connection is thereby secured with the railroad from St. John to Shediac; and that the Government be authorized to present the construction of the line west of Windsor, in the same manner, to the same extent of 4 per cent, on a capital of \$6,000 per mile."

to conform to the terms of the proposed Confederation, and, at the same time, secure the commencement of the system of railways which the people of the Province were eager to have completed,

The Annapolis line, of 85 miles, was to have alloted to it but \$1,141,453 \(\div \frac{1}{2}\) \$13,429 per mile,

Whilst the Pictou line, of only 50 miles, which was to be made by the Government themselves, was to have

allotted to it..... \$2,000,000 = \$40,000 per mile,

And assuming the cost of the 95 miles of line, then completed by the Government, to be represented by the

17. Your memorialists would further point out, that had the Effect if the Government carried out their original intention of constructing, ment had constructing and working the Windsor and Annapolis line themselves, it would, even if it had not cost them more than your memorialists have paid for it, have cost them £770,600;\* the annual interest on which, at 6 per cent. per annum—the then borrowing rate of the Province of Nova Scotia—would have amounted to £46,236; whereas the Province now, having all the same advantages from the Railroad, only pays

£13,236 per annum.

18. Your memorialists humbly beg, further, to point out some of the Refusal of Government important instances in which the Government have infringed the specific conditions of the Acts and Agreement before quoted.

Refusal of Government to admit rights specifically conceded to Memorialists.

Firstly, and most importantly, they have refused to allow your memorialists to exer-

cise the rights conferred by clause 11 of the Agreement, which provides -

"That prior to the opening of the railroad, a traffic arrangement shall be made "between the said parties of the second part (viz.—the contractors), and the Provincial "Government, for the mutual use and employment of their respective lines of railway "between Halifax and Windsor, and Windsor and Annapolis, including running powers, "or for the joint operations thereof, on equitable terms, to be settled by two arbitrators. Your memorialists, several months before the line was completed, applied, through their Manager, to the then Minister of Public Works, at Ottawa, as to the exercise of the running power into Halifax, when the Minister intimated that he intended to visit Nova The Minister subsequently made the Scotia, and would then look into the matter. promised visit, and then declined to act in the matter. At this time the line was rapidly approaching completion, and the Manager, failing in his endeavours to obtain arrangements for the exercise of the powers, entered into a temporary arrangement with the then General Superintendent of the Government Railways, for the interchange of traffic. This arrangement, it was distinctly understood, was to be provisional only. Your memorialists need hardly say, that these running powers are essential for the accommodation and development of the through traffic; without such powers, your memorialists

<sup>†</sup>These words do not appear in the printed version, contained in N. S. Statutes 1966, Cap. 4, pages 7 and 14, but see contract Nov. 22, 1866.

are quite unable to make the arrangements necessary for the development of that traffic. upon which the success of the Windsor and Annapolis Railway must always largely depend.

Secondly, They have imposed upon your memorialists the payment of duties upon materials and stores imported for the working of the railway, in direct violation of the

provisions of clause 9 of the Agreement, which provides -

"That all materials and stores required for the construction and working of the rail-"way shall be entitled to a drawback of the amount of import duties paid thereon."

Thirdly, They have allowed your memorialists to be assessed for local taxes, from which your memorialists, as owning a Public Provincial Work, were to be exempt, under the Revised Statutes of Nova Scotia of 1864, 28 Vic., Cap. 45, Section 16, which pro-

"The following property shall be exempt from taxation:—The Provincial Peniten-"tiary, and the lands attached thereto; the Provincial Lunatic Asylum, and the "lands attached thereto; the Provincial Railway, rolling stock, and railway stations, "and lands attached thereto, or to the railway."

Your memorialists having submitted this question to the Attorney General of the Pro-

vince of Nova Scotia, they beg to quote from his opinion, as follows:-

"That the section is a Public or Provincial Railway is perfectly obvious," and again "to render it clear beyond a dispute that the section is a Provincial Railway "and Public Work, the Statute of 1865 expressly provides that the Government "shall at any time take the road entirely into their own hands. As long, therefore, "as the Company are allowed to hold, manage, and operate the railway, it must be "considered and looked upon as a Provincial Railway, in the hands and possession "of a private company or corporation, who, in consideration of what they have con-"tributed towards its construction, are allowed to have the management of it, and "to receive the profits or earnings of it to their own use, subject, however, at any "time, to hand it over to the Government, upon receiving reasonable compensation "for their outlay in its construction, and other claims upon the property. "light it may be viewed as a Public Railway in the hands of a private corporation, as "(quasi) lessees under the Government."

Fourthly, They have failed to comply with the provisions of clause 7 of the Agreement,

which provides-

"That all lands required for the railway track and appurtenances shall be provided "'gratis,' 'as under the provisions of section 11, chapter 70 of the Revised Statutes'

(already quoted.)

Your memorialists have in one case been sued for a large amount, and have in several instances been threatened with expulsion from the land taken for the railroad, involving them thereby in considerable litigation and expense. Your memorialists have, further, never received the land required by them at their Windsor station, although they have, with a view to relieve the Government of expense, agreed, at their request, to receive other lands now in the possession of the Government there, which are, in your memorialists' opinion, inferior for their purpose to those originally scheduled by them.

Fifthly, They have failed in several respects to comply with the provisions of clause 6

of the Agreement, which provides

"That for the subvention," 'capitalized at the agreed sum of £188,600, sterling,' "the Provincial Bonds, or Debentures, issued in the ordinary form, bearing 6 per cent. "interest, shall be delivered at par to the parties of the second part (viz.—the Contractors,) "or the assignees or nominees; but such Bonds shall only be delivered with the coupons "attached bearing interest from the preceding 1st of January or 1st July, as the case "may be prior to such delivery: such delivery to the said parties shall be within four-"teen days from the date of such certificate."

Your memorialists, almost immediately after they had commenced the work of construction, was informed that the Government would have to substitute cash payments for the Government Bonds. Your memorialists subsequently learned that the inability of the 34\_4

Government to issue the Bonds arcse out of a prevoius contract with the Messrs. Barings, of London. The payments were made in cash in lieu of bonds, and a large discount was moreover insisted upon, and deducted by the Government from the par value, Your memoralists deem themselves entitled, therefore, to receive from the Government the amount not only so deducted, but also of any premium obtained by them upon the Bonds. As the Bonds were to have carried interest as from the preceding first of January, or first of July, as the case might be, your memorialists were entitled to interest upon cash payments as from those dates to the dates of payment; but not only have your memorial ists not received such interest, but they have been still further prejudiced by the cash payments being in all cases delayed considerably after the stipulated time of fourteen days from the dates of the certificates.

Sixthly, That whilst your memoralists were bound, as they admit, to obtain the concurrence of the Government in the tolls to be charged by them, it could never have been intended that your memorialists should be charged a higher rate of tolls over the Government line than thus charged by the Government to the public. The fact is, however, that such has been the case for a considerable time past, your memorialists having been so surcharged in respect to cattle, horses, hay, &c., between the stations on the Annapolis road and Halifax, involving a loss of from 20 to 40 per cent. as between your memorial ists and the public. The result of this unjustifiable and arbitrary action of the Government representatives has been the total annihilation of an important branch of your mem-

orialists' trade, and great inconvenience of the public.

Seventhly and lastly, Your memorialists contend that the first object for which the railroad was designed, was the formation of a through route across the Province, for the traffic between Halifax and St. John; and they were, moreover, led to believe that the Government would support your memorialists' efforts to induce such traffic to follow that route. Your memorialists are therefore both disappointed and alarmed to find that a line of steamers between Halifax and St. John, direct, and another line of steamers between Windsor and St. John, have been put on under subsidies granted by the Government. Your memorialists believe that the Government can hardly be aware of the fact that the subsidies received by the first mentioned steamers, viz. :--of \$13,000 per annum, are more than sufficient to defray the total cost of their working, and that they, consequently come most unfairly into competition with the Windsor and Annapolis road, to the serious detriment and loss of your memorialists. In the case of the last mentioned steamer, the subvention of from \$3,000 to \$4,000 is nearly equal to the total amount paid to your memorialists for the carriage of the mails and Government stores, including a provision of special postal cars run upwards of fifty thousand miles in the year.

19. And, finally, your memorialists, believing in the just and equitable Prayer of intentions of the Government, humbly ask for such redress as the circumstances Memorialist.

of your memorialists' peculiarly hard case warrant.

Your memorialists urge most strongly that the Government are bound in honor and in fairness,

To put in force the powers of purchase conferred upon the Government by clauses 7, 8, and 10 of the Act of the Local Legislature of Nova Scotia; Session 1865, 28 Vic., Cap. 13.

And this your memorialists claim.

Your memorialists, however, venture to submit that, if from any reasons of State of of policy, a compliance with your memorialists claim be deemed impracticable, then substantial redress should be made to them, either-

(1) By conveying or transferring to your memorialists the railroad between Windson and Waverley Junction, forming, as that does, a part of the Annapolis section of the railroads of the Province, and which the Act of 1864 clearly anacted should be worked together with the road from Windsor to Annapolis under one manage

(2) By making all requisite arrangements to permit of your memorialists exercising free and unrestricted running powers over the Government line between the sid Waverley Junction and Halifax, including the use of all stations and conveniences now or hereafter to be erected in Halifax.

(3) By granting fair compensation to your memorialists for the loss and damage

caused by the past action of the Government; and

(4) By granting to your memoralists such an annual grant as will be sufficient, together with the net annual income of such combined railroads, to pay the interest upon the fixed and floating debts of the Windsor and Annapolis Railway, and a fair return upon the capital embarked by your memorialists; or

(1) By leasing the Windsor and Annapolis Railroad from your memorialists upon payment of such a fixed or increasing annual rent as will provide for the interest upon the Debenture and floating debts, and give your memorialists a fair return

on their capital; and

(2) By granting fair compensation to your memorialists for the loss and damage caused by the past action of the Government.

And your memorialists will ever pray, &c., &c.

The Windsor and Annapolis Railway Company, Limited, Under the hand of their lawfully constituted Commissioner and Attorney.

JAMES ALEXANDER MANN.

Halifax, July, 1871.

(No. 2,901.)

THE RUSSELL HOUSE,

OTTAWA, 27th July, 1871.

Windsor and Annapolis Railway Co's. Memorial.

My Dear Sir,—As confirmatory of the views taken by my friends in London, I think it right to mention that I have just received a telegram from the manager, stating that the appeal upon the question of the liability of the railway to taxation has just been given in our favor. The Judges deciding unanimously that the Railway is a Public Provincial work, and as such, exempt from taxation.

Yours faithfully; (Signed,)

J. A. MANN.

The Honorable H. Langevin. &c., &c.

(No. 1,6021.)

#### Memorandum:

The undersigned has the honor to report, that it is not expedient to purchase the Windsor and Annapolis Railway under present circumstances; the undersigned is not prepared to ask Parliament to put a vote of money at the disposal of Government for that purpose. That the conveyance and transfer of the railroad between Windsor and Waverley Junction to the Windsor and Annapolis Railway, would be contrary to the policy of Government as sanctioned by Parliament, and could not be effected without an Act of Parliament, which the undersigned would object to diminishing the value of the Intercolonial Railway. That the said Company have, by their Charter, no right to any grant of money from the Government or Parliament, and the Government have no vote of money for such a purpose. The undersigned therefore recommends that he be authorized to make with said Company the traffic arrangements including "running powers"

mentioned in the Charter of said Company, and for that purpose to appoint any officer or arbitrator required by said Charter, should the Company and the undersigned be unable to make the traffic arrangements without arbitration.

The whole respectfully submitted.

(Signed,)

HECTOR L. LANGEVIN.

(2.916.)

Copy of a Report of a Committee of the Honorable the Privy Council, dated 28th July, 1871.

On a memorandum, dated 28th July, 1871, from the Honorable the Minister of Public Works, reporting upon the memorial of James Alexander Mann, Esq., Commissioner and Attorney of the Windsor and Annapolis Railway Company, that it is not expedient to purchase the said railway under present circumstances, and that he is not prepared to ask Parliament to place a vote of money at the disposal of the Government for that purpose.

That the conveyance and transfer of the railroad between Windsor and Waverley Junction to the Windsor and Annapolis Railway Company would be contrary to the policy of the Government as sanctioned by Parliament, and could not be effected without

an Act of Parliament.

That the said Company have, by their Charter, no right to a grant of money from the Government or Parliament, and the Government have no vote of money for such a

purpose.

The Minister therefore recommends that he be authorized to make with the said Company the traffic arrangements, including running powers, mentioned in the Charter of said Company, and for that purpose to appoint any officer or arbitrator, required by the Charter of the Windsor and Annapolis Railway Company, should the Company and he, the Minister of Public Works, be unable to make those traffic arrangements without arbitration.

The Committee submit the foregoing recommendations for Your Excellency's approval.

Certified.

WILLIAM H. LEE,

Clerk, Privy Council.

The Honorable the Minister of Public Works.

(No. 2,920.)

OTTAWA, 1st August, 1871.

SIR,—I. I have the honor to acknowledge receipt of your letter of this date, from which I learn with regret that the Dominion Government decline to accede to the prayer of the Windsor and Annapolis Railway Company excepting only as to so much thereof as relates to the running powers conferred upon them under their agreement with the Government of the Province of Nova Scotia.

II. I need hardly say that the Company will be very much surprised and disappointed at this decision of the Dominion Government, and unless the Provincial Government recognize the moral and legal obligations now repudiated by the Dominion Government, I am afraid the Company will not consider themselves bound to continue to work the line. The Company are extremely anxious to avoid closing the line, causing, as it would, much inconvenience and less to the people of Nova Scotia and New Brunswick, and will therefore await the decision of the Provincial Government with much anxiety.

III. I observe that, so far as concerns the claims for compensation, &c., preferred by the Company, the decision of the Dominion Government is only general, and, at the risk of being deemed troublesome, I venture to ask if it is intended to repudiate the whole of these claims upon their merits—In order that I may not misunderstand the intention of the Dominion Government on this point, I recapitulate the claims put forward by the Company, which are as follows:—

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1. For compensation in respect of loss and damage occasioned by the past refusal of the Dominion Government to allow the Company to exercise the rights and privileges conferred upon them under clause 11, of the agreement of 22nd November, 1866.

2. To have refunded to them the duties (together with interest thereon) and upon certain materials and stores imported by them for the construction and working of the railway—and to have allowed to them, in terms of clause 9 of the said agreement, a drawback of all duties upon all stores or materials hereafter to be imported by the Company for either of such purposes.

3. To have paid to them interest upon the principal payments made under clause 6 of the said agreement, as from the dates from which such payments would, if they had been made in Provincial Bonds, in terms of such agreement, have carried interest and

dividends until the date of actual payment.

4. To have paid to them all such sum or sums (together with interest thereon as before stated) as were deducted by the Government from the par value of such Provincial Bonds.

5. To have conveyed to them free of charge, in terms of clause 7 of the said

agreements, certain lands required for the railway track and stations.

6. To have conveyed to them free of charge, also in terms of the said agreement, a parcel of land at or near Windsor, and now in possession of the Dominion Government, and which it was specially agreed with and enacted by the Legislature of the Province of Nova Scotia, should be so conveyed to the Company.

7. To be reimbursed all loss and expenses incurred by the Company in respect of the acquisition of the lands required for the railway, and which were, under clause 7 of the

said agreement, to be conveyed to the Company free of charge."

8. To be re-imbursed all loss, damages and expenses, incurred by the Company, in consequence of the Dominion Government charging the Company a higher rate of toll on certain traffic, (to wit, in cattle and horses, hay, &c.,) conveyed over the line between Windsor and Halifax, or some part or parts thereof, than charged to the general public.

9. To be compensated in respect of direct and incidental damages arising out of the subsidizing of steamers by the Government in contravention of the spirit and intention

of the Acts and agreement framing the basis of the Company's proceedings.

IV. As to that portion of your letter, which states that the Government have no funds applicable for the purposes of the Company, I apprehend that it is not intended that the Ministers of the Government would for that reason decline to acknowledge any just claim upon the State, even though it might be necessary afterwards to obtain a vote

of the Legislature for the purpose of discharging it.

V. As the Company must now, of course, proceed to memorialize the Legislature of the Province of Nova Scotia, with whom the contract was originally made, it becomes important that the Company should understand clearly how far the Dominion Government claim the rights and acknowledge the obligations originally conferred upon the Provincial Legislature, under the Acts and the Agreement framing the basis of the understanding with the Company. From the conversation which I had with the Honorable the Minister of Public Works, I am led to believe that the Dominion Government claim to have the right, and acknowledge the obligation, to deal only with those questions directly affecting the Customs Sevenue, and the railways taken over by them, which would, I assume, only include the claims before referred to, under the Numbers 1, 2, 6, and 8, and would leave the claims numbered 3, 4, 5, 7, and 9, to be dealt with by the Provincial Government, whilst the right of purchase under clauses 7, 8 and 10, of the Act of the Provincial Legislature of 1865, and the power of controlling the rate of tolls to be charged by the Company to the public, under clauses 3 and 8, of the agreement of 22nd November, 1866, would, so far as they may now remain in force, also vest in the Provincial Government, and I beg to ask the decision of the Dominion Government on these points.

VI. I am prepared, on behalf of the Company, and am moreover anxious to meet any

representative whom the Government may appoint, with a view to deal with the matter under Clause 11 of the said agreement, which, I would point out, are not confined exclusively to a traffic arrangement including "running powers," but also extend as an alternative to a joint operation of the two lines.

In the interim of course the Company continues to suffer direct loss from the delay which the Dominion Government have created, and it must of course be understood that the Company's claim for compensation is not to be prejudiced by any action of such representatives unless such matter of compensation be also submitted to them for their decision.

VII. I cannot conceal from myself the difficulty of the Company and the Government together working the traffic efficiently over so long a length as 45 miles of single line, unless the Government complete their line by the erection of the proper locking apparatus and signals, the construction of the proper slidings and passing places, and the appointment of signalmen at the proper points; but being sincerely anxious to avoid trouble, and to make the most of the two lines, in doing which I feel that I shall save the interests not only of the Company and the Dominion Government, but also of the people of the Province, I am prepared, as a further effort in the interests of peace, to offer, on behalf of the Company, to lease, work, and maintain the Government line and appurtenances from the Junction with the Company's line at Windsor to the Waverley Junction, for the period of 99 years, and to pay over to the Dominion Government, by way of rental, annually, a sum equal to ten per cent of the gross tolls earned upon the line, and for the exercise of unrestricted running powers over the remaining portion of the Government line from such Waverley Junction into Halifax, including any extensions thereof to be hereafter constructed, to pay by way of toll annually a sum equal to forty per cent of the gross tolls earned by the Company upon the line. Such payment of forty per cent to include the use of all stations and of all conveniences, and a share of the services of the station agents, booking clerks, and other servants employed by the Government at the stations, depots, and junctions.

VIII. Assuming as I do that the above offers will be acceptable, and that the views taken by me of the responsibility of the Dominion and Provincial Governments respectfully are correct, I would even venture further and offer the the claims of the Company before referred to under the heads numbered 1, 2, 6 and 8 shall, so far as the Dominion Government may decline to admit them, also be submitted to and be finally dealt with by such arbitrators or umpire, reserving only to the Company the right to prefer their claims under the heads numbered 3, 4, 5, 7, and 9, together with their request for general aid

and assistance against the Provincial Government.

IX. In conclusion, I would remark that the claims of the Company have now been before the Government at different periods throughout the past eighteen months, and as I am here at great inconvenience to myself and expense to the company, wholly and exclusively for the purpose of adjusting these matters with the Dominion Government, I venture to ask for a specific and early reply to the several questions submitted and propositions made in this letter, and to state that I will remain in Ottawa until I receive such reply.

I am, Sir,

Your obedient servant,
J. A. Mann,
Commissioner and Attorney of the Windsor and
Annapolis Railway Company, Limited.

F. Braun, Esq., Secretary,
Department of Public Works,
Canada.

(No. 1,617.)

### DEPARTMENT OF PUBLIC WORKS,

OTTAWA, August 8th, 1871.

SIR,—With reference to your reply, dated the 1st instant, to my letter of same date, I have the honor to state, that by Order in Council of the 28th ultimo, the Minister of Public Works is "authorized to make with the said Company the traffic arrangements," including running powers, mentioned in the charter of the said Company, and for that "purpose to appoint any officer or arbitrator required by the charter of the Windsor and "Annapolis Railway Company, should he and the said Company be unable to make those "traffic arrangements without arbitration." I am now to inform you that with the view of carrying out the terms and object of the Order in Council above referred to, in a friendly practicable manner, and so as to avoid, if possible, having recourse to arbitration, the Minister of Public Works has appointed Sandford Fleming, Esq., Chief Engineer of the Intercolonial Railway, to confer with the Company, or its authorized agent, on the subjects referred to, with instruction to report to him, the Minister, in regard to the arrangements which the Company will agree to make with the Government concerning "traffic arrangements" and "running powers."

I have the honor to be, Sir,

Your obedient servant,

(Signed.) F. Braun,

Secretary.

J. A. Mann, Esq.,

Commissioner and Attorney of the Windsor and Annapolis Railway Company, (limited) Kentville, N. S.

(No. 1,623.)

DEPARTMENT OF PUBLIC WORKS,

OTTAWA, August 11th, 1871.

Sin,—I have the honor to inform you that with the view of carrying out the terms and object of an Order in Council, bearing date the 28th ultimo, copy of which is herewith transmitted, the Hon. Minister of Militia and Defence, acting in the absence of the Minister of Public Works, has appointed you to confer with the Windsor and Annapolis Railway Company, or with its authorized agent, and to report on the arrangements to be made under the authority of the said Order in Council.

In order to avoid, if possible, a recourse to arbitration, you will please examine and report to this Department what understanding and agreement can be arrived at with the Windsor and Annapolis Railway Company concerning the traffic arrangements, including "running powers" mentioned in the charter of the said Company, and in the agreement or contract dated the 22nd of November, 1866. In addition to the papers herewith transmitted, numbered in the margin, I beg to refer to the following:—Statutes of Nova Scotia for 1867, cap. 36, section 6, 7 and 11; 1866, cap. 1, section 7; 1865, cap. 13.

I am further to inform you that James A. Mann, Esq., Commissioner and Attorney of the Windsor and Annapolis Railway Company, whose present address is at Kentville, Nova Scotia, has been advised of your appointment.

I have the honor to be, Sir,

Your obedient servant,

(Signed,) F. BRAUN,

Secretary.

Sandford Fleming, Esq., Chief Engineer, Intercolonial Railway, Ottawa, (No. 2,946.)

## WINDSOR AND ANNAPOLIS RAILWAY, KENTVILLE, 14th August, 1871.

Sir,—I have the honor to acknowledge receipt of your letter of date 8th inst., informing me in reply to my letter of the 1st inst., that Sandford Fleming, Esq., the Chief Engineer of the Intercolonial Railway, has been appointed to confer with me, with a view to reporting to the Minister in regard to the arrangements which the Company will agree to make with the Government concerning "traffic arrangements" and "running powers."

In reply, I have to state that I shall have much pleasure in meeting Mr. Fleming at

any time or place he may appoint.

I cannot but feel disappointed, however, to observe that your letter makes no reference to the very liberal offer which I made in the 7th paragraph of my letter of the 1st inst., viz., to lease the line between Windsor and Waverly Junction, and to pay for running powers between the latter place and Halifax, but I trust that Mr. Fleming will have been instructed to consider and report upon that offer.

It is a matter of surprise to me also that your letter further fails to reply to the other important enquiries and propositions made in my letter, especially those conveyed in paragraphs 3, 4, 5, 7 and 8, wherein I ask whether the Dominion Government repudiate the claims preferred by the Company upon their merits, and whether the Dominion Government admit their liability, assuming the claims to be well founded, and wherein I offer to submit the claims to arbitration.

As I have before observed, it is a very serious hardship that the Company are unable

to obtain the attention of the Government for these matters.

It would probably be more regular if I were to await a definite reply from the Government to the proposition I have already had the honor to lay before them, before venturing to make any further overtures, but the pressure of circumstances is such that I am compelled to break through the ordinary rules, and I now venture to supplement the offers previously made, by submitting the following proposition, with a view of settling all the difficulties between the Company and the Governments, viz:—

"Heads of proposed arrangement between the Company and the Governments of the

"Dominion, of Nova Sectia, and of New Brunswick:

"I. Dominion and Nova Scotia Governments to settle between themselves the question as to which is liable in respect to the claims of the Company for compensation, &c., "In the event of those claims proving to be valid, the claims to be submitted to arbitration.

"2. Company to have a lease of the Government line from Windsor to Waverley Junction, and running powers into Halifax, on terms of Mr. Mann's letter of 1st of August. Representatives of the Company and of the Government to settle the mode of working.

3. "The Company to put on a line of first-class Clyde-built ocean-going steamers" between Annapolis and St. John, running them at least once a day each way, and to "run express trains between Halifax and Annapolis, so that the entire journey from "Halifax to St. John shall not occupy more than 8½ hours.

"4. Governments together to grant the Company a subsidy of £12,500 sterling per

"annum, say in the following proportions.

"£5,000 by the Dominion Government. "£5,000 by the Nova Scotia Government.

"£2,500 by the New Brunswick Government.

"5. The Company to clear itself from liabilities,—1st, by converting its debenture debt into a 5 per cent perpetual debenture stock. 2nd, by paying off or converting into capital all its existing floating debts. 3rd, by providing the capital for the boat service before mentioned, and further, to undertake not to incur any further capital debts."

This arrangement, I feel sure, will commend itself to the attention of the Dominion Government. It will have the effect-

1. Of settling all questions between the Company and the Government amicably.

2. Of clearing the Company of all debt and difficulties, so as to preserve to the public the fullest benefits to be derived from the road, and

3. Of providing a swift, commodious, and reliable means of communication between

St. John and Halifax.

In conclusion, I have to add that I have submitted the proposition to the Governments of Nova Scotia and New Brunswick, and I beg you to submit this letter for the early consideration of the Hon. the Minister administering the Public Works Department in the absence of the Hon. the Minister of Public Works.

I have the honor to be, Sir,

Your obedient servant,

(Signed) J. A, MANN,

Commissioner and Attorney of the Windsor and Annapolis Railway Company, (Limited).

F. Braun, Esq.,

Dept. Pub. Works, Ottawa.

(No. 2,965.)

Halifax, N. S., August 28th, 1871.

Telegram.

Sandford Fleming and Mann have agreed on running power between Halifax and Windsor Company, to give Dominion one-third gross receipts. Would there be any chance of Acting Minister recommending this at once, as Mann wants to leave. The promise of recommendation might answer without any Order in Council. It will be a pity to hang this up if it can be avoided.

(Signed,) F. HINCKS.

To F. Braun.

(No. 1,611.)

DEPARTMENT OF PUBLIC WORKS,

OTTAWA, August 1st, 1871.

Sir,—I have the honor to acknowledge the receipt of your letter of the 26th July ult., and memorial on behalf of the Windsor and Annapolis Railway Company, praying

for State relief in either one of the several ways therein specified.

With respect to the first of these modes, viz., to put in force certain powers of purchase conferred upon the Government by clauses 7, 8 and 10 of the Statutes of Nova Scotia, 28 Vic., Cap. 13, (1865) I am to inform you that the Government of Canada do not think it expedient under present circumstances to purchase the Windsor and Annapolis Railway.

The second proposition, which is to convey or transfer to the memorialists that portion of the Government Railways in Nova Scotia operating between Windsor and Waverley Junction cannot be entertained; for besides being in contradiction with the Railway policy sanctioned by Parliament, such consequence or transfer would be impossible

without special legislation.

The propositions which involve grants of the public money, as compensation or otherwise, are also inadmissable; for which it does not appear that the Windsor and Annapolis Railway Company have under their charter any right to compensation. is no fund at the disposal of the Government of Canada for affording them relief.

Having reference to the 3rd mode of relief stated in the memorial, that "running  $34_{-5}$ 

powers" be granted over the Government line at Halifax, including the use of stations and conveniences now or hereafter to be erected in Halifax, I have the honor to inform you that His Excellency the Governor General in Council has authorized the Minister of Public Works to make the traffic arrangements, including "running powers" mentioned in the charter of the Windsor and Annapolis Railway Company, and to appoint any officer or arbitrator for that purpose, required by the said charter, should it prove impossible to conclude the said traffic arrangements without arbitration.

I have the honor to be, Sir,

Your obedient servant, (Signed,) F. Braun, Secretary.

J. A. Mann, Esq., Russell Hcuse, Ottawa.

(No. 1,639.

August 30th, 1871.

Sir George Cartier will recommend adoption of agreement so soon as Mr. Fleming's report is sent. Mr. Mann may leave.

(Signed,)

F. Braun, Secretary.

Sir Francis Hincks, Halifax.

(No.  $1,647\frac{1}{2}$ .)

OTTAWA, September, 21st, 1871.

That so soon as Mr. Fleming has reported, matter will be submitted to Council, and that Mr. Fleming has received instructions to confer with him.

(Signed,) GEORGE Et. CARTIER, Acting Minister of Public Works.

J. A. Mann, Esquire, Halifax.

(No.  $1,648\frac{1}{2}$ .)

OTTAWA, September 4th, 1871.

You are under misapprehension. Fleming's report must be submitted for approval by Council; will leave this evening for Ottawa. Since your last visit to Ottawa, all due diligence was made in your railway matter. Government not responsible for any delay. Very sorry you have to delay your departure.

(Signed,)

GEORGE Et. CARTIER, Acting Minister of Public Works.

J. A. Mann, Esquire, Halifax.

(No. 2,999.)

HALIFAX, N.S. vid OTTAWA,

September 1st, 1871.

It appears that no one has any authority to arrange running powers with me. Pray instruct Fleming. I am very anxious, too anxious, not to waste any more time here.

(Signed)

J. A. MANN.

To Sir G. E. Cartier, Montreal.

(No. 1,654.)

September 8th, 1871.

As suggested in your telegram to Sir Francis Hincks, Taylor is instructed to come here.

(Signed,)

F. BRAUN,

Secretary.

Sandford Fleming, Esq., Halifax.

(No. 3,002.)

HALIFAX, N.S., Sept. 4th, 1871.

[Telegram.]
Your telegram received. Fleming posted his report last Tuesday. I venture to hope that you will not think it necessary to delay the matter for the meeting of another Council. You informed me the Council had already empowered you to conclude arrangement. I have been here now more than two months, and am most anxious to get away by the steamer leaving on Saturday morning, not only for personal grounds, but also to enable me to make the necessary financial arrangements to give effect to the arrangement. Pray empower Fleming by telegraph to conclude the arrangement with me at once.

(Signed,) J. A. Mann.

To Sir George Cartier, Montreal.

(No. 3,011.)

Halifax, Sept. 5th, 1871.

[Telegram.]

I meet with no attention here, but plenty of frivolous objections. The line must be closed unless the Company get their rights. I leave for Ottawa to-morrow to make a last effort.

(Signed,)

J. A. Mann.

To Sir George Cartier, Ottawa.

(No. 1,656.)

September 13th, 1871.

[Telegram.]
Your report concerning agreement with Mr. Mann not yet received. When may it be expected?

(Signed,)

F. Braun, Secretary.

S. Fleming, Esq., Halifax.

(No. 3,026.)

WEST CHESTER, N.S., 14th Sept. 1871.

[Telegram.]

My report was prepared a week ago; fear some bungling with mail: however, Taylor has copy; he should reach Ottawa to-morrow. I am now going over Intercolonial. If Sir George wishes will go direct to Ottawa, leaving Shediac by steamer to-morrow. Answer to Amherst to-night.

(Signed,)

To F. Braum, Ottawa.

Sandford Fleming.

(No. 3,028.)

HALIFAX, N.S., Sept. 14th, 1871.

[Telegram.]

No concessions should be made to Mann, which are not well considered; mistakes may lead to great embarrassment here.

(Signed,)

Jos. Hove.

To Minister of Public Works, Ottawa.

(No. 3,030.)

1349

1403

 $\frac{1553}{2053}$ 

2360

 $2404 \\ 2417$ 

2895

2920

1611 1617 INTERCOLONIAL RAILWAY,

OFFICE OF THE CHIEF ENGINEER,

HALIFAX, Sept. 7, 1871.

SIR,—I have the honor to reply to your communication of August 11th.

I received your letter on the 18th August. On that day I discovered that Mr. James A. Mann, the authorized agent of the Windsor and Annapolis Railway Company, was in this city. I immediately called upon him, and stated to him that the Acting Minister of Public Works had instructed me to examine and report what understanding and agreement could be arrived at concerning traffic arrangements, including "running powers" mentioned in the charter of said Company, and in agreement or contract dated the 22nd of November, 1866.

After some discussion with Mr. Mann, in presence of Mr. Taylor, Superintendent of the Nova Scotia Railways, he stated that the proposal made by him in clause 7 of a letter addressed to you, and dated August 1st, embraced the only terms which the Annapolis Railway Company would accept, and that unless they were granted by the Government, he would positively close

the line within two weeks.

It became my duty to report this as the ultimatum of the agent of the Annapolis Railway Company, but I hesitated before doing so, in the hope that he would come to terms which the Government could concur in.

Subsequently, after repeated interviews, alternative proposals were discussed, and Mr. Mann drew up an agreement between the Government and his Company, which enclosed the modified terms which he said his Company would accept. I enclose this proposed agreement, marked A:

I considered it my duty to submit this document to the Superintendent, Mr. Taylor, before reporting to you, so that I might at the same time apprise you of his views respect-

ing it.

Mr. Taylor offered very strong objections to many of the clauses, and as Mr. Mann has left the city for Ottawa, I considered it advisable to enter fully into the subject with Mr. Taylor, and endeavor to prepare an agreement which, while meeting Mr. Taylor's objections, would he fair and reasonable, and embrace all the essential points stipulated for by Mr. Mann in connection with "traffic arrangements" and "running powers" be-

tween Halifax and Windsor. See the enclosed paper, letter B.

In the latter document I have endeavored to arrange the terms proposed in plain language, free from all ambiguity, and I have discarded the clauses inserted by Mr. Mann for the exchange of rolling stock, and for the booking and transmission traffic by the Annapolis Company over the Intercolonial Railway. Both may be expedient in the course of time, but they do not appear to have any direct connection with the question of "running powers" between Windsor and Halifax, and as they only complicate the subject nuder discussion, it would be better to deal with them separately; there can be no possible urgency about arrangements for transmission of traffic over the Intercolonial Railway until that work be completed.

The only amount remaining to be referred to is the amount which should be paid by the Company to the Government for the use of the Windsor Branch and the Trunk Line. Mr. Mann proposes one-third of gross earnings; this, I apprehend, with good management, would be sufficient to meet the expenditure to be undertaken by the Government in maintaining the railway and works, and in order to give the Company every reasonable assistance and advantage, it may be advisable to accept this for a year or two. I would therefore recommend an agreement to be entered into for, say three years—if at the end of that time the amount received by the Government appears inadequate, a revision of the agreement may be made on more equitable terms.

The agreement now proposed would, if adopted, give to the Annapolis Railway Company not only "running powers" into Halifax, to which they are entitled, but entire control of all the traffic of the District west of Halifax and the Trunk Line, with every

opportunity of developing their business to the fullest possible extent.

I return the papers numbered on the margin.

I am, Sir,

Your obedient servant,

(Signed),

SANDFORD FLEMING, Chief Engineer,

Intercolonial Railway.

F. Braun, Esq.,

Secretary Public Works, Ottawa.

(Extract from No. 3,030.)

#### B.

Agreement between the Windsor and Annapolis Railway Company, Limited, and the Government of Canada.

1. The several expressions hereinafter referred to, shall when used in this agree ment, have the signification and meaning following:—

Expression,—Signification or meaning.

The Company,—The Windsor and Annapolis Railway Company, Limited.

The Authorities,—The Department of the Government of Canada, which for the time-

being, shall have the command or control of the Nova Scotia Railway.

The Trunk line,—So much of the Nova Scotia Railway with the branches, appurtenances, buildings and conveniences thereto belonging or attached, as lies between the terminus at Halifax and the Windsor Junction (both inclusive), together with any extensions into Halifax hereafter to be made.

The Windsor Branch,—So much of the Nova Scotia Railway with the branches, buildings and appurtenances and other conveniences thereto belonging or attached, as lies between the said Windsor Junction and the Junction of such Railway with the

Windsor and Annapolis Railway, at or near Windsor.

The Superintendent,—The Superintendent or other Officer for the time being, managing

the Windsor and Annapolis Railway.

The Manager, The General Manager or other Officer for the time being, managing the

Windsor and Annapolis Railway.

2. The Company shall, except for the purposes of the authorities in maintaining the railway and works, have the exclusive use of the Windsor Branch, with all station accommodation, engine sheds and other conveniences (but not including rolling stock and tools for repairs), now in use thereon.

3. The Company shall also use, to the extent required for its traffic, the Trunk Line with the station accommodation thereon, including engine shed. accommodation for five engines, water supply, fuel stages, turn tables, signals, telegraphs, wharves, sidings and other conveniences, but not including machine shops and other shops, buildings and appliances for repairs of rolling stock.

4. The Company shall run every day, Sundays excepted, between Halifax and Windsor, not less than two trains each way carrying passengers, and shall adopt the same

tolls as at present levied, or such other tolls as may from time to time be approved of by the Governor in Council, and shall furnish and maintain its own rolling stock.

The authorities shall maintain in workable condition the Windsor Branch and the Trunk Line, including all the station accommodation and other conveniences thereon.

6. The Company shall on the Windsor Branch employ their own station agents, booking clerks, watchmen, porters, signalmen, switchmen, and other servants for the management of the traffic.

7. The authorities shall, on the Trunk Line, employ all station agents, booking clerks, watchmen, signalmen, switchmen and other servants, not provided by the Company

under clause 17.

8. The Company shall not, except with the concurrence of the authorities, carry any local traffic between stations on the Trunk Line; but if so carried, they shall charge the same tolls as may be charged by the authorities.

9. The Company shall keep and render to the superintendent, an exact detail account

of all the traffic carried by them over the Windsor Branch and the Trunk Line.

10. The Company shall pay to the authorities monthly, one third of the gross earnings from all traffic carried by them over the Windsor Branch and the Trunk Line.

11. All accounts between the authorities and the Company under this agreement, shall be adjusted regularly at the end of each calendar month, and the balance struck and paid over in cash not later than twenty-one days after the end of each month.

12. The authorities and the Company, respectively, shall at all reasonable times have access to and be allowed to inspect all such books, papers and vouchers in the possession

of the other of them as have reference to the accounts between them.

13. All regular trains on the Windsor Branch and Trunk Line, shall be run in the usual way by time table, which time table shall, in respect to the Trunk Line, be prepared by the Superintendent, on consultation with the Manager. The Superintendent shall arrange for the arrival and departure of the trains of the Company, at the times desired by the Manager or as near thereto as practicable, and in this respect and in every other respect, the Superintendent, the Officers and servants of the authorities, shall conduct the business and work the traffic of the Company and of the authorities with perfect impartiality and fairness.

14. With respect to special and irregular trains, in order to ensure public safety, the Company shall use the Trunk Line in strict accordance with such rules and regulations as are now in use, or as may hereafter be adopted and inforced by the Superintendent; similar rules shall also be adopted and enforced by the Manager on the Windsor Branch, as far as necessary, for the guidance of officers and men engaged in maintenance of the

railway.

15. The speed of the Company' strains on the Trunk Line and Windsor Branch, shall not exceed the speed adopted by similar, on the Government Railways in Nova Scotia.

16. The station agents and other servants of the authorities at Windsor Junction, shall receive, and as far as practicable, carry out the instructions of the Manager in regard to the arrival and departure and working of the Company's trains from or to the Windsor Branch, and he or they shall record in a book, to be kept for that purpose, the numbers and particulars of all engines, carriages, trucks, cars or other vehicles passing through such Junction, and shall make a return of the same daily to their respective owners.

17. The Company shall employ on the Trunk Line their own booking clerks, carting agents, carting staff or such other staff as they may deem necessary for the booking, collecting, checking, invoicing, receiving, delivering or forwarding their own traffic; and the authorities shall, so far as practicable, provide suitable and convenient accommodation for

such servants, and for the accommodation of such business.

18. The Company in using the Trunk Line, shall at all times observe the regulations and by-laws for the time being in force thereon, and the authorities in using the Windsor Branch tor the purpose of repairing and maintaining it, shall at all times observe the regulations and by-laws for the time being in force thereon.

19. In the event of Company failing to operate the railway between Halifax and

Annapolis, then this agreement shall terminate, and the authorities may immediately proceed to operate the railway between Halifax and Windsor, as they may deem proper and expedient.

20. The termination of this agreement under the preceding clause, is not to prejudice

any rights which the Company may now have.

21. This agreement shall take effect on the first day of January, 1872, and continue for twenty-one years, and be then renewed on the same conditions or such other conditions as may be mutually agreed to.

The above agreement as to running power approved, subject to the insertion of the

words "thirty per cent." in lieu of "one third," in clause 1.

Windsor and Annapolis Railway Company suit, pro. their attorney and Commissioner.

(Signed,)

J. ALEX. MANN.

The above is the proposed agreement marked "B" in my report, dated 7th September, to Secretary Public Works, amended in consultation with Mr. Carvell, as a compromise to meet objections urged by Mr. Mann, and now submitted for the consideration of the Government.

(Signed,) SANDFORD FLEMING, Chief Engineer, Intercolonial Railway.

OTTAWA, 21st September, 1871.

To compromise the differences between "the Company" and "the authorities," I can see no reason why the foregoing agreement should not be sanctioned. It may involve additional traffic accommodation at Halifax, but that would probably have soon to be provided in any case.

(Signed,) L. CARVELL,
General Superintendent, Government Railway
in New Brunswick.

OTTAWA, 21st September, 1871.

(No. 1,667.)

DEPARTMENT OF PUBLIC WORKS, OTTAWA, September 16, 1871.

SIR,—I am directed to enclose herewith for your information, copy of an agreement between the Windsor and Annapolis Railway Company, Limited, and the Government of Canada, concerning "running powers," &c., prepared by Sandford Fleming, Esquire, and submitted for the consideration of the Minister of Public Works.

I have the honor to be, Sir,

Your obedient servant,

(Signed,) F. BRAUN,

Secretary.

James A Mann, Esquire,
Agent Windsor and Annapolis Railroad,
Ottawa.

(No. 3,030.)

OTTAWA, 18th September, 1871.

SIR,—I have the honor to acknowledge receipt of your letter, of date 16th instant, covering draft of running powers agreement prepared by Sanford Fleming, Esq., and submitted for the consideration of the Honorable the Minister of Public Works.

It is matter of surprise to me that after having met Mr. Fleming upon the Company's draft agreement, and having practically conceded all the alterations therein stipulated for by him, I should now be called upon to consider an entirely new form of agreement.

I have, however, given the new form of agreement my prompt consideration, and although it is not to my mind either too explicit or too complete as the original draft submitted on behalf of the Company, yet, being anxious to bring this protracted negotiation to an end, I am willing to approve of it, subject to the alterations made by me in red ink

upon the copy herein enclosed, and to the following observations.

I observe that the clauses which were inserted in the original draft as to the exchange of rolling stock and as to the interchange of traffic at Waverley Junction have been left. As to the first of these, I would remark that such a clause, although rather permissive than compulsory, is designed for mutual benefit. But apart from this consideration, it is possible that it might be a convenience to the Company to be allowed for a limited period to hire some of the Government Stock, which will, under the proposed arrangement, be released from the working of the Windsor Branch. As to the second, I shall be glad to hear that the Government will be prepared to enter at the consideration of a separate agreement for the interchange of traffic at Waverley Junction. This is essential for the development of the traffic of the two lines and for the convenience of the public.

Among the objections which were raised by Mr. Taylor, the Superintendent of the Nova Scotia Railways, was one which has not been provided for in the new form of agreement. I allude to the complications to arise if the Government servants work and manage the Company's traffic at some of the stations on the Trunk Line. As referring this objection for the consideration of the manager and the accountant of the Company, I find that they concur in it. In order to alleviate this difficult, I am willing to agree that the Company shall find them our booking clerks and carting staff, and attend to their own traffic at all the stations, provided a suitable concession be made in the toll to be paid by the Company; and the concession I ask is the reduction of the 33 per cent., or one third of the gross receipts, to an even 30 per cent, and I have inserted the necessary alterations in the agreement with this view.

It is very important to me and to the Company that there should not be any further delay in the settlement of this matter, and I hope, therefore, that the agreement as now

altered may be completed forthwith.

I have the honor to be, Sir,

Your obedient servant, (Signed.)

J. A. MANN.

F. Braun, Esquire,

Secretary Public Works Department, Ottawa.

Agreement between the Windsor and Annapolis Railway Company, Limited, and the Government of Canada.

1. The several expressions hereinafter referred to, shall when used in this agreement, have the signification and meaning following:—

The Company,—The Windsor and Annapolis Railway Company, Limited.

The Authorities,—The Department of the Government of Canada, which for the time being, shall have the command or control of the Nova Scotia Railway.

The Trunk Line,—So much of the Nova Scotia Railways, with the branches, appurtenances, buildings and conveniences thereto belonging attached, as lies between the

terminus at Halifax and the Windsor Junction (both inclusive), together with any extensions into Halifax hereafter to be made.

The Windsor Branch,—So much of the Nova Scotia Railway, with the branches, buildings, appurtenances, and conveniences thereto belonging or attached as lies between the said Windsor Junction and the junction of such railway with the Windsor and Annapolis Railway, at or near Windsor.

The Superintendent,—The Superintendent or other officer, for the time being,

managing the Nova Scotia railways.

The Manager,—The General Manager or other officer, for the time being, managing

the Windsor and Annapolis Railway.

2. The Company shall, except for the purposes of the authorities in maintaining the railway and works, have the exclusive use of the Windsor branch, with all station accomodation, engine sheds, and all other conveniences, but not including rolling stock and tools for repairs now in use thereon.

3. The Company shall also use, to the extent required for its traffic, the Trunk line, with the station accommodation thereon, including engine shed accommodation for five engines, water supply, fuel stages, turntables, signals, telegraphs, wharves, sidings, and other conveniences, but not including machine shops and other shops, buildings and appliances for repairs of rolling stock.

4. The Company shall run each week-day, between Halifax and Windsor, not less than two trains each way, carrying passengers, and shall adopt the same tolls as at present levied, or such other tolls as may from time to time be approved of by the Governor in

Council, and shall furnish and maintain its own rolling stock.

5. The authorities shall maintain in good working condition the Windsor branch and the branch line, including all the station accommodation and other conveniences thereon.

6. The Company shall, on the Windsor branch, employ their own station agents, booking clerks, watchmen, porters, signalmen, switchmen, and other servants for the management of the traffic.

7. The authorities shall, on the Trunk line, employ all agents, watchmen, signalmen,

switchmen, and other servants.

- 8. The Company shall not, except with the concurrence of the authorities, carry traffic between the stations on the Trunk line, but if so carried, they shall charge the the same tolls as may be charged by the authorities.
- 9. The Company shall keep and render to the Superintendent an exact detail account of all traffic carried by them over the Windsor branch and the Trunk line.
- 10. The Company shall pay to the authorities monthly, thirty per cent. of the gross tolls, inclusive of those from local traffic (if any referred to in clause 8) from all traffic carried by them over the Windsor branch and the Trunk line.
- 11. All accounts between the authorities and the Company under this arrangement shall be adjusted regularly at the end of each calendar month, and the balance struck and paid over in cash not later than twenty-one days after the end of each month.

12. The authorities and the Company respectively, shall, at all reasonable times, have access to and be allowed to inspect all such books, papers and vouchers in the possession

of the other of them as have reference to the accounts between them.

13. All regular trains on the Trunk line shall be run in the usual way, by time table, which time table shall be prepared by the superintendent on consultation with the manager. The superintendent shall arrange for the arrival and departure of the trains of the Company at the times desired by the manager, or as near thereto as practicable, and in this respect and in every other respect, the superintendent, the officers and servants of the authorities, shall conduct the business, and work the traffic, as between the Company and the authorities, with perfect impartiality and fairness.

15. The speed of the Company's trains on the Trunk line shall not exceed the speed

adopted by similar trains worked by the authorities therein.

16. The station agents and other servants of the authorities at Windsor Junction shall receive, and as far as practicable, carry out the instructions of the manager in regard

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to the arrival and departure and working of the Company's trains from or to the Windsor branch, and he or they shall record in a book to be kept for that purpose, the numbers and particulars of all engines, carriages, trucks, cars, or other vehicles passing through such junction, and shall make a return of the same daily to their respective owners.

17. The Company shall, on the Trunk line, employ their own booking clerks, carting agents, carting staff, or such other staff as they may deem necessary for the booking, collecting, checking invocing, receiving, delivering or forwarding their own traffic, and such services shall be performed by the Company's servants in respect to the Company's traffic, and the authorities shall, so far as practicable, provide suitable and convenient accommodation for such servents and for the accommodation of such business.

18. The Company, in using the Trunk line, shall at all times observe the regulations and bye-laws for the time being in force thereon, and the authorities in using the bounds or branch for the purpose of repairing and maintaining it shall at all times observe the

regulations and bye-laws for the time being in force thereon.

19. In the event of the Company failing to run the trains between Halifax and Windsor, in accordance with clause 4 of this agreement, then this agreement shall terminate, and the authorities may immediately proceed to operate the railway between Halifax and Windsor as they may deem proper and expedient.

20. This agreement shall take effect on the first day of January, 1872.

(No. 1,672.)

#### DEPARTMENT OF PUBLIC WORKS,

OTTAWA, September 20th, 1871.

SIR,—I am directed to submit for, your consideration and report, the accompanying communication from James A. Mann, Esq., in reference to your proposed agreement concerning "running powers," with his remarks thereon.

I have the honor to be, Sir, Your obedient Servant,

(Signed,)

F. Braun,

Secretary.

Sandford Fleming, Esq., Engineer-in-Chief, Intercolonial Railroad Company, Ottawa.

(No. 1673.)

DEPARTMENT OF PUBLIC WORKS,

OTTAWA, September 21st, 1871.

Memorandum:

The undersigned, acting in the absence of the Honorable the Minister of Public

Works, has the honor to report:—

That, on the twenty-eighth day of July last, a Minute of Council was passed, authorizing the Minister of Public Works to make with the Windsor and Annapolis Rai'way Company (Limited), the traffic arrangements, including "running powers" over the Government Railway in the Province of Nova Scotia, mentioned in the Charter of the said Company for that purpose, to appoint any officer or arbitrator required by the said Charter, should the Minister of Public Works and the company be unable to come to an agreement without arbitration.

That on the eleventh day of August, ultimo, with the view of effecting the object of the said minute of Council, the undersigned appointed and deputed Sandford Fleming.

Esq., Chief Engineer, of the Intercolonial Railway, to confer with the said Windsor and Annapolis Railway Company, or with its authorized agent, and to report what understanding and agreement could be arrived at under authority of the said Minute of Council.

That Mr. Fleming has met and conferred with James Alexander Mann, Esq., Commissioner and Attorney, on behalf of the said railway company, and with the concurrence of Lewis Carvell, Esq., Manager of the European and North American Railway, and of the said Commissioner and Attorney, now reports and approves the articles of agreements hereunto annexed.

The undersigned has the honor to recommend that the said articles of agreements

hereunto appended, be approved, and ratified by Your Excellency in Council.

Respectfully submitted.

(Signed) GEORGE E. CARTIER,
Acting Minister of Public Works.

Agreement between the Windsor and Annapolis Railway Company, Limite 1, and the Government of Canada:—

1. The several expressions hereinafter referred to shall, when used in this agreement have the signification and meaning following.

Expressions,—Signification or meaning.

The Company,—The Windsor and Annapolis Railway Company, Limited.

The Authorities,—The Department of the Government of Canada, which, for the

time being, shall have the command or control of the Nova Scotia Railways.

The Trunk Line,—So much of the Nova Scotia Railways, with the branches, appurtenances, buildings, and conveniences thereto belonging or attached, as lies between the terminus at Halifax and the Windsor Junction (both inclusive), together with any extension into Halifax hereafter to be made.

The Windsor Branch,—So much of the Nova Scotia (with the branches), buildings, appurtenances and other conveniences thereto belonging or attached, as lies between the said Windsor Junction and the Junction of such railway, with the Windsor and Annapolis at or near Windsor.

The Superintendent,—The Superintendent or other officer for the time being

managing the Nova Scotia Railway.

The Manager,—The General Manager or other officer for the time being managing

the Windsor and Annapolis Railway.

2. The Company shall, except for the purpose of the authorities in maintaining the railway and works, have the extensive use of the Windsor Branch with all station accommodation, and engine sheds, and other conveniences, but not including rolling stock and tools for repairs now in use therein.

3. The Company shall also use, to the extent required for the traffic, the Trunk Line, with the station accommodation thereon, including engine shed, accommodations for five engines, water supply, fuel stages, turn-tables, signals, telegraphs, wharves, sidings and other conveniences, but not including machine-shops and other shops, buildings, and appliances for repairs of rolling stocks.

4. The Company shall run every day, Sundays excepted, between Halifax and Windsor not less than two trains, each carrying passengers, and shall adopt the same tolls as at present levied, or such other tolls as may from time to time be approved of by

the Governor in Council, and shall furnish and maintain its own rolling stock.

5. That authorities shall maintain in workable condition the Windsor Branch and Trunk Line, including all the station accommodation and other conveniences thereon.

6. The company shall, on the Windsor Branch, employ their own station agents, booking-clerks, watchmen, porters, signalmen, switchmen, and other servants for the management of the traffic.

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7. The authorities shall, in the Trunk Line, employ all station agents, booking-clerks, watchmen, signalmen, switchmen, and other servants not provided by the Company under clause 17.

8. The Company shall not, except with the concurrence of the authorities, carry any local traffic between stations on the Trunk Line, but if so carried, they shall charge the

same tolls as may be charged by the authorities.

9. The Company shall keep and render to the Superintendent an exact detail amount of all traffic carried by them over the Windsor Branch and the Trunk Line.

10. The Company shall pay to the authorities monthly one-third of the gross earnings

from all traffic carried by them over the Windsor Branch and the Trunk Line.

11. All accounts between the authorities and the company under this arrangement shall be adjusted regularly at the end of each calendar month, and the balance struck and paid over in cash not later than twenty-one days after the end of each month.

12. The authorities and the Company respectively, shall, at all reasonable times, have access to and be allowed to inspect all such books, papers and vouchers in the

possession of the other of them as have reference to the accounts between them.

13. All regular trains on the Windsor Branch and Trunk Line shall be run in the usual way by time-table, which time-table shall, in respect to the Trunk Line, be prepared by the superintendent on consultation with the manager. The superintendent shall arrange for the arrival and departure of the trains of the Company at the times desired by the manager, or as near thereto as practicable and in this respect and in every other respect the superintendent, the officers and servants of the authorities shall conduct the business, and work the traffic of the Company and of the authorities with perfect impartiality and fairness.

14. With respect to special and irregular trains in order to ensure public safety the company shall use the Trunk Line in strict accordance with such Rules and Regulations as are now in use or as may hereafter be adopted and enforced by the superintendent, similar rules shall also be adopted and enforced by the manager on the Windsor Branch so far as is necessary for the guidance of officers and men engaged in maintenance of the,

railway.

15. The speed on the Company's trains on the Trunk Line and Windsor Branch shall not exceed the speed adopted by similar trains on the Government Railways in Nova Scotia.

16. The station agents and other servants of the authorities at Windsor Junction shall receive, and as far as practicable, carry out the instructions of the manager in regard to the arrival and departure and working of the Company's trains from or to the Windsor Branch, and he or they shall record in a book to be kept for that purpose the numbers and particulars of all engines, carriages, trunks, cars or other vehicles passing through such junction, and shall make a return of the same daily to their respective owners.

17. The Company shall employ, on the Trunk Line, their own booking clerks, carting agents, carting staff, or such other staff, as they may deem necessary for the booking, collecting, checking, invoicing, receiving, delivering or forwarding their own traffic, and the authorities shall, so far as practicable, provide suitable and convenient accommodation

for such servants, and for the accommodation of such business.

18. The Company, in using the Trunk Line, shall at all times observe the regulations and by-laws for the time being in force thereon, and the authorities in using the Windsor Branch for the purposes of repairing and maintaining it shall at all times observe the regulations and by-laws for the time being in force thereon.

19. In the event of the Company failing to operate the railway between Halifax and Annapolis, then this agreement shall terminate, and the authorities may immediately proceed to operate the railway between Halifax and Windsor as they may deem proper and expedient.

20. The termination of this agreement under the preceding clause is not to prejudice any right which the Company may now have.

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21. This agreement will take effect on the first day of January 1872, and continue for twenty-one years, and be then renewed on the same conditions or such other conditions as may be mutually agreed to.

(No. 3,044.)

OTTAWA, 21st September, 1871.

SIR,—As arranged with the Honorable the Minister of Militia at his interview with Mr. Sandford Fleming and myself yesterday, I write to request that when the Council consider the proposed running powers, agreement to-day, their attention may be called to the application which I made in my letter to you, of the eighteenth instant, namely, that the Government should reduce the toll to be paid by the Company to thirty per cent of the gross receipts, in consideration of the Company agreeing to find their own booking clerks and carting staff for all purposes of their own traffic at the stations between Halifax and the Windsor junction.

Assuming that the Council will see fit to make this small concession of toll, so as to allow the Company to depelop their traffic, as well as to save all complication of accounts, the Clauses seven and seventeen will then stand:—

Clause 7,—"The authorities shall, on the Trunk Line, employ all station agents,

watchmen, porters, signalmen switchmen, and other servants."

Clause 17,—"The Company shall, on the Trunk Line, employ their own booking clerks, carting agents, carting staff, or such other staff as they may deem necessary for the booking, collecting, checking, invoicing, receiving, delivering, and forwarding their own traffic, and such services &c., &c.,

I am not sure that Mr Fleming, in the hurry of leaving, amended Clause 20, as

agreed with the Honorable the Minister of Militia-it should read thus:-

"This Agreement shall take effect on the first day of January 1872, and continue for twenty-one years, and be then renewed on the same conditions or such other conditions as may be mutually agreed."

I do most sincerly hope that the Council will dispose of this matter so that the

Agreement may be completed to day.

I have the honor to be, Sir,
Your obedient Servant,
(Signed,)
J. A MANN.

F. Braun, Esquire, Secretary, Public Works Department.

(No. 3,045.)

Russell House, 14th September, 1871.

Dear Sir George,—There is some unaccountable fatality about the arrangements connected with my business. Mr. Heming, as I understood, telegraphed that he had despatched his Report on the 6th, yet even now it is not to hand, notwithstanding that I have received two mails from Halifax posted subsequently to that date.

Mr. Taylor will, I suppose, be here in the morning. May I ask that you will to save time, which to me is now very precious, give instructions that Mr. Taylor meet me at once on his arrival, with a view to arrive at some understanding which he will

approve of.

If there be any likelihood of a Council not being available on Saturday, could you not take the necessary powers now, to enable you to dispose of my business on that day? It is very important I should get away on Monday to make my arrangements previous to my departure for England.

Yours faithfully, (Signed), J. A. MANN.

(No. 3,045.)

Agreement proposed to be made between the Windsor and Annapolis Railway Company, Limited, and the Government of Canada.

Interpretation Clause 1. The several expressions hereinafter referred to shall, when used in this agreement, have the signification and meaning following:—

Expression,—Signification or meaning.

The Company,—The Windson and Annapolis Railway Company, Limited.

The Authorities,—The Department of the Government of Canada, which for the time being shall have the command or control of the Nova Scotia and Intercolonial Railways.

The Common Lines,—So much of the Nova Scotia Railway, with the branches, buildings, appurtenances, and conveniences thereto belonging or attached, as lies between the terminus at Halifax and the Waverley Junction (both inclusive), together

with any extensions or alterations thereof hereafter to be made.

The Windsor Branch,—So much of the Nova Scotia Railway, with the branches, buildings, appurtenances and other conveniences thereto belonging or attached, as lies between the said Waverley Junction and the Junction of such Railway with the Windsor and Annapolis Railway at or near Windsor, together with all extensions or alterations thereof hereafter to be made.

The Intercolonial Line,—All railways other than the common line and Windsor branch before mentioned, as shall have a continuous rail from the beforementioned Windsor Junction, and which are now or may hereafter be owned by the Government of Canada.

The Annapolis Line,—The railway now owned by the Windsor and Annapolis Railway Company, Limited, and lying between the Junction thereof with the Nova Scotia Railway at or near Windsor and Annapolis, together with any alterations or extensions thereof hereafter to be made.

The Superintendent,—The Superindendent or other officer for the time being managing the Nova Scotia Railways.

The Manager,—The General Manager or other officer for the time being, managing the Windsor and Annapolis Railway.

- 2. This agreement shall commence and take effect from the day of one thousand eight hundred
- 3. The Company may run and work over and use the Windsor Branch and the common line, and such powers shall extend to and be exerciseable by, with, and for the engines, carriages, trucks, cars, officers and servants of the Company, and to and for traffic of every description, and shall comprise the use of stations, booking offices, platforms, approaches, water supply, engine shed accommodation (for not exceeding five engines on the common line), coal and fuel stages, turn-tables, signals, signal posts, telegraphs, wharves, sidings, works and conveniences, excepting repairing shops belonging to or connected with such lines. Provided, nevertheless, that the Company shall not run trains exclusively for the accommodation of local traffic arising at and destined for places on the common line; and so long as the Company continue to work over the Windsor Branch, the authorities shall not, except for the purposes of ballasting or repair of such Branch, run their trains over such Windsor Branch.
- 4. The Company may demand and take the same tolls for the use of the Windsor Branch and of the common line, and for the use of carriages, trucks, cars, and locomotive power supplied by them for use thereon, as they do now or shall hereafter charge for the like user or service upon the Annapolis Railway. Provided, that the Company shall not, in respect of any local traffic as aforesaid carried by them in their through trains upon the common line, demand or take a smaller toll than that charged by the authorities to the public for a like user upon such line. Provided, nevertheless, that the Company shall not be bound to charge a higher toll or charge upon any traffic than that charged to the public by the authorities on the common line or on the Intercolonial Line.

5. Excepting as hereinotherwise provided, the common line shall be maintained, controlled, and worked exclusively by the authorities, and the station agents, booking clerks, and other servants of the authorities shall book, check, collect, invoice, receive, deliver, and forward and perform all other services in connection with all traffic thereon. The booking clerks or other authorized servants shall keep, and render to the manager, separate accounts of all monies received by them on account of the Company, and shall transmit the monies so received daily to the manager. The manager shall also, at least six days before the termination of each calender month, or in case of special trains at such time or times as may be practicable, supply to the superintendent a list of the times at which the Company desire their trains to arrive and depart from each station. The superintendent shall thereupon arrange for the arrival and departure of the trains, at the desired times, or as near thereto as practicable—and in this and every other respect, the superintendent, the officers and servants of the authorities, shall conduct the business and work the traffic of the Company and of the authorities with perfect impartiality and fairness.

Provided, nevertheless, that the station agents or other servant or servants of the authorities at the Waverley Junction shall receive, and, as far as practicable, carry out the instructions of the manager, in regard to the arrival and departure and working of the Company's trains from or to the Windsor Branch—and he or they shall record in a book, to be kept for the purpose, the numbers and particulars of all engines, carriages, trucks, cars or other vehicles passing through such junction, and shall make a return daily to their respective owners. And provided further, that the Company may, by giving to the superintendent one month's notice in writing, of their intention to do so, employ at any station or stations, depot, or terminus on the common line, their own booking clerks, carting agents, carting staff, or such other staff as they may deem necessary for the booking, collecting, checking, invoicing, receiving, delivering and forwarding their own traffic; and after the time specified in such notice, such services shall be performed by the Company's servants in respect of the Company's traffic—and the authorities shall, so far as practicable, provide suitable and convenient accommodation for such servants, and for the accommodation of such business.

6. The Windsor Branch, including all the permanent way, fences, earth-works, cuttings, embankments, culverts, bridges, stations, booking offices, buildings, platforms, approaches, water, engines, engine sheds, stages, turn-tables, signals, signal posts, telegraphs, wharves, sidings, and all other works or conveniences thereon, shall be maintained in good working condition by the authorities. But except as to the maintenance aforesaid, the said branch shall so long as the Company continue to run their trains over it, be worked and controlled exclusively by the Company, who shall find their own station agents, booking clerks, watchmen, porters, signalmen, switchmen, and other servants for the management and conduct of the traffic.

7. The Company in using the common line, shall at all times observe the regulations and by-laws for the time being in force thereon. In the event of the Company desiring any such regulations or by-laws to be inapplicable to them, or unreasonable, the question between the Company and the authorities as to the application or reasonableness of any such regulation or by-law shall, if not adjusted between the superintendent and manager, be settled by arbitration in the manner hereinafter prescribed.

8. The authorities in using the Windsor Branch for the purpose of repairing and maintaining it, shall at all times observe the regulations and by-laws for the time being in force thereon. In the event of the authorities deeming any such regulations or by-laws to be inapplicable to them or unreasonable, the question between the authorities and the Company as to the application or reasonableness of any such regulation or by-law, the same shall, if not adjusted between the superintendent and manager, be settled by arbitration in the manner hereinafter prescribed.

9. The Company and the authorities shall mutually exchange carriages, trucks, cars and other rolling stock—and, as between them the rates for the hire or use of such stock shall be, for passenger cars, three cents per loaded mile, and for freight cars, two cents

per loaded mile, and for other stock as may be arranged between the superintendent and the manager. But empty stock, going or returning, shall be free of charge either for hire or haulage, but empty stock shall be loaded back whenever freight offers for the line to which the stock belongs. Stock not returned to the owning line after two clear days to be charged for thereafter as for 100 miles per day.

- 10. The Company and the authorities shall afford to each other all proper and sufficient facilities for the interchange, at the Waverley Junction, of all traffic required to pass at such Junction, whether from the Intercolonial to the Windsor Branch or Annapolis Line, or from the Annapolis or Windsor Branch to the Intercolonial Line, and, when requisite for such interchange of traffic, for the passage of locomotive engines, carriages, trucks and cars from one railway to the other, and no charge shall be made either by the Company or the authorities in respect of such interchange, or any service for the purpose.
- 11. The Company and the authorities respectively from time to time, shall afford all proper and sufficient facilities, including among other things, through tickets, through checking, through booking, through invoicing, and exchange of rolling stock, for the accommodation and transmission of, and shall properly and sufficiently accommodate and transmit all traffic which having passed over the Windsor Branch is tendered by the Company for transmission over the Intercolonial Line, or which having arisen on the Intercolonial Line, is tendered by the authorities for transmission on the Windsor Branch, or the Amapolis Line; and also all traffic which is from time to time tendered, either by the Company or the authorities to, and in order to its being transmitted on, over or upon the railway of the other of them. But traffic arising at, or destined for the common line, and coming from or going to the Intercolonial Line, shall be carried by the authorities, and the traffic coming from or going to the Windsor Branch or the Annapolis Line, shall be carried by the Company.
- 12. All such facilities, accommodation and transmission of traffic shall be afforded by the Company and by the authorities respectively, subject to such reasonable rules and regulations, and on payment of such tolls and charges as the manager and superintendent may agree on by minutes of meeting, or, as failing agreement between them, shall be settled by arbitration as hereinafter provided. Provided always that in no case shall the company or the authorities charge to the other of them a higher toll or charge than the lowest charge made by them to the public for the like services.
- 13. The Company shall keep and render to the authorities once in every month, separate accounts of all tolls received by them from the public in respect of traffic passing over the Windsor Branch, the common line, or the Intercolonial Line respectively; and in the case of through traffic, such lines respectively shall, unless otherwise agreed, be credited with a mileage proportion of the through railway toll received by the Company from the public in respect of such through service. And the authorities shall keep and render to the Company once in every month' separate accounts of all tolls received by them from the public in respect of traffic passing over the Windsor branch and the Annapolis Line, and so far as carried by the Company on the common line respectively. And in the case of through traffic, such lines respectively shall, unless otherwise agreed, be credited with a mileage proportion of the through railway toll received by the authorities in respect of such through service.
- 14. For the user and services hereinbefore mentioned, the Company shall pay to the authorities monthly one third of the gross tolls received by them from the public in respect of the traffic carried over the Windsor Branch and the common line, and such payments respectively shall be received in full satisfaction of all claims by the authorities in respect of such user and services.
- 15. Except as otherwise provided, the authorities and the Company respectively shall once in every month, adjust all accounts between them in respect of through traffic or otherwise.

- 16. The authorities and the Company respectively shall, at all reasonable times, have access to and be allowed to inspect all such books, papers and vouchers in the possession of the other of them as have reference to the accounts between them.
- 17. In case of any difference as to the construction of this agreement, or upon any matter under this agreement, such matter or matters in difference shall be referred to and be determined by two arbitrators to be appointed, the one by the authorities, the other by the Company, or failing agreement, by an umpire to be chosen by such arbitrators before entering into the subject matter in dispute. And in the event of the authorities or the company failing to appoint an arbitrator after one month's notice from the other of them of an arbitration being required, the one arbitrator appointed may proceed with such arbitration.
- 18. If at any time hereafter any difficulty or questions arise between the Company and the authorities as to the effect or operation of this agreement, whether by reason of altered circumstances, or any defect or omission in this agreement, such difficulty or questions shall be submitted to and settled by arbitration, in the same manner as prescribed in the next preceding clause.

(No. 3,046.)

[Telegram.]

HALIFAX, NOVA SCOTIA, 6th Sept., 1871.

Taylor's objections to several clauses have much force in them when examined. I have prepared an agreement embracing all contemplated by Order in Council and essential points in Mann's agreement, which should meet the case. I think you should have Taylor at Ottawa, as he is familiar with whole subject. Will report by first mail.

(Signed,)

SANDFORD FLEMING.

To Sir F. Hincks, Ottawa.

(No. 3,047.)

PRIVY COUNCIL OFFICE, OTTAWA, 21st September, 1871.

Sir,—I am directed to inform you that the Report of the Honorable the Acting Minister of Public Works, submitting for approval the articles of agreement between the Windsor and Annapolis Railway Company and the Government of Canada, has this day been passed by the Committee of the Privy Council, who have recommended that the said articles should be approved and sanctioned by His Excellency with the understanding that the alteration of thirty per cent instead of one-third, as suggested by Mr. Mann, should not be adopted.

The Report of the Committee will be submitted without delay for the approval of His Excellency

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

WM. H. LEE,

T. Trudeau, Esq.,

Deputy Minister, Public Works.

(No. 1674.)

DEPARTMENT OF PUBLIC WORKS, OTTAWA, September 22nd, 1871.

Sir,—I have the honor to enclose herewith, for your information and guidance, a copy of an Order in Council passed on the 22nd instant, approving and sanctioning certain articles 34—7

of agreement thereunto annexed between the Government of Canada and Windsor and Annapolis Railway Company Limited, respecting "running powers" over the Government Railway in Nova Scotia.

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

(Signed,)

F. Braun; Secretary.

J. A. Mann, Esquire, Commissioner and Attorney on behalf of the W. & A. R. R. Co'y. Ottawa.

(No. 1,675.)

[Telegram.]

September, 22nd, 1871.

George Taylor, Esquire,

Halifax.

Agreement concerning "running powers" is passed, therefore you need not come.

(Signed,)

F. Braun, Secretary.

(No. 3,074.)

Windsor & Annapolis Railway, Kentville, 2nd October, 1871.

SIR,—The running-powers agreement has too long been the all-engrossing subject of negotiation between the Windsor and Annapolis Railway Company and the Department of Public Works, that the other claims of the Company, although of only lesser importance, have not received the attention they have deserved. Now, however, that the running-powers have been settled, I trust these claims will receive attention, and I beg that they may be laid before His Excellency the Governor General in Council without further delay.

The claims preferred by the Company were enumerated in the third paragraph of my letter of 1st August last, and I am glad now to be able to repeat the proposition which I made on behalf of the Company in my letter of the 14th of the same month, viz: that the

whole of the claims be submitted for the decision of independent arbitrators.

As I have already informed you, I am compelled to return in the next steamer to England, where I expect to be detained about three mouths; but assuming as I do, that the Government will forthwith concur in the equitable proposition made by the Company, I will, on hearing from you to that effect, arrange with the Company to appoint a representative on their behalf so that these vexed questions may be summarily and amicably disposed of.

I have to request you will address me in London to the care of

"The Windsor and Annapolis Railway Co., 27 Great Winchester Street."

I have the honor to be, Sir, Your obedient servant,

(Signed,)

J. A. MANN,

Commissioner and Attorney of the, Windsor and Annapolis Railway Co. Limited.

F. Braun, Esq., Secretary, Public Works Department, Ottawa. (No. 1,699.)

DEPARTMENT OF PUBLIC WORKS, OTTAWA, October 13th, 1871.

SIR,—I beg to acknowledge receipt of your letter of 2nd instant, respecting certain claims of the Windsor and Annapolis Railway Company, and to say in reply that the matter will be laid before the Minister without delay.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

F. Braun, Secretary.

J. A. Mann, Esquire,

Care of the "Windsor and Annapolis Railway Company,"
27 Great Winchester Street, London, England.

(No. 3,204.)

WINDSOR AND ANNAPOLIS RAILWAY COMPANY, LIMITED, 27 GREAT WINCHESTER STREET, LONDON, 21st November, 1871.

SIR,—I am very much surprised to learn from the Manager of the Windsor and Annapolis Railway that the Government Superintendent at Halifax had not, at the date of our last advices, received instructions as to giving effect to the agreement entered into while I was at Ottawa.

As the preparations necessary to give effect to that agreement will absorb some time, I beg to urge you to give all requisite instructions without further loss of time.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

J. A. MANN,

Commissioner Windsor and Annapolis Railway Company.

F. Braun, Esq., Secretary

Public Works Department, Ottawa.

(No. 1,751.)

Public Works,

OTTAWA, 7th December, 1871.

SIR,—I have the honor to inform you that J. A. Mann, Esquire, Commissioner and Attorney for the Windsor and Annapolis Railway Company has requested, in a letter addressed to this Department on the 1st of August last, that the decision arrived at by the Dominion Government in reference to certain claims of the above mentioned Railway Company may be re-considered.

I enclose a copy of said letter herewith, together with a copy of the Agreement executed by the Windsor and Annapolis Railway Company, and Provincial Government of Nova Scotia, on the 22nd of November, 1866, begging your attention to clause 9 of said agreement, and requesting you will be good enough to give the subject your consideration, and requesting you will be good enough to give the subject your consideration,

and inform this Department of your final decision thereon.

I have the honor to be, Sir,

Your obedient servant,

(Signed,) F. BRAUN,

Secretary.

The Honorable,

The Minister of Customs, &c., &c.

(No. 1,752.)

PUBLIC WORKS,

OTTAWA, 7th December, 1871.

SIR.—I have the honor to enclose herewith a letter from J. A. Mann, Esquire, Commissioner and Attorney of the Windsor and Annapolis Railway Company, addressed to this Department on the 1st of August last, and requesting that the decision arrived at by the Dominion Government in reference to certain clauses of the above mentioned Railway Company might be reconsidered.

I enclose also for reference a copy of the articles of agreements enclosed with by the Provincial Government of Nova Scotia, on the 22nd of November, 1866, with the Wind-

sor and Annapolis Railway Company.

The Minister begs to direct your attention to clauses Nos. 3 and 4 of said agreements, and requests you will be good enough to give the contents of them your consideration, and inform the Department with your final decision thereon.

I have the honor to be, Sir,

Your obedient servant, (Signed,)

F. BRAUN,

Secretary.

Honorable,

The Minister of Finance, Ottawa.

(No.1,753.)

Public Works,

OTTAWA, 7th December, 1871.

SIR,—I have the honor to enclose herewith the copy of a letter from J. A. Mann, Esq., Commissioner and Attorney for the Windsor and Annapolis Railway Company, addressed to this Department on the 1st of August last, and requesting that the decision arrived at by the Dominion Government in reference to certain claims of the above mentioned Railway Company might be re-considered.

I enclose also for reference, a copy of the articles of agreements entered into by the Provincial Government of Nova Scotia, on the 22nd of November, 1866, with the

Windsor and Annapolis Railway Company.

The Minister requests you will be kind enough to give him your written opinion on the merits of the claims urged by Mr. Mann, as set forth in paragraphs 5, 6, 7, 8 and 9 of the enclosed letter.

I have the honor to be, Sir,

(Signed.)

Your obedient servant, F. BRAUN,

Secretary.

The Hon. Minister of Justice.

(No. 3,217.)

[Telegram.]

TRURO, N. S., 11th December, 1871.

To F. Braun,

Pray suggest to the Minister that Taylor should have instructions at once about arrangement with Annapolis Railway, which, I think, takes effect on 1st January.

(Signed,)

SANDFORD FLEMING.

(No. 3,226.)

Copy of a report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 22nd September, 1871:-

On a memorandum dated 21st September, 1871, from the Hon. Sir George E. Cartier, acting in the absence of the Hon. the Minister of Public Works, reporting that on the

twenty-eighth day of July last, a Minute of Council was passed authorizing the Minister of Public Works to make with the Windsor and Annapolis Railway Company, Limited the traffic arrangements, including running powers, over the Government railway in the Province of Nova Scotia, mentioned in the charter of the said Company, and for that purpose to appoint any officer or arbitrator required by the charter, should the Minister of Public Works and the Company be unable to come to an arrangement without arbitration.

That, on the eleventh day of August ultimo, with the view of effecting the object of the said Minute of Council, he appointed and deputed Sandford Fleming, Esq., Chief Engineer of the Intercolonial Railway, to confer with the said Windsor and Annapolis Railway Company, or with its authorized agent, and to report what understanding and agreement could be arrived at under authority of the said Minute of Council.

That Mr. Fleming has met and conferred with James Alexander Mann, Esq., Commissioner and Attorney on behalf of the said Railway Company, and with the concurrence of Lewis Carvell, Esq., Manager of the European and North American Railway and of the said Commissioner and Attorney, and now reports and approves the articles of agreement hereunto annexed, which articles of agreement he, the Acting Minister of Public Works, submits for the approval of Your Excellency.

The Committee advise that the said articles of agreement herewith appended be approved and ratified by Your Excellency in Council, it being understood that the payment of one-third of the gross earnings be adhered to.

Certified.

(Signed,)

WM. H. LEE. Clerk, Privy Council.

To the Honorable The Minister of Public Works, &c., &c., &c.

(Copied from No. 1,766.)

DEPARTMENT OF PUBLIC WORKS, Ottawa, December 20th, 1871.

Sir,—I have the honor to inform you that a copy of the agreement between the Windsor and Annapolis Railway Company and the Government in relation to "running powers" to take effect on the 1st January, 1872, has been sent to the superintendent of Nova Scotia Railway, with instruction to give effect to the same.

I have the honor to be, Sir,

Your obedient servant,

(Signed,)

F. Braun, Secretary.

J. A. Mann, Esq., Commissioner, Windsor and Annapolis Railway Company, 24 Great Winchester Street, London, E.C.

(Copied from No. 1,767.)

#### DEPARTMENT OF PUBLIC WORKS,

OTTAWA, December 20th, 1871.

Sir, I beg to enclose herewith copy of an agreement entered into between the Windsor and Annapolis Railway Company and the Government, in regard to "running

powers" to take effect on the 1st January, 1872, and to authorize you to make the necessary arrangements for the proper carrying out of the same.

I have the honor to be, Sir,

Your obedient Servant,

(Signed,)

F. Braun, Secretary.

G. Taylor, Esq.,

Superintendent Government Railway, Halifax, N.S.

(Copy from No. 3,291.)

Dominion of Canada, Customs Department, Ottawa, 29th December, 1871.

Sir,—I have the honor to acknowledge receipt of your letter of 7th instant, enclosing a communication from J. A. Mann, Esq., Commissioner and Attorney of the Windsor and Annapolis Railway Company, and copy of agreement between that Company and the Government of Nova Scotia of 22nd November, 1866, referring specially to clause 9 of

said agreement, and requesting my decision thereon.

In reply. I have to inform you that, having given the claim in question my best consideration, and assuming that the copy furnished is a correct copy, I think the railway company entitled to a drawback of all duties actually paid by them on materials used in construction, or articles necessary for the working of the line, but all such refunded duties should constitute a charge by the Dominion Government against the Local Government of Nova Scotia.

I have the honor to be, Sir, Your obedient servant,

(Signed,)

S. L. TILLEY,

Minister of Customs.

The Hon. H. L. Langevin, C.B., Minister of Public Works, Ottawa.

(Copied from No. 1,837.)

January 22nd, 1872.

George Taylor, Halifax:

Since the agreement with Windsor and Annapolis Railway, do Government trains from Halifax to junction and to Truro continue as before, and is the local traffic in passengers and freight between Halifax and Windsor attended to, and has it the same facilities as before the agreement? Answer immediately.

(Signed,)

F. Braun, Secretary.

(Copy of No. 3,350.)

(By telegraph from Richmond, N. S.)

OTTAWA, 22nd January, 1872.

Since the agreement with Windsor and Annapolis Railway Company Government Trains to Junction and to Truro run as before, the same number of trains carrying passengers are run by the Company between Halifax and Windsor as heretofore, but cannot say whether the Company have sufficient plant to move the freight traffic.

(Signed,)

GEO. TAYLOR.

To F. Braun.

(Copied from No. 1,838.)

January 23rd, 1872.

Have Government trains stopped at same number of Stations as before agreement?

(Signed)

F. Braun. Secretary.

G. Taylor, Halifax.

(Copy of No. 3352.)

(By telegraph from Richmond, Nova Scotia.)

OTTAWA, January 23rd, 1872.

Yes; Government trains stop at the same number of stations now as before the agreement; the same regulations as to stopping are pursued at present as have been observed for years.

(Signed,)

GEO. TAYLOR.

To F. Braun, Esq.

(Copied from No. 1,872.)

DEPARTMENT OF PUBLIC WORKS, OTTAWA, February 6th, 1872.

SIR,—I am directed to inform you that complaints are made that the Windsor and Annapolis Railway Company, in direct violation of its agreement with the Government, made in September last, is charging higher rates than those agreed upon. For instance, by the new tariff of 1st of January, 1872, hay is raised from the 3rd to the 2nd class, thereby increasing, by 60 cts. per ton, the rate of transport of that article from Windsor station to Halifax. The rates on horses and cattle are also stated as being increased; "horses and cattle" are not shewn in the tariff above referred to.

The Minister of Public Works desires that you would furnish him with a copy of the Company's Supplementary Tariff, and also that you will explain how these increases have been put into operation without the previous sanction and approval of the Governor

General in Council, as provided by the agreement aforesaid.

I have the honor to be, Sir, Your obedient servant,

(Signed,)

F. Braun, Secretary.

Vernon Smith, Esq.,

General Manager Windsor and Annapolis Railway, Halifax, N. S.

## RETURN

To an Address of the House of Commons, dated 22nd April, 1872;—For copies of all Correspondence between the Government, or any Member of the Government of the Dominion and the Governments, or any Member of the Governments of the Provinces of Quebec and Ontario, on the subject of the division of the surplus of the debt of the former Province of Canada between the Provinces of Quebec and Ontario; and on the subject of the arbitration which took place with regard to that division, and respecting the reference to the Privy Council of the questions which arose out of that Arbitration, together with copies of all Correspondence on the subject of applications made or suggestions offered by the Governments of either of those Provinces with regard to making the surplus of the debt of the former Province of Canada a charge on the Treasury of the Dominion, or for arranging in any other manner the difficulties to which that question has given rise, without referring them to the Privy Council; and lastly, for copies of all Correspondence with the Governments, or any Members of the Governments of the different Provinces of the Dominion, with respect to all applications made for the granting to such Provinces, or to any of them, of additional subsidies, or of more favourable financial terms than are granted to them by the Confederation Act.

By Command.

J. C. AIKINS,

Secretary of State

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 6th May, 1872.

## RETURN

To An Address of the House of Commons, dated 29th April 1872;—For Copies of all Correspondence or other documents relating to the School Act passed by the Local Legislature of New Brunswick, between the Dominion Government and that of New Brunswick; also Copies of all Correspondence and petitions addressed to the Government by the Roman Catholic portion of the population, complaining of the injustice of the School Act, which is repugnant to their religious opinions; the answers of the Government to such Correspondence and Petitions; also Copies of all Orders in Council and legal opinions of the Government with reference to the legality of the said School Act of New Brunswick.

By Command,

J. C. AIKINS.

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 6th May, 1872.

To His Excellency The Right Honorable Baron Lisgar, K.G. C.B., Governor General of Canada, &c., &c., &c.:

The petition of the undersigned Catholics of Memramcook, Dorchester, Westmorland, in the Province of New Brunswick, humbly sheweth :-

That the Act relating to Common Schools passed at the late Session of the Local Legislature of this Province, if allowed to go into operation, will destroy or greatly diminish the educational privileges which the Catholics of this Province enjoyed at the time of the passing of the British North America Act and subsequently.

That under the School Law in force in this Province at the time of the passing of the British North America Act, and up to the present time, Catholics were enabled, wherever their numbers were sufficiently large, to establish Schools in which a good

religious and secular education was afforded.

That in the cities and other centres of large populations, for the wants of which the law did not sufficiently provide, your Petitioners at a cost truly enormous when compared to their means, erected large and commodious buildings in which they established and maintained Graded Schools equal in all respects to any Primary Schools existing in these Provinces, and that they received legislative grants to aid in the maintenance of those schools. To these grants they may in most cases be fairly regarded as having a prescriptive right.

That in districts in which Catholics were too few in number to maintain Separate Schools they could not be compelled to contribute to the support of any schools in which they had reason to apprehend that anything would be done to sap the faith or weaken the religious convictions of their children; And that this afforded them a safeguard and

protection which the Act lately passed will wholly destroy.

36-1

That the School Act of last Session was not asked for or desired by the people of this Province, but was passed through an undue influence brought to bear upon the members of the Legislature; several members of the Assembly-who when elected were known to be opposed to this measure—having by the use of that influence been induced to violate their pledges and disregard the well understood wishes of their constituents.

That when the Bill was before the Legislature, the Catholics, who are more than one-third of the entire population of the Province, asked by petition that the right enjoyed by the Protestant minority in the Province of Quebec, to establish Dissentient or

Separate Schools, should be accorded to them, and that this was refused.

That in the Legislative Council, an amendment giving the right to establish Separate

Schools was only lost on equal division.

That the Act of last Session provides that there shall be a compulsory rating and assessment for the support of schools in every County in the Province, in a fixed proportion to the number of inhabitants, and that no part of the money so raised, or of any money appropriated by the Provincial Government under this Act for educational purposes, shall be given to any school in which the education is religious.

That in the several school districts into which the counties are to be divided other sums are to be raised for school purposes, and the determination of the amount and of the mode of expenditure, the appointment of trustees and all that concerns the management of the Schools, are vested absolutely in the majority, thus, by process of law, depriving your petitioners, who, in most instances, are in the minority, of all rights and all the

protection of law.

That if this Act be allowed to go into operation, your petitioners will be compelled to contribute to the support of a school system of which they conscientiously disapprove: And if they would not expose their children to what they regard as the most serious and alarming dangers they must maintain other schools at their own expense, thus paying twice while others pay but once; or when their numbers or means will not enable them to establish and maintain schools to which they can with safety send their children, they will be compelled to allow them to grow up in ignorance.

That this would be a most serious infringement upon the rights of your petitioners, a most serious deprivation of the educational privileges they have hitherto enjoyed, and a

palpable violation of the spirit of the British North America Act.

Your petitioners therefore humbly pray that Your Excellency will be pleased to disallow the said Act.

Signed by, Revd. C. Lefebvre, S. S. C., and 537 others.

#### DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA. 24th January, 1872.

My Lord, [Sir,]—

I am directed to enclose to Your Lordship [you] an extract from the report of the Minister of Justice on the numerous petitions from the Roman Catholics of New Brunswick, praying that the Act ch. 21, of the last session of the Legislature of New Brunswick, intituled, "An Act relating to Common Schools," be disallowed, and to inform Your Lordship [you] that the conclusions of the said report have been agreed to by His Excellency the Governor General in Council.

I have, &c., E. PARENT, U.S.S. (Signed)

To His Lordship The Bishop of Chatham, Chatham, N.B. To His Lordship the Bishop Sweeny, St. John, N.B. The Reverend James Quinn, Catholic Pastor, St. Stephen, N.B.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 20th January, 1872.

The Committee of Council have had under consideration the annexed report, dated January 20th, 1872, from the Honorable the Minister of Justice, and for the reasons given therein they advise that the several Acts passed by the General Assembly of the Province of New Brunswick, in the month of May, 1871, in the 34th year of Her Majesty's Reign, be left to their operation, but that the attention of the Government of that Province be called to the three chapters to which exception is taken by the Minister of Justice, a copy of whose report they recommend be forwarded to the Lieutenant-Governor of New Brunswick, through the Secretary of State for the Provinces.

#### Certified,

(Signed)

W. H. LEE,

Clerk Privy Council.

To the Honorable

The Secretary of State (Canada),
&c., &c., &c.

#### DEPARTMENT OF JUSTICE, OTTAWA, January 20th, 1872.

The undersigned to whom was referred certified copies of the Acts of the General Assembly of the Province of New Brunswick passed in the month of May, 1871, in the 34th year of Her Majesty's Reign, has the honor to report:

That all the said Acts, excepting chapters 1 and 19, are free from objection, and he

recommends that they be left to their operation.

With respect to Chapter 1, the 14th section of the Act is in excess of jurisdiction. It provides that the police magistrate of the City of Fredericton shall have power to do alone such acts as are required to be done by two or more justices of the peace.

This provision is general in its terms, and would be held, it is presumed, to authorize the police magistrate to act alone in criminal cases where the Statutes of the

Dominion provides that two or more justices must act.

Such an enactment, though a very proper one, is beyond the competence of the Local Legislature, as it, in effect, repeals the provision in the Act of the General

Legislature.

The attention of the Government of New Brunswick should be invited to this with the view of having the clause amended at the next Session. There will be no difficulty in obtaining a general Act from the Dominion Parliament providing that police and stipendiary magistrates should have the powers usually conferred on two or more justices.

It should also be noticed that the 2nd clause recites the title of the Act inaccurately,

which error should be amended.

Chapter 19, "An Act to authorize the appointment of a District or Stipendiary Magistrate for the County of Gloucester," is objectionable for the same reason as above

given respecting Chapter I.

With respect to Chapter 6, intituled "An Act in addition to an Act passed in the 33rd year of the reign of Her present Majesty, intituled "An Act to continue and amend an Act to regulate the sale of Spirituous Liquors," the undersigned thinks it well to remark that he entertains considerable doubt whether it and the Act which it amends are not in some respects ultra vires.

The 92nd section of the Union Act gives to Provincial Legislatures the exclusive Power of making laws in relation to shop, saloon, tavern, auctioneer and other licences, in

order to the raising of the revenue for provincial, local or municipal purposes.

The Acts in question however go further than making provision for the raising of

revenue by charging licence fees, they contain clauses placing restrictions on the issue of tavern licences, such restrictions having no connection with any revenue purpose.

Now by the Union Act the duty of all legislation relating to the regulation of trade and commerce is thrown upon the general legislature, and in the opinion of the undersigned the provisions in these Acts are in regulation of trade and do not concern the raising of revenue.

The undersigned recommends that the Act be left to its operation leaving it to any persons thinking themselves aggrieved by an action under these provincial statutes, to test their constitutionality in the courts. The attention of the Provincial Government

should however be called to the matter as worthy of their consideration.

Numerous petitions to His Excellency the Governor General from the Roman Catholics of New Brunswick, most respectably signed, have been received praying that the Act chap. 21, intituled "An Act relating to common Schools," be disallowed.

The grounds upon which this prayer is based, are:—

1. That the Act will greatly destroy or greatly diminish the educational privileges which Catholics enjoyed at the time of the passing of the British North America Act, and and subsequently;

2. That the pecuniary grants hitherto made to the Graded Schools have been taken away, although to these grants Catholics may in most cases be fairly regarded as having a

prescriptive right.

Now the Provincial Legislatures have exclusive powers to make laws in relation to education, subject to the provisions of the 93rd clause of the British North America Act. Those provisions apply exclusively to the denominational, separate or dissentient schools; they do not in any way affect or lessen the power of such Provincial Legislatures to pass laws respecting the general educational system of the Province.

The Act complained of, is an Act relating to common schools, and the Acts repealed by it apply to parish, grammar, superior and common schools. No reference is made in them to separate, dissentient or denominational schools, and the undersigned does not on examination find that any Statute of the Province exists establishing such special schools.

It may be that the Act in question may operate unfavorably on the Catholics or on other religious denominations and if so it is for such religious bodies to appeal to the

Provincial Legislature which has the sole power to grant redress.

As, therefore, the Act applies to the whole school system of New Brunswick, and is not specially applicable to denominational schools, the Governor General has, in the opinion

of the undersigned, no right to intervene.

As to the second objections respecting pecuniary grants, those must of course be under the annual supervision of the Legislature which has the sole power to deal with the public funds,; unless, by special enactment, those grants have been conferred for a specified period by an Act of the Legislature.

In such case the grant might be considered in the nature of a contract and the re-

peal might be held to be a breach of that contract.

The undersigned does not find that any such statutory contract has been made. Under the circumstances he is therefore of opinion that no other course is open to the Governor General than to allow the Act to go into operation.

All which is respectfully submitted.

(Signed) JOHN A. MACDONALD

No. 54.

Office of the Secretary of State for the Provinces.

OTTAWA, 29th January, 1872.

SIR,—I have the ihonor, by command of His Excellency the Governor General, to transmit to you, herewith, a copy of an Order of His Excellency in Council, and of the

report of the Honorable the Minister of Justice therein referred to, directing that the several Acts passed by the General Assembly of the Province of New Brunswick, in the month of May, 1871, in the 34th year of Her Majesty's Reign, be left to their operation.

22nd January, 1872.

L have at the same time to request that you will have the goodness.

I have, at the same time, to request that you will have the goodness to invite the attention of your Government to the three chapters to

20th January. 1872. which exception is taken by the Minister of Justice in his Report.

I have, &c.,

(Signed,) Joseph Howe,

Secretary of State for the Provinces.

The Honorable

L. A. Wilmot, Lieutenant Governor, Fredericton.

Copy of a Report of a Committee of the Honorable the Privy Council approved by His Excellency the Governor General in Council, on the 22nd January, 1872.

The Committee of Council have had under consideration the annexed report, dated January 20th, 1872, from the Honorable the Minister of Justice, and for the reasons given therein they advise that the several Acts passed by the General Assembly of the Province of New Brunswick, in the month of May, 1871, in the 34th year of Her Majesty's Reign, be left to their operation, but that the attention of the Government of that Province be called to the three chapters to which exception is taken by the Minister of Justice, a copy of whose report they recommend be forwarded to the Lieutenant-Governor of New Brunswick through the Secretary of State for the Provinces.

Certified.

(Signed,)

WM. H. LEE,

Clerk, Privy Council.

To the Honorable

The Secretary of State for the Provinces, &c., &c.

Extract of a Report of the Honorable the Minister of Justice, dated 20th January, 1872.

"Numerous petitions to His Excellency the Governor General from the Roman Catholics of New Brunswick, most respectably signed, have been received, praying that the Act, chap. 21, intituled "An Act relating to Common Schools" be disallowed.

The grounds upon which this prayer are based, are-

1. That the Act will greatly destroy or greatly diminish the educational privileges which Catholics enjoyed at the time of the passing of the British North America Act, and subsequently.

2. That the pecuniary grants hitherto made to the Graded Schools have been taken away, although to these grants Catholics may in most cases be fairly regarded as having

a prescriptive right.

Now the Provincial Legislatures have exclusive powers to make Laws in relation to Education, subject to the provisions of the 93rd clause of the British North America Act. Those provisions apply exclusively to the Denominational, Separate, or Dissentient Schools, they do not in any way affect or lessen the power of such Provincial Legislatures to pass Laws respecting the General Educational System of the Province.

. The Act complained of is an Act relating to Common Schools, and the Acts repealed

by it apply to Parish, Grammar, Superior, and Common Schools.

No reference is made in them to Separate, Dissentien, or Denominational Schools,

and the undersigned does not, on examination, find that any Statute of the Province exists establishing such Special Schools.

It may be that the Act in question may operate unfavourably on the Catholics, or on other religious denominations, and if so, it is for such religious bodies to appeal to the Provincial Legislature, which has the sole power to grant redress.

As, therefore, the Act applies to the whole school system of New Brunswick, and is not specially applicable to denominational schools, the Governor General has, in the

opinion of the undersigned, no right to intervene.

As to the second objection, respecting pecuniary grants, those must of course be under the annual supervision of the Legislature, which has the sole power to deal with the public funds; unless by special enactment, those grants have been conferred for a specified period by an Act of the Legislature.

In such case the grant might be considered in the nature of a contract, and the

repeal might be held to be a breach of that contract.

The undersigned does not find that any such statutory contract has been made. Under these circumstances he is, therefore, of opinion that no other course is open to the Governor General, than to allow the Act to go into operation.

All which is respectfully submitted.

(Signed.)

JOHN A. MACDONALD.

(Copy.)

My Lord,—On behalf of my Parishioners and myself I have the honor to transmit the enclosed memorial. I most respectfully submit you will find in the document itself intrinsic reasons, sufficient to induce you in Council to refuse your sanction to a School Bill, against which the entire Catholics of New Brunswick and many others protest so

generally and so loudly.

It must appear strange to a statesman of such great experience, and enlightened views as your Excellency, that whilst Great Britain and Canada, both the guides to wide legislation among the most enlightened inhabitants of Great Britain and British America, and whilst the greatest men those countries have produced, such as the present and last Premiers, Gladstone and Disraeli, the Bishop of Exeter, the Fellows of Trinity College, Dublin, and your own noble, brave and wise fellow-countryman, the late Duke of Wellington were, and are for Separate Schools, to satisfy the consciences and religious convictions of the various denominations, in their respective countries, the Local Legislature of New Brnnswick would pass a law in opposition to the examples and precedents which they are accustomed to follow.

But I will not pursue the matter any further; I will leave the case in your Excellency's hands, fully confident it will receive from you that discussion which will best secure the

peace and serve the best interests of New Brunswick.

I have the honor to be, Your Excellency's, obedient and humble servant,

(Signed),

JAMES QUIN, Catholic Pastor.

The Right Hon.

Lord Lisgar,

Governor General, &c., &c.

P. S.—Hon. Mr. Tilley whom I met at his residence, St. Andrew's, told me, the Governor in Council would take the signature of the Pastor for those of his Congregation.

(Signed),

JAMES QUIN.

St. Stephens, N. B., June 1st, 1871.

To His Excellency the Governor General of the Dominion of Canada in Council.

The memorial of the undersigned Catholic inhabitants of the Parish of St. Stephen, County of Charlotte, Province of New Brunswick;

Humbly sheweth :--

That the present School Bill just passed by the Legislature of New Brunswick had not been desired by the inhabitants of that Province.

That two fifths of the entire population have been opposed to its becoming law, as is manifest from the petitions numerously signed which have been presented against it.

That the School Bill passed the House of Assembly by the votes of a few members who, if they acted according to the well known wishes of their constituents, would have defeated it.

That the Bill would miscarry in the Legislative Council where the votes were equal on the division, had it not been for the vote of a Government Official, who is a Railroad Commissioner.

That the Bill is the more grievous and intolerable to the people of New Brunswick since it deprives them of important privileges long enjoyed—"Separate Schools," where useful education, founded upon religion, can be taught, and which their fellow subjects in Canada now possess.

That, in the opinion of your memorialists, if the School Bill is put into operation, it will be a prolific source of contention and strife in a vast number of the Local School Districts, the result of which will be the closing of a great number of schools, and the disturbance of that peace which now happily prevails over the Province.

Your memorialists, therefore, humbly pray that your Excellency in Council will exercise your prerogative, and refuse to give the sanction of law to so unfair and obnox-

ious a measure as this School Bill.

And your memorialists, as in duty bound, shall ever pray, &c.

Signed on behalf of his parishioners,

(Signed)

JAMES QUIN,

Catholic Pastor.

St. Stephen, June 1st, 1871.

(Copy.)

The Governor General's Secretary to the Reverend J. Quin.

OTTAWA, June 6, 1871.

SIR,—I have the honor, by desire of the Governor General, to acknowledge the receipt of a memorial signed by yourself in behalf of the Catholic Inhabitants of the Parish of St. Stephen, praying His Excellency to withhold his assent to a School Bill recently passed by the Legislature of New Brunswick.

In reply I am to inform you that the petition has been duly forwarded to the proper officer, in order that it may be submitted for the consideration of the Privy Council, by whose advice The Royal Instructions bind the Governor General to guide his proceedings

in all matters of local concernment.

I have, &c.,

(Signed)

JOHN KIDD,

For the Governor's Secretary.

The Reverend J. Quin, St. Stephen, N. B.

## RETURN

AND

#### SUPPLEMENTARY RETURN

To an Address of the House of Commons, dated 1st May, 1872;—For copies of all correspondence and telegrams, passed between the Government or any of its Members, and any officers of Customs of the Dominion, also of all correspondence and telegrams passed between the Government or any Member thereof, or any officers of Customs and the Government or any officer of the Customs of the United States, respecting the seizure in the hands of Mr. A. Hamel, jun., of a quantity of merchandize, the property of the firm of Jos Hamel & frères, importing merchants of the City of Quebec.

By Command.

J. C. AIKINS.

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 6th May, 1872.

In accordance with the recommendation of the Joint Committee on Printing, the above Return is not printed.]

## RETURN

SHEWING THE

# NAMES, ORIGIN, CREED, POSITION AND PAY

OF ALL

# THE EMPLOYES

OF THE

## DOMINION GOVERNMENT.

PRINTED BY ORDER OF PARLIAMENT.



OTTAWA
PRINTED BY I. B. TAYLOR, 29, 31 AND 33, RIDEAU STREET.

1872.

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## RETURN

To an Address of the House of Commons, dated 4th May, 1870; For a Return of the Names, Origin, Creed, Position and Pay of all the Employés of the Dominion Government.

By Command

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 6th May, 1872.

STATEMENTS HEREWITH from all the Public Departments, and from The Senate, The House of Commons, and The Intercolonial Railway Commission.

STATEMENT of the Names, Origin, Creed, Position and Pay of all the Employés of the Dominion Government.

	,			
Names.	Origin.	Creed.	Position.	Pay per annum.
(100 page 10				
DEPA		THE SECRETAR		\$ cts. 2,840 00
Correspondence Branch.				
W. H. Jones	English French Canadian French	Church of England Roman Catholic do	First-Class Clerk	1,550 00 1,400 00 912 50
Registry Branch.				
E. J. Langevin  J. A. Bélanger  L. A. Catellier  E. Brousseau  H. J. Morgan  W. M. Goodeve	do do do English Canadian .	do do do Church of England	of Crown in Chancery Senior 2nd Class Clerk	2,000 00 1,150 00 1,000 00 912 50 912 50 730 00
Ordnance Land Branch.				
W. F. Coffin F. P. Austin W. Mills J. Forsyth	do do	Church of England do do do	Ordnance Land Agent Senior 2nd Class Clerk do do Land Bailiff	2,150 00 1,150 00 1,100 00 500 00
Messengers.				
P. Logan E. B. Wood			***************************************	500 00 200 00
Office of Queen's Printer.				•
B. Chamberlin T. H. Hodgins C. C. Rogers A. Potvin	Irish	Roman Catholic	3rd Class Clerk	2,000 00 650 00 600 00 330 00
Dominion Lands Branch.	e e e		,	
J. S. Dennis	Scotch	Preshyterian	Agent Dominion Lands	2,600 00 2,000 00 Not fixed.
cus	TOMS DEPART	MENT.—(Head Of	ice at Ottawa.)	
R. S. M. Bouchette Jas, Johnson J. Drysdale J. W. Peachy J. R. Andy G. A. Mailleue P. E. Sheppard W. A. Bell Chas. P. Blias	Irish Scotch French Canadian do Irish British Canadian Scotch do	W. Methodist Presbyterian Roman Catholic do Episcopalian do do	Assistant do do lat Class Clerk	2,600 00 2,150 00 1,800 00 1,750 00 1,400 00 1,400 00 1,350 00 1,200 00 1,300 00

STATEMENT of the Names, Origin, Creed, Position and Pay of all the Employes of the Dominion Government.—Continued.

Names.	Origin.	Creed.	Position.	Pay per annum.
H. C. Hay  Jas. Barry P. C. Ryan C. F. Stevens R. H. Mackay G. W. Grant G. V. Ince T. J. Watters  Jos. S. Fairweather C. H. Harding F. Barrett	Irish do do Canadian English do English do English do English do Irish do I	Roman Catholic. do Episcopalian. do Presbyterian Episcopalian Roman Catholic. Episcopalian do	Senior 2nd Class Clerk   do	\$ cts. 1,150 00 1,100 00 800 00 500 00 500 00 450 00 400 00 300 00 500 00 300 00 500 00 300 00 1,600 00
	CUSTOMS DEPART	TMENT.—(Province of	f Quebec.)	
Ciarenceville. Chas. Stewart	Scotch	Episcopalian	Collector	500 <b>00</b>
Coaticook.  W. S. Williams H. Lacroix J. B. Grant J. H. Tompkins Chas. E. Perry A. Workman D. Young Chas. Taylor	French do British do	do Episcopalian	Collector	1,100 00 650 00 600 00 650 00 600 00 300 09 300 00 100 00
Dundee. C. D. Phillips. J. McGibbon W. E. Manson Robert Tyre. M. M. Smith	do do Scotch ,	Presbyterian Presbyterian Presbyterian	Collector	1,000 <b>90</b> 300 00 480 00 500 00 400 00
Frelighsburgh. H. J. Parker G. W. Wells	English British Canadian	Episcopalian do	Collector	650 00 200 00
Gaspé. J. C. Belleau G. Le Boutillier J. J. Kavanagh John Perrée Chas. C. Fox A. Talbot W. Flynn D. B. McGee.	Irish Jerseyman English French Canadian.	uoj	manumé marece	1,200 00 500 00 600 00 200 00 500 00 400 00 300 00

STATEMENT of the Names, Origin, Creed, Position and Pay of all the Employés of the Dominion Government.—Continued.

Names.	Origin.	Creed.	Position.	Pay per annum.		
Customs Department.—(Province of Quebec.)—Continued.						
Hemmingford.		1		• •		
Moses Sweet	German Canadian.	Methodist	Landing Waiter	\$ cts. 750 00 500 00 730 00		
Lacolle.						
A. Holden	Irish Canadian French do	Episcopalian Roman Catholic	CollectorLanding Waiter	500 00 400 00		
Montreal.						
A. M. Delisle J. Lewis E. Meyer Thos, Barry L. Globensky Chas. Selby J. Nelson J. O'Meara Edwin Blomeley E. Brosseau Omer Allard  Hy. Fletcher F. Crispo Thos. Watkins Je P. Purcell Wm. Bleakley J. Cox J. F. Wolff F. A. Lavoie W. P. Weir Jas. Dunn H. Têtu Alphonse Leurin W. J. O'Hara J. A. Jordan A. Bryson D. Mackay J. E. Villeneuve J. H. McNider P. G. Fauteux Ewen McLennan Thos. Gabler P. A. Mercier	Welsh German Canadian Irish Polish English & French English French Canadian do  English do Irish do Irish do German French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian French Canadian	Protestant Roman Catholic do do do do do do do Protestant Goman Catholic do Roman Catholic Episcopalian Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Roman Catholic Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Protestant Roman Catholic	Surveyor Chief Landing Waiter Assistant Surveyor Landing Waiter do do do do do Superintendent of Tide Waiters, &c. Tide Surveyor Chief Clerk Clerk do do do do do do do do do do do do do	3,200 00 2,000 00 1,400 00 1,400 00 1,400 00 1,200 00 650 00 400 00 1,000 00 1,600 00 1,300 00 750 00 700 00 700 00 700 00 700 00 1,800 00		
Omer P. Allard	do	do	do Packer	500 00		
J. Struthers	Scotch Irish do do do do do	Protestant do do do do do do do do do do do do do do	Ticket Clerk	600 00 600 00 700 00 600 08 550 00 500 09 626 00		
B. Thomas	English	Protestant	de Memenger	696 00 SIE 00		
Add frambout	LTMN USBSCHED	Esoman Catholic	westenfel	-		

Names.	Origin,	Creed.	Position.	Pay per annum.
	_			
Cus	TOMS DEPARTMENT,	.—(Province of Quebe	cc.)—Continucd.	
Montrea! Continued.	1			١
R. Powney Wm. Goodbody Jno. Hodges Saml. Tidmarsh Alfred Turgeon Hy. Mullins Frs. Clarke L. N. Demers Jos. L. Laforêt Wm. Peatman P. P. Montanari Achille Vilbon Wm. Fest Patrick Scanlan Frs. Corner Samuel Corner Jas. Casy Robt. Burrell Jas. S. McCormick Thos. Tester Jno. Morrison Philias Lapierre Alphonse Gallet Hugh Madden D. Charbonneau D. B. Goedike G. P. Krouse G. P. Krouse G. Tuck Jeremiah Madden Jas. Prendergast Jao. Tipson T. D. Reed W. Hynes A. Symmers P. Cummins Martin Barry Benjamin Dupré Leonidas Sanguinet Thos. Chambers Jos. E. Larner David Tuff T. W. Nicholson Paschal Leelere Fred. Bennett J. O. LaBranche John Campbell Le, St. Jean John McCluskey L. J. Tessier James Goven James Goven James Goven James Goven James Goven James Goven James Goven James Goven	Irish do do French Canadian. Irish do French Canadian. Go English French Canadian do English Irish do do do do do English French Canadian French Canadian French Canadian French Canadian French Canadian Irish do do German Irish French Canadian French Canadian Irish Go Grenan Irish French Canadian French Canadian Irish	do do do Roman Catholic do do do do do do do Protestant Roman Catholic Protestant do Roman Catholic Protestant do Roman Catholic Protestant do do Roman Catholic Protestant do do Roman Catholic Protestant Roman Catholic Protestant Roman Catholic Protestant Roman Catholic do Co Protestant do Roman Catholic Ac Roman Catholic Drotestant Roman Catholic Ac Roman Catholic Co Co Co Co Co Co Co Co Co Co Co Co Co	do   do   do   do   do   do   do   do	\$2 00 per day when employed. And \$2 per day when employed. Employed. SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
Contract of	TI 1811	do	do do .	
L. Champonx	do	do	do do J	

Names.	Origin.	Creed.	Position.	Pay per annum.
Спя	TOMS DEPARTMENT.	-(Province of Queb	ec.)—Continued	
		(2.0200000)		
Montreal.—Continued.	L 10 1	D 0 11 11	g 77:1 577.14	\$ cts
Arthur Bourret			Supernumery Tide Waiter	}
J. Lambert	English	do	do do .}	\$2 per
M. Charland	French Canadian	do	1 4. 4. 1	day when
Thos. Curry	English	Protestant	do do .)	employed
P. O'Brien	Irish	Roman Catholic	Packer	1
. Contant			do	
A. Labelle			do	
Lanthier		Roman Catholic do	do	1
George Craven		do	Laborer	<b>.</b>
). Barrier			do	පි
A. Moussett	do .	do		50 per day
ames Moore		do		<u> </u>
C. Larivière		do		යි
Brosseau	do	do		15
E. Daniels	d <b>o</b>	do	1 ,	"
F. B. Mercier		do	1	ļ
John Kearney		do	do	ľ
Aubert		do	Engineer in charge of fur-	\$2 50
			naces	∫per day
P. Cooney	Irish	do	Fireman	\$1 00 do
Henry Murren		do	Night Watchman)	1
P. Rotott				\$2 per
E. Côté		do	do	night.
O. Dupont	do	do	do)	
Magdalen Islands.				
J. J. Fox	English	Episcopalian	Collector	800 00 300 00
, Italivey	uo	40	1 1evenorve Omcer	0.00
New Carlisle.				
John Fraser	Scotch	Church of Scotland	Collector	900 00
V. J. Meagher	Irish Canadian	Roman Catholic	Clerk	500 00
C. Beauchesne	French do	do	Landing Waiter	400 00
L. Busteed		Church of Scotland	Preventive officer	300 00
V. Montgomery	Scotch	do do	do	300 00
Philipsburgh,				
V. W. Smith	Amorioon	Episcopalian	Collector	600 00
E. Luke			Preventive Officer	Ni
<u>.</u>				
Potton.				
eorge Gunn	Scotch	W. Methodist	Collector	500 00
obert Monson	do	Episcopalian	Preventive Officer	200 00 Nil
Villiam Perkins	English	<b>d</b> o	do	Mi
Quebec.	ļ			
Amongo.				
	1	3		ு வட்டு
. W. Dunscomb		Protestant	Collector	3,940 40 1,600 00

		1	1	<del></del>
Names.	Origin.	Creed.	Position.	Pay per annum.
		\ <del></del>		
0	ramora Den emican	. (Province of Ough	t on \ Combinued	ı
Quebec.—Continued.	USTOMS DEPARTMENT	(Former of Queo	ec.)—Continuea,	
L. Dugal George Campbell N. Balzaretti G. Colby A. G. Hawkins Charles Gouin V. Cazeau H. McHugh F. X. Metivier A. G. Bowden	British do French do Irish French Canadian Scotch French Canadian British do French do Irish British Canadian British Canadian British Canadian French Canadian French Canadian French Canadian Color Canadian French Canadian	do do Protestant. Roman Catholic Protestant. Roman Catholic Protestant. Roman Catholic Protestant Code Roman Catholic Roman Catholic Protestant do Roman Catholic do do do Protestant.	do do Chief Clerk Asst. Warehouse Keeper. Cashier Clerk. do do do Sampler and Weigher Sampler and Weigher	1,200 00 1,000 00 800 00 700 00 1,600 00 1,100 00 1,100 00 1,100 00 1,100 00 1,100 00 1,000 00 600 00 1,000 00
D. Macpherson L. Bilodeau A. G. Bussières G. McKenzie J. Radford A. Corneau J. Griffiths E. O'Brien A. Wheeler D. D. O'Meara W. Higgins J. Roy M. Enright	French Canadian do British Canadian English French Canadian Irish British Canadian English British Canadian English British Canadian Irish French Canadian	Roman Catholic do Protestant do Roman Catholic do do do Protestant	Landing Waiterdo	1,400 00 1,400 00 400 00 244 00 100 00 600 00 800 00 800 00 547 50 547 50
G. Hogan C. Marcotte C. Juneau J. Deavy O. Hannon	Go		do do do Fireman Storeman do	547 50 547 50 547 50 360 00 336 00 336 00
Rimouski.				
P. L. Gauvreau	French Canadian	Roman Catholic	Collector	400 00
Datas 774				
Russelltown. R. Rodgers J. Breadner J. Wright	Trainle .	Presbyterian	Collector Preventive officer,de	600 00 400 00 Nil
St. Johns.				
B. Burland H. G. Perchard E. A. Bourret Wilson J. Brossen	French do	Episcopalian Roman Catholic Methodist	Collector Landing Waiterdo dodo	1,200 00 700 00 600 00 1 per day
F. A. Deliale P. Guertin L. Remon	do do		do do	600 00 2 per day 3 per mo'h
	•	7		

	<u> </u>	1		
Names.	Origin.	Creed.	Position.	Pay per annum.
Cus	 toms Department.	│ —(Province of Quebe	c.)—Continued.	
Stanstead. Charles S. Channel A. F. B. Patton S. Knight M. Dixon H. House W. McGowan S. H. Copp	do do English British Canadian Irish	dodo dodo do dodo	Collector Landing Waiter. Preventive Officer Sub-Collector Preventive Officer Sub-Collector Landing Waiter	\$ cts 900 00 425 00 400 00 500 00 500 00 400 00
Sutton.				
Benjamin Seaton	English English Canadian.	Protestant	Collector	600 00 200 00
Three Rivers.				
Charles H. Godby	English	Roman Catholic	Collector	720 00
Amherstburgh.	CUSTOMS DEPART	MENT.—(Province of	Ontario.)	
Edmund Anderson James Hamilton Henry H. Cunningham	Irish	Methodist	Landing Waiter	1,000 00 625 00 400 00
Belleville.				
Anthony Dixon W. A. Beamish R. A. Lazier W. McIntosh	English do	do	do	1,400 00 700 00 400 00 300 00
Brantford.				
John C. Davis	do	Congregational	Collector	1,200 00 720 00 600 00
Brighton.			*. V	
M. K. Lockwood	English Canadian.	Protestant	Collector	000 00
Brockville.				
George Easton A. Stewart. Charles Sibbald Dunham Jones	Scotchdo	Presbyterian Episcopalian	Collector	1,200 00 625 00 700 00 400 00
Burwell.				
E. A. Dunham			Collector	700 00 100 00

	1		1	
Names.	Origin.	Creed.	Position	Pay per annum.
Cus	 toms Department	 -(Province of Ontar	io.)—Continued.	
Chatham.	l	<b>[</b>	<b>!</b>	\$ cts.
J. G. Pennefather A. R. McGregor John Duck C. Coatsworth	English Canadian.	Episcopalian	Landing Waiter	900 00 500 00 300 00 100 00
Chippawa.	 			
C. St. George Yarwood	Eng anadian.	Episcopalian	Collector	840 00
Clifton.				
Wm. Leggett George Liddle Joseph P. Brown Henry B. Rogers John Smeaton Thomas W. Hagrath Charles M. Kelly Thomas McLaughlin John H. Cannon John Macdonell John Jackson	English. Scotch Canadian	do do do Dresbyterian. Episcopalian. Toman Catholic. do Episcogalian.	dodo	1,400 00 900 00 800 00 800 00 550 00 550 00 500 00 500 00 750 00 180 00
Cobourg. George Perry.	English Canadian.	Episcopalian	Collector	1,100 00
C. E. Ewing	do do	Baptist	Landing Waiter	600 00 369 40
Port Colborne.				
W. A. Rooth. Joseph S. Scholfield. Gordon Willson	English Canadian. do do	Presbyterian	CollectorLanding WaiterActin do	200 90 200 00 100 00
Cornwall.				
Thus. Dorothy	English Irish Irish Canadian	Protestant	Collector Landing Waiterdo	800 00 300 00 Nil
Cramahe. James M. Merriman	English Canadian.	Protestant	Collector of Customs	600 00
Darlington. J. Rankin John McClellan 38-2	English Canadian . Irish	Presbyteriando october	Collector	1,200 98 400 00

Names.	Origin.	Creed.	Position.	Pay per annum.
Cus	TOMS DEPARTMENT.	  -(Province of Ontare	io.)—Continued.	
Dover.	1	1	· 1	\$ cts
T. B. Barrett	Irish Irish Canadian	Episcopalian	CollectorLanding Waiter	875 00 500 00
Dundas.				
W. B. Gwyn	English	Episcopalian	Collector	1,000 00
Dunnville.				
Wm. A. McCrae	Scotch Canadian	Episcopalian Roman Catholic	Collector Landing Waiter	850 00 500 00
Elgin.				
R. P. McMillan	Scotch Canadian	Roman Catholic Presbyterian	CollectorLanding Waiter	125 00 75 00
Fort Erie.		·		
R. Graham O. Schryer R. G. Warren Charles Treble Wm. Eden John Magwood	Rritish Canadian	Enisconalian	do do	1,000 00 600 00 600 00 600 00 600 00 300 00
Gananoque.				
John Ormiston E. Nalty	English	Episcopalian	CollectorLanding Waiter	600 00 250 00
Goderich.				
Darius Doty R. Radeliff R. McIntosh	English Canadian. do Scotch Canadian.	Methodist Episcopalian do	Collector	1,000 00 500 00 400 00
Guelph.	İ			
E. Carthew	EnglishIrish	Episcopalian: do	Collector Landing Waiter	1,000 00 550 00
Hamilton,				
W. H. Kittson Wm. Beatty Charles R. M. Sewell Thomas Clark H. Lennon G. B. Spencer	English Canadian. Irish. English Canadian. do Irish. English Canadian.	Episcopaliandododo	Collector Surveyor Chief Clerk Sub-Collector do Appraiser Clerk	2,600 00 1,400 00 1,200 00 800 00 700 00 1,200 00
Frs. Shepherd	English	Congregational	Clerk	

Names.	Origin.	Creed.	Position.	Pay per annum.
Cus	oms Department.	 -(Province of Ontar	 io.)—Continued.	
Hamilton.—Continued.		!		\$ cts.
Henry W. Woodward James S. Amos Wm. Gillespy Wm. Agnew	English Scotch. English. Irish.	do Presbyterian Episcopalian do	Clerkdo do do do Searcher and Packer Landing Waiter do do do Locker	800 00 800 00 800 00 700 00 500 00 600 00 600 00 600 00
Port Hope.  M. F. Whitehead Henry Forbes G. P. Lauder.	Nova Scotian English	Episcopalian do do	Collector	1,200 00 850 00 550 00
Kingston.				
W. B. Simpson W. R. Mingaye James Hopkirk G. H. Detlor J. S. Smyth Thos. Bryan D. Lynch E. McColl Thos. Meagher Jos. Kidd W. H. Davy Joseph Murchy	English. Scotch Canadian English do do do Irish. do Scotch. Irish Canadian Irish. English Canadian Irish.	do Presbyterian Methodist Episcopalian Roman Catholic do Episcopalian Roman Catholic Episcopalian Co Boman Catholic Boman Catholic	4th do 5th do	1,900 00 1,100 00 900 00 850 00 800 00 650 00 550 00 550 00 500 00 200 00
James King	English	Episcopalian	Collector	400 00
¥	do Irish English Irish English Senglish Irish	Presbyterian Episcopalian do do do do	Collector Surveyor Clerk Appraiser Landing Waiter Assistant Clerk and Locker Landing Waiter Preventive Officer Messenger	1,700 00 1,100 00 950 00 900 00 600 00 700 00 500 00 100 00 350 00
Morrisburgh. Hiram Carman . Hy. McCullongh	English Canadian.	Episcopalian Roman Catholic	Collector	720 00 375 00

	1			
Names.	Origin,	Creed.	Position.	Pay per annum.
Cus	toms Department,-	 	io.)—Continued.	
Napanee.	1	I	1	\$ cts.
Jno. Benson	English Canadian.	Episcopalian W. Methodist	CollectorLanding Waiter	700 00 400 00
Niagara.				
W. Kirby	Trish	l do	Surveyor	900 00 700 00 600 00
Newcastle.			ė	
<b>F.</b> Farncomb	English	Episcopalian	Collector	600 00
Oakville.				
R. K. Chisholm	British Canadian .	Presbyterian	Collector	600 00
Oshawc.				
C. Walsh	Irishdo	Roman Catholic Episcopalian	Collector Landing Waiter	800 00 500 00
Ottava.	,	,		
D. Graham. B. Gordon J. T. Bartram. C. Carleton A. Heney. J. Little W. A. McAgy Jno. Burns.	Irish British Canadian Irish	do Episcopalian Roman Catholic	Chief Clerk Clerk 1st Landing Waiter	1,500 00 900 00 700 00 700 00 600 00 550 00 700 00 240 00
Owen Sound.				
W. A. Stephens	Irish	Christian Disciple.	Collector	600 00
Paris.				
F. H. Haycock	English	Episcopalian	Collector	1,000 00
Penetanguishene.			·	300 00
W. N. Rutledge Jao, D. Beatty		Episcopalian W. Methodist	Collector	200 00
Ticton.				gak Aû
Jac P Robbin	British Canadian Holland	W. Methodist Preshyterian	Collector Landing Waiter	200 W

		7000		
Names.	Origin.	Creed.	Position.	Pay per annum.
Cus	ons Department	- (Province of Ontari	io.)—Continued.	
Picton Continued.	<u> </u>			\$ cts.
F. F. Mandeville	British Canadian	Episcopalian	Preventive Officer	400 00 400 00 300 00
Prescott.				
H. D. Jessup. G. Twomley. M. Dowsley W. Armstrong W. Geralds A. S. Geralds J. G. Elwood	British Canadian	Episcopalian do Presbyterian Episcopalian do Methodist Presbyterian	Collector Surveyor Landing Waiter and Clerk do do Preventive Officer	1,200 00 900 00 650 00 600 00 600 00 400 00 730 00
Port Rowan.				
P. Bennett	English and Irish.	No creed	Collector	1,000 00
Sarnia.				
J. W. Verner G. N. Matheson Jno. King. G. W. Thomas W. Gurd J. McIntyre	Scotch	Presbyterian Roman Catholic	do and Clerk.	1,000 00 550 00 600 00 450 00 400 00 40 00
Saugeen.				
Wm. Keith	Scotch	Presbyterian	Collector	500 00
Sault Ste. Marie.				
T 19711	Irish	do Episcopalian do Roman Catholic	do do Boatman do do	1,000 60 550 00 650 00 200 00 200 00 140 00 140 00 140 00
St. Catherines.				ļ
J. B. Benson C. R. Ellis	English Canadian. do do English	Episcopalian	do and Clerk.	1,000 00 200 00 600 00 600 00 Nil,

Names.	Origin.	Creed.	Position.	Pay per annum.
Cusa	ons Department.	-(Province of Ontar	io.)—Continued.	
Port Stanley.	· 	F	1	\$ ct
-	Eli-l Cli-e	E-:	G-Wt	_
Wm. Hemphill	English Canadian.	Episcopanan	Collector	500 (
Stratford.				
J. Hamilton	Scotch	Presbytcrian	Collector	800
Jas. Purcell	Irish	Episcopalian	Landing Waiter	550
Trenton.				
Alex. Macaulay	Trish	Roman Catholic	  Collector	400
ica, macamay	111111111111111111111111111111111111111	roman Caunone	Concessor	100
$m{T}oronto.$				
			Collector	2,600
			Surveyor	1,600 1,400
no. Douglas Chas. B. Mackay	English	do	Chief Clerk	1,200
as. Woodward	do	Disciple of Christ.	do	900
D. Delamere	Irish Scotch	Episcopalian	do	1,000 1,000
no. Beaty	Irish	Disciple of Christ.	do	900
P. Sherwood	British Canadian	Episcopalian	do	600
Thos. McLean	Irish	do	do	600 ( 500 (
has Price	Irish	do		600
. B. Robinson	British Canadian	<b>d</b> o	do	550
lex. Macpherson	Scotch	l'resbyterian	Chief Landing Weiter	1,400 900
P. Dunn McCarthy	do	Roman Catholic	Landing Waiter	600
I. Sinclair	Scotch	Presbyterian	do	600
I. D. Wilson			<b>d</b> o	600 (
. Scanlan			do	600
ohn Wilson		do	do	600
os. Stitt	do	Presbyterian	Locker	800
L. G. A. Patton		do	do	750 750
L. Duff		do Disciple of Christ.	dodo	550
. Yorston	Irish	Roman Catholic	do	560
R. McCaffrey	Irish Canadian	Episcopalian	_ do	500 ( 500 (
no. Green	Irish	do	Landing Waiter	500
Anderson	English	do do	do do	500
McLeod	Scotch	Methodist	do	500
os. Milbourne	English	Episcopalian	do	500 660
Watson			do	200
has. Little	American	Presbyterian	do Preventive Officer	100
. Lestch	Irish	Episcopalian	Porter, Ex'ing Warehouse.	500
enroe Mackay	British Canadian	Preshvierian	l dol	456 £
nas, Stemin	Lrisn	Disciple of Christ.	Messenger and Housekeeper	300
Wallaceburgh.				
i				(

	the Dominion	Government.—	Continued.	
Names.	Origin.	Creed.	Position.	Pay per annum.
Cus	roms Department	-(Province of Ontari	d.)—Continued.	
WallaceburghContinued.	<b>i</b>		i l	\$ cts.
Jas. Cowan	IrishGerman	Episcopalian de	Landing Waiterdo	550 00 200 00
Whitby.		·		
Wm. Warren	IrishEnglishIrish	Episcopalian do Roman Catholic	Collector Landing Waiterdo	800 00 550 00 500 00
Windsor.				
W. Benson W. Morton Miles Cowan Jno, Dennison J. L. Morentelle Jno. Clarke Thos. Perkins Jno. Watson J. Richardson Geo. Gilkes T. H. Morin J. Watt	Scotch British Canadian Irish French Canadian English do British Canadian do English  English  English  English	Presbyterian  Episcopalian  Koman Catholic  do  Episcopalian  do  do  do  do  Company  Catholic	Surveyor.  Landing Waiter and Clerk.  do do do do do do do do do do do do do	1,300 00 900 00 750 00 550 00 550 00 550 00 550 00 500 00 500 00 78 00
Woodstock.				
W. H. Van Ingen	American	Episcopalian	Collector	850 00
	CUSTOMS DEPARTM	ENT.—(Province of 1	Manitoba.)	
Winnipeg.	1			
Jno Emplis	do   Scotch   British Canadian   Scotch   Branch Half-breed	do Presbyterian Methodist Presbyterian Roman Catholic	Clerk do do Landing Waiter	Nil. 800 00 800 00 650 00 600 00 600 00
	istoms Department	.—(Province of Brit	ish Columbia.)	
Victoria, New Westminster, and Out-ports.  Hon Wm. Hamley. Wm. H. McCrea Chas. S. Finlaison Chas. S. Wylde George Frye Peter German Tomkins Brew R. Hunter	English Irish English do do do	do do do do	do	3,800 00 1,940 00 1,452 00 1,704 00 1,704 00 1,700 00 1,200 00

<u> </u>				
Names.	Origin.	Creed.	Position.	Pay per annum.
	·			
Custom	s Department —(P	rovince of British Co	lumbia.}—Continued.	
Victoria, New Westminster, d	·	1	1	\$ cts.
Out-ports.—Continued.				φ cus.
W. Hudley	American	Episcopalian	Landing Waiter	696 00
R. Lawson J. C. Haynes	Scotch	do	do Deputy Collector	696 00 1,704 00
W. H. Lowe	British Canadian	do	do	1,224 00
	Customs Departme	INT.—(Province of N	l Tov <b>a Scoti</b> a.)	
Amherst.	Ť	!		
_	n	D	a n .	4 000 00
J. J Kerr W. Brundige	British		Collector	1,200 00 60 00
A. D. Chapman	do	do	do	60 00 60 00
G. B. Forrest	do	do	do Sub-Collector	350 00
N. Nicholson	do	do	do	150 00 250 00
J. Moffat	do	do		200 00
Annapolis.				
	Pritich	Frigonalian	Collector	750 00
G. F. Ditmars			Sub-Collector	150 00
A. B. Thorne		do	do Preventive Officer	100 00 60 00
<b>410.13.14.10</b>	40		TOVOLUTO OMCOL	
Antigonish.				
Hugh Macphie	British	Presbyterian	Collector	900 00 200 00
E. G. Randell E. Corbet	do	Roman Catholic	Sub-Collector	100 00
Arichat.				
S. Donovan	Irish	Roman Catholic	Collector	750 00
M. Kavanagh	British	do	Sub-Collector	250 00 100 00
Jas. A. Shaw	do	Episcopalian	do Preventive Officer	100 00
Jas. Hearn	do	Roman Catholic	do	100 00 60 00
Jas. Purcell	do	do	do	900 00
Baddeck.		Í	ł	
			Collector	600 00 250 00
Jno. McNeil Angus Morrison	do	do	Sub-CollectorPreventive Officer	60.00
Jue. Baine	do	do	do	60 00
Chs. L. Campbell	do		Landing Waiter	100 00
D. McLeod	Scotch	do	Preventive Officer	200 00
D. McDonald	do	do	Sub-Collector	: :: : : : : : : : : : : : : : : : : :
*		AV	-	

Names.	Origin.	Creed.	Position.	Pay per annum.
Custom	S DEPARTMENT.—(	Province of Nova Sc	otia.)—Continued.	\$ cts
Barrington.	· [	i	1	
D. Sargent J. Trefry S. Smith J. Swaine A. Snow	do do	Free Baptist do W. Methodist	Collector Landing Waiter do Sub-Collector Landing Waiter	400 0 60 0 50 0 100 0
Bridgetown.				
S. S. Thome W. Graves I. R. Brooks A. M. Chute	do	Baptist	Collector Sub-Collector Preventive Officer do	650 0 100 0 60 0 60 0
Cornwallis.				
E. Rand C. V. Rawding E. De Wolfe H. Morris H. V. B. Farnsworth G. Lockwood S. N. Porter A. Ogilvie	do	do Methodist Free Church Episcopalian do Baptist	do	500 0 150 0 200 0 150 0 150 0 60 0 60 0
Digby.				
B. Viets Z. Croscup B. H. Ruggles J. Thurber C. Gidney M. Rearden E. W. Potter J. A. Smith	dodododododo	Baptist Christian Baptist	do	750 0 300 0 200 0 200 0 150 0 60 0 60 0
Halifax.				
T. P. Jost J. F. Muncey J. S. Bessonett Jos. Austen S. R. Caldwell T. C. Wier T. B. De Wolfe	do do do do do do do do do do do do do d	do do Presbyterian Roman Catholic Presbyterian Episcopalian do Methodist do Universaliat Methodist Baptist Methodist Baptist Methodist	Negistrar of Smpping Warehouse Keeper Surveyor Landing Waiter do do Appraiser Assistant Appraiser Gauger do P'tive. Officer and Weigher lat Clerk to W. H. Keeper	2,699 9 1,800 0 1,200 0 1,400 0 900 0 900 0 800 0 1,200 0 650 0 650 0 650 0 1,400 0 900 9

Names.	Origin,	Creed.	Position.	Pay I
	<u> </u>			\$
Custo Halifax.—Continued.	MS DEPARTMENT(	Province of Nova S	Seotia.)—Continued.	
Marshall	British	Methodist	Clerk	700
G. Morris	do	Episcopalian	do	700
F. Richardson	do	do	do	80
Eckersley		Methodist		80
W. Hennigar		Roman Catholic	do	600 800
S. Richardson		Episcopalian		800
R. Coleman	. do	Methodist	do	300
Kelley			Tide Surveyor	803 730
HillsWallace		Methodist	Shipping Officerdo	700
Noble	British	Roman Catholic Presbyterian		730
Fraser	Scotch	do	Locker	547
. McLean	English	Episcopalian	do	547
Reynolds		Presbyterian	do	547 547
Le Guireeo, Ryder		Roman Catholic Episcopalian	do	9 <del>4</del> 7 456
o. G. Gray	British	Methodist	do	456
Maloney	Irish	Roman Catholic	do	456
McDonald	British	Baptist	do	730
F. Burnham	do	do	do	456 456
o. Steele	Scotch	do Presbyterian		456
. McCurdy			do	456
m. Pitts, jun	British	Roman Catholic	do	45€
McNutt	do	Methodist		456
Crose	do	do	do	365 456
De Courcy	Irish	Roman Catholic	Assistant to Gaugers do Appraisers	456
Gallagher		do	Boatman	456
Beazley	do	Episcopalian	do	456
Nunn	do		do	456 456
Beazely m. Blackman			Office Keeper & Messenger.	365
Venables			Asst. to Reg. of Shipping.	78
Mullana	Irish	Roman Catholic	Tide Waiter	547
o. Bayley	English	Episcopalian	do	456
Miller	Irish	do	Day Pay Othcer	534 582
s. Grant		Presbyterian Roman Cathelic	do	561
Shea		do	do	534
Hodgers	British	Episcopalian	do	522
Hatch		do	do	612 526
Whelan	Irish	Roman Catholic	do	520
Liverpool.		·	·	
H. Freeman	British	Episcopalian	Collector	1,200
m. Bryden	do	The Bible	Landing Waiter	650
Londonderry.			•	
A. Davidson		Baptist	Collector	400
M. Crowe	do	Presbyterian	Sub-Collector	100 100
T. Corbett Fulmer	do	Mathodiat	do	60
s. McCardy		Methodist Presbyterian	Preventive Officer	60
s. Creelman	do	de	do	60

STATEMENT of the Names, Origin, Creed, Position and Pay of all the Employés of the Dominion Government.—Continued.

Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.
Custo	ME DEPARTMENT(	Province of Nova S	cotia.)—Continued.	
Lockeport.				
Geo. Stalker	British	Presbyterian	Collector	400 00
Lunenburg.				
E. Dowling Jno. Harley C. D. Mader D. Dimock Jno. Myrer W. Geldert J. Rudolf G. H. Mills	dodo dodo dodo dodo dodo	Episcopalian do	do Preventive Officer do do do	600 00 250 00 200 00 150 00 60 00 60 00 60 00
Margarets ville.				
D. W. Landers	British	Methodist	Collector	390 00
North Sydney.				
T. S. Boun. E. Boun P. Collins	do	do	Collector	1,200 00 240 00 100 00
Parrsborough.				
A. S. Townsend	do	Episcopalian  do  Methodist	Collector	400 00 150 00 100 00
Pictou.				
D. McCulloch Jas. Patterson. Wm. Campbell C. Murdoch R. Murray A. McPherson B. McLeod G. J. Campbell	do .	do do Episcopalian Presbyterian	Warehouse Keeper & Clerk Sub-Collector	1,460 00 700 00 300 00 300 00 100 00 300 00 300 00 300 00
Port of Hawkesbury.				
M. McDonald	Scotch	Roman Catholic	Collector	400 00
Port Hood.				
E. D. Tremain Jas. Ross D. McFarlane T. J. McKeen	do	Presbyterian	Collector	400 00 100 00 60 00 60 00

Names.	Origin.	Creed.	Position.	Pay per annum.
Custon	is Department.—(	Province of Nova Se	otia.)—Continued.	\$ cts.
Port Medway.				
Jos. J. Letson	British	Free Baptist	Collector	400 00
Port Mulgrave.				
V. J. Wallace W. J. Piglow J. Marshall S. McMillan A. P. McKenzie G. B. Hadley J. Anderson	do do	do Episcopalian Presbyterian do Episcopalian	Collector Sub-Collector do do do Preventive Officer do	550 00 150 00 200 00 100 00 100 00 60 00 60 00
Shelburne.				
Jas. Muir	British	Episcopalian	Collector	400 00
Sydney.		!	·	
C. E. Leonard F. E. Leaver L. Kavanagh G. Rågby C. W. W. Bown D. McKeen J. Townsend	dodo do do do do do do do do do do do do d	Roman Catholic do do Episcopalian Presbyterian	Sub-Collectordo do de de do	800 00 100 00 100 00 100 00 250 00 200 00 200 00
Weymouth.				
S. Jones A. Bourneuf J. V. Stewart R. Sanderson B. A. Robicheau	do	do do Episcopalian	Collector Sub-Collecter do do Preventive Officer	550 00 250 00 200 00 200 00 60/0
Windsor.	,			
E. O'Brien. W. Davison. A. McN. Parker T. A. Malcom. A. Roy J. Sterling J. M. O'Brien.	British	Baptist Episcopalian Presbyterian do Methodist	Collector Sub-Collector do do Collector Very Collector C	1,200 00 290 00 190 00 100 00 150 00 400 00
Yarmouth.				
T. E. Moberly. H. A. Hood. A. Lent. P. S. D. Entrement. R. Perry. M. & Porter.	Britishdododododododo	do Baptist Roman Catholic Baptist	Sub-Collectordo	1,400 0 700 0 100 0 100 0 100 0

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Names.	Origin.	Creed.	Position.	Pay per annum.
Custo	is Department.—(	Province of Nova S	cotia.)—Continued.	\$ cts.
Yarmouth Continued.	1			
R. J. Bignay	do	Roman Catholic	Landing Waiter Preventive Officer Extra Tide Waiter	400 00 60 00 400 00
Cr	USTOMS DEPARTMENT	r(Province of New	w Brunswick.)	
Bathurst.		1		
Francis Meahan Wm. Napier Wm. Armstromg John Kerr Daniel Foley.	do	Episcopalian	Landing Waiter	1000 00 400 00 160 00 400 00 100 00
Bay Verte.	<u> </u>			
Wm. W. Wood		W. Methodist	Collector	400 00
Campo Bello (Welchpool).				
John Farmer Turner Wooster	British Canadian do	Episcopalian	Collector	600 00 200 00
Caraquette.				
Jas. C. C. Blackhall	Scotch	Presbyterian	Collector	600 00
Chatkam.				
D. Ferguson J. C. E. Carmichael R. T. Millar Wm. Anderson Thos. Crunmen Wm. T. Connors	Scotch do do do do Lrish do	Presbyterian	Collector	1200 00 700 00 500 00 300 00 300 00 240 00
Dalhousie.				
Wm Montgomery. E. J. Stewart. Wm. Jamieson James McMillan Wm. Doyle R. McMillan Jehn Duncan	Scotch	do Roman Catholic	Collector	1000 00 280 00 200 00 100 00 400 00 260 00
Dorchester.				
John Hickman  R. R. Chapman  Brank Bellings	Hnglish	Methodist	Collector Sub-Collector Tide Waiter	600 00 409 90 166 08

Names.	Origin.	Creed.	Position.	Pay per annum.
Chicamara	Day manage (T	Non Boundaries	Continued	\$ cts.
Fredericton	DEPARTMENT.—(P	rovince of New Bru.	nswick.)— Continued.	
T. R. Robertson	English British Canadian	Episcopalian Methodist	Chief Clerk	1200 00 650 00 550 00 120 00
${\it Hillsborough.}$				
William Wallace Samuel Blake James Brewster John Brewster	do English	Presbyterian Baptist	Collector Tide Waiter Sub-Collector Tide Waiter	600 00 100 00 400 00 100 00
Moncton.				
James Robertson	Scotch	Methodist	Collector	800 00
Newcastle.				
W. Parker	Scotch	Presbyterian	Collector	1200 00 400 00 300 00
Richibucto.				•
Henry Livingston. John Cochrane Wm. Brown Jas. B. Rugs Oliver Richard Robert Douglas John Bowser	British Canadian do do Irish	Episcopalian Baptist Roman Catholic Episcopalian	Tide Waiter T. W., Locker & Searcher. Tide Waiter	1000 00 240 00 200 00 160 00 60 00 100 00
Richmond Station.		·		
John T. Allan Joseph Connell	Scotch English	W: Methodist Second Advent	Collector Preventive Officer	800 00 300 00
Sackville,				
James D. Dixon Stephen Siddall Rufus Cole	do	Episcopalian	Collector	
Shediac.			•	
D. Harrington	British Canadian do	Episcopalian Presbyterian	Collector Preventive Officer	880 00 120 00
Shippegan.	•			
P. J. N. Dumaresq J. Savoy		Roman Catholic do	Collector	600 00 - 60 00

Names.	Origin.	Creed.	Position.	Pay per annum.
	\ <del></del>			
Cromore	· · Danimasana (I	· 		\$ cts.
	S DEPARTMENT.—(F	rounce of New Bri	inswick.) — Continued.	
St. Andrew's.	D.:4:-1 (0	T	G.P. A.	1200 00
C. M. Gove	do		Landing Waiter and Clerk.	600 00
John Brown	Irish		Preventive Officer	456 25
St. George.				
James A. Moran Douglas Wetmore	Scotch	Baptist	Collector	700 00
Douglas Wetmore	British Canadian do			365 00 240 00
robert Sutherland	do	do	do	240 00
St. John				
J. R. FRuel H. Whiteside G. F. Matthew	English	Episcopalian	Collector	2600 00 1400 00
G. F. Matthew	British Canadian	Episcopalian	Clerk	1000 00
W. Clawson	Irish	Methodist	do	900 00 1000 00
J. Barber	British Canadian	Methodist	do	600 00
H. Vradenburgh	do	Baptist	do	850 00
J. MacLaren J. Sandall	English	Presbyterian	dodo	800 00 1100 00
A. Atcheson	do	do	do	912 50
H. P. Sandall	i do	do do	ا مہ ا	300 00 400 00
S. S. Gerow	do	Baptist	Landing Surveyor	1200 00
R. M. Longmaid	do	do Episcopalian	Waiter and Searcher	900 <b>00</b> 900 <b>00</b>
W. H. Bover	do	Methodist	Tide Surveyor	900 00
E. L. Thorn. Isaac Woodward		Episcopalian Quaker	Appraiserdo	1200 00 600 00
S. B. Paterson	do	Congregational	Appraiser and Clerk	700 00
W. J. B. Master. H. Coffey	do .	Methodist Episcopalian	Locker	550 00 550 00
P. Daley	do	do	do	550 00
W. H. Francis Thos. Burtin	do	Methodist	do	550 00 550 00
J. Himphrevs	Irish	Episcopalian	do	550 00
W. Carleton S. Daley	do	Roman Catholic	do	550 00 550 00
U. Laird	do	Episcopalian	Messenger	450 00
E. N. J. Stewart W. Johnston	British Canadian	do	GaugerTide Waiter	100 00 456 25
U. Pigeon	do	do	do	456 25
T. O. Sandall Wm. Colwall		Methodist	do	456 25 456 25
v. U Dinham		Baptist Episcopalian	do	456 25
W. H. Olive	do	do	do	456 25
D. Sinclair M. B. Owens	Trich	Methodist Roman Catholic	dodo	456 25 456 25
o, Williame	British Canadian	Bartist	do	456 25
S. Robinson W. S. Robinson	do Scotch.	do	do	456 25 80 00
W. L. Dobbin	British Canadian	Episcopalian	Laborer	365 00
J. Dixon	<b>a</b> o	Methodist	do Tide Waiter	456 25 300 00
1. Dunn	British Canadian	Presbyterian	Sub-Collector	200 00
G. K. Hawsen		BaptistPresbyterian	dodo	200 00 200 00
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Names.	Origin.	Creed.	Position.	Pay per annum.
Стятомя	DEPARTMENT.—(P	rovince of New Brur	nswick.)—Continued.	\$ cts.
St. Stephens.	l	1	1	1
H. Webber	British Canadian	Methodist	Surveyor and Gauger	1400 00 700 00 600 00 550 00
West Isles.	·			
J. E. Dixon	British Canadian	Episcopalian	Collector	-600-00
Woodstock.				
W. E. Dibbon F. W. Brown F. Tibbets J. Hartt C. S. Appleby E. M. Truessell H. Walhaupter R. Albert	do do	Methodist Roman Catholic	Sub-Collector do Preventive Officer	1000 00 400 00 400 00 100 00 100 00 100 00 200 00
	INTERCOL	ONIAL RAILWA	AY.	
Aquila Walsh Hon. E. B. Chandler C. J. Brydges Hon. A. W. McLelan S. Fleming Ralph Jones T. C. Duplessis Charles Ritchie	do English Canadian Scotch Canadian	do Presbyterian do	Commissioner do do Chief Engineer Secretary	4000 00 3000 00 3000 00 3600 00 4800 00 2000 00 2000 00 1000 00
	RECEIVER GEI	NERAL'S DEPA	RTMENT.	
T. D. Harington T. C. Bramley F. Lewis J. B. Stanton J. F. Pellant L. F. Dufresne C. W. Shay F. Hunter J. B. H. Neeve C. Gough J. B. Nash F. L. Casault F. McCaffrey.	do do do do do do British Canadian	do do do do do do do do do do Church of England Church of Scotland Church of England Roman Catholic . Church of England Roman Catholic .	Book Keeper and C'f. Clerk  1st Class Clerk  do Suppl'y  do do do  do do do  do do Senior 2nd Class Clerk  Extra Clerk  Office Keeper & Messenger.	2,600 00 2,000 00 1,600 00 1,500 00 1,500 00 1,400 00 1,400 00 1,400 00 1,400 00 400 00 400 00 400 00 500 00

E. A. Meredith ... | Irish ... | Clearch of England | Under Secretary ... | 2,600 00 |
Grant Powell ... | de ... | lst Class Clerk ... | 1,750 00

Names.	Origin.	Creed.	Position.	Pay per annum.
EPARTMENT	OF THE SECRETARY	OF STATE FOR THE	Provinces.—Continued.	\$ cts.
Henry E. Steele	French Canadian	do Roman Catholic	1st Class Supernumery Clerk 1st do do  3rd do  Private Secretary	1,400 00 1,400 00 730 00 750 00
Indian Branch.				
William Spragge  Charles T. Walcot L. Vankoughnet J. P. M. Lecourt J. V. de Boucherville F Smith J. Butler Butler Christopher Owne Harry J. Brook	do English Canadian French Canadian do English Canadian English	do Christian Roman Catholic do Presbyterian Church of England	General Indian Affairs.  1st Class Clerk, Supern'ry. Senior 2nd do do Junior 2nd do do do do do do 3rd Class Clerk	2,150 00 1,400 00 1,150 00 1,000 00 900 00 400 00 700 00 430 00 300 00
	DEPARTMEN	T OF AGRICUL	TURE.	
J. Lowe. A. J. Cambie. F. J. S. Dore. Rev. C. Tanguay S. Drapeau W. H. Johnson C. C. Neville S. Ferland N. F. Boissonault H. Casgrain J. W. O'Brien E. Têtu D. Routhier J. E. Dauteuil D. Lanigan J. B. Jackson J. F. Dionne W. J. Lynch H. G. Holkirk	English Irish English French Canadian do English do French Canadian do Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian French Canadian Irish Canadian French Canadian Irish Canadian English French Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian Irish Canadian	Church of England do do Roman Catholic do Church of England do Roman Catholic do do do do do do do do do do do do do	do do do do do do 3rd Class Clerk 2nd do 3rd do 3rd do 3rd do 3rd do 3rd do 3rd do 3rd do 3rd do 3rd do 4rd do 3rd do 4rd	2,600 00 1,200 00 1,750 00 1,250 00 1,250 00 1,150 00 1,150 00 1,020 00 1,020 00 730 00
Hewitt Bernard  John Stuart Charles Drinkwater Frederick White Edward Radford Frank George Becher 38-4	English Canadian English do do	Catholic	Deputy to Minister of Justice 1st Class Clerk 1st Class Clerk Usenior 2nd Class Clerk Junior do do do Probationary Clerk	2,600 <b>1</b> ,300 0 1,200 0 800 0 750 0

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Names.	Origin.	Creed.	Position.	Pay per annum.
	DEPARTMENT	of Justice.—Cont	inued.	\$ cts
Patrick Lynch				500 00 480 00
Di	i Epartment of	' MILITIA AND	DEFENCE	1
Minister's Office.		1	l	1
Geo. Futvoye	English	Roman Catholic	  Deputy Minister of Militia	
B. Sulte. J. R. E. Chapleau	French Canadian	do do	and Defence  1st Class Clerk  Junior 2nd Class Clerk	2,600 00 1,250 00
Account Branch.				
Robert Berry			countant	2,350 00
Evariste Gelinas C. H. O'Meara W. H. Aumond	Irish Canadian French Canadian	do	do do Junior 2nd Class Clerk	1,350 00 1,350 00 800 00 800 00
F. X. Huot W. F. Palmer N. Casault	English French Canadian.	do do do	do do Temporary Clerk Messenger	\$2 perdiem 500 0
Store Branch.				
Lieut. Col. Wily	English	Church of England	Director of Stores, &c.,	1,900 00
Geo. Grant	Irish	do	Junior 2nd Class Clerk	1,000 00 950 00 800 00 500 00
Adjutant General's Office.  W. R. Wright Lieut. Col. Stuart Grant Seymour	do	do	Mil Sec A G M 1st Class)	1,900 00 1,350 00 1,350 00 1,250 00
Grant Seymour F. X. Lambert Geo. Sherwood C. Junot I. C. Larose				1,000 00 800 00 800 00
I'. C. Larose Sir J. D. H. Hay Louis Morel Michael Ryan Col. Robertson Ross	Scotch French Canadian Irish Scotch	Church of England Roman Catholic do Church of England	de do Office Keeper Messenger Adjutant General of Militia	730 00 500 00 480 00 4,000 00
LieutCol. Powell	English Canadian.		Deputy Adjutant Genera of Militia	2,840 00
	FINANCI	E DĒPARTMENT	<b>.</b> .	
John Langton	Englishdodo	do	Deputy Inspector General.  3rd Class and Private Sec-	2,600 00 2,600 00 900 00
1	ì	26	retary	

Names.	Origin.	Creed.	Position.	Pay per annum.
	j Finance De	 :PartmentContin	i ued.	\$ cts.
Thomas Cruse. C. J. Anderson. G. M. Jarvis. R. W. Baxter J. A. Torrance. R. O'Reilly H. A. Jones. John Simpson James Patterson. E. C. Barber J. B. Simpson. W. H. Cotton. Thomas Hector Thomas Cross. Archibald Cary Frederick Toller W. A. Blackmore. George Aumond. W. L. Orde R. J. Killaly Thomas Ross. C. W. Jones. J. D. Tims. J. Young. J. Rhodes. Patrick Pender	Irish English do Scotch English do Scotch Irish English do Scotch English do do do do do do do Trench Canadian English Irish Canadiau English Irish Canadiau English Irish English Irish Canadiau English Irish English Irish	Church of Rome Church of England do do do Methodist Church of England do do do do do do do do do do do Church of Rome Church of England do do Church of Rome Church of England do Church of Rome Church of England do co Church of England do do do co Church of England do do do co Church of England do do do co Church of Rome Church of Rome	1st Class Clerk Chief Clerk 1st Class 1st Class Supernumerary do do do do do do Junior Second  Assistant Auditor 1st Class do Supernumerary Junior Second 3rd Class 1st do Grand do Jard do Jard do Jard Secrety Senior Second Junior do and Secrety printing Dominion Notes Probationary 3rd Class Chief Clerk and Accountant Contingencies Junior Second Financial Inspector Junior Second Second Financial Inspector Junior Second Junior Second Junior Second Junior Second Junior Second Junior Second Junior Second Junior Second Junior Second	1,300 G0 1,300 G0 700 00 700 00 2,400 00 1,330 00 1,350 00 1,350 00 1,500 00 650 00 1,100 00 1,150 00 800 00 300 00 2,150 00 2,150 00 2,000 00 1,000 00 400 00 500 00
John Pender Thomas Cond Treasury Board.	do	do do	dodo	480 00 390 00
J. M. Courtney	English	Church of England	Chief Clerk	2,000 (0
•	TH	E SENATE.		
Robert LeMoine			Cashier and Accountant.	2,400 00
Fennings Taylor		do	and Master in Chancery Law Clerk, Clerk of Com's.	2,000 00
E. L. Montizambert  Rev. John Johnston  James Adamson  Peter Miller  John George Bourinot	Irish do	do do	and English Translator Chaplain First English Clerk 2nd English Clerk 3rd English Clerk and Short-	1,600 00 200 00 1,100 00 1,000 00
	1		English Clerk and Clerk of	900 00
A. A. Boucher	French Canadian	Roman Catholic	Private Bills First French Translator and	800 00
Alfred Garneau	do	do	ClerkSecond French Translator	1,300 00
J. de St. Dennis LeMoine	do	<b>d</b> o	and Clerk	1,200 00
Victor E. Tessier	do	do	and Sergeant-at-Arms Clerk of French Journals	500 00 900 00

27

Names.	Origin.	Creed.	Position.	Pay per annum.
	THE SE	ENATE. — Continued.		\$ cts
J. B. Myrand S. Skinner E. Botterell Peter Rattey Peter Dunne J. Wingfield	do English do French Canadian. Irish Scotch.	do Baptist Church of England Reman Catholic do Scotch Church	Gentleman Usher of the Black Rod. Post Master House-keeper House-keeper Speaker's Messenger Assistant House - keeper, News Room, &c. Assistant Door - keeper Wardrobe, &c. Bank Messenger, &c.	1,000 0 800 0 800 0 400 0 700 0 700 0 500 0
James Doherty Thomas Wheeler Louis Robitaille John Dunne A. Boucher A. Douaire J. C. Young John Wingfield J. N. Rattey Edward Buche Louise Lubbée Latherine Young Horrier Pothier	do French Canadian Irish do Irish do Scotch do French Canadian French Canadian Irish French Canadian French Canadian	do do do do do do do do Church of Scotland Roman Catholic	do do do do Permanent Charwomen. do do do do do do do do do do do do do	80 cents per diem
	Housi	E OF COMMONS.		
Alfred Patrick Wm. Fanning	English Canadian.	Church of England Church of Rome	Clerk of the House Clerk \(\ssistant\) Second Clerk Assistant and Translator of Votes and Proceedings and Journals Sergeant at Arms	1,925
Law Department.				
	French Canadian.	Church of Rome	Assistant Law Clerk and Chief French Translator. Assistant Law Clerk and	1,750
Accountant's Department.			Chief English Translator.	1,750
Fhomas Vaux	do	W. Methodist Church of England	Accountant Assistant Accountant and Book-Keeper	1,750 1,050
Boutine and Records Depart ment, E. Mac Gillivray		Prosbutarion	Clerk of Routine & Records	1,050

	The state of the s			
Names.	Origin.	Creed.	Position.	Pay per annum.
	House of	Commons.—Continu	d : "	
General Department.				\$ cts.
	Unner Canadian	Church of England	Chief Office Clerk and Clerk	Ψ 003.
-		_	to Printing Committee	1,750 00
H. B. Stuart				800 00
Ed. Dénéchaud			French Writing Clerk	1,050 00 800 00
H. R. Smith	English Canadian.	Church of England	do	800 00
Henry Lindsay	Scotch Canadian	W Mathadiat	do	800 00 800 00
C. Panet	French Canadian	Church of Rome	do	800 00
Wm. C. Bowles	Irish Canadian	W. Methodist	do	8 0 00
J. E. B. McCready				800 00 800 00
R. McG. Moffatt	Nova Scotlan	onuren of England	do	- 800 00
Controverted Elections,				
J. P. Leprohon	French Conscion	Church of Pome	Clerk of Controverted	
<b>6.1.</b> Depronon	French Canadian	Charen of Twine	Elections	1,400 00
Committee Department.	i		-	
Alfred Todd	English	Cathle Apestolic C.	Chief Clerk of Committees	
	!	1	and Clerk of Private Bills	1,750 00
T. Patrick	English Canadian.	do	2nd Clerk of Committees and Clerk of Railway	1,312 50
			Committees	,
F. X. Blanchet	French Canadian.	Church of Rome	3rd Clerk of Committees	1,000 00
Votes and Proceedings.				
H. Poetter	German	Church of England	Clerk of Votes and Proceed-	1 007 00
			ings	1,225 00
French Translators' Department.	•			
T. G. Coursolles	French Canadian.	Church of Rome	Assistant French Translator	1,400 00
J. F. Gingras	do	do	do do	1.225 00
E. Blain de St. Aubin			do do do	1,225 00 870 00
H. A. McCoy	1119:11		1 40	0,000
English Translators' Depart ment.	-			
Wm Wilnes	En aliah	Church of Frederic	Aggigtant English Trangleton	1,400 00
F. Hayes	Irish	Church of Rome	AssistantEnglishTranslator do do	1,400 00
Tanana I Danasaha a d				
- Journal Department.	i			1
W. B. Ross	Scotch Canadian	Church of England	English Journal Clerk French Journal Clerk	1,400 00
P. Rivet		Church of England	French Journal Clerk L'Assistant English Journal	1,225 00
A. G. D. Taylor	. Ingusii Cananian .	Church of England	Clerk	875 00
Post Office Demands. and	-			
Post Office Department.				
F. N. Belcourt	. French Canadian.	Church of Rome	Postmaster	875 00

Names.	Ortgin.	Creed.	Position.	Pay per annum.
	House or	Commons.—Contin	ucd.	i
Sergeant-at-Arms Deparment,	-			\$
J. O'Connor. Jos. Lemonde Ed. Pelletier Wm. Graham	Irish French Canadian do Irish English Irish French Canadian Irish French Canadian Irish Go Irish French Canadian do Irish French Canadian	do do do do do do do do do do do do do d	1 do do do do do do do do do do do do do	1,160 00 700 00 700 00 600 00 600 00 600 00 600 00 600 00 600 00 600 00 400 00 400 00 400 00
Extra Service.  F. Bedard	German Canadian English Scotch Canadian French Canadian French Canadian English Canadian French Canadian English Irish English Canadian do do do English Canadian French Canadian	do Church of England Church of Scotland Church of Scotland Church of England Church of Rome Baptist W. Methodist Church of Rome Unitacian Church of Rome do do do Church of England Church of Rome Church of Rome Church of England Church of England	do do do do do do do do do do do do do d	<b>\$7</b> 00 per diem.
J. B. Asselin, sen. J. B. Lajoie. Jos. Turgeon P. Labelle W. Atley C. Brazeau R. C. Boudreault J. C. Jones V. Bryce A. Lortie E. Desrocher S. Lefranchise J. Martel A. Reddick N. Jeullet.	do do do English French Canadian do Irish Canadian Irish Go do do Trish French Canadian do do do Trish	do do do Church of England Church of Rome .  do do do do do do Church of Church of Rome .	do	\$2 per diem.

House of Commons.—Continued.  Sessional Massengers.—Continued.  B. Champagne French Canadian Church of Rome Extra Messenger do do do do do do do do do do do do do		ſ	1	1		1
Sessional Messengers	Names.	Origin.	Creed.	Posi	tion.	Pay per annum.
Sessional Massengers		T	(Commence of the	,		
Continued   R. Champagne   French Canadian   Church of Rome   Extra Messenger   do do do do do do do do do do do do do	~	House of	Commons, — Continu	ea.		
M. Canningham   Scotch   do   do   do   do   do   do   do   d		į				İ
J. Hurley	B. Champagne	French Canadian	Church of Rome	Extra Messen		
C. Kayanagh	M. Cunningham	Scotch	do		• • • • • • • • • • • • • • • • • • • •	\$2 00 per
James Sinclair	C. Kavanagh	do	do	do		
James Sinclair	J. Maguire	do	do	do		
James Sinclair	R. W. Fletcher	Austranan	Church of England	1 W		\$2 during
P. Lynch	James Sinclair	Scotch	do .	House Carper	nter	
E. Valliquette.   French Canadian   do	•			_		[ 
G. Barrette	P. Lynch	Irish Canadian	Church of Rome	Page	)	
H. McNaughton	G. Barrette	l do .	l do			
E. Fisher	E. Wood	English Canadian.	W. Methodist			
E. Steacy	E. Fisher	do	Church of England			\$1.50 per
O. Boudreault	E. Steacy	l do	do .	do		diem.
O. Boudreault	E. Hayes	do	Church of Rome			
English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  English Canadian  Church of England  English Canadian  English Canadian  Church of England  English Canadian  English Canadian  Church of England  English Canadian  English Canadian  English Canadian  Church of England  English Canadian  English	O. Boudreault	French	do			
Engineers, dc.  A. Kerr. Scotch Canadian Presbyterian Chief Engineer Church of England Stoker do Despite diem.  J. Little do Presbyterian do Woodman do Woodman Stotch Woodman do Woodman do Church of England Chu	F. Lamb	Irish Canadian	do	Wash Room.		\$1 per
A. Kerr	T. Storr	English Canadian.	W. Methodist	αο .	···········	diem.
Charwomen.  Bridget Kennedy. Irish Church of Rome Charwoman Mary C. Martel. Irish Canadian do do do Ann Maguire Irish do do do do do Angele Bolduc do do do do do do do do do do do do do	Enginecrs, &c.					
Charwomen.  Bridget Kennedy. Irish Church of Rome Charwoman do do do do do do do do do do do do do	A. Kerr	Scotch Canadian	Presbyterian	Chief Enginee	er	\$2.50 per
Charwomen.  Bridget Kennedy. Irish Church of Rome Charwoman do do do do do do do do do do do do do	R. McLaren	Irish	Church of England	Stoker	)غ	diem.
Charwomen.  Bridget Kennedy. Irish Church of Rome Charwoman do .	R. Macfarlane	Scotch	do	Woodman	te d	
Charwomen.  Bridget Kennedy. Irish Church of Rome Charwoman do .	P. Secord	French Canadian .	Church of England	Fire Lighter.	wir wir	
Charwomen.  Bridget Kennedy. Irish Church of Rome Charwoman do do do do do do do do do do do do do	S. Norton	Irish	do .	Woodman	g &	
Bridget Kennedy.	W. Montgomery	do	do .	Gas Lighter .		
Bridget Kennedy.	CI.					
Mary C. Martel         Irish Canadian         do         Permanent         50 cts. pe         do </td <td></td> <td>Trich</td> <td>Church of Rome</td> <td>Charwoman)</td> <td></td> <td></td>		Trich	Church of Rome	Charwoman)		
Ann Maguire   Irish   do   do   do   do   do   do   do   d	Mary C. Martel	Irish Canadian	do	do		
Angele Bolduc do do do do do do do do do do do do do	Ann Maguire	Irish				
O. Valiquette do do do do do Janet McCallum Scotch Church of Scotland do Church of Rome do do do do do do do do do do do do do	Angele Roldne	French Canadian .		do l		
Agathe Normand	O. Valiquette	do .			Permanent	
Agathe Normand	Janet McCallum	Scotch	Church of Scotland	do		uicii.
J. Valiquette	Agathe Normand	French Canadian .	do			
E. Pelan	J. Valignette	do .	do	do J		
M. Williamson   do	L. Pelan	Irish			-	
A. Rainville   French Canadian   Presbyterian   do   do   Church of Rome   do   do   do   do   do   do   do   d	M. Williamson	do	Church of Rome			
A. Faquette	A. Rainville	French Canadian .	Presbyterian			
A. Brunell	A. Paguetto	do .				
Mrs. Kelly do	A. Brunell	l do .	<b>d</b> o			50 cta no-
Mrs. Janyeau French Canadian do do do	M. Chalifour	Irish	do		510H	
Sentable 1	Mrs. Kelly	do	go ··			
31	оаптари	Trenen Canadian .	31 as	, )		ı

Names.	Origin.	Creed.	Position,	Pay per annum.
	GOVERNOR	GENERAL'S OF	FICE.	\$ cts.
	77 1:1	33	IC	0.400.00
F. Turville H. Cotton			Governor's Secretary	2,400 00 1,950 00
T Kidd	do	do	1st Class Clerk	1,400 00
F. D. Burrowes	Irish	do	2nd do	800 00 500 00
G. Smith Sergt. Stroulger	do	do	Orderly	183 00
POST	OFFICE DEPAR	TMENT _(Head.)	Office at Ottawa	
		·		
		Church of England do	Deputy P. M. General	2,600 00 2,050 00
W. White	do Canadian	Church of Scotland	Secretary   1st Class Clerk	1,250 00
G. H. Hargrave	English	Church of England	Senior 2nd Class Clerk	1,100 00
B. King	Canadian	do do	$egin{array}{cccccccccccccccccccccccccccccccccccc$	1,150 00 1,500 00
R. Sinclair	Scotch	do	Senior 2nd do	1,150 00
H. J. Garratt		do	do do	1,100 00
W. S. Thomas	do	do	Sec'ty, to P. M. General.	1,100 00
H. W. Griffin	Canadian	do	Junior 2nd Class Clerk	850 00
J. Plunkett	Irish	Roman Catholic	do do	800 00 700 00
A. Lindsay	Canadian	do	do do 3rd Class Clerk	500 00
A J Roswell	do	do	do	500 00
W. A. Maingy	Island of Jersey	do	Junior 2nd Class Clerk	700 00 450 00
E. H. Fletcher	do	do do	3rd Class Clerk	400 00
P. J. Vankoughnet	do	do	Probationary	300 00
H. A. Wicksteed	English	do do	Chief Clerk	2,250 00 1,500 00
E. C. Hayden	do	W. Methodist	do do	1,250 00
R. Oliver	Trish	Church of England	1st Class Supernumerary	1,400 00
J. Audette E. H. Benjamin	Canadian	Church of England	1st Class Clerk	$1,300 00 \\ 1,100 00$
P. E. Bucke	English	do	do	1,100 00
J. McNab	Canadian	do	Junior 2nd Class	750 00
C. Roger		Church of Scotland	do 3rd Class	700 00 500 00
G. M. Patrick	Trish		Junior 2nd Class	700 00
R. J. Oliver	Canadian		3rd Class	500 00 450 00
D. McCarthy	Canadian	do Church of Scotland	do	450 00
C. Ready	do	Church of England	Probationary	300 00
J. Ashworth	do	∤ do	Chief Clerk	1.850 00 1.000 00
J. Boyd P. Lesueur	Island of Jersey		Junior 2nd Class	2,300 00
C. W. Jenkins	English	do	1st Class	1.250 00
J. Brophy	Irish	Roman Catholic	Senior 2nd Class	1,150 CO 900 00
E. G. Bennett	do	Free Church	do do	750 00
R. J. Shaw	English	W. Methodist	3rd Class	600 00 500 00
C. J. Higgins	Irish		do	500 00
L. Blanchet	Canadian	Church of England	do	1 500 00
M. K. Dunlevie	do	do	do	500 00 1,850 00
J. C. Stewart D. Matheson	Irish	do	Chief Clerk	1 150 00
S. Burnham	Canadian	Church of England	3rd Class	500 ₩
J. R. Smith		: do	do	450 00
		32		

		1	1	
Names.	Origin,	Creed.	Position.	Pay per annum.
				\$ cts.
	Pour Ourtain	' Department.— <i>Cont</i>	inned	, 4 3002
T T marks				
S. Armstrong S. Smith, jr Wm. H. Harrington William Henricas Kreps.	do	Church of England do Baptist Roman Catholic	do	300 00 300 00 300 00 300 00 300 00 45 per mo.
M. May. N. Garland. James F. Wall G. Rance. J. Yorrick	Irish Canadian do English	W. Methodist Church of England Roman Catholic Church of England	do do do do do do do do do do do do do d	45 per mo. 45 per mo. 45 per mo. 500 00 450 00
W. O'Brien M. Bennett Charles Cotterill. Samuel Greenfield R. B. McEwan	Canadian	Roman Catholic do Church of England do	do do Laborer do	450 00 420 00 365 00 365 00 365 00
Ocean Mail Service.		:		
W. F. Bowes S. T. Green F. Barlee James Ferguson James O'Hara. B. F. Campbell E. Elondeau H. R. Sewell	do English	do do	Ocean Mail Clerk do do do do do do do do do Acting do	*600 00 *600 00 *600 00 600 00 †480 00 †420 00 †360 00 †420 00
Chief Inspector's Office.				
		Church of England do	Chief Post Office Inspector 3rd Class Clerk	2,400 00 600 00
Railway Mail Clerks attached thereto.				
J. D. Thompson. N. W. H. Curtis P. Pennock E. Gordon. A. Jones.	do do	Wesleyan Church of England	lst Class R. M. Clerk do do do do do do do do do do do do do do do do	960 00 960 00 800 00 640 00 480 00
Inspector's Office—London Division.				
Gilbert Griffin Geo. Cox H. A. Johnson A. Thomson F. Cronyn M. O'Meara	do	do Baptist Free Church	P. O. Inspector.  1st Class Clerk. 2nd do 3rd do 4th do Porter	2,000 00 1,280 00 1,100 00 800 00 500 00 1 per diem
Railway Mail Clerks attached to London Division.	•	,		
P. Purdon	Irish Canadian	Church of England do	1st Class Clerkdo	960 00 960 00

Names.	Origin,	Creed.	Position.	Pay per annum.
•	Post Office	DEPARTMENT.—Con	tinued.	!
Railway Mail Clerks attached to London Division.—Continued.				\$ cts
		Church of England	1st Class Clerk	960 00
A. G. McWhinney	Irish	do	do	960 00
Wm. Mathews	do		do	960 00 960 00
<b>A.</b> Kerby	do ,	Church of England	2nd Class Clerk	800 00
	Scotch	Free Church	do	800 00
M. Wright		Church of England do	do	800 00 720 00
A. J. Patton	Canadian		do	640 00
		Church of England		720 00
H. Cousins	Canadian	Free Church Church of England	do	640 00 720 00
R. Kelly		Wesleyan	do	640 00
W. J. Jarvis	Irish	Church of England		520 00
C. Fisher		do do	do	480 00 480 00
	Canadian	do	do	480 00
H. Mercer	do	do	do	480 00
L. Sewell	do	do Roman Catholia	do	480 00 480 00
F. H. Mickleburgh	English	Church of England		480 00
W. Mitchell	Canadian	Roman Catholic	do	480 00
G. V. Salter	do	Church of England	do	480 00
Inspector's Office, Toronto Division.				
M. Sweetnam	Canadian	Weglevan	Post Office Inspector	2,000 00
W. Cuppage	Irish	Free Church	2nd Class Clerk	'980 '00
J. J. Mason	Canadian	Church of England	do	1,100 00 600 00
H. W. Jackson		do do	3rd do	760 00
J. B. Robinson		do	Probationary	300 00
J. Buchan	Scotch	Free Church	Messenger	\$1 00 per diem.
Railway Mail Clerks attacked to Toronto Division.				
R. MacGillivray	Israedian	Church of England	Foreign Mail Clark	1,100 00
M. Malone I	rish	Roman Catholic	do	1,100 00
. McCarthy	do	do	1st Class Clerk, R.M.C	960 00 960 0 <del>0</del>
W. Sheppard S. Carruthers S.	do	Unurch of England	do	800 00
. Pindlay		do	do	800 00
Davidson	Canadian	Roman Catholic	do	800 00 800 00
F. Fenw ck	do	Free Church	do	720 00
V. Butler	anadian	Church of England	do	720 00
	righ	do	do	720 00 720 00
V. G. Griffith			do	
V. G. Griffith	do	Methodist		720 00
V. G. Griffith I P. Hynes C. O. Bennett	Canadian	Methodist	do	800 00
V. G. Griffith	Canadian	Methodist	do	720 00 800 00 640 00 640 00

Names.	Origin.	Creed.	Position.	Pay per annum.
	Post Office	 Department.— <i>Con</i>	tinued.	
Railway Mail Clerks attacked to Toronto Division.—Con- tinued.				\$ cts
P. J. Treshy G. A. Shaw C. G. Birchall G. Way J. F. Ruttan C. A. Corbett, jr. G. F. Jarvis J. J. H. Winstanley W. Noble	Canadiando	Church of England do do do do do do do do do	2nd Class Clerk.  do de do  Brd Class Clerk do do do Temporary Clerk	640 0 640 0 640 0 640 0 480 0 480 0 480 0 500 0 \$40 permo
Inspector's Office, Kingston.	a v		D tom I	1 600 0
S. W. Barker J. Meagher A. Jones	Irish	Koman Catholic	Post Office Inspector	1,600 00 640 00 400 00
Railway Mail Clerks attached to Kingston Division.				
W. F. Burnham	do	Church of England Church of Scotland Roman Catholic		640 00 480 00 480 00
Inspector's Office, Montreal.				
E. F. King L. W. Hayden C. W. King J. Logie Savid Nelligan P. Nelligan	do	do do Church of Scotland	Post Office Inspector Chief Clerk 3rd Class Clerk do do Messenger	2,000 00 1,280 00 600 00 600 00 \$1 00 per diem.
Railway Mail Clerks attached to Montreal Division.				
A. Ross	do	do	1st Class Clerk	960 00 960 00 800 00
Bayley Somerville O Jones	Canadian	do do	dodo	800 00 800 00 720 00
Couillard Lefebvre Lefebvre Vm. Murphy	dododododo	Roman Catholic do do do	dodo do do	720 00 720 00 720 00 720 00
V. H. Flood Briegel	do	do Church of England Lutheran	dodo	720 00 720 00 640 00
Denis Menzies Ermatinger L. Mercier	do	Roman Catholic Church of England Roman Catholic	do do 3rd Class Clerk	720 00 640 00 480 00 480 00
O. Benoit	de	35 do	do	480 00

Names.	Origin.	Creed,	Position.	Pay per annum.
	Post Office 1	Department.—Cont	inued.	
Railway Mail Clerks attached to Montreal Division.— Continued.				\$ ct
W. D. SmithL. N. DionneE. Webb	do	Church of England Roman Catholic Church of England		480 0 480 0 480 0
Inspector's Office, Quebec.				
W. G. Sheppard           A. A. De Gaspé		Church of England Roman Catholic	Post Office Inspector	2,000 0
O. Fréchette	do	do do	3rd Class Clerk	680 00 300 00
Railway Mail Clerks attached to Quebec Division.				
J. T. C. Murphy H. A. Murphy J. Garwin J. L. Anetil N. A. Beaudet J. Deslaurièrs G. Lapointe C. Vohl	do	do do do do do	2nd Class Clerk do do	960 0 960 0 800 0 720 0 720 0 640 0 520 0
Inspector's Office, St. John, New Brunswick.				
John McMillan Wm. Paisley W. C. Whittaker W. H. Black C. A. Murray W. R. Avery W. Bannister	English Canadiando	Church of England Methodist Church of England Bantist	Chief Clerk	2,000 0 1,200 0 800 0 700 0 450 0 300 0 350 0
Railway Mail Clerks attached to New Brunswick Division.				
D. W. Blizzard	do	Baptist	Temporary	480 0 480 0 480 0
Inspector's Office, Halifax, Nova Scotia.				(N. S. Currency
A. Woodgate	English	Church of England	Post Office Inspector and Postmaster	
T. M. Fassow	do	do	Assistant to Inspector and Postmaster	1.621 9
T. Southall	do	do do Church of Scotland	Clerk do	816-9 304-1 5 <b>06</b> -8

NAMES.	Origin.	Creed.	Position.	Pay pe annum
				\$ ct
Inspector's Office, Halifax, Nova Scotia.	Post Office	DEPARTMENT Cont	tinued.	
Circulation Department.	1	1		(N.S. Currency
V. Small	Canadian		Assistant Postmaster	810
B. W. Cochran	do	do	Clerk do	810 810
L. Burnham	do	Methodist	do	506
Cunningham	do		do	506 608
D. Story	do			304
V. H. Chamberlain	do	do	do	304
V. H. Donovan		Roman Catholic Church of England	do	304 304
R. R. McMillan	do	Weslevan	Messenger	405
Smith	do	do	Letter Carrier	405
I. Collins	do	Roman Catholic do	do	405
I. Frider	do	Church of England	do	405
. Wilson	do	do	do	405
Sanders V. Craig.		1 3.	Detimal 1.	304
V. Craig. V. Tremaine L. Barnhill Doyle	Scotch	do	Retired do 2nd Class Rail'y Mail Cl'k.	608
. L. Barnhill	do	Church of Scotland	do 3rd Class.	486
Doyle	do	Roman Catholic	do do .	486
. Parker . H. Thorne	do	Church of England	Supt. M. O. Office	486 621
W. Creighton	1 do	do	Clerk	810
. B. Gray	do		do	608
S. Thorne Curran	do	Church of England	do Messenger	304 506
	Jangian			
London Post Office.				\$ c
. Lawless	Trish	Wesleyan	Doctmonton	1 040
	*******			
J. C. Dawson	Canadian	do	Assistant Postmaster	1,100
. Garden	Canadian	do Presbyterian	Assistant Postmaster 2nd Class Clerk	1,100
Garden D. Sharman D. Dalton	Canadian Scotch Irish	do Presbyterian Church of England Weslevan	Assistant Postmaster 2nd Class Clerk do	1,100 900 900 720
Garden D. Sharman D. Dalton Hunter	Canadian Scotch Irish	do Presbyterian Church of England Weslevan	Assistant Postmaster 2nd Class Clerk do	1,100 900 900 720 600
Garden D. Sharman D. Dalton Hunter McLaughlin	Canadian Scotch Irish Canadian Irish	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic	Assistant Postmaster 2nd Class Clerk do 3rd do do do	1,840 1,100 900 900 720 600 600
Garden	Canadian Scotch Irish Canadian Irish do do	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Boman Catholic	Assistant Postmaster 2nd Class Clerk do do do do do do do do do do do do do do do do Probationary	1,100 900 900 720 600 600 600 300
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson	Canadian Scotch Irish Canadian Irish do do Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England	Assistant Postmaster 2nd Class Clerk do 3rd do do do do do do do do do Probationary do	1,100 900 900 720 600 600 600 300
Garden	Canadian Scotch Lrish Canadian Lrish do do Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do	Assistant Postmaster 2nd Class Clerk do 3rd do do do do do Probationary do Letter Carrier	1,100 900 900 720 600 600 600 300 300 pd. by fe
Garden	Canadian Scotch Lrish Canadian Lrish do do Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do	Assistant Postmaster 2nd Class Clerk do 3rd do do do do do do do do do Probationary do	1,100 900 900 720 600 600 600 300 300 pd. by fe
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson hn Nicholls artin O'Meara  Hamilton Post Office.	Canadian Scotch Lrish Canadian Irish do do Canadian English Lrish	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Roman Catholic .	Assistant Postmaster 2nd Class Clerk do 3rd do do do do Probationary do Letter Carrier Messenger	1,100 900 900 720 600 600 600 300 300 pd. by fe
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson Nicholis artin O'Meara  Hamilton Post Office. E. Ritchie	Canadian Scotch Lrish Canadian Irish do do Canadian Canadian Lrish Canadian Canadian Lrish Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Roman Catholic Church of England	Assistant Postmaster 2nd Class Clerk do 3rd do do do do do Drobationary do Letter Carrier Messenger	1,100 900 900 720 600 600 300 300 pd. byfe 365
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson blu Nicholis artin O'Meara  Hamilton Post Office. E. Ritchie enry Calbeck	Canadian Scotch Irish Canadian Irish do do Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Church of England do Church of England	Assistant Postmaster 2nd Class Clerk do 3rd do do do do do do Letter Carrier Messenger  Postmaster Assistant Postmaster	1,100 900 900 720 600 600 300 300 pd. by fe 365
Garden. D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson Wilson Mn Nicholis artin O'Meara  Hamilton Post Office. E. Ritchie enry Colbeck harles Howard Ifred Crief	Canadian Scotch Lrish Canadian Irish do do Canadian English Lrish Canadian English Canadian Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Roman Catholic Church of England do Wesleyan	Assistant Postmaster 2nd Class Clerk do 3rd do do do do do Drobationary do Letter Carrier Messenger	1,100 900 900 720 600 600 300 300 9d. byfs 365 2,000 1,100
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson Nicholis artin O'Meara  Hamilton Post Office. E. Ritchie enry Colbeck harles Howard lfred Crisp A. Eager	Canadian Scotch Lrish Canadian Irish do do Canadian English Canadian Lrish Canadian Lrish Lrish Canadian Lrish Canadian Lrish	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Roman Catholic Church of England do Wesleyan do O Church of England do O Church of England do O Church of England	Assistant Postmaster 2nd Class Clerk do 3rd do do do do do do Letter Carrier Messenger  Postmaster Assistant Postmaster 2nd Class Clerk do do	1,100 900 900 600 600 300 900 pd. by fe 365 2,000 1,100 1,100 1,100
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson Dhn Nicholls artin O'Meara  Hamilton Post Office. E. Ritchie enry Colbeck harles Howard lfred Crisp A. Eager B. Eager	Canadian Scotch Irish Canadian Irish do do Canadian Canadian English Irish Canadian Canadian Canadian Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Roman Catholic Church of England do Wesleyan do Wesleyan do do	Assistant Postmaster 2nd Class Clerk do 3rd do do do do do Drobationary do Letter Carrier Messenger  Postmaster Assistant Postmaster 2nd Class Clerk do do do do do do do do do do do do do	1,100 900 900 720 600 600 300 300 pd. by fe 365 2,000 1,100 1,100 1,100 900
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson hin Nicholis artin O'Meara  Hamilton Post Office. E. Ritchie enry Colbeck harles Howard lifted Crisp A. Eager R. Eager R. Eager H. Avmstrong	Canadian Scotch Lrish Canadian Irish do do Canadian English Lrish Canadian English Irish Canadian English Irish	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Roman Catholic Church of England do Wesleyan do Church of England do Church of England do Church of England	Assistant Postmaster 2nd Class Clerk do 3rd do do do do do Probationary do Letter Carrier Messenger  Postmaster Assistant Postmaster 2nd Class Clerk do 3rd do do do do do do do do do do do do do d	1,100 900 900 600 600 300 300 pd. by fe 363 2,000 1,100 1,100 1,100 900 800
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson Ohn Nicholls Lartin O'Meara  Hamilton Post Office. E. Ritchie enry Colbeck harles Howard lfred Crisp A. Eager R. Eager H. Armstrong homas Burns homas Burns Ames Gradon	Canadian Scotch Irish Canadian Irish do do Canadian English Irish Canadian Canadian Canadian Canadian Control Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Roman Catholic Church of England do Wesleyan  do do Church of England do Church of England do do Church of England	Assistant Postmaster 2nd Class Clerk do do do do do do do do do Drobationary do Letter Carrier Messenger  Postmaster Assistant Postmaster 2nd Class Clerk do do do do do do do do do do do do do	1,100 900 900 600 600 300 pd. by fe 365 2,000 1,100 1,100 1,100 900 800 600
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson Ohn Nicholls Lartin O'Meara  Hamilton Post Office. E. Ritchie enry Colbeck harles Howard lfred Crisp A. Eager R. Eager H. Armstrong homas Burns homas Burns Ames Gradon	Canadian Scotch Irish Canadian Irish do do Canadian English Irish Canadian Canadian Canadian Canadian Control Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Roman Catholic Church of England do Wesleyan  do do Church of England do Church of England do do Church of England	Assistant Postmaster 2nd Class Clerk do do do do do do do do do Drobationary do Letter Carrier Messenger  Postmaster Assistant Postmaster 2nd Class Clerk do do do do do do do do do do do do do	1,100 900 900 600 600 300 9d. by fe 365 2,000 1,100 1,100 1,100 900 800 600 600
Garden D. Sharman D. Dalton Hunter McLaughlin J. Mathews J. O'Meara Wilson Nicholis artin O'Meara  Hamilton Post Office.  E. Ritchie enry Colbeck harles Howard lfred Crisp A. Eager R. Eager R. Eager H. Armstrong homas Hurus anes Gordon B. Ferguson eorge H. Mathews after Murus	Canadian Scotch Irish Canadian Irish do do Canadian English Irish  Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian Canadian	do Presbyterian Church of England Wesleyan New C. Methodist Roman Catholic Wesleyan Roman Catholic Church of England do Roman Catholic Church of England do Church of England do do Church of England do Church of England do Church of England do Church of England do Church of England do Church of England do Church of England	Assistant Postmaster 2nd Class Clerk do do do do do do do do do Drobationary do Letter Carrier Messenger  Postmaster Assistant Postmaster 2nd Class Clerk do do do do do do do do do do do do do	1,100 900 900 600 600 300 300 pd. byfe 365 2,000 1,100 1,100 1,100 800 800 600 300 300

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				Par nau
Names.	Origin.	Creed.	Position.	Pay per annum.
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		1	1	l
	POST OFFICE	DEPARTMENT.—Con	tinued.	
m But Office	t		ŧ	ı
Toronto Post Office.				
Joseph Lesslie	Scotch	Toronto Brothren.	Postmaster	2,00.
George H. Backers	Irish	Baptist	Assistant Postmaster	1,400 00
John H. Davis	Gootah	Erea Church	do	1,100 00 1,100 00
John Carruthers Alfred Cooper	English	Toronto Brethren	do	1,020 00
Aylmer Langley	Irish	Church of England	do	1,020 00
Aylmer Langley	English	Toronto Brethren.	do	1,020 00
Alfred Barley	do	Church of England	do	900 00
Joseph Saulter	Irish	do	3rd do	720 00 800 00
John Forsyth	do	do		720 00
A. Harstone Henry Falkiner	Irish	Church of England	do	640 00
Donald P. Ross	Canadian	Christadelphian	do	640 00
Wm. Wright	English	(Weslevan	do	640 00
Henry Boulter	do	Church of England	do	600 00
Charles R. Butler	Canadian	Fran Church	do	600 00
Wm. London	English	Church of England	do	600 00
B. M. Armstrong John Monaghan George A. Ross.	Canadian	do	4th do	500 00
John Monaghan	Irish	Roman Catholic	do	500 00
George A. Ross	Canadian	Church of England	do	500 00
Benjamin Langley James A. Brodie	do	Baptist	do	500 00 500 00
John Egan	English	Roman Catholic	do	300 00
Christopher Beatty	Canadian	Church of England	do	300 00
Charles F. Smith	do	1 do	do	300 00
Doton Done	·Qaotah	do	do	400 00
Robert Stephens	Canadian	do	Supt Letter Carriers	500 00 440 00
John McClosky	Irish	Roman Cathone	do	400 00
James Alston	English	None	do	400 00
J. Bazelev	do	Church of England		400 00
J. Bazeley	do	Wesleyan	do	300 00
John Hudson	Irish	Church of England	<b>d</b> o	300 00 300 00
Thomas Roddy	Canadian	Hran Church	do	300 00
J. Loughead	do.	Rantist	Box Collector	300 00
Thomas Crotty John Hodkinson Joseph H. Roden	English	Wesleyan	do	300 00
Joseph H. Roden	Irish	do	Housekeeper	380 00
Alexander Beaty	Canadian	Church of England	Porter	400 00
M. Shannon	do	Free Church	Temporary Letter Carrier .	21 ber day
Kingston Post Office.				
District	a 11	Olamak af Familian d	D44	1.840 00
Robert Deacon			Postmaster	1,000 00
Alex Maguire			3rd Class Clerk	940 00
John Kelly	do	Roman Catholic	do	760 00
Robert T. Burns	Canadian	Church of England	do	680 00 300 00
Robert Deacon, jr	do		Probationary	300 00
Patrick Lindsay	GO	do	do Letter Carrier	480 00
W. T. Laws	English		Messenger	300 00
Ottawa Post Office.				
G. P. Baker	English	Church of England	Postmaster	2,000 00
C. L. Stephens	Irish	do	Assistant Postmaster	1,000 (0
-		38		

STATEMENT of the Names, Origin, Creed, Position and Pay of all the Employés of the Dominion Government.—Continued.

Names.	Origin,	Creed.	Position.	Pay po
!	Post Office	 Department,—Con	linued.	
Ottawa Post Office.—Continued.				<b>\$</b> c
T. Bartram B. Bates S. Philion H. Pinhey S. McDermott Bishop W. Baker Shaw F. Cobet J. O'Connor	do do do Canadian do do do do Canadian do Lish Canadian do Lish Belgium Lish	do do Wesleyan Church of England do Roman Catholic Church of England Roman Catholic Church of England do do Es'd. C. of Scotland Roman Catholic	do Not Classed do do do Trobationary Temporary do do Letter Carrier do	800 800 600 520 520 440 440 300 260 240 360 360 300
Montreal Post Office.	do	do	Temporary Messenger	300
S. Freer McEvenne Emery Huddell cD. Simpson Murphy Benoit McKeon Malard T. Wright Pridham Johnston D'Amour Baillargeon nos. F. Larseneur A. Bourret	Irish Canadian English Scotch Irish Canadian Irish Canadian Lrish Canadian Octobre Canadian Conadian Conadian Conadian	Roman Catholic do	do	2,000 1,400 1,100 1,100 1,100 1,100 800 800 800 700 680 680 680
10s. Forsyth L. Palmer L. Palmer avid Robinson A. Lemieux Fenton St. Amour C. Simms O. P. Scully O'Connor X. Beauregard Pepin	Scotch English Irish Canadian Irish Canadian Scotch Irish do Canadian	Church of England Roman Catholic . Church of England Roman Catholic . do . do . Baptist	do	680 680 640 640 600 600 600 600
In J. Drew Clement Loftus	Irish Canadian Irish Canadian do English Irish Canadian	do do do do do do Wesleyan Roman Catholic do	do do do do do do do do do do do do do d	600 600 600 600 600 500 500 360 360 480

Names.	Origin.	Creed.	Position.	Pay per annum.
	Post Office	DEPARTMENT.—Con	tinued.	
Iontreal Post Office.—Con-	,	I	1	\$ ct
tinued.				
. O'Reilly	Irish	Roman Catholic	Letter Carrier	560
. A. Auger	Canadian	do	do	560
. Filiatrault	do ,	do Church of England	do	480 480
J. Arless	English Trish	Roman Catholic	do	480
Duncan		Church of England		480
. D. Dowd		Roman Catholic		300
. Giroux	Canadian	do	do	300 ( 300 (
. Lapointe	do	do	1	300 (
Dufresne	do	do	1	300 (
B Davonst	do	do		300 (
. Maher	Irish		Box Collector	300 ( 300 (
Leclerc	do	do		300 (
Odell	English	Weslevan	do	300
. Paterson	Scotch	Unurch of Scotland	Office Keeper	384
I. Mullin	lrish	Roman Catholic	Messenger	245
DeV. V. De Grand Pré	Canadian	do	Night Watchman	360
Quebec Post Office.				
G. Hout	Canadian	Roman Catholic	Post Master	2,000
G. Patton	do	Church of England	Assistant Post Master	1,400
E. Bolduc	do ,	Roman Catholic	1st Class Clerk	1,200 ( 800 (
Gingras	do Irish	do	do do	800 (
Lacasse	Canadian	do	: , ,	800 (
. Chamberland	do	do	do do	800 (
Biron	do	do		800 ( 800 (
Vaughan	dodo	do	de do	500
V. Handford	do	do	Probationary	300
V. Newman	do	do	i , , ,	360
Huot.	do	do	do	300
Auger	do	do		480 480
Neville		do		360
X. Labbé	do	do	1-	360
. Plamondon	do	do	Office Keeper & Messenger.	300
Evarts	do	do	Assistant Messenger	300
redericton, N.B., Post Office.				
S. Phair	Canadian	Church of England	Post Master	1,200
I. J. Thorne.	English	Wesleyan	Senior Clerk	800
. Cameron	Canadian	Church of Scotland	Senior Clerk	400
). Tobin	do	Koman Uatholic	Letter Carrier	p a by te
St. John, N. B., Post Office.				2.4
ohn Howe	Canadian	Church of England	Post Master	2,000
	*	10	Assistant Dont Master	800
ames Woodrow.	irish	Congregational	EXESTSUALLY LOST TRESCET	800

of	the Dominion	Government.—	Continuea.		
Names.	Origin.	Creed.	Position.	Pay per annum.	
St. John, N. B., Post Office.	Post Office	 Department.— <i>Con</i> 	 tinued. 		
—Continued.  H. P. Otty. R. C. McIntyre J. A. Armstrong A. McNicol D. H. Waterbury J. McA. Hunter J. S. Flagler J. Leetch James Leetch R. McLaughlin Wm. Young	do do do do do do do do do do Canadian	Covenanter	do do do Temporary Clerk Office Keeper Letter Carrier do	600 00 400 00 400 00 400 00 300 00 300 00 400 00 p'd by fees	
Post Office Department.—Supplementary Return.					
John Graham W. Blanchard J. F. Ruttan G. G. Falconer W. L. Blair Jno. Hopkirk A. Stewart D. Morris C. B. Brodie E. A. D. Jones R. A. Salter G. R. White J. C. Jenkins Jas. Fortier J. C. Bonner	do do do do Irish Canadian do Australian Bermuda English Canadian do do	Presbyterian	3rd Class Clerk do Probationary do do do do do do do do do do do do do	720 00 600 00 640 00 300 00 300 00 300 00 300 00 300 00 300 00 300 00 300 00	
Ocean Mail Service. C. H. E. Tilstone	English	Church of England	Ocean Mail Clerk	*36	
Chief Inspector's Office. (No addition to Staff.)					
Inspector's Office, London Division.  W. H. Flood. S. Burnham.  Railway Mail Clerks attached to London Division.	do	Church of England	2nd Class3rd do	72 <b>0</b> 00 520 00	

(No addition to Staff.)

Names.	Origin.	Creed.	Position.	Pay per
		-		annum.
Post Of	fice Department	-(Supplementary F	RETURN.)—Continued.	
Inspector's Office, Toronto Division.				\$ eta,
A. B. Campbell	English	Church of England	Probationary	300 00
Railway Mail Clerks attached to Toronto Division.	ı			
M. E. Kelly J. W. Rooney E. F. Johnson L. V. Byrne S. McLean Wm. Prest S. Jones J. Street	United States Canadian Irish do English Canadian	do do W. Methodist do Church of England	dodo dodo	480 00 480 00 480 00 480 00 480 00 480 00 480 00 480 00
Inspector's Office, Kingston Division.				
(Ne addition to Staff.)				
Railway Mail Clerks attached to Kingston Division.				
D. Maloney	Irish	Roman Catholic	3rd Class Clerk	480 00
Inspector's Office, Montreal Division.				
(No addition to Staff.)				
Railway Mail Clerks attached to Montreal Division.				
J. P. Chillas	do	do W. Wethodist Church of England	3rd Class Clerk	480 00 480 00 480 00 480 00 480 00
Inspector's Office, Quebec Division.				
Cyprien Vohl	Canadian	Koman Catholie	4th Class Clerk	400 90
Railway Mail Clerks attached to Quebec Division.				
Eugene Blondeau  3. F. Gaudry  I. J. Kimlin  Donat Blondeau	Canadian		2nd Class Clerk	600 00 480 00 480 00 480 00

Inspector's Office, St. John, New Brunswick.  W. D. Campbell	nadian	Roman Catholic  Roman Catholic  Methodist  do  Church of England Methodist	Railway Mail Clerk do do do do do do do do do do do do do Letter Carrier do	\$ cts 300 00 480 00 480 00 480 00 300 00 300 00 300 00
New Brunswick.  W. D. Campbell	nadian	Roman Catholic Methodist	Railway Mail Clerk do do do do do do do do do do do do do Letter Carrier do	480 0 480 0 480 0 480 0
Railway Mail Clerks attached to New Brunswick Division.  C. Ward	nadian	Roman Catholic Methodist	Railway Mail Clerk do do do do do do do do do do do do do Letter Carrier do	480 00 480 00 480 00 480 00 480 00 300 00
to New Brunswick Division.  C. Ward	do nadian do	Methodist	do do do	480 00 480 00 480 00 480 00 300 00 300 00
Jos. Thompson  J. J. Ryan  Inspector's Office, Halifax, Nova Scotia.  Issac Le Vesconte  E. A. Bent  Circulation Department, Halifax, Nova Scotia.  John Flowers  London Post Office.  (No addition to Staff.)  Hamilton Post Office.  Geo. W. Bull  D. J. Macqueen  Sco	do nadian do	Methodist	do do do	480 0 480 0 480 0 480 0 300 0 300 0
Nova Scotia.  Issac Le Vesconte	nadian do	Prosbyterian Methodist	FrobationaryLetter Carrier	300 0 300 0
Circulation Department, Halifax, Nova Scotia.  John Flowers	nadian do	Prosbyterian Methodist	FrobationaryLetter Carrier	300 0 300 0
Halifax, Nova Scotia.  John Flowers	do	Methodist	Letter Carrier	300 0
London Post Office.  (No addition to Staff.)  Hamilton Post Office.  Geo. W. Bull	do	Methodist	Letter Carrier	300 0
(No addition to Staff.)  Hamilton Post Office.  Geo. W. Bull		!		
Hamilton Post Office. Geo. W. Bull				
Geo. W. Bull				
D. J. Macqueen Sco				
vm. S. Lynch Car	otch	Church of England do Presbyterian	Probationarydodo	300 00 300 00 300 00
Toronto Post Office.				
A. T. Middleton	do	Disciple	do do 3rd Class Clerk Letter Carrier do Box Collector House Keeper	300 00 300 00 300 00 300 00 300 00 300 00 300 00 300 00
Kingston Post Office.  Survey Dunbar				300 00

Names.	Origin.	Creed.	Position.	Pay per annum.
	ice Department	-(Supplementary F	LETURN.)—Continued.	
Ottawa Post Office.				\$ cts
7. Roberge J. J. Tasker P. A. Maingy 7. Daze 3. Huckell J. H. Williams	English Canadian do English	Church of England do Roman Catholic Church of England	do	300 0 300 0 300 0 300 0 300 0 (2) \$1.50 per diem.
Montreal Post Office,				3 000 0
A. Aylmer	English	Episcopalian	Probationary	300 0 300 0
Lefebvre	do	do	Letter Carrier	300 0
B. Plante	do	do	do	300 0
os. Melançon	do	do	do	300 0 300 0
A. S. Higgins	Trish	do do	do	300 0
os. Beaudoin		do	do	300 (
rs. Menard	do	do	do	300 (
P. Rottot		do	do	300 ( 300 (
L. Lefebvre	do	do	Letter Collector	300 (
Leahy	do	do	do	300 0
P. Leahyg. St. Amour	Canadian		Night Watchman	360 (
Quebec Post Office.				
Wm. Whita	English	Roman Catholic	Probationary	300 (
G. Poston	do	Protestant	do	300
J. Vezina J. McClutchy	Canadian Irish	Roman Catholic do	Probationary	300 300
Fredericton, N. B., Post Office.				
(No addition to Staff.)				
St. John, N. B., Post Office.			1	
W. A. Black			3rd Class Clerk Office Keeper	800 400
	PRIVY	COUNCIL OFFIC	E.	
William A. Himsworth Joseph Olivier Côté	Anglo-Canadian French Canadian Anglo-Canadian do Irish Canadian	do Roman Catholic. Anglican do do	Clerk Privy Council.  Asst. Clerk Privy Council.  1st Class Clerk.  Ist Class Supernumerary.  Junior 2nd Class.  do do  Door Keeper and Messeng's	1,350 1,000 800
Joseph Csirns Patrick Batterton Benoni Grenier	do	Roman Catholic.	Messenger	450 450 \$1.25 P

01	the Dominion	Government.—	-Consinuea.	
Names.	Origin.	Creed.	Position.	Pay per annum.
INL	AND REVENUE	DEPARTMENT-	-(Inside Service).	\$ ets.
J. F. Brown. F. Measam R. Nettle R. Borrsdaile A. Begg Wm. Himsworth, Jr E. D. Clark M. Battle B. H. Seakles Neil Stewart H. A. Ford F. R. E. Campeau	English Canadian. English do do do Scotland. English Canadian. English Canadian. Irish. New Brunswicker. Canadian English. French Canadian. English	do Independent Episcopalian do do Scotch Church Episcopalian do Scotch Church Episcopalian Baptist Scotch Church Bipiscopalian Baptist Scotch Church Bipiscopalian Broman Catholic	Clerk of Correspondence Accountant Clerk. do do do do do do do do do do do do do	2,600 00 1,600 00 1,600 00 1,200 00 1,100 00 1,000 00 1,000 00 1,200 00 550 00 950 00 950 00 450 00 800 00 450 00 330 00
INLAND REVENU	e or the Dominio	ON GOVERNMENT-	(Outside Service,) ONTARIO.	
DISTRICT OF LONDON.  Windsor Division.				
Charles E. Romain Charles G. Fortier George W. Foot Robert N. Elliott Charles T. Dupont Thomas Cross William Gill W. J. Gerald Wm. F. Metcalfe	do Irish Canadian do Irish Canadian Conadian	do	Deputy Collector	1,600 00 800 00 800 00 400 00 800 00 500 00 600 00 600 00
Sarnia Division.				
Robert B. Somerville Peter McGlashan John Shields Townsend S. Vidal	Scotchdodododo	Presbyterian do do Episcopalian	Collector do Exciseman do	1,200 00 800 00 700 00 600 00
London Division.				
Peter McClary Daniel Hanvey W. H. Armstrong H. Hunter Wm. Moore Richard B. Dixon James Magee Yates H. A. Smith	dodododododo	do Episcopalian do	Assistant Collectordo Excisemando	1,200 00 400 00 500 00 700 00 700 00 700 00 500 00 700 00
Goderich Division. Chas. Widder Wan. Withers Wan. Smith	do	do	Collectordo Deputy Collector	800 00 500 00 400 <b>66</b>

Names.	Origin,	Creed.	Position.	Pay per annum.
Inland Revenue of	the Dominion Gov	BRNMEST.—(Outside	Service.)—Ontario.—Contin	ued.
Goderich Division.—Continued.				\$ cts.
Alex. Cavan			Excisemando	<b>50</b> 0 00 <b>50</b> 0 00
Paris Division				
D. W. Hart John McWhinnie R. F. Nelles John Patton. Thomas C. J. Racey W. P. Master	Scotch	Presignan	Evelsamen	1,200 00 600 00 800 00 500 00 700 00 500 00
Guelph Division.				
James Gow Donald McLean Geo. Rennie John White James H. Kenning James D. Kennedy John McD. Campbell John McD. Campbell Charles T. Dickson M. T. McCord Geo. Kirk	do do Canadian do Irish Canadian Scotch Canadian Irish	do Methodist Presbyterian do do Episcopalian Presbyterian do	Deputy Collector Exciseman  do do do do do do do	1,200 00 800 00 700 00 700 00 700 00 700 00 600 00 600 00 600 00 600 00
DISTRICT OF TORONTO.  Hamilton Division.				
Henry Godon William Patton John Stewart H. T. Crawford Andrew Stewart Andrew Mctherson John Jagoe John Thompson S. F. Ross	Canadiando do Scotch Irish Scotch	do Methodist Roman Catholic Presbyterian Episcopalian Presbyterian	Exciseman do do do do do Ferryman	1,600 60 1,200 00 700 00 600 00 600 00 500 00 300 00 700 00
St. Catherines Division.				
James Seymour	do	Methodist Roman Catholic Presbyterian	Assistant Collector	1,200 00 800 00 600 00
Algoma Division.		<u> </u>		
Geo. A. Ironside	Canadian	Episcopalian	Collector	400 00
Toronto Division.				
Geo. P. Dickson	Scotch	Presbyterian	Collector	1,600 00 1,200 00

Names.	Origin.	Creed.	Position.	Pay per annum.
مانان المستمر				

INLAND REVENUE OF THE DOMINION GOVERNMENT. - (Outside Service.) - ONTARIO. - Continued.

Toronto Division,—Continued.				\$ c	ets.
John Morrow A. D. Macdonell R. A. Hartley W. M. Gorrie Samuel Greey Paul M. Robins John Spence S. M. Sanford James M. Rogerson Geo. A. Rogers James Bennett M. C. Stratton C. W. Walker Fred Lowe	do Scotch do English do Irish Canadian Scotch English do Canadian Codalan Codalan	Roman Catholic Presbyterian. do Baytist W. Methodist Episcopalian do Presbyterian Episcopalian do Methodist do	Exciseman  do  do  do  do  do  do  Messenger  Exciseman  do  do	800 700 600 800 700 700 700 500 400 600 500 500	00 00 00 00 00 00 00 00 00 00
Collingwood Division. W. J. Graham	Canadian	Episcopalian	Acting Collector	600	00
Peterborough Division.  Thomas White  James B. Knowlson			Collector Deputy Collector	500 400	
Cobourg Division.  Wm. Graveley John Wilson Francis Murphy	English Irishdo	Episcopalian Methodist Roman Catholic	Collector	900 ( 900 (	00
DISTRICT OF KINGSTON.  Belleville Division.  A. N. Striker	Canadian	Episcopalian	Inspector	1,600	
E. R. Benjamin W. F. Gouin W. L. Hamilton E. A. Evershed	do	Roman Catholic	Exciseman	700 ( 700 ( 400 (	00 <b>0</b> 0
Kingston Divison.  A. Thibodo Fleming Rowland P. B. Macnamara Thos, Alexander	do	Presbyteriando Reman Catholic Presbyterian	do	1,200 ( 700 ( 500 (	00 00
Perth Division.  Daniel Kellock	Canadian	Baptist	Acting Collector	600 (	DQ.

Names.	Origin,	Creed.	Position.	Pay per annum.
Inland Revenue of	THE DOMINION GOV	  vernment.—(Outsid	 e Service.}—Ontario.—Contin	l nued.
Ottawa Division.		į	,	\$ cts.
Alexander Graham Jno. M. Henry G. S. O'Brien	Scotch	Methodist Episcopalian do	Collector	800 00 700 00 500 00
Prescott Division.				
Geo. C. Longley	Trish	Roman Catholic	Collector Deputy Collector Exciseman Exciseman	1,200 00 300 00 600 00 100 00 500 00
Cornwall Division.				
Neil McLean	Canadian	Presbyterian	Collector	500 00
District of Montreal.  Montreal Division.  Raphael Bellemare Philip Durnford. Louis G. Fanteaux William Hastie Louis Blanchard John Dodd. Edmond DuFoy. Charles H. Levoux Raymond Richard Louis J. Vincent François Dugnet John Pickett Chas. Barker Dugald McDonald Achille DuFoy.	French Canadian English French Canadian Scotch French Canadian English Go do do do do English do Canadian	Roman Catholic Episcopalian Roman Catholic tresbyterian Roman Catholic Episcopalian Roman Catholic do do do do	Assistant Collectordo Book Keeper Exciseman do do do	1,600 00 1,600 00 1,200 00 700 00 800 00 700 00 700 00 700 00 600 00 600 00 500 00 500 00
Beauharnois Division.  A. McEachern	French Canadian .	W. Methodist	Collector	400 00
St. John's Division.			e e e e e e e e e e e e e e e e e e e	
Plerre Regnier	French Canadian .	Roman Catholic	Collector	400 00
Terrebonne Division.		,		
% J. Leclaire	French Canadian . do	Roman Catholie	Collector	400 00 400 00

Names.	Origin.	Creed.	Position,	Pay per annum.
INLAND REVENUE OF	THE DOMINION GOV	vernment.—(Outsid		ued.
St. Hyacinthe Division.	1	1	1	\$ cts
Charles A. Boivin	French Canadian . do .	Roman Catholic do	Collector Deputy Collector	400 00 400 00
Sherbrooke Division.				
Griffiths	Irish	Roman Catholic Episcopalian	Collector	490 00 490 00
Three Rivers Division.				
3. Lasalle	French Canadian .	Roman Catholic	Collector	400 00
DISTRICT OF QUEBEC.				
Quebec Division.				
ames B. Lemoine	French Canadian .		Inspector	1,600 00
. E. Fortier I. McNamara	do . Trish	do	Collector	·· 1,200 00 600 00
H. Cahill	do	do	Exciseman Accountant Exciseman do	700 00
Rouleon	Canadian	do	Exciseman	600 00
has. Belanger	<b>do</b>	<b>u</b> o	do	500 QC
ames Courtney	irish	Episcopalian	Extra Cierk	600 00
George Neilan	Irish	Roman Catholic	Exciseman	500 00 500 00
Inland Revenue	OF THE DOMINION	Government.—(Out	side Service.)—Nova Scotia.	
DESTRICT OF NOVA SCOTIA.	I	1	i I	
Halifax Division.			· ]	
	•		l+	
Archibald Patterson	Nova Scotian	Presbyterian	Inspector	1,600 00
Archibald Patterson	Nova Scotian	Presbyterian	Collector	1,600 00 1,200 00
Archibald Patterson	Nova Scotian do	Presbyterian do do	Collector Exciseman	1,200 00 700 00
rehibald Patterson	Nova Scotian  do  do  do  do	Presbyterian do do Methodist Presbyterian	Collector Exciseman do do do	1,200 00 700 00 500 00
schibald Patterson	Nova Scotian  do do do do do Irish	Presbyterian do do	Collector Exciseman do do do do	1,200 00 700 00 500 00 500 00
schibald Patterson	Nova Scotian do do do do do do do	Presbyteriando do do Methodist Presbyterian Roman Catholic	Collector Exciseman do do do	1,200 00 700 00 500 00 500 00
Archibald Patterson Amuel Tupper Angus McLeod ohn D. Nash B. H. Blanchard Patrick Hagerty  Yarmouth Division. J. W. H. Rowley	do do de	do do Methodist Presbyterian	Collector Exciseman do do do do	1,290 00 789 00 596 00 500 00 500 00
Aschibald Patterson Amuel Tupper Angus McLeod ohn D. Nash 3. H. Blanchard Astrick Hagerty  Yarmouth Division.  J. W. H. Rowley	do do de	do do Methodist Presbyterian	Collector Exciseman do do do do	1,690 00 1,290 00 799 00 590 00 500 00 500 00
Aschibald Patterson Samuel Tupper Angus McLeod John D. Nash B. H. Blanchard Patrick Hagerty  Yarmouth Division. J. W. H. Rowley James Grant	do	do do Methodist Presbyterian	Collector Exciseman do do do do Collector	1,290 00 799 00 599 00 500 00 500 00
Archibald Patterson Amuel Tupper Angus McLeod Ohn D. Nash 3. H. Blanchard Patrick Hagerty  Yarmouth Division.  I. W. H. Rowley Ames Grant  Pictou Division.	do	do do	Collector Exciseman do do do do Collector	1,290 00 269 00 500 00 500 00 500 00
Archibald Patterson Amuel Tupper Angus McLeod Onn D. Nash B. H. Blanchard Actrick Hagerty  Yarmouth Division.  J. W. H. Rowley James Grant  Pictou Division.  W. J. Loraine  Cape Breton Division.	do do do do do do do do do do do do do d	do do	Collector Exciseman do do do do Collector	1,280 0 799 0 590 0 500 0 500 0 500 0

Names.	Origin.	Creed.	Position.	Pay per annum.

INLAND REVENUE OF THE DOMINION GOVERNMENT .- (Outside Service.)-NEW BRUNSWICK.

DISTRICT OF NEW BRUES- WICK.			· 	\$ cts.
Miramichi Division.				
Thomas Hanford	New Brunswicker. do	Episcopalian Roman Catholic	InspectorCollector	1,600 00 800 00
St. John Division.				
R. W. Crookshanks Geo. Travis H. F. Stephens John E. Ganong Thos. Potts John Frederickson  St. Stephen Division.	do . do . do . do .	Episcopalian do	Exciseman do do do do do do do do do do do do do	1,200 00 700 00 500 00 700 00 500 00 500 00
Henry Hutton	New Brunswicker.	Methodist	Collector	300 00
	Canadian	Roman Catholic	Assistant Inspector of Distilleries.	1,200 00
Magdalen Division.  J. J. Fox	Canadian	Roman Catholic	Preventive Officer	300 00

### INLAND REVENUE OF THE DOMINION GOVERNMENT. - (Cullers' Service.)

Quebec Division.  William Quinn Alexander Fraser Thomas J. Walsh Thomas Quinn Pierre Millar Thomas Power Edward Duggan Wolfred Launière James Prendergast Joseph E. Belland F. X. Drouin Z. Levasseur James Foley John Tiernay	do	Baptist	Book Keeper Cashier Specification Clerk do do do do do do do do do	2,000 00 1,600 00 1,200 00 800 00 800 00 800 00 600 00 725 00 500 00 500 00 500 00 400 00
Montreal Division.  C. E. Belle  Jean C. Coursolles  Sorel Division.			Deputy Supervisor Book Keeper	500 00 *100 00
	French Canadian	Roman Catholic	Clerk	100 00

	I DOMINION			
Names.	Origin.	Creed.	Position.	Pay pe
Inland Reven	TUE OF THE DOMINI	on Government	(Slide and Boom Service.)	
Ottawa Division.		1	1	\$ c
A. J. Russeil	Scotch	Christian	Collector of Slide Dues and	
Edward T. Smith	Canadiandodo	Christian	Senior Clerk	1,840 1,200 700 600 550 620 550
Quebec Division.				
McLean Stewart	Scotch	Presbyterian	Collector of Slide Dues and	1 000
William O'Kane	Irish Scotch	Roman Catholic Presbyterian	Crown Timber	1,806 ( 1,200 ( 800 (
INLAND I	REVENUE OF THE DO	minion Goveenme	NT.—(Canal Service.)	
Inspection of Canals.			1	
Robert Bell	English	Presbyterian	Inspector	1,400
Beauharnois Division.				
George Ellis	English	Episcopalian	Collector	<b>750</b> (
Port Colborne Division.				
W. A. Rooth J. T. Scholfield Gordon Wilson John E. Leggett	do	Presbyterian Episcopalian	Collector	1,400 ( 500 ( 300 (
Chambly Division.	1		,	
FL. D'Archambault	French Canadian . do .	Roman Catholic do	Collector	1,100 0 400 0
Cornwall Division.				
James A. Phelan	Canadian	Roman Catholie	Col ector	600 0
Dunnville Division.				v.
Phomas L. Tipton	English	W. Methodist	Collector	750 0
Edwardsburg Division.				
R. T. McMillan		Roman Catholic Presbyterian		750 0 400 0

Names.	Origin.	Creed.	Position.	Pay per annum.
Inland Revent	IN OF THE DOMINIO	n Government.—(	Canal Service.)—Continued.	
Port Dalhousie Division.	1	1	1	\$ cts.
John J. Clark	Canadian	Episcopalian	Collector	1,000 00
Hamilton Division.				
John Thompson	Scotch	Presbyterian	Ferryman	300 00
Lachine Division.				
Joseph Dubreuil	French Canadian . Canadian	Roman Catholic do	Sub-CollectorClerk	1,000 00 700 00
Ottawa Division.				
George A. Carman	Canadian	Episcopalian	Collector	600 00
Port Robinson Division.		-	er e	
James McCoppin	Irish	Episcopalian	Colle <del>ctor</del>	720 00
St. Ours Lock Division.				
Jules LeBœuf	French Canadian .	Roman Catholic	Collector	400 00
St. Johns Division.			·	
John Brennan,	Irish	Roman Catholic	Collector	720 00
St. Ann's Lock Division.				
John Barrett	Irish	Roman Catholic	Collector	700 00
St. Catherines Division.				
James Clark	Canadian	Hpiscopalian	Clerk	200 00
Port Maitland Division.				
Thomas Galbraith	Canadisa	Presbyterian	Collector	500 00
Montreal Division of Lachine Canal.				
Alfred Gough Brian Hayes P. C. Lacine S. H. Bouchette G.W. Ross Chindles Mongeon	do . Iriah	do W. Methodist	Assistant Clerk	2,080 00 1,000 00 1,000 00 750 00 750 00 150 00

of	the Dominion	Government.	-Continued.	1 7
Names.	Origin.	Creed.	Position.	Pay per annum.
INLAND REVEN  Mentreal Division of Lachin Canal.—Continued.		ON GOVERNMENT.—(	   Canal Service.}Continued. 	# ets.
Thomas McNally	Irish	Roman Catholic	Warehouseman	81.50 per
▲. Campbell	Scotch	Baptist	Assistant Clerk	
Pierre Larvis	French Canadian .	Roman Catholic	Mill Keeper	day. \$20 per month.
	DEPARTMEN	T OF PUBLIC W	ORKS.	
D. Carey W. J. Tilley H. A. Fissiault F. H. Ennis G. Verret J. R. Arnold J. F. N. Bonneville J. Baine O. Dionne R. McG. Moffatt J. W. Harper S. McLaughlin L. Lefebvre John Page F. P. Rubidge G. F. Baillairgé T. Monro J. E. Boyd J. H. Rowan T. Guerin T. Guerin L. Lefe Rees C. McCarthy C. E. Michaud J. L. R. Steekel J. Deslauriers	Irish English. French Canadian. Irish do French do British do French do Scotch French Canadian. Nova Scotian English. Irish French Canadian. French Canadian. Irish French Canadian. Irish French Canadian. Irish Cotch Canadian. Irish do Trish French Canadian. French Canadian. French Canadian. French Canadian. French Canadian. French Canadian. French Canadian. French Canadian. French Canadian. French Canadian.	Roman Catholic. Church of England Roman Catholic. do do Church of England Roman Catholic. Church of Scotland Roman Catholic. Church of England do Swedenborgian. Roman Catholic Free C. Presbyter'n Church of England do do Roman Catholic. Church of England Church of England Church of England Roman Catholic. Church of England do do Church of England Roman Catholic. do Church of England Roman Catholic. do do do do do	Journal & Records, Jr. 2nd do do do do do do Book-Keeping, 1st Class. do Jr. 2nd Class do Jr. 2nd Class do Paymaster, Senior do Photographer & Jr. 2nd. Gen. Service. Probationary Chief Engineer. Assistant Engineer Engineer, 1st Class. do do do do do (Supry) do Senior 2nd Class. do d	1,000 00 1,500 00 1,500 00 750 00 850 00 1,100 00 1,700 00 1,000 00 800 00 1,530 00
Lachine Canal.  J. G. Sippell  Was. Horsnell  M. Conway  T. Hewritt  T. O'Neill  Thomas John Pat. Redmond  John Hughes  M. Fitzpatrick  L. Franklin	do do :	do Protestant Roman Catholic do do	Resident Engineer Clerk Superintendent Paymaster Lockmaster do do do do Bridge Keeper	2,240 00 800 00 1,000 00 360 00 360 00 360 00 360 00 360 00 360 00

Names,	Origin.	Creed.	Position.	Pay per annum.
	DEPARTMENT OF	PUBLIC WORKS.—	Continued.	
Lachine Canal.—Continued	.[	1		\$ cts
H. McReavy	Irish	Roman Catholic .	Bridge Keeper	340 0
M. Dowling	do	do .	. do	340 0 \$40 h. ren
R. Newman L. Simard			do	340 0
James Low	Scotch	Protestant	do	340 0
John Neagle	Irish	Roman Catholic	1	340 0
John Keliher	do	do	Assistant Bridge Keeper.	\$328 50 o 90c per da \$1 per da
John Moore	do	do	Messenger and Storeman	in sum'er 90c per da in winter.
Pat. Fitzpatrick		do	Assistant Bridge Keeper.	
Arthur O'Neill		do	Lock Laborer	1
J. Tynen	do	de	do	
M. Ainwright	do	Pretestant	do	
Jas, Kennedy	do	Roman Catholic	do	
Wm. Struthers		Protestant		81 00 pc
${f Joseph \ Deschamps}$	French Canadian	do	do	u.s.,
S. J. O'Sullivan J. Townsley	Irishdo	Protestant	do	
R. Gamble	do	de	do	i
M. Powell		Roman Catholic	do Assistant Bridge Keeper.	
Wm. Murphy	Irish Canadian	do	do do .	
r. McLaughlin	Irish	ço	Carpenter	\$1 30 pe
Francis Pare			do	day.
J. Costello	Irish	<b>٥٠</b>	Foreman Carpenter	\$1 75 pe
W. McNown		Protestant	do Repairs	day. 82 per day
	112.011	11000303210	1	81 50 per
I. Gairn	Irish	Roman Catholic	Diver and Laborer	day in su'r \$1 per day in winter.
M. Tierney	_do	de	Lock Laborer	\$1 per day
las. Ainwright	Scotch	do Protestant	do Captain, Dredge No. 1	\$1 do \$60 per mo
d. McMullin	do	Roman Catholic	Engineer, Steam Dredge	\$60 per me
Beauharnois Canal,				
. Laurencel	French Canadian	Roman Catholic	Superintendent	1,000 00
r. Ellis	English Canadian	Roman Catholic	PaymasterLock Master	340 0
Pre. Lafort	French Canadian	do	do	340 00 340 00
). Bourbonnais	do	do	do	340 00
Rover	do	do	do	340 00 340 00
S. Smith	English French Canadian.	Protestant	do	340 00
Denault	do	do	do	340 00
Lefebvre	do	do	do	340 00

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Names.	Origin.	Creed.	Position.	Pay per
IVANED.	Origin.	Creeu.	1 ostetoti.	annum.
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	D	D 577		
	DEPARTMENT OF .	Public WorksC	ontinued.	
	•			
Beauharnois Canal,—				\$ cts.
Continued. L. Leduc	French Canadian	Foman Catholic	Bridge Keeper	280 00
P. Barrett	do	do	do	200
P. Chatigny	do		Lock Laborer	1
M. Langlois	₫o	do	do	
H, Martin	do	do	do	
M. Roy	do	do	do	
F. Perron	do	do	do	
N. Patenaude	do	do	do	ļ
M. Hénault	do	do	do	ĺ
T. Lefebvre	do	do	do	e1 00
Paul Roy N. Lebœuf	do	do	do	\$1 00 per day.
F. Sénécal	do	do	do	uay.
P. Ledoux	do	do	do	
D. Perron	do	do	do	1
F. Charrette	do	do	do	
G. Leduc		do	do	
O. Chevallier N. Deschamps	do	do	do	
O. Lafleur.	do	do	Ferry Scow	1
J. Lafleur	do	٠	do	l .
1				
St. Ann's Lock.				ŀ
J. Foreman	Familiah Camadian	Drotentont	Look Master	400 00
J, Barrett	Trish	Roman Catholic	Collector	625 00
L. Lamarche	French Canadian.	do	Lock Laborer)	020 00
P. Paquette	} d•	) do	do≻	\$1 00 per
A. Lauzon	do	do	do)	day.
*	Į.			<b> </b>
Carillon and Grenville		İ		
Canals.		_	l	
W. B. Forbes		Protestant		600 00
G. T. Forbes	do	do	Lockmaster and Collector	90 cts. per day.
J. Mason	English	Koman Catholic	Lock Master	255 50
Wm. Cox	Welsh	Protestant	do	255 50
T. Foreman	English Canadian.	do	do	292 00
C. Hartley		do	do	70 cts. per
-			do	day. 255 00
Geo. C. Hartley M. Lafrance	French Canadian	Roman Catholic	Lock Laborer	200.00
J. Ladouceur	do	do	do	1
G. Foreman	English Canadian.	I'rotestant	do	Į.
W. Perrier	French Canadian	Roman Catholic	do	1.
Jos. Teck	do	do	do	l
A. Perrier F. Sauvé	do	do	do	1
N. Deforce	do	do	,	80 cts. per
r Tassa	do	do	do	day.
E. Poulin	do		do	1
∿ Ot. Denie	do	do	do	1
E. Hartley	English Canadian.	Protestant	do	<b>.</b>
J. Kayson L. Le Roy	Krench Canadian	do	do	1
Robert Robinson	Irish	do	do	1.
2		55		-

ot	the Dominion	Government.—	Continuea.	
Names.	Origin.	Creed.	Position.	Pay per annum.
	DEPARTMENT OF	PUBLIC WORKS.—C	ontinued.	
Chambly Canal.	1			\$ cts.
C. Préfontaine			Superintendent	1,000 00
J. Brennan S. Pell			Lock Masterdo	300 0
S. Robinson	Irish	Roman Catholic	do	300 0
E. Laboissière			do	300 0
A. Hender			1 -	300.00 300.00
S. Malhiot	. do	do	1 -	300 00
F. X. Berger	. do	do	do	300 00
F. Chalon	.  do	do	do	300.00 300.00
N. Berger O. Edson	American	Protestant	Bridge Keener	280 00
T. Fryer M. Sauvage	German Canadian	Roman Catholic	do	280 00
M. Sauvage	French Canadian	do	do	280 00
L. Papineau		do	do	280 00 280 00
J. Collette E. Languedoc		do	do	280 00
C. Dubuc		do	do	:280 00
J. Langlois	.] do	do	Ferry Keeper	145 00
St. Ours Lock and Dam.				
L. Larue	French Canadian.	Roman Catholic	Superintendent	\$2 00 per day.
J. Leboeuf	.1	• '	Collector	400 00
F. Duval	. do		Lock Laborer	
C. Lemay	do	do	do	day.
Cornwall Canal.				
D. A. McDonell	Canadian	Catholic	Superintendent	1,000 00
W. Tackebury	do	do	Lock Master	400 00
J. Tanner	English	Protestant	do	280 00 280 00
M. Gleeson. D. McDonald		do	do	280 00
E. Cass	Irish	do	do	365 00
J. Denneney	Canadian	do	Bridge Keeper	240 00
M. Orr. J. Robinson	Irish	Protestant do	Lock Laborer)	
J. Bridges	Canadian	do	de	
P. Kirwin	Irish	Catholic	de	\$1 00 per
J. Tobin			do]]	day.
J. Bowie J. Blandin		Protestant	do	
J. Hunter	Irish	do	do	\$1. 25 per
		1.		day.
G. Gallinger A. McMillan	Cenadian	do	do)	
R. Martin	Irish	Catholio Protestant	do	
D. McCourt	do	Catholic		\$1 00 per
J. Gillie	Canadiando			day.
J. Gleeson	Trish		do	·
Wm. Bridges	Canadian	Protestant	do	
W. Kennedy	Izish	do	<b>30</b>	ė.
D. Gillespie	Uanadian	do	00'	

Names.	Origin.	Creed.	Position.	Pay per annum.
		· · · · · · · · · · · · · · · · · · ·		\$ cts.
	DEPARTMENT OF 1	Public Works,C	ontinued.	
Cornwall Canal.—Continued.			<u> </u>	
A. Runions			Lock Laborer	
E. Prescod	do	do	do	
W. Phillips	do	do	do	\$1 00 per
A. Annable	do	do	do	day.
O. O'Keefe	do	do	do	
A. McDonald		do		
L. Gaffney	do Canadian	Catholic	Assistant Bridge Keener	1 00
A. Gillespie	Irish	Protestant	Laborer :	90 [
Pat. Denneny		Catholic Protestant		1 50 2
J. Phillips	do	do	and Horse Towing Scow	1 25 A
Wm. Stoneburner D. McDonell	do	do	Light-House Keeper	75 5
B. Lockerbie		Protestant	Carpenter	2 00 P4
P. Denneny			Laborer	90
Williamsburgh Canals.				
Isaac N. Rose	Scotch	Protestant	Superintendent	1,000 00
C. C. Farran	Trish	do	Lock Master	280 00
C. De Castle R. Toye	English	do		280 00 280 00
R. Watt	do	do		280 00
John Lane	. do	Catholic		280 00
Wm. Reid Chas, Farran	do	Protestant	do	280 00
Chas. Summers	do	do	do	1
R. Armstrong T. Cutler	do	do	,	ĺ
A. Conlin	Trish	i do		
J. Cheney. P. McDonell	French	do		\$1 00 per
G. Keeler	German	Protestant	do	day.
r. Doherty	. Trish	Catholic	.) do	1
James Reid R. Bare	.!Scotch	Protestant	. do	
J. Mellon	do	do	do	
Ottawa Slides and River				
Works,	1		* * *	1
H. Merrill	New Hampshire			
D. Scott	U. S	Episcopalian	Accountant and Clerk	1,640 00
WILL Kane	l I migh	(Roman Catholic	. Messenger	313 00
43. OWeezev	New Brungwick	do	Deputy Slide Master	
M. Holt, sen	U. S	Episcopalian	. do	300 00
J. Rowan				300 00
John Landon	American dissent	do	do	er
A. Proudfeet	Cartal	Presbyterian	. do	\$1 00 per
D. Carmichael	. do	do	. do ,	300 00
38-8		57		

Names.	Origin,	Creed.	Position.	Pay per annum.
				\$ cts.

Ottawa Slides and River Works.—Continued.				1
W. Thomson	Irish	Presbyterian	Deputy Slide Master {	\$1 00 per day.
J. McLaren	Scotch	do	do	300 00
E. McCrea	Irish	Roman Catholic	Boom Keeper	\$1 25 per
D. McFarlaneJ. McDonald	Scotch Canadian	Presbyterian Tenets of Plymouth Brethren		day. 300 00 534 96
R. McPhaden	Scotch	1	1 ,	\$1 25 per
Chas. Wright, deceased J. Barry	Irish	Roman Catholic	Deputy Slide Master	day.
Saguenay Slides.				
D. Boulanger			Superintendent	400 00 244 00
St. Maurice Works.				1. 41
H. R. Symmes J. B. Normand F. Rousseau	United States French Canadian do	Roman Catholic	Superintendent  Boom Master	1,400 00 \$2 00 per day. \$36 00 per
A. Rousseau	do	do	Assistant Slide Master {	month.
A. Latreille J. Blondin E. Lacroix	do do do	do do do	Boom Keeper	\$1 00 per day.
St. Peter's Canal, N. S.				
W. M. Kavanagh	Nova Scotian	Roman Catholic,	Lock Master	280 00
Welland Canal.	. :			
F. D. Woodruff	English	Protestant	Resident Engineer	3,000 00 \$2 00 per day.
Thos. Adams	CanadianIrishEnglish	do	Paymaster and Clerk Harbor Master & Carpen- Harbor Master & Carpen-	1,440 00 1,125 00
F. Ramsay	Irish	do	ter	600 00
C. Thrush			Assistant, Regul. Water . {	\$1 00 per day.
W. Ahern R. Collier	American	Protestant	Head Carpenter	75 00 di 75 00 di
T. R. Secord H. Higgins Mrs. Cook	Canadian English	do	Carpenter	30 00 2
Mrs. Cook	Irish	Roman Catholic	Messenger Look Master	30 00 3
J. Fluelian	English	do	do	30 00 PH
R. Marieman	ITIBR	do	Sup The salabasan da da da da da da da da da da da da da	<del>7.7</del> 3.7 6

Nambs.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.

J. Weodall   English   Protestant   Lock Master   S30 00 per month in winder   T. Barrett   Irish   do   Lock Tender   S30 00 per month in winder   J. Nestor   do   do   do   do   do   do   do	Welland Canal.—Continued.		1	1	\$34 00 per
J. McGillvray	J Woodall	English	Protectant	Lock Mester	month in
T. Barrett	J. McGillyray	Scotch	do.		
T. Barrett				1	
T. Barrett				1	
A. Hamilton	T. Barrett	Irish	. do	Lock Tender	
John Howe		Scotch	do	do	
J. Nestor	John Howe	Irish	Roman Catholic		34
James Howe	J. Nestor	do			
W. Walker					
A. Car	James Howe				1 001
J. Malpass	W. Walker	Canadian	Protestant		
J. Turnbull	A. Carl				
F. Meagher   Irish   Roman Catholic   Lock Master   30   M   Protestant   Lock Tender   30   M   Driscoll   do   Roman Catholic   do   30   do   40   do   40   do   30   do   30   do   40   do   40   do   30   do   4		do	Protestant		
W. Hare			D do	Lock Tender	34
M. Driscoll   do	r. Meagner			Lock Master	30 1
H. Hagen					
Bradley	H Uracon				
R. Boyle	T Dundless				
H. Plumsted   Canadian   do   do   30     D. McCarthy   Irish   Roman Catholic.   Leck Master   30     D. McCarthy   Irish   Roman Catholic.   do   30     A. Bradley   Canadian   do   Lock Tender   30     W. Wilson   do   do   Lock Master   30     B. Clark   John   Roman Catholic.   do   30     John Reilly   Irish   Roman Catholic.   do   30     John Reilly   Irish   Roman Catholic.   do   30     J. C. P. Bradly   Canadian   Protestant   Leck Tender   30     M. Nestor   Irish   Roman Catholic.   do   30     J. Cogan   do   Lock Master   30     J. Cogan   do   Lock Master   30     J. Cogan   do   Lock Master   30     J. Cogan   do   do   do   30     J. Cogan   Canadian   Protestant   Lock Tender   30     J. A. Winslow   Irish   Protestant   Lock Master   30     J. A. Winslow   Irish   Roman Catholic.   do   30     J. A. Winslow   Irish   Roman Catholic.   do   30     J. A. Winslow   Irish   Roman Catholic.   do   John   30     J. A. Winslow   Irish   Roman Catholic.   do   John   30     J. A. Winslow   Irish   Roman Catholic.   do   John   30     J. A. Winslow   Irish   Roman Catholic.   do   John   30     J. A. Winslow   Irish   Roman Catholic.   do   John   30     J. A. Winslow   Irish   Roman Catholic.   do   Jok Master   30     J. A. Winslow   Irish   do   Lock Tender   30     J. A. Winslow   Irish   do   Lock Master   30     J. J. Strang   Irish   do   Lock Master   30     J. J. Strang   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   do   Lock Master   30     J. McCabe   Irish   Lock Master   30     J. McCabe   J. Lock Master   30     J. McCabe   J. Lock Master   30     J. McCabe   J. Lock Ma	R Royle	Canadian	rotestant		
D. McCarthy	H Plumsted				
E. Boyle	D McCowthy				
A Bradley	mroomony	TURE	Protestant	do	
W. Wilson					
B. Clark				do	
John Reilly	B. Clark				
C. P. Bradly			Roman Catholic.		
M.   Nastor	C. P. Bradly				
J. Cogan	M. Nestor				001
Henry Hair	J. Cogan	do	do	Lock Master	30 1
Henry Hair	Thos. Flynn	Canadian	do	do	30 } 2
Henry Hair	A. Winslow		Protestant	Lock Tender	30
M. Moran	Henry Hair	do	l do		30 5
Jam. Delaney	G. A. Darley	Canadian			30
Jam. Delaney	M. Moran	1rish			
W   Cochran   Scotch   Protestant   Lock Master   30	Jas. Delanev	Canadian			
W.   Cavers   Scotch   do	W. Cochran	Scotch			
Weaver	R. Gibson				
J. Strang	W. Cavers				
Upper	T. Weaver		40 11771111		
McCabe	J. Strang				
Madil	J. McCol				
Marten   M	J Magn				
Williams	R Bradle		40 00000		
A Taggart   de   do   30     J. McAuley   do   Roman Catholic   Lock Tender   30     J. Phillips   do   Protestant   Lock Master   30     W. Burley   do   do   Lock Tender   30     T. Turner   do   do   Lock Master   30     K. Kane   do   do   Lock Tender   30     W. Fegan   do   Lock Master   30     W. Fegan   do   Lock Master   30     A. Moran   do   Roman Catholic   Lock Tender   30     A. Moran   do   Roman Catholic   Lock Tender   30     R. Ridel   de   do   30     R. Moran   Lock Master   30     A. Moran   do   Roman Catholic   Lock Tender   30     A. Moran   do   Roman Catholic   Lock Tender   30     A. Moran   Lock Maste	W Williams				
McAuley   do   Roman Catholic   Lock Tender   30     J. Phillips   do   Protestant   Lock Master   30     W. Burley   do   Lock Master   30     T. Turner   do   do   Lock Master   30     S. Kane   do   do   Lock Tender   30     W. Fegan   do   do   Lock Tender   30     Moran   do   Roman Catholic   Lock Master   30     A. Moran   do   Roman Catholic   Lock Tender   30     R. Ridd   de   do   30     R. Ridd   de   Lock Tender   30     R. Ridd   de   Lock Tender   30     R. Ridd   de   Lock Tender   30     R. Ridd   de   Lock Tender   30     R. Ridd   de   Lock Tender   30     R. Ridd   de   Lock Tender   30     R. Ridd   de   Lock Tender   30     R. Ridd   de   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd   Lock Tender   30     R. Ridd	A. Tampant				
Foliage	J. McAnley				
Marie   do   do   Lock Tender   30	O. P. Dilling				
Cock Master   30   Cock Master	W. Burley				
S. Kane         do         do         Lock Tender         30           W. Fegan         do         do         Lock Master         30           A. Morran         do         Roman Catholic         Lock Tender         30           P. Reid         do         do         30           R. Widel         do         30	- Illrhor				
A. Moran. do Roman Catholic Lock Tender 30 R. Kriel de do 30 R. Moran Lock Tender 30 R. Moran Lock Master 30 R. Moran Lock Master 30 R. Moran Lock Master 30 R. Moran Lock Master 30	o. Kane		doil	Lock Tender	
Moran do Roman Catholic Lock Tender 30  R Kiel do do 30  R Moran Lack Marten	W. Fegan				
do do 30	A. Moran				30
R. Molfalian	In Hamal				30
E Swiyhe Oanadian do Lock Tender 30	5. McMahon		ProtestantI	ock Master	
	n. Swayze		I عاد	ock Tender	30)

Names.	Orlgin.	Creed,	Position.	Pay per annum.
				\$ cts.

Welland Canal.—Continued.	4	İ	1	1
John Bruce	Scotch	Protestant	Lock Master	\$30)
Wm. Upper		do	Bridge Tender	
Wm. Higgins	do		Lock Tenderdo	30
D. O'Lary	Irish	Roman Catholic	do	30
J. Radcliffe	Canadian	Protestant	do	
Jas. McCoppen		do		
John Watson		do Roman Catholic	do	26 34
J. Sweeney			do	34
John Hinchey			1	34
Ed. Hanley		Roman Catholic	Ferryman	34
Thos, Connor			Lock Master	30
Patrick Cummins			Lock Tender	26 26
George Howe			Bridge Tender	26
John McCaner		Protestant		26
D. Daley		Roman Catholic		26 덮
John McNamara		do	do	26   13   14   15   16   16   16   16   16   16   16
S. Booth	do	Protestant	do	26 首
J. O'Neill	do	Roman Catholic do	do	26
J. Gearon		do		26 4
J. McDonneil	do	do	do	26
J. Waters	English	Protestant	Lock Tender	30
Wm. O'Leary	lrish	Roman Catholic	Bridge Tender do	26 26
Jas. Walsh	do	Protestant	do	26
H. N. Higgins	Canadian	do		26
B. Brennan	Irish	Roman Catholic	do	26
H. Quinlen	do	do		26
Jas. Edmonds	do	do	do	26 26
Jas. Foster	do	do	do	26
Chas. Hannah	do	do	do	30
George Hannah	do	do	do	30
George Hannah Joseph Dickinson Jeremiah Daley	do	_ do	do	26 26
Jeremiah Daley	Irish	Roman Catholic	do do	26
George Harris M. Madden	English	Roman Catholia		\$1 per day
M. Maddidi	1	Lionian Camono .	l	
		•		
River Trent & Newcastle				
District Works.				
C W Pernor	Canadian	Fraigh Church	Superintendent	260 per
G. W. Ranney	1			I IIIOH .
Thos. Laidley	Scotch	Presbyterian	Slide Master	156 00
Wm. Wood	do	do	do	150 00 200 00
Chas. Ranney	Canadian	English Church	Lock Master	120 00
Tim. Coughlan	irish	noman Catholic	do	
Ridrau Canal.	1			
J. D. Slater	English	Church of England	Superintendent	1,600.00
M. Carmen	Canadian	do	Book Keeper	3 000 AT
* with the second secon		60	and the second second second second second second	

Names.	Origin.	Creed,	Position.	Pay per annum.
				\$ cts.

Paul Cooper	Rideau Canal.—Continued.	1	l		,
Wm. Addison	Paul Cooper	Twich	Mathadiat	Magazaran	e1 005
Henry Pilson					
Michael Gleeson					
R. E. Hardy					
Wm. Geo. Addison				1	
Geo. Shepherd					
John Newman	Can Sharhard	do	Protestant	do	
Thos. Newman					
M. H. Johnston					
Wm W Mills					
D. Buck					0.70
Josia Richey					0 70
John Jones					1 0 00 1 9
Abraham Pearson   do					
Michael Money		do			
Alf. Forster					
Jas. W. Simmons	Alf Foreton				
John Johnston					
Peter Sweeney					
Pat Deane	Peter Swanner				
John McGillivray	Pat Deane				
Geo. Newsome	John McGillivray	Scotch			
Geo, Newsome	Jos Deans				
Geo, Newsome	ous. Deane	111811	Troman Camone		
Francis Abbott	Geo Newsome	do	Protestant	do	
Robert Shore	Francis Abbott		Church of England		
Wm. Miller         do         do         do         0 80           Wm. McAvoy         do         Roman Catholic         do         0 80           Peter Curran         do         do         do         0 80           M. Wallace         do         do         do         0 80           Pat. Moran         do         do         do         0 60           Jas. Kealey         do         do         do         0 60           Jos. Johnston         de         Protestant         Bridge Tender         0 60           Chas. T. Wright         Canadian         do         Lock Laborer         0 60           Jas. Driscoll         Irish         Roman Catholic         do         0 60           Pat. H. McGowan         do         Protestant         do         0 60           S. Santino         do         Lock Laborer         0 50         5           S. Santino         do         Lock Laborer         0 50         5           S. Santino         do         Protestant         do         0 60         60           Wm. Newman         Canadian         Protestant         do         0 60         60         60         60         60         60	Robert Shows		do	Lock Laborer	
Wm. McAvoy         do         Roman Catholic         do         0 80           Peter Curran         do         do         do         0 80           M. Wallace         do         do         do         0 80           M. Wallace         do         do         do         0 80           Pat. Moran         do         do         do         0 60           Jos. Johnston         do         Protestant         Bridge Tender         0 60           Chas. T. Wright         Canadian         Roman Catholic         do         0 60           Jas. Driscoll         Irish         Roman Catholic         do         0 60           Pat. H. McGowan         do         Protestant         do         0 60           Pat. H. McGowan         do         Lock Laborer         0 50           S. Santino         do         Lock Laborer         0 50           S. Santino         do         Lock Laborer         0 50           S. Santino         do         Lock Laborer         0 50           S. Santino         do         Lock Laborer         0 50           John J. Newman         Canadian         Protestant         do         0 60           Pat. Gradian	Wm Millon				
Peter Curran	Wm MaArrow				
M. Wallace         do         do         do         0         80           Pat. Moran         do         do         do         0         80           Jas. Kealey         do         Protestant         Bridge Tender         0         60           Chas. T. Wright         Canadian         do         Lock Laborer         0         60           Pat. H. McGowan         do         Protestant         Bridge Keeper         0         50           S. Santino         do         Lock Laborer         0         60           Wm. Newman         Canadian         Protestant         do         0         60         15           John J. Newman         Canadian         Protestant         do         0         60         15         4	Peter Curren				0 80
Pat. Moran   do   do   do   do   do   do   do   d	M. Wallacu			do	0 80
Jas.   Kealey	Pat. Moran				0 80
Dos. Johnston	Jas Kesley	do	1	do	0 60
Chas. T. Wright	Jos. Johnston	de	Protestant	Bridge Tender	0 60
Jas.   Driscoll   Irish   Roman Catholic   do   0 60     Pat.   H. McGowan   do   Protestant   Bridge Keeper   0 50     S. Santino   do   Lock Laborer   0 60     Wm. Newman   Canadian   Protestant   do   0 60     Fat.   Rail   Irish   Roman Catholic   do   0 60     Chas. O'Hara   do   Roman Catholic   do   0 80     Pat. O'Hara   do   do   do   0 80     Wm. Newman   do   Protestant   do   0 80     Wm. Newman   do   Protestant   do   0 80     Wm. Newman   do   Protestant   do   0 60     Wm. Newsome   do   Protestant   do   0 60     John Lane   Irish   do   do   0 60     John Lane   Irish   do   do   0 60     Albert Mills   Canadian   do   do   0 60     Pat. McGarr   do   Roman Catholic   do   0 60     Pat. McGarr   do   Roman Catholic   do   0 60     Jas. Burrows   do   Protestant   do   0 60     Jas. Mooney   do   Roman Catholic   do   0 60     Robt. Bolton   Canadian   Protestant   do   0 60     Robt. Bolton   Canadian   Protestant   do   0 60     Benjamin Donnston   Irish   Protestant   do   0 60     Robt. Bolton   Canadian   Protestant   do   0 60     Roman Daman Catholic   do   0 60     Robt. Bolton   Canadian   Protestant   do   0 60     Robt. Bolton   Canadian   Protestant   do   0 60     Robt. Bolton   Canadian   Protestant   do   0 60     Robt. Bolton   Canadian   do   do   0 60     Roman Howarth   English   do   do   0 60     Wm. Mason   Irish   do   do   0 60     Wm. Mason   Irish   do   do   0 60     Henry Rankin   English   do   do   0 60     Henry Rankin   English   do   do   0 60     Robt.	Chas. T. Wright		do	Lock Laborer	0 60
Pat. H. McGowan   do	Jas. Driscoll	Trish	Roman Catholic	do	
S. Santino   Canadian   Protestant   do   0 60   do   Ext.   Rail   Irish   Roman Catholic   do   0 60   do   Canadian   Protestant   do   0 60   do   Canadian   Protestant   do   0 60   do   Canadian   Cana	Pat. H. McGowan	do	Protestant	Bridge Keeper	0 50
Pat. Rail	S. Santino	do		Lock Laborer	0 60 2
Pat.   Roman Catholic   Canadian   Protestant   Canadian   Canad	Wm. Newman			do	0 60
Chas. O'Hara   Canadian   Protestant   do   0 80	Fat, Rail		Roman Catholic		0 60 5
Chas. O'Hara         do         Roman Catholic         do         0 80           Pat. O'Hara         do         do         do         0 80           Wm. Newsome         do         Protestant         do         0 60           Wm. Lee         do         do         do         0 60           John Lane         Irish         do         do         0 60           Albert Mills         Canadian         do         do         0 60           Benjamin Ager         Irish         do         do         0 60           Pat. McGarr         do         Roman Catholic         do         0 60           Jas. Burrows         do         Protestant         do         0 60           Jas. Mooney         do         Roman Catholic         do         0 60           Jas. Mooney         do         Roman Catholic         do         0 60           Robt. Bolton         Canadian         Protestant         do         0 60           Robt. Bolton         Canadian         Protestant         do         0 60           Benj. Johnston         Lrish         Protestant         do         60         60cper day           Benj. Johnston         Canadian	John J. Newman	Canadian	Protestant	1 ==	0.00
Pat. O'Hara   do	Chas. O'Hara	do	Roman Catholic		
Wm. Newsome         do         Protestant         do         0 60           Wm. Lee         do         do         do         0 60           John I.ane         Irish         do         do         0 60           Albert Mills         Canadian         do         do         0 60           Benjamin Ager         Irish         do         do         0 60           Pat. McGarr         do         Roman Catholic         do         0 60           Jas. Burrows         do         Protestant         do         0 60           Wm. Lavender         do         do         do         0 60           Jas. Mooney         do         Roman Catholic         do         0 60           Robt. Bolton         Canadian         Protestant         do         0 60           Thos. Johnston         Irish         Protestant         do         60cper day           Benj. Johnston         Canadian         do         do         3138.00 p. a           Wm. Mason         Irish         do         do         do         75 cemts           Henry Rankin         English         do         do         perday         Do         175 cemts	Pat. O'Hara	do			
Wm. Lee         do         do         do         do         0 60           John Iane         Irish         do         do         0 60         0 60           Albert Mills         Canadian         do         do         0 60         0 60           Benjamin Ager         Irish         do         do         0 60         0 60           Pat. McGarr         do         Roman Catholic         do         0 60         0 60           Jas. Burrows         do         do         do         0 60         0 60           Jas. Mooney         do         Roman Catholic         do         0 60         0 60           Robt. Bolton         Canadian         Protestant         do         0 60         0 60           Thos. Johnston         Irish         Protestant         do         60cper day         5138.00 p.a           Benj. Johnston         Canadian         do         do         3138.00 p.a         75 cents           Wm. Mason         Irish         do         do         4o         175 cents           Henry Rankin         English         do         do         4o         175 cents	Wm. Newsome	do	Protestant		
Solin lane	Wm. Lee	do	do		
Attert Mills	John Lane	Irish			
Pat. McGarr   do   Roman Catholic   do   0 60     Pat. McGarr   do   Roman Catholic   do   0 60     Jas. Burrows   do   Protestant   do   0 60     Wm. Lavender   do   do   do   0 60     Jas. Mooney   do   Roman Catholic   do   0 60     Jas. Mooney   do   Roman Catholic   do   0 60     Robt. Bolton   Canadian   Protestant   do   0 60     Thos. Johnston   Irish   Protestant   do   60cper day     Benj. Johnston   Canadian   do   do   \$138.00p. a     James Howarth   English   do   do     Wm. Mason   Irish   do   do     Henry Rankin   English   do   do     Henry Rankin   English   do   do     Perday   Protestant   do   Protestant   do   Protestant   do   Drotestant   do   Drotestant   do   Drotestant   do   Drotestant   Drotes	Albert Mills	Canadian			
Fat. McGarr         do         Roman Catholic         do         0 60           Jas. Burrows         do         Protestant         do         0 60           Wm. Lavender         do         do         do         0 60           Jas. Mooney         do         Roman Catholic         do         0 60           Robt. Bolton         Canadian.         Protestant         do         0 60           Thos. Johnston         Irish         Protestant         do         60cper day           Benj. Johnston         Canadian         do         do         3138.00 p. a           James Howarth         English         do         do         do         75 cents           Wm. Mason         Irish         do         do         perday           Henry Rankin         English         do         do         do	Denjamin Ager	Irish	do	1 = -	
Sas, Burrows         do         Protestant         do         0 60           Wm. Lavender         do         do         do         0 60           Jas. Mooney         do         Robat         Robat         0 60         0 60           Robt         Bolton         Canadian         Protestant         do         60cper day           Thos. Johnston         Irish         Protestant         do         5138.00 p. a           Benj. Johnston         Canadian         do         do         3138.00 p. a           James Howarth         English         do         do         75 cents           Wm. Mason         Irish         do         do         perday           Henry Rankin         English         do         do         Tock	Pat, McCarr	do	Roman Catholic		
Wm. Lavender do do do do do do do do do do do do do	e as. Burrows	do	Protestant		
Sas. Mooney	wm. Lavender	do	do		
Hott. Bolton Canadian Protestant do 60cper day Thos. Johnston Irish Protestant do 5138.00 p. a Benj. Johnston Canadian do do 5138.00 p. a James Howarth English do do 75 cents Wm. Mason Irish do do Fenglish do perday.	Jas. Mooney	l do			
Thos. Johnston Irish Protestant do toceper usy Benj. Johnston Canadian do do S138.00 p.a. James Howarth English do do Trish do do Henry Rankin. English do do perday.	Bolton.	Canadian			
Denj. Johnston   Canadian   do   do   do   James Howarth   English   do   do   do   T5 cents   Henry Rankin   English   do   do   Denglish   do   Denglish   do   Denglish   do   Denglish   do   Denglish	Thos. Johnston	Irish			
Wm. Mason   English   do   do   175 cents   Wm. Mason   Irish   do   do   perday.	Deni Johnston	Canadian			
Henry Rankin English do do perday.	James Howarth	English			75 cemba
English	Wm. Mason	I Trish			perday.
<b>D1</b>	Benry Rankin	English	00	( do	17 - 4.
			DI		

Names.	Origin.	Creed.	Fosition.	Pay per
				\$ cts.

Rideau Canal.—Continued.	1	1	1	1
Hugh Glover	Irish	Protestant	Lock Laborer	h
Geo. Perns	do	do		
Tag Karras	do	Roman Cutholic	do	per day.
Thos. McGillivrav	Scotch Canadian	Protestant	do	
John Hogan	Til	Daman Catholia	do	172 50
Robert Sargent	Canadian	do	do	172 50
Michael Connor	Irish	do	do	172 50
Michael Connor John Redmond Patrick Connor Philip Brady	do	] do		172 50
Patrick Connor	do	do		172 50 172 20
Philip Brady	Ι αο	do	do	1 1/2 20
Official Arbitrators.			4	
•	1			
Hon. P. Vankoughnet	Canadian	Church of England	Official Arbitrator	1,000 00
Jas. Cowan Wm. Compton	Nove Section	Presbyterian	do	1,000 00 1,000 00
Isidore Hurteau	French Canadian	do	do	1,000 00
				,
Rideau Hall.				
***	T3 - 31-1	2	G - 1	600 00
James Sorley	English	Protestant	Gardeber	000.00
Gevernment Railways in New Brunswick.				
Lewis Carvell	New Brunswicker.	Episcopalian	General Manager	2,400 00
Alex. McNauchton	Irish	Presbyterian	Accountant	1,000 00 1,000 00
Henry A. Whitney	New Brunswicker.	Universalist	Loco, and Car Superinten t	\$2.60 per d
E. W. Chestnut	do	Methodist	Paymaster.	600 00
Henry A. Whitney Gavin Rainnil E. W. Chestnut John Porter	Irish	Episcopalian	Cashier	500 00
Wm. G. Robertson	New Brunswicker.	Methodist	Tele. Operator and Clerk.	600 00 500 00
Edward T. Trites	do	Baptist	00 00 ···	300 00
Samuel Watson	do	Presbyterian	Store Keeper	\$1.50 per d
James Coleman	do	Methodist	Station Master	1,000 00
Rebert H. Armstrong	do	Episcopalian	Ticket Agent	600 W
Wm. G. Kobertson Edward T. Trites D. W. Colpitts Samuel Watson James Coleman Robert H. Armstrong James T. Smith Edward Sandall E. A. Leonard Thos. McMackin	do	Methodist	Receiving Clerk	1 25
E. A. Leonard	English	Episcopalian	Telegraph Operator	1 25
Thos. McMackin	New Brunswicker.	do	Wharfinger	1 25
Thos. Mack	English	Presbyterian	Baggage Master	1 15 5
John Bane	Irish	Prosbytoman	do	
John McAlee	do	do	do	1 00
C. Kagles	New Brunswicker.	Methodist	do	0 70
Andrew Russell John McAlee C. Kagles John Knowles Jacob Wilson	English	Episcopalian	do	1 00 1 00
Jacob Wilson  John Henderson				1 00)
Alex. Brewster	do	Episcopalian		month
Owan Sullivan	Twich	Roman Catholic	Watehman	200
l. L. Fairweather	New Brunswicker.	Episcopalian	Station Agent and Operator	28 34 per
				Marketon.

Names,	Origin.	Creed.	Position.	Pay per annum.
				\$ ots.

Government Railways in New	i		I	l
Brunswick,—Continued.				
Allan McN. Travis		1		l month
Patrick Murphy	Irish	Roman Catholic	Switchman	90c per day
Richard Davidson	Scotch	Presbyterian	Station Agent and Oper	rator 533 34 per month
Jas. Ryan, jun	New Brunswicker.	Methodist	do do	\$33 34 per month
Caleb F. Olive	do	Episcopalian	do	\$41 67 per month
Thos. Corbett, jun	do	Roman Catholic	Laborer	80c per day
Geo. Murray Chas. Chestnut Samuel McCready Thos. E. Smith W. W. Price	do	Episcopalian	Switchman	26 00 )
Chas. Chestnut.	Non Barriolean	Partiet	Station Agent and One	rator 28 34 15
Thos E Smith	do	Enigonalian	do do	28 34 8
Thos. E. Smith	Trish	Bantist	do do	33 34 €
J. A. Wallace J. A. Pitfield	New Brunswicker.	do	do do	33 34 5
J. A. Pitfield	English	Episcopalian	do do	33 34 4
John Flooks	I do	l do	Switchman	\$1 20 per d
J. W. J. Henderson	New Brunswicker.	Methodist	Station Agent and Oper	rator \$33 34 per month
Richard Moore	English	Episcopalian	Switchman	\$1 20 per d
Alex. Davidson	Scotch	Preshyterian	Station Agent	FOU DET III.
John McT anablin	l do	l do	Clerk and Uperator	ISI ZO Der CI
Wm. Smith	New Brunswicker.	Baptist	Watchman	30 00
D. McCallum	Irish	Roman Catholic	Switchman	20 00
A. E. Cannon	New Brunswicker.	Episcopalian	Clerk	20 00
J. B. Forster C. R. Palmer	English	do	Station Agent and Oper	22 24
O. R. Palmer	New Brunswicker.	Methodist	do do	rator 33 34 33 34 33 34 33 34 3
J. H. Frink	English	Episcopalian	Switchman	30 00 8
Robert Irvine J. H. Bartlett	Irish	Mothodist	Conductor	30 00 S
I M D1		do	do	
J. M. Decker John S. Tretis	do	Baptist		*****
		Durahanian	l do	2 00 1
Geo. H. Pick	New Brunswicker. English	Episconalian	do	
W. B. Knight	English	Methodist	do	2 00
N. Cannon	do	Baptist	Baggage Master	1 25
Robt Rainnil	New Brunswicker.	Presbyterian	do	1 20
Wm. Kelly	Irish	Roman Catholic	do	1 25
M. Letarte	French	1 do	] ao	
Jas. Millican	New Brunswicker.	Presbyterian	do Brakesman	1 25 5
Geo. Collard	do	Episcopalian	do	1 25
David Topley	do	do Baptist		
John Sprend	do	Baptist Episcopalian	do	
Robt. McDonald B. McPhee	Scotch	Procheterion	do	
Samuel Allingham	New Drumswicker.	Rentist		
() MC.	10 L-L	Proghatemen	do	1 25
R. M. Stevens	Now Rennawicker	Enisconalian	Engine Driver	60 00
U. A Ringlain	1 10	Presbyterian	(20)	
J. H. Moores	i da	Bantist	(do	
WUII Minway	Scotch	Presbyterian	do	
1000 W Daines	Now Remawicker	Baptist	do	
G. L. Smith	Irish	Presbyterian	do	60 00
G. L. Smith Robt. James	New Brunswicker.	Methodist	do Fireman	20 00
MODE ( Same	do ···	0.00	E HERMAN.	20 00
Peni Daley	do	Episcopalian	do	THE ANY
* * .		63		

Names.	Origin,	Creed.	Position.	Pay per annum.
				\$ cts.

Government Railways, New Brunswick.—Continued.				
Jas. McDermott	Now Branswicken	Drochestonian	Fireman	<b>\$</b> 30\ :
Jos. Johnston	do	Methodist	do	30 ( F
Neil McDougall		Presbyterian	do	30 / H
Hugh Tait	Scotch	do	do	30) A
	1	La contract of the contract of	(	\$1 00 per
	New Brunswicker.	Methodist	do{	ay.
John Benson	· · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	Cleaner	
John Jenner	English	Presbyterian	do	27 00
Jas. Bertram	New Brunswicker.	Episcopalian	do	27 00 平
Paul Arsenan		Roman Catholic		27 00 TH
Alfred Dryden	do	Baptist	do	## OO
Geo. Proudfoot	English	Episcopalian	do	27 00   5 62 50   A
Alex. Stronach				2 00)
J. B. Taylor		Drogbytonian	Machinist	1 70
John Fogerty	Trich	Roman Catholic	do	1 50
H. R. Perrie	Scotch	Preshyterian	do	1 40
N. L. Rand	New Brunswicker.	Methodist		2 00
J. L. Haycock	do	Universalist	do	1 50
Thos Chilton	English	Episcopalian	do	1 25
Thos. Boardman	do	do	Copper Smith	1 80
Ed. Boardman	do	۸۵ ا	Holmon	751
C. C. Davidson	P. E. Island	Baptist	Blacksmith	67
Pat. Furang	New Brunswicker.	Roman Catholic	Helper	I WI.
D. McConnell	Scotch	Presbyterian	Blacksmith	1 50 4
Chas. McCann H. A. Chapman	Mora Section	Methodist	Helper	1 25 2
Thos. Gay	English	Rantiet	do	1 25 4
Israel King	Canadian	Roman Catholic	Fitter	i 15
Paul White	Now Poppariolog	i do	Laborer	1 90
Alfred Rome	English	Enisconalian	Brakesman	1 00
Victor Doucett	P. E. Island	Roman Catholic	Laborer	1 00
T. W. Fillimore	New Brunswicker	Enisconalian	l do	90
J. McPherson, jun	Scotch	Presbyterian	Boiler Maker	1 25
Jas. Heilson	P. E. Island	Episcopalian	Woodman	1 00
Alex. McLellan Alex. Cummings	New Brunswicker.			40
Samuel Millican		do		1 10
	1	1	1	226 00 per
Wm. Kennedy	Scotch	do	Watchman	month.
Jacob Hughes	D 77 7.1	35.43. 35.4	h	\$60 00 per
	P. E. Island	t .	Foreman, Car Repairs {	month.
Robt_Johnston		Presbyterian	Machinist	\$1 25
Jas. Dawson	. do	Methodist	Carpenter	1 40
Jas. Barton	Irish	Episcopalian	do	1 35
M. H. Chapman Thos. T. Trites				7 95
Wm. Stewart	do	Baptist	do	1 35 3
Geo. McKee	New Rennaniekon	Methodist	do	1 25
Alex. Adams.	do			1 25 5
David Jones	. do			1 25
Melvin Jones	. do	Bantist	Bolt Cutter	1 15
Jas, Wright	English	Episcopalian	Woodman	1 00
Wm. Duncan	. New Brunswicker.	Methodist	Car Packer	1 1 90 1
Wm. Duncan, jun		do	do	\$28.00 per
HL Grookshanks	. de	Episcopalian	Laborer	month.
	1		(	1 410

STATEMENT of the Names, Origin, Creed, Position and Pay of all the Employés of the Dominion Government.—Continued.

Names,	Origin.	Creed.	Position.	Pay per annum.
<del></del>				

Government Railways in New	1		j	1
Brunswick.—Continued.				ļ
Jos. Blair	Trish	Presbyterian	Laborer	\$1 00)
Edward Thorpe	English	Episcopalian	do	1 00
Eliza Pearce				0 50
Annie Pearce	do	do	do	0 50
Alfred Pendleburg	English	Presbyterian	Painter	2 00
Wm. Knight	New Brunswicker.	Methodist	do	1 30
Thos. Merry Enoch Thompson	New Proposition	Methodist	do	1 30   1 30   .
Jos. Mercer	do	Baptist		1 30
John Donovan	do	Roman Catholic		0.67 1-5
Wm. Compton	do	Baptist		0 60 5
Geo. Curry	l do	Presbyterian	Laborer	1 2001
Felix McCannon	Irish	Roman Catholic		1 00
H. Cochran	do			1 00
Jas. Ralston Alex. Fraser	do	do	Helper  Blacksmith	1 00
M. Corr	Trick		Helper	1 35
Jer. Thompson	New Brunswicker	Methodist	Carpenter	1 25
Henry Hughes	do	do		1 25
		Fringenslian	Watchman	\$26 00 per
				month.
W. Crossman	New Brunswicker.	Baptist	Tinsmith	\$1 50)
D. Moriarty	lrish	Roman Catholic	Laborer	1 00
Jas. Bertram James Rafter	New Brunswicker.	Mathodist	do Foreman Track	1 00
Wm. Hughes	do	Roman Catholic	Laborer	1 00
Isaac Stockford	New Brunswicker	Methodist	do	1 00
John Connell	Trish	Roman Catholic	do	1 00
Sam. Dudev	English	Episcopalian	do	1 00
Sam. Ranshaw	do	Presbyterian	do	1 00
A. McCafferty.	Irish	Roman Catholic	Foreman Track	1 40
Michael Commy	do	do	Laborer	1 00
John Ryan. Wm. Jackson	New Brunswicker.	Episcopalian	Foreman Track	1 40
Michael Gallagher	Trigh		Laborer	1 00
Daniel Calvin	ldo	Presbyterian	do	1 00
John McPhernon	Scotch	do	Foreman Track	1 40
D. White	English	Episcopalian	Laborer	1 00
v. M. Belding	Scotch	Presbyterian	do	1 00 5
Geo. Seamans Tim. Connolly	English	Baptist	Foreman TrackLaborer	1 00 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Jas. Drummond	Cootab	Baptist	do	1 00
D. Freeze	Nam Rampowicker		Foreman Track	1 40
140%, White	Trish		Laborer	1 00
- at, Sullivan	l do l	da	do l	1 00
1408. 51zer	English	Methodist	Foreman Track	1 40
"III. Uragemen	Non Runnervioler	Baptist	Laborerdo	1 00
C. Kierstead . H. Kierstead . John G.	do	do	Go	1 00
John Curry	Insh	Pantist	Laborer	1 00
Yuas, Danev	Knodiah	MACDODISE	00	1 00 1
USO, Walton	do (	Episcopalian	Foreman Jrack	1 40
-406, fileba	Twick	Roman Catholic	Laborer	1 00
Publish Limitin	do	dol	do	1 00
- Cock Cochran	Name Hammourierer	Presbyterian	Foreman Track	1 40
auca, McCanlow	Marca Santian	do	Laborer	1 00 1
Calais Leshue	New Brunswicker.	Remain Catholic	WU!	1 00 ]
38-9		65		

Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.

Government Railways, New Brunswick.—Continued.	1			
	New Brunswicker English New Brunswicker do English do New Brunswicker do French English do New Brunswicker	Episcopalian Baptist Methodist Baptist Episcopalian Roman Catholic do do Methodist do do do do do	Laborer do do Foreman Track Laborer do do Foreman Track Laborer do do foreman Track Laborer do	1 40
Jas. Chapman John Cuthbertson Thos. Cuthbertson Willard Hutchinson M. McPherson Hugh Lutes Edward Duncan Joseph Henderson  Government Railways, Nova Scotia	Scotch Irish do New Brunswicker. Scotch English do New Brunswicker.	do do do Episcopalian Presbyterian Methodist	do do Foreman Track. Laborer do do	1 00 1 00 1 00 1 40 1 00 1 00 1 00 1 50
George Taylor  ‡Alex, McNab  Thos. Foot  Walter U. Jones  A. W. Clark  †A. K. Stephen  E. S. Blanchard	English	do do Weslevan	Accountant    Ass't Acc't and Paymaster	1,600 00
G. G. Bulley Alfred Brush D. A. Story Wm. Rennels	Scotch Nova Scotian do English	Church of England do do do Compan Catholia	Clerkdo Telegraph Operator	500 00 400 00 200 00 300 00 300 00
tChas, T. Lockhart. Owen Cameron A. S. Busby. J. Foot D. Pottinger J. Carten C. J. Carten	New Brunswicker. English Nova Scotian Irish	Church of England Presbyterian Roman Catholic	Ticket Master Freight Clerk	600 00 500 00 500 00
C. J. Carten Geo, W. Connors H. McCallum Edward Boak Tim. Bowes M. Phelan Joseph Shea John Meally Henry Dixon	Jerseyman Irish Nova Scotian	Wesleyan Roman Catholic do	Freight Deliverer Freight Porterdo	\$1 25) 1 10 1 25 1 25 1 10 1 00
TICHLY DIXOH	Nova Scotian	Presbyterian	do	1 10)

Names.	Origin.	Creed,	Position.	Pay per annum.
				\$ cts.

Government Railways, Nove Scotia.—Continued.	z			
†Chas. Woods. James Brutcher Pat. Tronan. §N. McKinnon. John Lane. †Wm. Shefrow. James Phelan.	Nova Scotian Irish English Irish	Wesleysn Reman Catholic Church of England Roman Catholic	do Passenger Porter Pointsman Car Shunter	1 00 kg 1 00 tg 1 25 tg 1 25 tg 1 25 00
John Gannon  Geo, W. Boggs Jas. Brittain  Wm. D. McCallum  †D. Sinclair  J. D. Gladwin	Nova Scotian   Irish   Nova Scotian	Baptist. Presbyterian Wesleyan	Station Master	day. 300 00 300 09 300 00 400 00 50 cts, per
F. H. Holesworth T. M. Boggs T. V. Cooke Jas. Miller	do do	BaptistChurch of England Baptist	Freight Porter	300 00 500 00 \$1.25 per day.
H. McMullin G. Room. J. D. Christie Chas. Hall Jotham B. M. McLy	Nova Scotian do do do	Presbyterian do do do	Sunday Waterman Policeman, &c. Pointsman Station Master	\$1 00 \ \text{p} \\ 1 15 \ \text{1} \\ 1 00 \ \text{A} \\ 300 00 \\ \\$1 per day
Wm. Cameron A. M. Davidson John Fraser D. Graret Wm. Fraser Jas. McDonald	Nova Seotian do Canadian Nova Scotian do	do do do do	Woodman Station Masterdo	400 00
J. B. Marshall Angus Kennedy Roderick McDonald Allan McDonald J. Murray W. Sutherland	Scotch Nova Scotian do Nova Scotian	Roman Catholic do	Flagman Station Master Freight Porter Night Watch Freight Porter	\$1 per day 700 00 400 00 255 00 \$1 00) ::
To. McLeod D. McLeod Angus Cameron John Nairn W. Sweetin W. Christie	Nova Scotian do do Scotch Nova Scotian	dodo do	Capt. Str. "May Flower". Engimeer do Helmsman do	480 00 480 00 360 00
Alex. Sutherland  †J. McFarlane W. Hislop W. Jack	do	do Presbyterian	Fireman do .	360 00 360 00 \$1 per day 600 00

Names.	Origin.	Creed.	Position.	Pay per annum,
				\$ cts.

Government Railways, Nova Scotia.—Continued.				
Alex Gordon R. M. Holesworth H. McIntosh	Nova Scotian	Church of England Presbyterian	Woodman	\$1 per day
E. Creelman	<b>!</b>		Tankman	day.
D. Hallisey	Irish Nova Scotian	Roman Catholic . Baptiat	Station Master	250 00 300 00
Richd. McLearn. Dan. Mumford Walter Sweet J. A. Cameron	do	Church of England Presbyterian	do	300 00 300 00
J. A. Cameron K. Sutherland	do Scotch	do	Telegraph Operator Station Master	360 00 500 00
Louis Maynard	Nova Scotian	Church of England	Assistant Station Master	360 00
John Walsh	English	Church of England	Night Watch	31 00 1 00 kg
John Holden		Baptist	do  Freight Porter	1 25   5
Jas. Connell	P. E. Islander	do	Depot Stores Porter Woodman	1 10 24
Sam. Kays	Nova Scotian	Presbyterian	Station Master	100 00 60 00
Thos. Lindsay	do		Tankman	\$1.50 per day.
†Robt. Smith				\$1 per day 700 00
E. Loasby	English	Church of England	do	600 00 600 00
John Ryan	Nova Scotian	<b>d</b> o	do	600 00 600 00
D. Rutherford	Scotch	do	do	600 00
Edward Davidson	Irish	Roman Catholic	do	600 00
Hugh Jackson	Nova Section	Roman Catholic	de	1 50
+John Blair	English	Weslevan	Spare Conductor	1 50 1 25
Edward Fripp		1	! do	1 25 1 25
†Peter Grant	English	Church of England	do Braken an	1 20 1 15
†W. Fraser	1		do	1 20 1 20 1 00
+Jas. Magill +Jas. Christie			do	1 15 5
+M. Ross M. Neville	1	1	do	1 00
M. Barss	do	Baptist	do	1 = 1
N. Ross. M. Casey	do	Church of England Roman Catholic	do	1 15
M. Casey Edward King Alex. Whalen	Irish	Church of England Roman Cathelic	do	1 - 0-1
†Abraham. Shananhouse †W. Burns		l	do	1 00

35 Victoria.

STATEMENT of the Names, Origin, Creed, Position and Pay of all the Employés of the Dominion Government.—Continued.

Names,	Origin.	Creed.	Position.	Pay per annum.	
	***********			\$ cts.	

Government Railways, Nova Scotia.—Continued.				
W. Jehnston	Scotch	Presbyterian	Lecemotive Superintendent	1,400 00
W. Bennett	Neva Scotian	Church of England	Time Keeper and Clerk	300 00
H. Appleton			Machine Shop Foreman	<b>\$2 20</b> )
	Nova Scotian	Presbyterian	Engine Driver	2 25
M. Tobin		Roman Catholic	do	2 25
J. Trider		Presbyterian	do	2 25
W. Hunt	do	Roman Catholic	do	2 25
W. Bowen		Church of England	do	2 25
Fred. Tierney	do	Roman Catholic	do	2 00
Jas. Clark	English	Church of England	do	1 50
Edward Tobin	Nova Scotian	Roman Catholis	do	1 75
W. McKay Stephens	do	Wesleyan	do	2 25
Benj. Goodman	English	Church of England		2 00
	Nova Scotian		do	2 25
J. Johnston	do	do	do	1 50
Samuel Cameron	do	_ do	do	2 25
John McDonald			Fireman	1 10
Edward Stockall		Church of England		1 20
Sam. Trider		Presbyterian	do	1 10   0 95
John Connell	do	Roman Catholic	do	1 00
Thos. O'Brien	do	do	do	1 00
Alex. Calder Jas. McLeod	do	Presbyterian	do	1 00
John Isner		Church of England		1 00
Wm. Wall	do	do	Driver, &c	1 50
Henry McAuley	do		Fireman	
A. Isner	do	do	do	1 20 5 1 00 5
Sam. McLeod		Presbyterian	do	1 10   5
M. Fuller		Baptist	do	
Robt. McDonald	do	Presbyterian	do	1 00
			Cleaner	1 20
Jas. Connolly	do		do	1 00
John Cox .	_do	do	do	1 00
John Stockall	English	Church of England	do	1 00
Fred White John Ward	Nova Scotian	Church of England		1 00
Jag Communication	Engush	Presbyterian	Fireman	1 00
17 4			Cleaner	1 00
Geo. Cleland		Preshuterian	Stationary Engine Keeper.	1 50
	English	Church of England	Machinist	2 00
Richd. Paver.	do	do	do	1 80
WM. Murnhy	Irigh	Roman Catholic	do	1 70
Geo. Dickens	Marie Section	Preshyterian	Fireman	1 00
M. McNally	Trish	Roman Catholic	Machinist	1 60
J. W. Porteons	Neva Scotian	Wesleyan	do	1 60
wm. Hayden	do	Roman Catholic		1 60
E. S. Allen	English	Wesleyan		1 70
wm. J. Conrad	Nova Scotian	Church of England	do	1 50
oun Appleton	English	do	do	1 50
WILL Appleton inn	do	do Domen Cothalia	do	1 50 1 40
Carlos (Fuludin	Cuban	Roman Catholic	do	1 60
tJohn Mc. Kean	•••••			100)

Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.

E. Sproull de Presbyterian Car Inspector	Jas. Wilson Wm. Dymond Wm. McGowan Wm. B Malcom Jas. Martin  J. Hurshman Jer. Keefe John Simmons Jas. McCormack John Guess Wm. Thorpe †Jas. Murray †Chas. Fielding John Vicary M. Connell A. Anderson G. McKinlay Thos. Revel D. McPherson †R. O'Mara N. Callahnn Benj. Parks Edward Cann Dan Hinchin Geo. Wright Wm. Sinclair John Menzies Robt. Erown John Williams Thos. Rosley Daniel Ward E. D. Shaffer	Nova Scotian.  do Scotch  English New Brunswicker Nova Scotian.  do Nova Scotian.  Scotch  English Nova Scotian  do Welsh Scotch Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Nova Scotian  do Newfoundlander Nova Scotian  do Newfoundlander Nova Scotian  do Scotch  do Newfoundlander Nova Scotian  do Scotch  do Newfoundlander Nova Scotian  do	Church of England Presbyterian Church of England do do do Roman Catholic do Church of England Roman Catholic do Baptist Church of England Roman Catholic do Baptist Church of England Presbyterian Wesleyan Roman Catholic Presbyterian Church of England Roman Catholic Presbyterian Church of England Roman Catholic Presbyterian Roman Catholic Church of England Church of England Roman Catholic Roman Catholic Presbyterian Wesleyan Roman Catholic Presbyterian Roman Catholic Presbyterian Roman Catholic Roman Catholic Church of England Presbyterian Roman Catholic Roman Catholic Roman Catholic Odo Presbyterian Roman Catholic Roman Catholic Church of England Presbyterian Church of England Church of England Roman Catholic Roman Catholic Roman Catholic Roman Catholic Church of England Church of England Go Odo	do do do do do do Apprentice  do do do do do do do do do do do do do	\$1 50 1 25 1 40 1 50 0 75 1 2 00 0 50 0 40 0 40 0 40 0 40 1 1 00 1 00 1
	E. Sproull	d•			1 60)

			4999 1 1 1 1 1 Administration 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	F 17 Years . 1/197 March 10/194
Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.

Government Railways, Nova Scotia.—Continued.		!		
				_
John Gunn	English	Church of England	Car Inspector	<b>\$1</b> 60 )
	Nova Scotian	Wesleyan		1 50
John Rhind	do		Carpenter	1 50
Robert Murray	Scotch	do	do	1 50
D. White	do	Church of England	do	1 50
W. Simpson	Nova Scotian	Presbyterian		1 40
P. Phelan	do	Roman Catholic	do	0 75
W. Lambert	do	Wesleyan	do	1 50
A. Clements	do	Baptist	do	1 50
Jas. Armstrong	New Brunswicker.	Church of England	do	$egin{array}{ccc} 1 & 30 \ 1 & 50 \ \end{array}$
Wm. Brander	Nova Scotian	Demon Cotholic	do	1 50
M. Keefe J. Grant	Nora Section	Roman Catholic	do	1 40
P. McGuire	do	Roman Catholic.	do	1 30
†Geo. Deuce	10		do	1 40
Mark Lambert.	Nova Scotian	Wesleyan	do	1 50
R. Pritchard.	Welsh	do	do	1 50
C. Chambers	Nova Scotian	do	do	1 40
	New Brunswicker.		do	1 40
†G. Thorn			do	1 40
J. Campbell	Nova Scotian	Presbyterian	do	1 50
Thos. Hibbetts.	do	Roman Catholic	do	1 25
Wm. Davidson	' do	Baptist	Apprentice	0 50
John Honkins	do	Church of England	Tinsmith	2 00 kg
Geo. Shaffer	do	do	Car Repairer	1 10 }
Geo. Shaffer Owen Jones	English	do	Car Shop Store Keeper	1 20 5
wm. Gray	1 do	Wesleyan	Labourer	1 00 }
John Martin	Irish	Church of England	do	1 00
Geo. Martin	Nova Scotian	do	do	1 00
Jas. Smith.	do	Westeyan	Blacksmith	1 60
H. Boutlier	do	Church of England	do striker	1 40
S. Simmons Wm. Gibson	English	Prochytomon		0 90
Jas. Ham	Nova Scotian	thurch of England	Car Repairer	1 30
Thos Prondersont	do	Roman Catholic	Car Oiler	1 00
John Conrick	Triah	do	Car Cleaner	1 00
d 08. Camphall	Nova Scotion	Roman Catholic	do	0.80
TWm J Allipon		<b></b>	Painter	2 25
D. Mollov.	English 1	Weslevan	do	1 50
Chs. Simmons	Nova Scotian	do	do	0 60
TJohn O'Brien			do	1 50
Geo. Simmons	Nova Scotian	Wesleyan	do	1 20
JOS. Janowyc	Hungarian	Church of England	Foreman Painter	2 00
Thenry Baker	<b></b>	<b></b>	rainter	1 50
Mark Hutson	English	Church of England	do	2 00
oun Karrett	Nova Scotian	do	do	1 70
aoun Loz	do	w esleyan	Clarger	1 40
L. Clark	English	Church of England	Cleanerdo	1 00
Wm. Atkinson Wm. Marshall.		Dualortanion	Road Inspector	
A Footh	Scotch	Church of England	Road Magter	1,000 00 2 00 \ \si
reetnam	English	Wesleyan	Road Masterdo	2 00 ( 5
Wm. Yould.	do	Church of England	Section Foreman	1 50
J. T. Clarke.	NT Continu	do	Laborer	1 00 ) 2
Jas. Heffler	Moas Ocomsu	1 40 1		* 007 H

Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.

Government Railways, Nova Scotia.—Continued.	Ì			
Pat. McTierney	Tainh	Pomen Catholia	Lahorer	\$1 00)
				1 00
G. Dalton	Mara Castian		Cata Kegner	0 20
Jas. Robinson	The aller	Charak of Unaland	Section Foremen	1 40
Wm. Purcell	English	Pomen Catholic	Leberer	0 90
win. Furcen	Nova Scollan	Roman Cathone	Laborer	0 90
John Lynch	do	Charach of Employed	Castion Tonomon	1 40
John Smith	English	Church of England	Laborer	1 00
Alex Gray	Nova Scotian		do	1 00
John Boutlier	do		Section Foreman	1 40
Jas. Ennis Thos. Neville Alex. McLeod	Tuint do	do		1 00
Alam Mat and	Many Continu	Proglystorien	do	1 00
†Walter Neville	Nova Scotian	resbyterian		0 90
tWm. Hillier				1 00
TWIII. Hillier		• • • • • • • • • • • • • • • • • • • •	do	1 00
†Geo. Hillier †Robt. Kings			Laborar	1 00
†Jas. Locke			do	1001
Robt. Geddes	Move Section	Prochestorion	Section Foreman	1 40
The Codder	Nova Scottan	r resby terian	Leborer	0 90
†Thos. Geddes Edward Barrett	Mora Castian	Charab of Faciand	do	0 90
Pat. Hushin	Nova Scotian	Paman Cathalia	do	0 90 !
Fat. Hushii	Canadian	Roman Cathone	do Section Foreman	1 25
Edward Largie	Taiah	do	Laborer	0 90
Marun 100m	111811	uo		0 90
Tim. Hopkins	αο	do	do	0 90
O. Kilday	Made Castian	Domon Cotholic	Section Foreman	- 05
The Wiles	do	do	Laborer	0 90
Thos. White		Presbyterian		0 90
Geo. Mason		Roman Catholia	Section Foreman	0 90 5 1 40 6
John O'Brien			Laborer	0 90
Chas. Hall		do		0 90
Thos. Carson		do	Section Foreman	1 40
John McCormack			Laborer	0 90 1
Robt. Green		Church of England		0 90
Pat. McCarthy	United States	Roman Catholic	Tankman	0 90
Geo. Ross	Nove Scotian	Church of England	Section Foreman	1 25
Wm. Ross			Laborer	0 90 1
Alex Ross	do			0 90
Wm. Kelly		Roman Catholic	Section Foreman	1 25
David Ryan	do	do	Laborer	0 90
tWm. McDonald				0 90 j
Richard Densmore				0 90
Dan. Lyons	Trish	Roman Catholic	Section Foreman	1.25
Thos. Cooper	do	do	Laborer	0 90
	Nova Scotian	do	do	0 90
Pat. McLaughlin		do	Section Foreman	1 25
John Devine		do	Laborer	0 90
Jos, McLaughlin	Nova Scotian	do	do	0 90
Donald Scott		do	Section Foreman	1 25
Chas Lindsay	do	Presbyterian	Laborer	0 90
T T ancilla	ا مام	do	ا الم	0 90
Geo Reige	German	Latheran	Section Foreman	1 40
Thos. McFadden	Nova Scotian	Presbyterian	Laborer	0 90
Jas. McLellen	do		do	0 90)

Value of the control				
Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.

	DEIAMINENT OF 3	CDIIC WORKS. O	onotivaca.	
Government Railways, Nova	1	1	1 <b>I</b>	
Scotia.—Continued.				
H. Bokelman	German	Presbyterian	Section Foreman	<b>\$</b> 1 40 \
Wm. Waller	Nova Scotian	do	Laborer	0 90 [
John Wright		Church of England		0 90
Robt. Hamilton	do		Section Foreman	1 25
†David Fulton	NT of Control	Olemah af Timulami	Laborer	0 90   0 90
	Nova Scotian do	Presbyterian	do	0 90
Wm. Johnston	English	Church of England	Section Foreman	1 25
Hugh Fraser	Nova Scotian	Presbyterian	Laborer	0 90
Thos Dighy	English	Church of England	l do	0 90
John Mason	Nova Scotian	Roman Catholic	Section Foreman	1 25
John Murphy	Irish	l do	Laborer	ቦ 90
†Wm. Mahony Dan. Ferguson			do	0 90
Dan. Ferguson	Nova Scotian	Presbyterian	Section Foreman	1 25 0 90
John Maynard	· · · · · · · · · · · · · · · · · · ·			0 90 1
†Jas. Warks	Trick	Roman Catholic	Section Foreman	1 25
John Kelly †Pat. Hennesy	1risii	noman Camone	Laborer	0 90
Matthew Kally	Nova Scotian	Roman Catholic	do	0 90
Allan McKinnon	Scotch	Presbyterian	Section Foreman	1 25
A. C. McKinnon	Nova Scotian	do	Laborer	0 90
David Pierce	do	do	do	0 90
†WmAlexander			Section Foreman	1 25
			Laborer	0 90
Mark Connors			Section Foreman	ماذبنة
Andrew Ormiston D. Faulkner	Nova Scotian	do	Laborer	0 90 0 90 1 25 1 25
Andrew Skinner	Scotch		do	0 90 } 7
John Fraser			Section Foreman	1 25 2
John McKenzie	Nova Scotian	Presbyterian	Laborer	0.90
John Cameron.	do	do	do	0 90
Wm. Eastwood	do	do		1 40
Simon Fraser	do		Laborer	0 90
H. McEaschern		Roman Catholic	do	0 90
tAlex. Scott.	The alliab	Ducaburtarian	Section Foreman	1-40
John Brown tWm. Kentley	English	r respy terran	Laborer	0 90
John Atken	Nova Scotian	Presbyterian	do	0 90
+H Cammichael	}	1	do	0 90
John W. McKay	Nova Scotian	Presbyterian	Section Foreman	1 25
Daniel McDonald	l do	do	Laborer	0 90
Angus Cameron	do	do	do	0 90
H. Ferguson	do		do Section Foreman	1 25
John Lindsay Pat, Hulahan	do	D Cotholia	Laborer	9 90
Mich. Jones.	irish	do	do	0 90
TPat Donochus		uo	do	0 90
Patrick Ash	limich	. Roman Cathone	Section Foreman	1 40
rod. Ferguson	Nova Scotian	Presbyterian	Laborer	0 90
M. Donochne	Trish	Roman Catholic	do	0.90
†Beni. Dean	1		' do	0 90
Twm. Barrett	1		do	0 90
Tibna Walsh	<b>!</b>	D Cathal!-	do	0 90 1 1 25
onn Walsh	Nova Scotian	Koman Catholic	Section Foreman	1 20)

Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts

#### DEPARTMENT OF PUBLIC WORKS.—Continued.

Government Railways, Nova Scotia.—Continued.					
			Laborer		
†Wm. Pickett	T	D C-41-12-	do	0 90	
M. Gaingnan	Irish	noman Cathone	Gostian Farance	0 90 1 25	
D. GOTHAIL	do	do	Section ForemanLaborer	1 00	
To Davisson	Now Brunewicker	Bontist	do	1 00	
Tames Utten	New Didiswicker.	Dapust	Laborer	0 90	
+James Etter	Trich	Prophytorian	Section Foremen	1 40	
Pat Smith	do	Roman Catholic	Laborer	0 90	
W McEvov	Neve Scotian	do do	do	0 90	
W. McEvoy †Robert Cox	Trova Booman		do	0 90	
Robert King	English	Church of England	Section Foreman	1 25	
Thos. Frizzell	Nova Scotian	Baptist	Laborer	0 90	
H. Burton	English	Church of England	do	0 90	P
			do		
S. Etchelle	English	Swedenborgian	Section Foreman	1 25	
Alex. Black				0 90	İ
W. Hinds				0 90	
E. Elma	English	do	Section Foreman		
†W. Burns		<u>.</u>	Laborer	1 00	
Thos. Curry				1 00	
†James Wilson		· · · · · · · · · · · · · · · · · · ·	do	0 90	
+John Moshen				0 90	
H. Hopkins, jun	Nova Scotian	Presbyterian	Tankman	0 25	)

### DEPARTMENT OF PUBLIC WORKS.—(Additional, Appointed in 1871.)

Head Office.  Thos. S. Scott. A. P. Bradley. Louis Fortier. W. Curran. Théophile Fortier.	Irish (from N. S.). French Canadian . Irish Canadian	W. Methodist Roman Catholic do	Assistant Book-keeper Probationary Clerk	2,400 00 1,000 00 300 00 300 00 300 00
Lachine Canal.  Arthur O'Neil  Louis Simard	1		Lock Master	280 00 \$2 00 per day.
J. A. Massé	do do	do	Superintendent	1,000 00 280 00 \$1 per day. 1 do

Names,	Origin.	Creed.	Position.	Pay per annum.
				\$ cts

### DEPARTMENT OF PUBLIC WORKS .- (Additional, Appointed in 1871.) - Continued.

Carillon & Grenville Canals	.1	1	ı	1
Henry Mason	English Canadian		Lock MasterLaborer	
Chambly Canal.				
Joseph Manie	French Canadian	Roman Catholic .	Ferry Keeper	80 00
Cornwall Canal.				
Benjamin Johnson Timothy Shields, jun	Canadian	Protestant Roman Catholic .	Lock Laborerdo	\$1 per day 1 do
Williamsburgh Canal.	1			
A. Cutler	Canadian Irish	Roman Catholic Protestant	Lock Laborer Lock Master	\$1 per day 280 00
Ottawa Works.				
Richard Chamberlain	Canadian	Church of England	Slide at Deschènes Rapids	\$1 per day
We'land Canal.				,
Jonathan M. Woodall	Canadian	Anglican	Lock Tender {	\$30 00 per month.
Wm. Hare Frederick Shrier Barnet Darby James Ward Robert Veitch John Corbett	Irish Swiss Canadian Irish do Canadian Irish	do Roman Catholic. Methodist Roman Catholic. Methodist Roman Catholic. Anglican do	Lock Master Lock Master Lock Master Lock Tender do Lock Master Lock Tender Lock Tender Lock Tender Lock Tender	280 00 30 00 30 00 30 00 30 00 30 00 25 00 26 00 50 00
Artnur McCann Jacob Reuter Arthur Bradley Samuel Frazer Michael Madden	Irish German Irish do Canadian Twish	do Roman Catholic Anglican do Roman Catholic	Lock MasterLock Tenderdo	26 00 5 5 6 00 26 00 26 00 30 00 50 00
Rideau Canal.				
Wm. Addison, jun	IrishEnglishdododo	Church of England Presbyterian Church of England do do do do	do	1 00 0 80 0 70 0 70 0 80 0 70 0 80 0 70 0 7
W. J. Pearson.	do	75	uo	V 107

	J			
Names,	Origin.	Creed.	Position.	Pay per annum,
		<del></del>		
				\$ cts.

### DEPARTMENT OF PUBLIC WORKS.—(Additional, Appointed in 1871.)—Continued.

	•			
Rideau Canal.—Continued.	6			
Michael Mooney, jr.  John Johnson Alfred Foster. Archibald Boyd Henry Layng. James Driscoll	Irish do	Roman Catholic Church of England do do do Roman Catholic	Lock Masterdo do do Lock laborer. Lock Master Keeper Manotick Bridge	\$0 70 0 80 0 60 0 80 0 60 0 80
European & North American Railway.				
E. T. Trites J. S. Smith H. Mack	do English	Methodist Presbyterian	Clerk and Operator Entry Clerk, St. John	600 00 500 00 \$1 50 per day.
G. M. Jarvis	do	Baptist	Clerk and Tel. Operator,	\$25 00 per month.
T. A. Smith	English	Episcopalian do Baptist Presbyterian	Master, Apohaqui Station. Master, Penobsqui Station. Master, Memramcook	240 00 400 00 340 00
T. McCready Harry Herman C. R. Palmer	German	Episcopalian	Master, Sackville Station	400 00 400 00
Nova Scotia Railway.	:			
D. Pottinger	Nova Scotian do do	Presbyterian	Cashier. Paymaster Agent at Beelfut Station	700 0 800 0 300 0

### DEPARTMENT OF MARINE AND FISHERIES.

I. Staff in Office of Minister.	ŀ	1	1	\$ cts.
William F. Witcher	Canada	Episcopalian	Deputy of Minister Commissioner of Fisheries.	2,600 00 2,000 00
Joseph Tomlinson	England		General Superintendent of Lights	2,000 00
John Hardie	New Brunswick	Presbyterian	First Class Clerk, Marine Branch	$^{1,500}_{1,500}  ^{00}_{00}$
John Tilton	do	Episcopalian	Accountant	-
	1	1	eries' Branch	1,200 00
William L. Magee	<b>{</b>		countant's Branch	$^{1,150}_{1,000} \stackrel{00}{00}$
François F. Gourdeau Thomas Drinkwater	Canada England	Episcopalian	Third do & Précis	600 00
The Property of the second	1 -	l -	Writer	500 00
John H. McIlbree George H. Harper	Ireland	Episcopalian	do do	400 00 300 00

Names.	Origin.	Creed.	Position.	Pay per annum.
all and the second seco				\$ cts.
Dr	PARTMENT OF MAR	INE AND FISHERIES	.—Continued.	
I. Staff in Office of Minister. —Continued.			4	
Thomas Wheeler	England	Episcopalian	Messenger do	450 00 300 00 400 00
II. Lighthouse Keepers, &c., above Montreal.				
Isaac Hope	l .		Kingston	1,200 00
John Norton Oliver Madore Oliver Weaudry (acting) Joseph Meloche William Shannon George Shannon Alexander McDonald Edward S. Johnson George H. Johnson Thomas Hill Richard Elliott Albert Root John Wallace Cornelius Cook John Wallace Cornelius Cook John Buck Joseph Mervin Robert Gillespie Nathaniel Orr John Dunlop Frederick Swetman William A. Palen Wilson Bently George B. Simpson William J. Swetman George Roddick Robert Roddick George Thomson Robert K. Chisholm Jonathan Woodall David H. Fortier John Burgoess	Ireland. Lachine Lower Canada do Ontario Lower Canada Ontario Lower Canada do Ireland Ontario do Ireland Ontario do Ireland Ontario do Lower Canada Ireland Ontario do Lower Canada Ireland Ontario Ireland Ontario Ireland Ontario Ireland Ontario Ireland Ontario Contario Ireland Ontario Ireland Ontario Ireland Ontario Ireland Ontario Contario Ireland Ontario Scotland Ontario England	Roman Catholic.  do do do do Presbyterian.  do Roman Catholic. Episcopalian Presbyterian do do Episcopalian do do do do do do do do Presbyterian Roman Catholic. Society of Friends Episcopalian do Methodist do Presbyterian do Wesleyan Presbyterian do Episcopalian. do Presbyterian do Presbyterian do Presbyterian do Presbyterian do Roman Catholic Episcopalian. do Presbyterian do Resbyterian do Episcopalian. do	Angston Lachine Pier Light, No. 1 do do 2 do do 3 Beauharnois. Grosse l'oint do Assistant McKie's Point. Cherry Island do Lancaster Pier Cole Shoal Grenadier Island Lindoe do Gananoque Narrows Spectacle Shoal Burnt Island Wolfe Island Nine Mile Point False Ducks. Point Peter Scotch Bonnet Presqu'Isle Range. do Gull Island do Assistant Gibraltar Point Burlington Bay Oakville Port Dalhousie Colborne	401 00 300 00 200 00 225 00 435 00 175 00 175 00 147 00 250 00 250 00 250 00 250 00 250 00 435 00
Henry Morgan Alexander Sytherland	Ireland	do	Dover	350 00 260 00 320 00 200 00
Charles Ead Henry Woodward Peter McIntyre James Edwards James Cummins	Englanddo Scotlanddo Ireland	do Roman Catholic	Stanley Long Point Point Pelee Reef do Assistant. Point Pelee Island Bois Blane River Thames Goderich Foint Clark Chantry Island do Assistant.	435 00 435 00 325 00 435 00 435 00 435 00 325 00 435 00
Duncan McG. Lambert Roland A. Lambert David McBeath	Province Quebec Ontario Scotland	Episcopalian do Presbyterian	Chantry Island	435 00 175 00 435 00

II. Lighthouse Keepers, &c.,

1

## STATEMENT of the Names, Origin, Creed, Position and Pay of all the Employés of the Dominion Government.—2 nti nued.

Nambs,	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.

#### DEPARTMENT OF MARINE AND FISHERIES .- Continued.

above Montreal,—Con-				
tinued.				
•	ĺ	i	·	ĺ
William McBeath	Canada	Presbyterian	Isle of Coves Assistant	300 00
Vesey C. Hill	Ireland	Episcopalian	Griffith's Island	435 00
George Collins			Nottawasaga	435 00
Charles Collins	do	do	do Assistant	175 00
John Hear	England	do	Christian Island	435 00
		Roman Catholic	Claire Light Ship, No. 1	300 00 300 00
Moise Leclerc Alfred Laberge John Pringer	do	do	Coop lalend	250 00
Alfred Laberge	Ontorio	1 do	Point Pleasant	300 00
Philemon Proulx	Province Quebec	do	Killamay	500 <b>00</b>
Andrew Hynes		do	Claire Light Ship, No. 1 Point Claire Green Island Point Pleasant Killarney St. Ignace	300 00
Donald McKenzie	New Branswick	Presbyterian	Little Current	300 00
John Mason	Ontario	Methodist	Telegraph Island	200 00
Charles Patton	Ireland	Roman Catholic	Clapperton Island	350 00
William Shepherd	England	Episcopalian	Sulphur Island	325 00
John Egan	do	Roman Catholic	Lonely Island	350 00
James Éccles	Ireland	Episcopalian	Pigeon Island	300 00
Lawie Hodering	1		Salmon Point	300 00
R. Campbell, (acting) Oliver De Laire (acting) Elie B. Prieur, (acting) J. C. Darke			Point L'Orignal	• • • • • • • • • •
Oliver De Laire (acting)		· · · · · · · · · · · · · · · · · · ·	Point McTavish	
Elie B. Prieur, (acting)			Coteau Landing	
J. C. Darke	England		Muskoka or Fox Island	200 00
W. McGowan	Untario		Parry Sound	300 00
A. Mongeon	Province Quebee	Roman Catholic	Wade Shoal	100 00
III. Officers and Lighthouse Keepers under supervision of Trinity House, Montreal.				
				+ 00° M
E. D. David	Montreal	Hebrew	Registrar and Treasurer	1,325 00 1,200 00
P. E. Cotté		Roman Catholic	Superintendent of Pilots	600 00
Daniel Rooney	Ireland		Clerk	400 00
Martin Brennan	Lower Canada		Agent at Sorel	300 00
Joseph Barnabé	do		Capt. of Steamer Richelieu.	800 00
Louis Marchand	Holland		Master Trinity House	625 00
Edouard Arcand	Deschambault		Keeper, Floating Light No.2	<b>8</b> 52)
Olivier Auger		do	do do No.1	52
Théophile Brodeur	Varennes		Keeper, Isle Ste. Thérèse	18
Pierre Beaudet	Lothinière	do	Keeper, Lotbinière	15
Catherine Blaise François Boisvert	do		Keeper, L'islet Richelieu	20
François Boisvert	St. Croix		Keeper, Cape Charles	12
Jean Unarrette	Isle d'Orleans		Keeper, Port St. Francis.	16   52   ±
Joseph Dussereau			Keeper, Floating Light No.3	75 16 7 88 7 88 16 Houth
Joseph Ethier	Repentigny		Keeper, Isle à la Bogue	17 5
Simon Françœur			Keeper, St. Pierreles Becquets	7 E
Léandre Fugères			Keeper, Batiscan	8 8
Joseph Gervais			Keeper, Contrecœur	30
Dines Giguère	Dointo aux Thombles	do	Keeper, Lavaltrie Keeper, Champlain	7
William Jeffs.	a other wax a lembick	do	Keeper, Montreal Harbour	15
Antoine Lamoureux			PEOCHOL BIOTOTOCH TINIDUAL	
	Roncherville	do	Keener Pointe aux Trembles!	13
Joseph Lamoureux	Boucherville	do!	Keeper, Pointe aux Trembles	30
Joseph Lamoureux François Lacroix	Boucherville	do]	Keeper, Pointe aux Trembles Keeper. Isle à la Pierre	30 8
Joseph Lamoureux. François Lacroix Jean B. Lachapelle	Boucherville Contrecœur	do do do	Keeper, Pointe aux Trembles	30

# STATEMENT of the Names, Origin, Creed, Position and Pay of all the Employés of the Dominion Government.—Continued.

Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts
Di	EPARTMENT OF MAI	RINE AND FISHERIES	s.—Continued.	
III. Officers and Lighthous Keepers under supervision of Trinity House, Montreal. —Continued.	$\iota$			
Jean B. C. de Larose Olivier Letendre Paul Manuel Joseph Marchand	St. François Bécancour Batiscan	do do do	Keeper, Rivière du Chêne Keeper, Isle aux Prunes. Keeper, Isle aux Raisins. Keeper, CapdelaMagdeleine Keeper, Batiscan	30   -5
Pascal Montplaisir  Médard Paquin Edouard Paul Richelieu Company Samuel Reeves	laine	do do do	Keeper, Cap dela Magdeleine Keeper, Pointe du Lac Keeper, Isle de Grâce Keeper, Sorel	10 10 12 85 00
Charles Rivet Alexandre Trottier Onésime Beaudet O. C. de la Chevrotière	Repentigny Grondines Province Quebec.	do do	Keeper. Isle Ste. Thérèse Keeper, Grondines Keeper, Lotbinière	8 77 20 77 77 77 88 77 77 77 77 77 77 77 77 77
IV. Trinity House, Quebec.				
Vital Tétu Alexandre Lemoine Lesse D. Armstrong Francis Gourdeau Alexander Lindsay ames Cassidy Pierre Chatigny	do	do Episcopalian Roman Catholic do do	Master Secretary-Treasurer Harbour Master Superintendent of Pilots Assist. Secretary-Treasurer Harbour Master, Amherst. Messenger	1,000 00 1,600 00 1,600 00 1,200 00 1,200 00 50 00 120 00
V. LighthouseKeepers, &c., in River and Gulf of St. Lawrence.				
John U. Gregory Elzéar E. Buteau John Smith	do	l dol	Agent of Department Clerk Superintendent of Lights.	1,200 00 600 00 1,200 00
S. Rodrigue  James Thurber  Jeon Lafleur  Joseph Chabot	Province Quebec do do do	Roman Catholic do do do	Saint Croix Keeper	200 00 140 00 100 00 300 00 320 00
Edouard Thivierge E. Simard Joseph Painchaud Damase Babin John Landry, (acting)	do	do do do	Bellechasse Keeper Mont du Lac Keeper Crane Island Keeper Stone Pillars Keeper Upper Traverse Light Ship	500 00 320 00 450 00
Thomas Roy Desjardins Jean C. Marquis Jean Baptiste Picard		Roman Catholic do do do do	Lower do do Grand Isle, Kamourska Long Pilgrims Brandy Pots Red Island Keeper	320 00 340 00 400 00 660 00
Gilbert Lindsay	do	do	Red Island Light Ship and Fog Whistle Green Island Bicquette Island Father Point	869 00 760 90
D. Lawson. Paul Pouliot	do	Presbyterian	Pointe des Monts	340 00 760 00

Names.	Origin.	Creed.	Position.	Pay per annum.
Tor	The Designation of Made	' ine and Fisheries	Continued	*
DE	PARTMENT OF MAK	INE AND PISHERIES	Çontinuea.	
V. Lighthouse Keepers, dc., in River and Gulf of St. Lawrence.—Continued.				
A. Riverin	Province Quebec	Roman Catholic	Seven Islands	
D. Tétu	do	do	South Point or Bagot's Bluff, Anticosti Light	
i			Bluff, Anticosti Light	
* ' • • • •	_	,	House and Fog Whistle.	800 00
Louis Malouin	do	do	West Point, Anticosti, Light House & Provision Depôt	800 00
E. Pope	do	Enisconalian	South-West Point, Anti-	000 00
13. 1 ope	· · · · · · · · · · · · · · · · · · ·	ł	costi	800 00
Thomas Gagné	do	Roman Catholic	Heath Point, Anticosti	800 00
Robert Setter	مام	l Maigannolian	It'llia Raw Promaton Denat	200 00
Bernard Bradley	do	Roman Catholic	Shallop Creek do Cape Rosier	240 00
Auguste Trudeau	do	do	Cape Kosier	800 00 125 00
Joseph Eden	do	do	Sandy Beach Light Ship	120 00
J. F. Gallie	do	do	Paspebiac Light	100 00
Pierre Godier	do do	do	Amour Point, or Forteau L. H., Labrador	
	l	_	L H, Labrador	820 00
Martin_Coltin	do	do	Belleisle	1,060 00
Martin Coltin	England	Episcopanan	land Shore	
Eugène Rov	Quebec	Roman Catholic	Point Rich, Newfoundland	
			Shore	
Robert Rennie	Scotland	Presbyterian	Cape Ray, West side, New-	600 00
William Carmier J. Chapman, (acting) Joseph Roy Philip Savage	Onabaa	Roman Catholic	Amherst Macdalen Island	300 00
J. Chapman (acting)	& denec	toman Camonc	Bird Rocks, do	
Joseph Roy	Quebec	Roman Catholic	Cape Chatte	* 300 00
Philip Savage	_ do	Episcopalian	Cape Magdalen	300 00 500 00
Paul Coté	Province Quebec	Roman Catholic	Egg Island	500 00
James Cassidy	do	αο	Master	50 00
VI. Lighthouse Keepers, &c., New Brunswick.				
John H. Harding	New Brunswick	Baptist	Agent of Department	1,600 00 1,400 00
William H. Venning James Mitchell. James Clarke	do	do	Inspector of Fisheries	1,200 00
James Mitchell	do Novo Sectio	Presbyterian	Grindstone Island Light	1,200
James Clarke	Nova Beolia	Dapusu	Keeper	400 00
George Tingley, (acting) William Love Alexander Reed			Cape Enrage Light Keeper	400.00
William Love	Ireland	Episcopalian	Quaco Light Keeper	400 00
Alexander Reed	England	do	Partridge Island Light	500 00
With Dan	Nama Santia	Free Will Bantist	Keeper.	400 00
Elijah Ross George Thomas	New Brunswick	do	Point Lépreux Light	
	A.U. are transfer to the first		Keeper	400 00
Jonathan Kent	Grand Manan	Episcopalian	Swallow-Tail Light Keeper	400 00
John R. Snell	England	W. Methodist	Head Harbor do	300 00
Jonathan Kent John R. Snell George A. Pendlebury Walter B. MacLaughlin John Conly John Bent	New Brunswick	Aposties	Connet Rock do	840 00
John Conly	New Branswick	Enisconalian	Machias Seal Isl'd. do	664 00
John Bent	Nova Scotia	Baptist	Cape Jourimain do	200 00 500 00
George McConnell	do	Episcopalian	Miscou do	400 00
William Hay	Scotland	Presbyterian	Escuminac do	160 00
John Comy John Bent George McConnell William Hay Fabien Richard George Rogers	New Brunswick	Roman Catholic	For Island do	200 00
monge mogers	Newioundland	60	EVA IBIANU	
		ΨV		

Names.	Origin,	Creed.	Position.	Pay per annum.
				\$ cts
Dr	PARTMENT OF MAR	INE AND FISHERIES	.—Continued.	
I. Lighthouse Keepers, &c., New Brunswick—Continued.				
leorge Davidson	New Brunswick Norway Scotland	Presbyterian Episcopalian Presbyterian	Portage Island LightKeeper Shediac Island do Partridge Island, Fog-	200 0 200 0
Villiam Cameron	1	1	Partridge Island, Fog-	400 0
			Whistle Assis't Engineer Lower Newcastle Keeper. Carraquet Island do Point Lépreux, Fog Whis-	240 ( 100 (
	1	i e	! tie Enonneer	200 0 400 0
ames Caughlin	New Brunswick Wales	Roman Catholic	Oak Point Light Keeper. Preston Beach do Green Head do	100 € 100 €
ohn N. Williams	United States Ireland	Baptistdo	Green Head do Sand Point do	80 ( 80 (
harles Theal dmund Buzza	Carleton England	Episcopalian	Oak Point do No man's Friend do Oromocto Shoals do	80 6 80 6
dmund Buzza  dmund Buzza  ames King Hazen  ohn D. Wilmot  ohn Connors	England	do Roman Catholic	Wilmot's Bluff	80 ( 80 (
		• • • • • • • • • • • • • • • • • • •	Light Keeper	80 (
			Southern Wolves' Light Keeper Bliss Island Light Keeper.	500 ( 200 (
arvis Clarke ouis Arsineau amuel T. Gove	do . do . do .	do Roman Catholic Episcopalian	Dalhousie do . Medical Superintendent,	100 0
Mary A. Day	'	l ! do	Matron do	200 ( 208 (
Botsford, M.D	do	do	Medical Superintendent,	560 (
A. Barnes	New Brunswick	do do	Keeper, Kent Hospital Male Nurse do Matron do	144 (
L. Bishop.	New Brunswick England	do Episcopalian	Cook do Medical Superintendent,	48 0
apet Miller. L. Harding, M.D				40 0 208 0
L. Harding, M.D	New Brunswick	Baptist	Medical Superintendent, Pest House, Partridge Island	100 (
lev. W. Armstrong	England New Rennswick	Episcopalian	Chaplain, Kent Hospital Secretary do	100 0
harles Ward Thomson		Preshyterian	Miramichi Hospital	200 0
Lawlor L.H. Wilson	do	Presbyterian	Medical Superintendent,	100 0
Iannah McNeil	Newfoundland	do Roman Catholic	Matron do Com'r. of Buoys & Beacons do do	100 0
10 C			l do do 1	alon the
opert Young. ames Campbell.	New Brunswick do	Presbyterian Episcopalian	do do do do	Z.
Invitat J Cl	Markiand	L LEBUATELISM	u u	100
cohert Young  ames Campbell  conid Stewart  cohariah Chipman  smes Ritchie  allan McLass	Nova Scotia	Presbyterian Free Methodist Presbyterian	do do Shipping Master, Port St.	70

Names.	Origin,	Creed.	Position.	Pay per annum,
				\$ cts

#### DEPARTMENT OF MARINE AND FISHERIES .- Continued.

VII. Lighthouse Keepers, &c., Nova Scotia.					
	TT 116	D			
Henry W. Johnston	Hailiax	Koman Cathone	Agent of Departn	nent	1,600 00
Lewis J. Burpe	Mara Sastia	Mathadiat	Ulerk	T Sala	800 00 1,200 00
Honny C. Bonnott	do	Baptist	Amet Telend Lich	+ Woomen	500 00
Henry G. Bennett Frederic W. Brag	England	Enisconalian	Annopolia	do .	460 00
James Tate	Nova Scotia	Methodist	Annie River	do .	380 00
Joseph Costé	do	Roman Catholic Methodist	Arichat	do .	232 00
James & Smith	do	Methodist	Barrington	do .	380 00
Norman Campbell	P. E. Island	Presbyterian	Beaver Island	do .	420 00
Angus Ross	Nova Scotia	do	Bird Island	do .	400 00
Norman Campbell Angus Ross John Crotty	Ireland	Roman Catholic	Black Rock	do .	360 00
Donald Morrison	Scotland	Presbyterian	Black Point	do .	350 00
Henry M. Ruggles	England	Episcopalian	Boars's Head	do .	400 OC
Joseph Suthern Nathan Smith	Brier Island	Baptist	Brier Island	d• .	460 00
Nathan Smith	Donglas	Methodist	Burnt Coat Head	do .	250 00
James Hanlon	ireland	Roman Catholic	Cape Canso	do .	472 00 480 00
Isaac Doane	INOVA SCOUR	Dapust	Cape Sable	do .	480 00
Maturin Robicheau		Roman Catholic	Cape St. Mary's	do .	500 00
Alexander Munro	Scotland	Prophytorian	Carribon Taland	do .	400 00
Edward Young	Nova Scotia	Rantist	Chester	do .	400 00
Benjamin Rynard	do	Methodist	Cross Taland	do	460 00
Benjamin Fulker	do	Episcopalian	Devil's Island	do .1	380 00
William Condon		Roman Catholic	Egg Island	do .	500 00
Joseph B. White	do	do	Fish Island	do .	280 00
Benjamin Heney	do	Methodist	Flint Island	do .	400 00
Samuel T. N. Sellon	do	i do	Port Point	do .	240 00
William Duann	do	Roman Catholic	Green Island	do .	500 00
Samuel Hayden, jun	do	do	Gull Rock	do .	400 00
Godfrey S. Peart		Episcopalian		do .	220 00
Charles E. Rathburn				do .	250 00 300 00
S. C. Campbell	do	do	Ingenish	do .	360 00
Enos Wolfe	do do	Presbyterian Methodist	Tital Home	do .	500 00
Charles Firth	Findland	do do	Livernool	do .	460 00
Thomas Eaton. Lawrence Kavanagh	Nova Sentia	Roman Catholic	Louishurg	do .i	460 00
John G. Peters	do	Laptist	Low Point	do .	460 00
John A Ernst	do	Enisconalian	Lunenburg	do .i	240 00
John A. Ernst. J. Burke, (Acting)			Main à Dieu	do .	300 00
William Earley	Ireland	Methodist	Margaretville	do .	230 00
Nathaniel C. McKeen	Nova Scotia	Presbyterian	Margaree	do .	400 00
David L. George	Wales	Roman Catholic	Meagher's Beach	do .	400 00
William Earley Nathaniel C. McKeen David L. George Henry Moser.	Nova Scotia	Presbyterian	Moser's Island	do .	450 00 460 00
George McKay	0.0	αο	INOPER USERS	do .	340 00
William Armstrong	do do	Baptist	Parreboro'	do .	350 00
Edward Horn	do	Episcopalian	Peggy Point	do .	460 00
Henry B. Lowden	Goodland	Presbyterian	Diston Taland	do .	460 00
Andrew Hogg	Nove Section	Roman Catholia	Point Tunner	do .	200 00
John Atwater	do	Enisconslian	Ponket Taland	do .	350 00
	do	Episcopalian Roman Catholic	Port Hood	do .	280 00
Eison Perry	do	Baptist	Port Medway	do .	260 00
James M. Dunn	do	Protestant	Port Williams	do .	260 00
Maturin Amero	do	Roman Catholic	Pubnico	do .	240 00
R. F. Bent	do	Episcopalian	Pugwash	do .	200 00
William Gilkie	Scotland	Presbyterian	Sambro	do .	400 00 400 00
Thomas Power Elson Perry James M. Dunn Mattrin Amero R. F. Bent William Gilkie Joseph Mundell	Nova Scotia	do	Sand Point	do .	400 m
		82			•

of	the Dominion	Government.—	-Continuea.	
Names.	Origin.	Creed.	Position.	Pay per annum.
			-	\$ cts.
Di	PARTMENT OF MAR	INE AND FISHERIES	s.—Continued.	
VII. Lighthouse Keepers, &c., Nova Scotia.—Continued.				
John McLean	Nova Scotia	Baptist	Seal Island do .	820 00 480 00 480 00
Robert A. Spencer	Nova Scotia	Roman Catholic	Spencer's Point do	100 00 200 00
J. Morrison Lauchlan McDougall	Scotland	Presbyterian	St. Ann's do St. Paul's, S.W., do St. Paul's, N.E., do	100 00 420 00 50 00
John D. Suthern James P. Dillon Cornelius J. T. Fox.	Nova Scotia	Baptist   Roman Catholic   Machadiet	West Port do Whitehead do Yarmouth do	300 00 400 00 480 00
do do (Actino)	ll do	1 00	Larmouth rog America	400 00
J. Cormack (Acting) H. Hayden			Cranberry Island, Fog Alarm Engineer Seal Island Fog Alarm	450 00
till 10th November)	Nova Scotia	Episcopalian	Engineer	500 00
Philip Dodd			ment, Sable Lland	572 00
Josiah Kelly	No return, as the Islandare contin	ually changing	lishment, Sable Island	144 00
James Hawkins Duncan McD nald Stephen White	do do			144 00 144 00 144 00
John Sellers William Bowes	do	do	do do	144 00 144 00 144 00
John Black George Johnston William Goldsworthy	l do	do do	do do	144 00 144 00
J. R. Hubley H. E. Hubley William Messon	l do	do do	do do	144 00 144 00 144 00
N. McInnis John McNeil	do	do	do do do do do do do do do do do do do d	144 00 144 00 144 00
Edward Shiers	do	do	Supt. Humane Estab., St. Paul's Island Boatman Humane Estab.	800 00
Michael Runole	do	do	St. Paul's Islanddo do	200 00 200 00
Thomas Curtice	do	do	do do do do	200 00 200 00
VIII. Montreal River Police.			,	
John McLaughlin George Hunter	. do	Protestant	Chief Constable	2 50 1 50 1 50
John Wilson	do	Roman Catholic do do	do	1 50 -5
Camille Nourie. Thomas Banville John Bolster Louis E. Ch.	l do	do do	Constable do do	1 00 1 00 1 00
Louis E. Charest	Uanada	83		

Names	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.

#### DEPARTMENT OF MARINE AND FISHERIES .- Continued.

VIII. Montreal River Police. —Continued.				
John Davis	Incland	Pomen Catholia	Constable	1 00)
Daniel Falvey	do	do	do	1 00
Honoré Hottin			do	
Daniel Keirman			do	1 00
Thomas McCormack		do	do	1 00
Martin Meaney	do	do	do	100 5
John Murray	du	do	do	1 00 5 1 00 5
Culbert Olivier		do	do	1 00
Modiste Piché		do	do	100   24
Joseph Rousseau	αυ ,	do	do	1 00
		Presbyterian	do,	1 00
Mathieu St. Pierre			do	1 00
	Ireland	do	do	1 00
Pierre Royer	Сапада	do	do	1 00)
			. ]	
IX. Quebec River Police.				
Robert H. Russell	Irelan	Enjaconalian	Chief Constable and Ship-	
Lobert II. Russell	I CIALL	търгасоранан	ping Master	1,200 00
Albert Parker	Lower Canada	Protestant	Clerk to Shipping Master	800 00
John Bell	l	do	Engineer	600 00
James Cunningham	Ireland	Roman Catholic	Steersman	<b>\$1</b> 80)
John Battle		do	Coxswain	1 40
Nicholas Fitzhenry		do .,	do	1 40
John Daud	do	do	Detective and Shipping	- 00
	_	_	Officer	1 60 1 10
Patrick Hickey	do	do	Constable	1 10
James Walsh	do	do	do	1 10
James Kelly	do	do	do	i 10
John Muller		do	do	i 10
John Keenan	do Canada	do	do	
Joseph Mathieu	Treland	3.	do	1 10 h
Joseph Dugan	do	do	do	4 40 C.
Francis Hallwell	do	do	do	1 10 A
Pierre Bédégare	Canada	do	do	1 10
Edouard Lacroix		do	do	1 10
Joseph Dionne	do	do	do	1 10
Patrick McCaffery	Ireland	do	do	
Henry Wilson	do	do	do	1 10
Louis Pécard	Canada		do	1 10
Elzéar Bourgoult	do	do	do	1 10
John Stafford	Ireland	do	do	1 10
Louis Marceau		do	do	1 10
Jeremie Kerouac	do	do	do	
X. Officers of Dominion	1		16.00	
Steamers.	į .			
America Manager	Province Onches	Roman Cathalia	Captain, Steamer Druid	800 00
Angelin Marmen	do	do	Rngineer do	800 00
Eurene Gourdeau		do	Capt., Str. Napoleon III.	800 00
William Barbour	Scotland	Pre byteri n	Engineer do	800 00
Joseph Leblanc	Province Quebec	Roman Ca holic		330 per m.
	1		r sandarí a de la compact.	for reason.

of	the Dominion	Government.—	Continued.	
Names.	Origin,	Creed.	Position.	Pay per annum.
				\$ cts.
,DI	PARTMENT OF MAR	INE AND FISHERIES	.—Continued.	
X. Officers of Dominion Steam- ers.—Continued.				
Thomas Drysdale	7	1	1	TOP GOODON
Peter A. Scott George Matson James Courtney Archibald Warner William Barry John Jodry	England	EpiscopaliandoRoman Catholicdodo	Captain, Steamer Lady Head First Officer do Second do do Chief Engineer do Assistant do do Carpenter do	*Nil. 600 00 480 00 800 00 600 00 480 00
XI. Board of Steamboat Inspection.				
Samuel Risley William M. Smith Joseph Taylor. Thomas Fessenden Francis Befort Joseph Samson.	United States New Brunswick Ireland Lower Canada do b	Episcopalian	Chairman	1,400 00 1,000 00 800 00 800 00 800 00 800 00
XII. Board of Examiners of Masters and Mates.		·		
Capt. P. A. Scott E. D. Ashe Anselm Marmen Joseph Prichard David Cronk. George McKenzie John Taylor	England	Episcopalian do Roman Catholic	Chairman of Examiners	Per day, 00 4 00 4 00 4 00 4 00 4 00 4 00 4 00
XIII. Officers of Observa- tories.				
Edward D. Ashe Thomas Heatley John McGowan George Hutchison	England	Episcopalian Roman Catholic do Presbyterian	Director of Quebec Obsert'y Assistant do Labourer do Director of St. John Obsert'y	1,402 68 491 40 39 50 500 00
			ACERS.—(Province of Ontari	
Henry Hunter John Wallace J. A. Cameron John Mooney Peter Riel Jos. Pierson Peter Huff W. A. Palen John G. Hicks W. Plews	do	do Catholic Presbyterian	dodo	No Salary. 50 00 150 00 100 00 50 00 100 00

Captain Scott receives a salary as Chairman of the Board of Examiners of Masters and Mates, but no Salary as Captain of the Steamer Lady Head.

STATEMENT OF	the Names,	Origin, Creed,	Position a	and I	Pay of	all	the Employés
	of the I	Dominion Gove	rnment.—	Conti	inued.		

Names.	Origin.	Creed.	Position.	Pay per annum.
		-		S cts
Department of Marin	E AND FISHERIES.	FISHERY OFFICERS.	(Province of Ontario.)-	Continued.
Jos. K. Cameron	. Scotland	Presbyterian	Fishery Overseer	) 100 0
Charles Wilkins	. Carrying Place	Episcopalian	do	200 0
Sam. Wilmot	. <u>  .</u>	do	Fishery Officer	1,200 0
John W. Kerr	. Ireland	do	Fishery Overseer	
Henry Groves	Sandwich	Catholio	do	
S. A. MacVicar			do	
John Eastwood	England	Presbyterian	do	
Farquhar McRae	. Scotland	Catholic		
Geo. S. Miller	. Ireland	Protestant	do	
Wm. Plummer	. England	Episcopalian	do	) 100 00
Jos. Wilson	Scotland	Presbyterian		100 00
Alex. McKenzie	. do	do		50 00
W. H. Snipman James Bird	. New Jersey, U.S.	Methodist	do	100 00
DEPARTMENT OF	MARINE AND FISH	eries.—Fisherv O	FFICERS.—(Province of Que	bec.)
A. Blais	. Montmagny	Episcopalian		) 300 00
Jos. J. Létourneau	. St. Thomas	do	do	No Salary
P. Vibert			do	50 00
lumus M. Ramon	Torsey G R	do	do	20.00
Vames M. Remon	Ireland	Catholic	do	50 00
R. W. H. Dimock	New Richmond	Episcopalian	do	100 00
C. P. Beauchisne	Bécancour	Catholic	do	50 00
ohn Mowat	. Scotland	Presbyterian	do	150 00
Phillip Vibert, jun	. Madawaska, N. B.	Catholic	do	200 00 50 00
Demeule		do	Fishery Warden	
Saillant	. Quebec	do	Fishery Overseer	50 00
Heo. Riverin	Commonille	do	do	100 00
W. F. Willis	Treland	Protestant	do	150 00
I. W. Austin	England	do	do	100 00
O. McFarlane	Scotland	Presbyterian		50 00
E. Luke	Canada	Eoiscopalian	do	50 00
P. E. Luke	.  Quebec	Catholic	Fishery Warden	50 00
. P. Huot	. Montmorency	do	do	100 00
elix Sylvestre	Berthier	, do	Fishery Overseer	50 00
. Mathurin	. Montmagny	do	do	50 00
rs. Thivierge	.] do	do	do	50 00
Tudent Fournier	. L. 181et	do	do	100 00
A. L. Holland	Comé	do	do	50 00
douard Pelletier	. Craspe	Catholia	do	50 00
			EBS.—(Province of Nova Sc	otia.)
V. H. Rogers	Nova Scotia	Methodist	Fishery Officer	800 00
Cumberland County.				
bos. H. Patton	O	Danish	Finh ann Oversean	100 00
liver Fillmore		do.	Fishery Overseer Fishery Warden	25 00
		Methodist	do	25 00
IAVIA Stawart				
David Stewart	Cumberland Co'ty	Preshyterian	do	25 00 25 00

Names.	Origin.	Creed.	Position.	Pay per annum.
• • • • • • • • • • • • • • • • • • • •				\$ cts.
Department of Marine A	ND FISHERIES.—FI	SHERY OFFICERS.—	(Province of Nova Scotia.)—	Continued.
Cumberland County.— Continued.				
Geo. Dimock	Nova Scotia	Baptist	Fishery Overseer	100 00
David Corbett		Episcopalian	Fishery Warden	25 00 25 00
John H. Barnes	New Brunswick	Methodist	do	25 00
Fras. L. Jenks	Nova Scotia	Baptist		25 00 30 00
W. O. Iunidress	•••••		do	30 00
Annapolis County.				
W. T. Carthy	Nova Scotia	Methodist	Fishery Overseer	120 00
deo. Harduick	do	do	Fishery Warden	25 00 25 00
James Vidibol	do	Bantist	do	25 00 25 00
B. Le Cain			Fishery Warden do do	25 00
Digby County.		*		ı
James H. Morehouse	Nova Scotia	Methodist	  Fishery Overseer	120 00
				25 00
Sasil R. Robichean	New Brunswick	Catholic	do	25 00
ochlin McKay Bobt. Journey	Nove Section	Trisconslier	do	25 00 25 00
John P. Thibodeau	do	Catholic	do	25 00
Queen's County.				
am, T. N. Sellon	Nova Scotia	Methodist	Fishery Overseer	120 00
Webhen (llements	do	do	Fishery Warden	25 00
Deodosius Rord	do	do	do	25 00 20 00
Wm. Buchanan Jenry Hooker	do	Presbyterian Episcopalian	do	30 00
ULL PIEZOPPAIA	reland.	Catholic	l do	30 00
Darmahaa Milaa	Nova Scotia	Baptist	[ do	20 00 20 00
tephen Smith onathan Smith	do	Episcopalian Presbyterian	1 2 -	15.00
ames Farquhar		Methodist		30 00
Mark Commence				
Shelburn County.				
Vm. Muir, jun.	Nova Scotia	Episcopalian	Fishery Overseer	125 00
Pavili Potreli (	Wales I	Mothodist	rinnerv vv mruen	20 00 20 00
W. McKay Matthias Greenwood	4.	Protestant	do	20 00
	do	Protestant Episcopalian	do	15 00
		Presbyterian	do	20 00 30 00
athron France	Nova Scotia	Baptist	do	20 00
lenry Ackerman	do	Episcopalian	do	20 00
Halifaz County.	# 1			
Zehiel Gill	Nova Scotia	Draghyrtarian	Fishery Overseer	100 00
Wm. Guild	PIOVA SCOTIA	co	Fishery Warden	40 00

Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.
DEPARTMENT OF MARINE	and FisheriesF	SHERY OFFICERS.—	(Province of Nova Scotia.)—	Continued.
Halifax County.—Continued.			* .	
Wm. Hall John Fitzgerald Archibald Kidston Geo. Deauphine	do	Catholic	Fishery Warden	40 00 100 00 40 00 40 00
Victoria County.	,			
Donald McRae, jun	Scotland Nova Scotia Scotland	do	dodo do do	120 00 25 00 25 00 25 00 25 00 25 00 26 00
Pictou County.  Walter Murray	Nova Scotia	Preshyterian	Fishery Overseer	100 00
Geo, Murray Donald Rankin. Thomas Graham Wm. Smith Wm. Graham Robt. Archibald Daniel Creighton John Cameron James McMillan Angus McDonald	do do do do do do do	dododododododododo	Fishery Warden  do Fishery Overseer Fishery Warden  do do do	25 00 25 00 100 00 30 00 25 00 25 00 25 00 25 00 20 00
Cape Breton County.	, in the second second			120 00
Francis Quinan Anthony Spencer Thos, Burke John McEachen Thos, Moore Donald McDonald Alex, McLean	do P. E. Island Scotland Nova Scotia.	Baptistdo Baptist	do	25 00 25 00 25 00 26 00 20 00
King's County.	4.1.4		;	
Benjamin E. Smith. John E. Starr W. McIntyre Henry C. Eagles John Buchanan	New Brunswick Nova Scotia	Episcopalian	Fishery Overseerdo Fishery Wardendo do dodo	125 09 125 00 30 00 20 00 20 00
Colchester County.				100 00
Wm. Blair	Nova Scotia do do	Presbyterian	Fishery Overseer Fishery Warden Fishery Warden Fishery Warden	25 00 100 00 25 00

Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.

DEPARTMENT OF MARINE AND FISHERIES.—FISHERY OFFICERS.—(Province of Nova Scotia.)—Continued.

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Colchester County.—Con-	ł	i	1 1	
tniued.		ļ	1	
	ļ	1		
Robt. J. Pollock	Nova Scotia	Presbyterian	Fishery Warden	25 00
Geo. Fulton	do	do	do	25 00
James Bonyman	do	Swedenborgian	do Fishery Overseer	40 00
Henderson Sass	do	Presbyterian	Fishery Warden	25 00
Robt. Fletcher	do	do	do	25 00
Henry Urquhart			do	25 00
Henry M. Fulton	Nova Scotia	Presbyterian	do	25 00
John A. P. McLellan Jas. B. Gilbert	do	do	do	25 00 20 00
Jas. B. Gilbert			do	20 00
Andrew Howe, jun	:		do	20 00
	Ì	<b>!</b>	! !	
Vannanth Country	l		1	
Yarmouth County.			1	
T. B. Crosby	Nova Scotia	Rantist	Fighery Overseer	100 00
Robt. Baker	do	do	Fishery Warden	25 00
J. A. Hatfield	do	do	do	25 00
J. A. Hatfield	1		do	25 <b>00</b>
Wm Prosser	England	Baptist	do	<b>25 00</b>
Eustace Nickerson	Nova Scotia	do	do	25 00
Edward Perry	do	do	[ do	<b>25 00</b>
•			1	
	į	Į.		
Lunenburg County.			1	
D 11		l	T: 1 - 0	100.00
Daniel Dimock	Nova Scotia	Baptist	Fishery Overseer	100 00 25 00
Ebenezer Frail	do	do	rishery warden	25 00 25 00
Jas. Corkum	do	do	Fishery Overseer	25 00 25 00
Benjamin Reddy	do do	Episcopalian	do	25 00
David Vienot	do	do	do	25 00
Jas. Langille Henry S. Jost Chas. Pernette	ao	αο	Fighery Overseer	100 00
Chas Powertte	Mara Castia	Frigonalian	Fishery Warden	25 00
Jas. E. Dauphiné	do	do	do	25 00
Jas. Mossman	Kingshurg Lunen-	40		
Tuesman	hura Co	Presbyterian	do	25 00
Edward Morgan	Annapolis County	Methodist	do	25 00
W. Vienot	ziminborn comme		do	25 00
Geo. A. Nesbitt			do	25 00
			i i	
Inverness County.				
,			·	
30			Ti'-1 Omercen	100 00
Murdock A. Ross	Nova Scotia	Baptist	Fishery Overseer	25 00
Peter Coady		Catholic	Fishery Warden	20 00
John Carmichael	N. E. Morgam, C.	Mr. aliant	do	25 00
Anal No -	Breton	Methodist	do	25 00
Arch. McDougall	Scotiand	Drotoutent		25 00
euben Phillips	Nova Scotia	Catholic	do	25 00
ohn McRae W. Grant	None Seeding	do	Fishery Overseer	100 00
Bernard Thron	Nova Scotta	do	Fishery Warden	25 00
Bernard Dyer	do	do Presbyterian	Fishery Wardendo	25 00
Angus McIntyre Donald McDonald	do	Catholic	do	25 00
Angus Cameron	do	Presbyterian	do	25 00
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Names.	Origin.	Creed.	Position.	Pay per annum.
DEPARTMENT OF MARINE A	and Fisheries.—F	ishery Officers.—	(Province of Nova Scotia.)—C	\$ cts.
Richmond County.  Duncan Cameron Alex. Urquhart Hector McKinnon John H. Ballum Peter W. Grouchery John Proctor, sen	Scotland Nova Scotia do	Presbyterian do Episcopalian	Fishery Warden	125 00 30 00 30 00 125 00 30 00 30 00
John W. Dinsmore James Masher Tim. B. O'Brien Jos Mosher James M. O'Brien	do Nova Scotia	Presbyterian Presbyterian	Fishery Warden	100 00 30 00 30 00 100 00 30 00 30 00
Guysboro' County.  James A. Tory James Cook W. P. Carritt Charles Kenny Donald Gunn W. Pride Thos, McKeen Edward Jordan Robert McKay James R. Bruce James Nickerson	Guysboro' Nova Scotia Scotland Nova Scotia do  Nova Scotia do	Baptist Episcopalian Presbyterian Episcopalian Presbyterian Baptist Protestant	Fishery Overseer Fishery Warden do do do do do do do do do do do do do	150 00 25 00 20 00 15 00 30 00 30 00 30 00 15 00 15 00 15 00
Alex. Chisholm, jun Albert Randall Colin Chisholm Angus McDonald  Jno. Cumming Jno. Dexter	Gulf Shore, Pictou County	Roman Catholic	do Warden do do do do do do do do do do do do do	125 30 25 15 25 25 20 30 25
Jno. Smith	do	Catholic Presbyterian Catholic	do do	25 25 20

DEPARTMENT OF MARINE AND FISHERIES. -FISHERY OFFICERS. - (Province of New Brunswick).

W. H. Venning ...... |Canada ...... |Episcopalian ..... |Inspector of Fisheries ..... | 1,400

Names.	Origin.	Creed.	Position.	Pay per annum.
				\$ cts.
DEPARTMENT OF MARINE AN	D FISHERIES.—FISH	ery Officers.—(Pa	vovince of New Brunswick.)—	Continued.
County of Restigouche				
E. Ferguson Wm. McMillan Jno. Gallraith. James McMillan	Scotlanddododododo	Presbyterian do do do	Fishery Overseerdo do do do do do do do do do do do do d	100 100 25 25
County of Gloucester.				
James Hickson Juste Hache Justinian Savoy Jno, L. Veno Wm. Bateman Saml, Miller	do do	Catholic	do do   do do do   do Warden	250 100 30 30 50
County of Northumberland.	T D	Carl alla	Fish our Oroman	20
Thomas Savoy Thos. Harris Amos Perley Christopher Parker N. B. T. Underhill John Hogan Aaron Hovey Geo. Bryanton Kenneth Cameron Henry Vye, sen Patrick Bergin Thos. Smith David Somers Jared Tozer Denis Hogan Thomas McKenzie Robt. Brimner John Williston James Russell  County of Kent.	do do do do do do do do do do do do do d	Presbyterian do Methodist Episcopalian Catholic Episcopalian Methodist	Fishery Overseer do Warden do Overseer do do do do do do do do do do do do do do do do do do do Overseer do Warden do Overseer do Warden do do do do Overseer do Warden do do do do do do do do do do do do do do do	30 30 100 160 160 160 30 30 30 30 30 30 30 30 30 30 30 30 30
Chas. Cormier J. McD. Sutherland Thaucis P. Légaré A. M. Girouard D. T. Cormier Wm. B. Deacon Jno. Wright	Nova Scotia do	Presbyterian	Fishery Overseer do do	100 50 30 30 60 60
County of Albert. Jno Alcorn. Jno. Taylor Richard Gross. Jacob Beck	New Brunswick do do do do do	MethodistBaptistdodo	Fishery Overseerdo do do do do do do do do do do do do d	150 40 30 30

Names.	Origin,	Creed.	Position.	Pay per annum.
				\$ cts

DEPARTMENT OF MARINE AND FISHERIES.—FISHERY OFFICERS.—(Province of New Brunswick.)—Continued.

		1	1	
County of Charlotte.				
B. L. Cunningham J. M. Fountain Patrick Curran Norman Campbell W. B. McLaughlin Samuel Dick Robert Dixon	do Ireland Nova Scotia New Brunswick .	ProtestantCatholic	do do do do do Warden do Overseer do Warden do Warden do Warden do do do do do do do do do do do do do	30 100 120 30 240 30 30
County of King's.				
Isaac Foshay. Samuel F. Ryan. Samuel Gosline.	do	Methodist	do Warden	100 30 50
County of Queen's.				
Isaiah Langan	do	do	Fishery Wardendo dodo Overseer	30 30 100
County of York.				
James Campbell	New Brunswick do	Presbyterian Baptist Fresbyterian do	do do	30 30 30 150
County of Carleton,				
Hugh Miller Hugh Harrison George Stickney Touissant Tremblay	New Brunswick do	Prteta os Baptist do	Fishery Overseerdo do do do do do do do do do do do do d	30 100 30 30
County of Victoria.				
John Jamer Chas. McCloskey Donald Fraser George Bedell John McDougall	New Brunswick	Episcopalian	Fishery Warden	30 100 30 30 30
County of St. John.				
R. N. Venning	New Brunswick	Episcopalian	Clerk to Inspector of Fish-	400
Cyprian E. Goddard	do	do	eries Fishery Overseer	150

(No. 39.)

### RETURN

To AN ADDRESS of the House of Commons, dated 16th April, 1872; For Copies of all Correspondence between the Government of the Dominion, that of the Province of Quebec, and the Honorable Mr. Justice Bossé, with respect to the refusal of that Honorable Judge to comply with the order of the Government of Quebec, directing him to reside at Montmagny, in the District of Montmagny.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 30th April, 1872.

(No. 40.)

### RETURN

To AN ADDRESS of the House of Commons, dated 22nd April, 1872; Asking for Copies of all the Correspondence passed between the Postmaster of Halifax, N.S., and the Honorable Postmaster-General, relative to the abstraction of Money Letters from the Post Office, and what satisfaction (if any) has been made to the sufferers.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 6th May, 1872.

[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not printed.]

(No. 41.)

### RETURN

To an ADDRESS of the House of Commons, dated 18th April, 1872; For a Return of all the Customs Duties collected at Hudson's Bay Ports on Hudson's Bay, 1868-69, 1869-70 and 1870-71.

By Command.

J. C. AIKINS.

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 7th May, 1872.

(No. 42.)

### RETURN

To an Address of the House of Commons, dated 1st May, 1872; For Copies of all Plans, Reports, Specifications and Contracts relating to the Improvement of the navigation of the Rivers Thames and Sydenham since 1867.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 8th May, 1872.

[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not printed.]

2

### RETURN

To an Address of the House of Commons, dated 1st May, 1872; - For copies of all correspondence, reports and plans relating to the Paspebiac Harbour roadstead, first, as a Harbour of Refuge; second, as a Winter Harbour, communicating with the Intercolonial Railway.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 8th May, 1872.

(No. 14,618.)

Оттаwa, May 7th, 1872.

Sir,—I have the honor to transmit herewith copy of a report and plan relative to the Paspebiac Harbour roadstead asked for by an Address of the House of Commons, dated the 1st instant.

I have the honor to be, Sir, Your obedient servant,

> J. Braun, Secretary.

Honorable the Secretary of State for Canada, Ottawa.

(Copy of No. 20,595.)

OTTAWA, 18th January, 1872.

SIR,—During the last session of the Dominion Parliament, I submitted to the attention of the House, a few considerations relative to the importance,

1st. Of making Paspebiac a Harbor of Refuge; and

2nd. Of using it as a winter and summer harbor, with a view to shorten the distance between Liverpool and America, as compared with the present routes by Halifax, Portland or New York. I have since asked the Honorable the Minister of Public Works, to have a survey made of that bay, and I now beg to call your attention to the following facts:—

Paspebiac Bay situate on the north side of Bay des Chaleurs, nearly opposite Shippegan; Latitude 48° 1′ 0″ N., Longitude 65° 14′ 30″ W., is bounded on the east by a sandy beach, projecting out three-quarters of a mile, called Paspébiac Point. On the west by another sandy beach, projecting out one-third of a mile, and called New Carlisle

3

Point. On the north side by the mainland, which describes a semi-circle four-fifths of a mile in depth, presenting a cliff of red sand stone about forty feet in height, and on the south by the Bay des Chaleurs, which here forms an open sheet of water, fourteen miles across, unimpeded by islands, reefs, shoals or any other obstructions. The distance from New Carlisle to Paspébiac Point, is three miles and three-quarters, and the depth of water on a line from point to point varies from six to eight fathoms. Over the anchorage ground, the depth of water varies from four and one-half to six fathoms, and vessels of war anchor there almost every summer.

Paspebiac Bay is free from ice, as well as Bay des Chaleurs for thirty miles above. Whatever ice may be formed in Bay des Chaleurs, or brought in by easterly gales, is kept on the south side of the bay by the currents, and the prevalent land breeze; and the climate is milder than at Quebec or Montreal.

There is a great deal of shipping from Paspébiac, as may be ascertained from the returns of the Custom House of New Carlisle; there being a direct trade with the Mediteranean Ports, Brazil, England, the United States, the West Indies, Newfoundland, Halifax, Prince Edward Island, Quebec and Montreal.

Paspebiac Bay is the place of resort for all vessels navigating in the bay and at the entrance of the gulf, against gales of easterly winds; and by an outlay of a few thousand dollars, it could be made a safe harbor of refuge against the south and south-west gales which at present are very often disastrous.

As respects the relative distances, the following table shows that while Liverpool is nearer to Quebec via Cape Race and Paspebiac by about 197 miles than either Halifax or Portland, the water voyage through the Straits of Belle Isle would be shortened by railway connection to Quebec via Paspebiac some 287 miles:—

1.	Distance from	Liverpool to Cape Race	Miles. 1,970 490 411	
2.	29 27	Liverpool to Belle Isle	1,878 737	2,871 2,515
3.	?? ?? ??	Liverpool to Belle Isle	1,878 440 411	2,729
4.	)) ))	Liverpool to Cape Race	1,970 463	2,433
	"	Halifax to Quebec (by land)	635	• ,

The distances are taken from Mr. Fleming's report of 1864, given on a line from Liverpool to Shippegan, in which the measurements are almost identical with those to Paspebiac.

The foregoing statements, I teel convinced, sufficiently establish the primary advantages of selecting Paspebiac as a harbor of refuge and a winter port, and I have the honor to urge upon the Government the desirability of making, as early as possible, an official survey of that locality, with a view to determining its capabilities, and to ascertain the estimated cost of rendering the same available in such an important and necessary public improvement.

I have the honor to be, Sir,
Your obedient servant,
(Signed,)
THEODORE ROBITAILLE.

Public Works.

OTTAWA, 25th January, 1872.

(Copy—No. 13,411.)

Sir,—I am directed by the Minister to enquire whether Mr. Grant the engineer has visited Paspebiac Bay, and whether he has reported the result of his examination of the harbor at that place; also whether, in the event of his not having yet been there, Mr. Grant would still have time to do so after the end of the present month.

I have the honor to be, Sir,

Your obedient servant. (Signed,)

F. Braun,

Secretary.

Sandford Fleming, Esq., Engineer in Chief,

Intercolonial Railway, Ottawa.

(Copy—No. 20,905.)

INTERCOLONIAL.

CHIEF ENGINEER'S OFFICE,

OTTAWA, February 2nd, 1872.

F. Braun, Esq.,

Secretary, Public Works.

Sir,—In reply to your letter of 21st January, respecting Mr. Grant's visit to Paspebiac Bay, I beg to explain that the reason given to me why he has not made the visit before now, is that he has been unwell. It is, however, intended that he shall start for Paspebiac very soon, say within ten days.

> Yours truly, (Signed,)

SANDFORD FLEMING.

(Copy—No. 22,291.)

ГОттаwa, April 17th, 1872.

F. Braun, Esq.,

Secretary, Public Works.

Sir,-I beg to enclose a copy of a plan and report for a railway from Metapedia to Paspebiac on the Bay of Chaleur, as well as remarks on a proposed harbor at the latter

The examination and report was made by Mr. Peter Grant in accordance with instructions received from the Minister.

I am, &c.,

(Signed,)

SANDFORD FLEMING. Chief Engineer.

(No. 22,291.)

INTERCOLONIAL RAILWAY, ENGINEER'S OFFICE, RESTIGOUCHE DISTRICT, Section No. 19. Metapedia, 30th March, 1872.

Sir,-In accordance with your instructions arising from a letter written by Theodore Robitaille, Esquire, M. P., bearing date 18th January, 1872, I have the honour to submit the following report to be laid before the Honorable the Commissioner of Public Works, with a view of furnishing information relative to the merits and capabilities of a winter harbour and harbour of refuge at Paspebiac on the Bay of Chaleur and the forming of a railway connection with some point of the Intercolonial, by which means a much shorter route will be obtained to Britain, than any at present existing.

In order to arrive at satisfactory conclusions, I proceeded to make a survey of reconnaissance, and left Matapediac on the 13th instant for that purpose. Arriving at Paspebiac on the 15th, was surprised to find so little ice in the bays and that only slush, notwith-standing that for the previous ten days a strong easterly wind with intense frost had prevailed. From any local information to be gathered, it would appear, that I saw it in its worst state, and that it is usually free from ice during the winter, the harbour never being blocked with ice nor does ice of any consequence (except slush) remain in the Bay of Chaleur on the north side for thirty miles above Paspebiac.

I would now insert a short description of the harbour. Paspebiac Bay is situated on the north side of the Bay of Chaleurs, opposite Grand Anse, and north west of Shippegan, in Latitude 48° North, and Longitude 65½° West. It is bounded on the east by a sandy beach, (gradually increasing) extending outwards about three-quarters of a mile, called Paspebiac Point, on the west by another sandy beach projecting about one-third of a mile, called New Carlisle Point. The bay is semi-circular about four-fifths of a mile in depth, the distance between the points is about three and a half miles with a depth of water on the line varying from six to eight fathoms over the anchorage ground inside the points. The depth of water varies from four-and-a-half to six fathoms. The tide rises to a height of about four feet. Vessels of war anchor here almost every summer. The coast presents a cliff of red sandstone about forty feet in height. The Bay of Chaleur at this point is an open sheet of water fourteen miles across, unimpeded by islands, reefs, shoals or any other obstructions whatever. Ice formed in the bay, or drifted in by the easterly gales, is kept on the south side by the prevalent land breeze, which renders the climate more temperate than Quebec or Montreal.

Paspebiac is the place of shelter resorted to in easterly storms by all vessels navigating the Bay of Chaleur and entrance of the Gulf. The following table (copied from Mr. Fleming's Report, 1864, on Shippegan Harbour, the position of which is almost identical with Paspebiac) shews the comparative distances between Liverpool and Quebec via Paspebiac and via Halifax:—

			Miles.	
1. I	Distance fron	Liverpool to Cape	1,970	
	,,	Cape Race to Paspebiac	490	
	,,	Paspebiac to Quebec (by land)	411	
	,,			2,871
2.	,,	Liverpool to Belle Isle	1,878	,
	,,	Belle Isle to Quebec	737	
	,,			2,615
3.	,,	Liverpool to Belle Isle	1,878	,
		Belle Isle to Paspebiac	440	
	"	Paspebiac to Quebec (by land)	411	
	"	Lasposiae to Queste (by minu)		2.729
4.		Liverpool to Cape Race	1.970	-,
	"	Cape Race to Halifax (by water)	463	
	"	Cape trace to Hamax (by water)		2,433
		Halifax to Quebcc (by land)	635	2,100
	, <b>"</b>	The state of the s		3,068

From the ample depth of water close into the shore, the admirable shelter afforded from the prevailing winds, and the freedom from ice, I have no hesitation in stating that the bay is well adapted for a winter harbor and also for a harbor of refuge; by a moderate expenditure it can be made available for shipping purposes. Notwithstanding the want of pier accommodation, a large shipping business is done during the summer months with all parts of the world, which will be shewn by the Custom House returns. This would be vastly increased by proper harbour facilities and railway connection, in addition to which would be the immense public benefit derived from the English mail and other steamers being able to use it as a winter port.

For further information, I beg to refer to the accompanying map in which I have endeavoured to show the position of the harbor, the points of shelter and the depth of water.

I have roughly examined the country between Metapediac and Paspebiac, a distance of about 100 miles to ascertain the feasibility of constructing a line of railway to connect with the Intercolonial Railway at the former point, with the exception of a few miles immediately east of Metapediac, and about one mile east of Little Cascapediac (which is somewhat more difficult) the country presents a level and uniform surface, free from all engineering obstacles, and is admirably adapted for the construction of a cheap line of railway. Only three (3) rivers of any importance will have to be crossed, viz., the Big Cascapediac, about 65 miles east from Matapediac, requiring a bridge of two spans, say 200 feet each. This is the lower crossing shown on the plan; the one shown about a mile further up can be accomplished at a much less cost. At both crossings, the river flows from one to four feet deep over a bed of rock. Lime and sandstone is abundant on the ground. The Little Cascapediac, about five miles farther east, can be crossed with a bridge of one span, say 100 feet.

This river is very shallow, and also runs over a bed of rock—a quarry of good stone is being worked in the immediate vicinity. The Bonaventure River, about thirteen miles west of Paspebiac, will require a waterway of, say, 150 feet; this bridge which may be of one or two spans, will be near the head of the tide, where the depth of water is about three feet on a bed of rock. A first class quarry of red sandstone is being worked a little

further up the river.

The minor rivers Escuminac, Nouvelle, Little Bonaventure and Caplin, will require small bridges, say, fifty feet spans. There are but few small streams requiring culverts, and the number of culverts for drainage purposes, will be remarkably small comparatively with the length of railway.

The country through which the line will pass is fertile and well adapted for agricul-

ture for many miles inland.

Along the coast it is thickly populated and in very prosperous condition. The several townships, which the proposed line of railway will intersect, possess an aggregate population of, say 20,000, and in every township there are several large business establishments in lumbering, fishing, &c. I would particularly draw attention to the enormous business done by the Messrs. Robin and Le Boutilliers, at Paspebiac, and several other stations. Their united importations of flour alone, is upwards 16,000 barrels per annum, and of pork over 3,000 barrels, to which add a large amount of farm produce from all parts of the country. In addition to the section traversed by the line of railway a large and fertile tract of country North-east of the terminus, containing a population of about 19,000, will be materially benefited.

From the foregoing date, I have arrived at the following conclusions, viz.:-

That a good winter harbor can be constructed at Paspebiac, and a very cheap and paying line of railway can be built from Matapediac on the Intercolonial to the former point. This line will open up a fine agricultural country for settlement, and not cost one half the rate per mile of the Intercolonial and still be of the same substantial workmanship.

For more minute particulars, I beg to refer to the accompanying plan, on which I have shewn the proposed line of railway, by a drawn red line, terminating at the proposed

winter port and harbor of refuge of Paspebiac.

In conclusion, I would strongly recommend that an instrumental survey be made in order to ascertain more minutely the facilities and cost of carrying out the proposed important work.

I have the honor to be, your most obedient servant,

(Signed,) PETER GRANT.

Sandford, Fleming, Esq.,

Chief Engineer, Intercolomial Railway, Ottawa.

### RETURN

To an Address of the House of Commons, dated 16th April last, asking for copies of Report of Engineers or others appointed to investigate the location of the Canal across the St. Clair Flats, on the Canadian side of the Channel, by the Government of the United States, with copies of all Orders in Council, and the Correspondence with the Imperial Government, or others, on the subject.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 1st May, 1872.

Снатнам, July 6, 1870.

My Dear Sir,—I have just received the herewith enclosed, from H. Little, Esq. His seems to be a very hard case, and I do trust that the Government will act promptly in the premises. Without a shadow of doubt, the spot where Mr. Little's steam barge and wood scow were seized, was within the Canadian boundary line. (See Commissioners Porter and Barclay's Report, made 1822.) The feeling here, in connection with this out rage on our shipping, is intense. Be so kind as to advise me of the Government's action, as soon as convenient.

I have, &c.,

RUFUS STEPHENSON.

Hon. J. C. Aikins, Secretary of State, Ottawa.

### STATEMENT

Of facts with reference to the seizure of the steam barge "Reindeer" of Wallaceburg, at the St. Clair Flats, also the wood barge "Campbell."

1st, The said barges are owned by Hiram Little, of Wallaceburg, in the County of Kent and Province of Ontario.

2nd. The said steam barge is twenty-three tons burthen, propelled by a propeller steam engine, is of the value of \$2,300, and the said wood barge is of the value of \$200.

3rd. That the said steam and wood barges took on a cargo of cordword, at the River Sydenham, in the County of Kent, to be discharged at the St. Clair Flats, at the works, or canal now in course of construction, by John Brown, for and on account of the American Government.

4th. That on Monday, the twenty-sixth day of June last past, the said two barges arrived at the canal or channel now in course of construction, and, on the westerly side thereof, discharged their cargo of cordwood, which wood was for the said Brown, and to be used for and in the construction of said canal, the said two cargoes amounting to fifty-eight cords.

5. That, while the said barges were in the act of discharging their cargo, three Revenue Officers from the City of Detroit, in the State of Michigan, seized the said two barges and their cargo; and on the twenty-seventh day of June, being the next day after the seizure, the said Hiram Little proceeded from Wallaceburg to where the said Barges were seized, and, upon arriving there, was arrested by the said officials; and he, and the said barges, and the men in his (Little's) employ, were taken to the City of Detroit under the charge of smuggling wood.

6th. That upon arriving at Detroit, a ship keeper was put in charge by Mr. Jerome,

the Collector of Customs.

7th. That the said Collector of the Port of Detroit, suggested that bonds should be given to the amount of \$3,000,—\$2,500 being for the barges, and \$500 for costs. After considerable difficulty, I procured the necessary bondsmen, and released my said barges;

and, as to myself, I was released without bail.

- 8. That I am advised and believe, from the best information that I can obtain from charts used by mariners navigating the Rivers and Lakes, and on reference to the Report of the joint commission of Messrs. Barclay and Porter, bearing date in the year 1822, that my said barges were discharging their cargoes, and were seized within Canadian Territory; and in order the better to understand the position of the said canal or channel, and the position of said Barges when seized, I have caused a diagram thereof to be made and annexed hereto.
- 9. That the said canal or channel is not completed, and is only used by crafts supplying material used in the construction thereof; and that the principal part or portion of the material used in construction of said canal has been procured in Canada, and until the occurrence aforesaid no duty has been demanded thereon.

Dated at Wallaceburg, this 4th day of July, A.D., 1870.

HIRAM LITTLE.

DEAR SIE—I herewith send you a plain Statement of Facts relative to the unjust seizure of my two Barges by the American officials at the St. Clair Flats, and I beg that you will, at the earliest moment possible, lay the matter before the Government of the Dominion, and seek for me the redress which I think myself justly entitled.

I am, Sir, Your obedient servant,

H. LITTLE.

Rufus Stephenson, Esq., M.P.

OTTAWA, 1st August, 1870.

Sir,—In compliance with your instructions of 16th ult., I proceeded without delay, to enquire into the circumstances of the alleged seizure of the steam barge Reinder and wood barge Campbell—with their cargoes of wood, the property of Mr. Hiram Little, of Wallaceburg, by the United States' Customs authorities at Detroit,—and also to ascertain, as far as I might be able, the accuracy of the boundary line as stated between Canada and the United States at the place of seizure, and whether the seizure was made in American or Canadian waters, &c.

With the exception of the error of naming Monday, the 26th of June, as the date of seizure—instead of Monday, the 27th, as it was—Mr. Little's "statement of facts in relation to the seizure" of date 4th July last, may be accepted as correct, and, in corroboration of same, I beg to submit,—

1st. Statement of Wm. A. Moore, Counsellor at Law at Detroit, as follows:-

DETROIT, July 26, 1870.

Dear Sir.—In reference to your inquiry of yesterday relative to the seizure of the steam barge Reindeer, with 26 cords wood, and the barge Campbell, with 32 cords wood, I respectfully state as follows:—Libels were filed against said vessels and wood on the 29th of June, 1870, by A. B. Manyard, Esq., Attorney of the United States for the Eastern District of Michigan, for and on behalf of the United States, alleging that on various days in the year 1869, and on the 27th June, 1870, and on various days prior to the said 27th of June, 150 cords of wood, of the value of \$400, were imported into the United States upon said barge Campbell from the Province of Ontario, and were unladen without permit or without payment of duty, and contrary to the Statute. That the 27th day of June, 1870, and on various other days during the year 1870, and on various days during the year 1869, 150 cords of wood, of the value of \$400, were imported on the steam barge Reindeer from the Province of Ontario, without a permit from the Collector, without payment of duty, and contrary to the Statutes. That, in both cases, the libel alleges that the vessel and wood are forfeited to the United States.

Both vessels and wood were bonded by Mr. Little, of Wallaceburg.

G. McMicken, Esq.

No answer has yet been filed, but probably will be by Tuesday next. The principle question seems to be whether the newly dredged channel across the St. Clair Flats is in American or Canadian waters. Any further inquiry I shall be pleased to respond to.

Respectfully yours, (Signed), W. A. Moore.

And 2nd. The statement of Mr. C. B. Bennet. Clerk for Mr. Brown, the contractor for the Canal across the St. Clair Flats, and obtained on the spot.

July 23rd, 1870.

I am book-keeper for Mr. John Brown, contractor for the construction of the St. Clair Flats Ship Canal. On Monday, the 27th of June last, United States Revenue Officers, Messrs Bloss and LaFevre, of Detroit, Michigan, came to the office, and informed me that they had seized the barge Reindeer and scow Cumpbell, property of Mr. Hiram Little, of Wallaceburg, Ontario, together with their cargoes of wood, which they were unloading on the west pier of this Canal, also stated that they had been informed that Mr. Brown had been purchasing his wood and supplies in Canada, and demanded a statement of all the wood and supplies and other articles used in the construction of this work received here from Canada. On Tuesday morning Mr. Little arrived here from Wallaceburg; I went with him to the Lighthouse, and had an interview with the Revenue Officers who made the seizure. Mr. Little protested against the seizure of his boats in the waters of this Canal, for the reason that he had always understood that to the east of the Old Ship Channel was on the Canadian side of the boundary line, and that he was delivering his wood here in good faith;—that he had a right to do so. I contracted with Mr. Little for the delivery of this wood, and have purchased wood from him every season since this work commenced.

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The question whether wood coming here from Canada was liable for duty has never been spoken of between us, neither has there been any Revenue Officer here to ask any questions about it before the seizure above referred to. Mr. Brown has paid duties on all scows, machinery and all articles used for the construction of this work brought here from Canada.

The work has been in progress three years. Mr. Little proposed to take the boats to Algonac, Michigan, and he would bond them until the question was settled; the officers replied that they had no authority to bond them, and that they must take them to Detroit. At the request of the Revenue Officers, Mr. Little's men took the boats to Detroit—with Mr. Little and officers on board.

(Signed), C. B. BENNET.

The seizure having therefore been made, the question of the right of the United States Customs' Officers to make it, turns upon the question—as stated by Mr. Moore—"whether the newly dredged channel across the St. Clair Flats is in American or Canadian waters?

A preliminary examination of this kind, having for its chief object to ascertain whether there are satisfactory reasons for interfering on behalf of a claimant, and early action being necessary for his needed relief, time is not afforded for obtaining full and precise data for absolutely determining a boundary line between two countries; but so far as means and opportunity were afforded me, I have obtained such information as leads to a thorough conviction that the new Canal now being constructed across the St. Clair Flats by the Government of the United States, and where the seizure of the boats and wood of Mr. Little was made, is wholly and unmistakeably within Canadian waters.

The 6th Article of the Treaty of Peace and Amity between Great Britain and the United States of America, concluded at Ghent, on 24th December 1814, reads thus:—

"Whereas, by the former Treaty of Peace, that portion of the boundary of the United States from the point where the forty-fifth degree of north latitude strikes the River Iroquois or Cataraguy to the Lake Superior, was declared to be 'along the middle of said River into Lake Ontario, through the middle of said Lake, until it strikes the communication by water between that Lake and Lake Erie, thence along the middle of said communication into Lake Erie, through the middle of said Lake until it arrives at the water communication into Lake Huron, thence through the middle of said Lake to the water communication between that Lake and Lake Superior.'

"And whereas, doubts have arisen what was the middle of the said River, Lakes and water communications, and whether certain islands lying in the same were within the dominions of His Britannic Majesty or of the United States: In order, therefore, finally to decide these doubts, they shall be referred to two Commissioners, to be appointed, sworn, and authorized to act exactly in the manner directed with respect to those mentioned in the next preceding Article, unless otherwise specified in this present Article.

\* The said Commissioners shall, by a report or declaration under their hands and seals, designate the boundary through the said River, Lakes, and water communications, and decide to which of the two contracting parties the several islands lying within the said Rivers, Lakes and water communications do respectively belong, in conformity with the true intent of the said Treaty of One thousand seven hundred and eighty-three; and both parties agree to consider such designation and decision as final and conclusive. And in the event of the said two Commissioners differing, or both or either of them refusing, declining or wilfully omitting to act, such reports, declarations or statements, shall be made by them or either of them, and such reference to a friendly Sovereign or State shall be made in all respects as in the latter part of the fourth Article is contained, and in as full a manner as if the same was herein repeated."

In accordance with the Article above quoted, two Commissioners were appointed.

Peter B. Porter, and Anthony Barclay, respectively, on behalf of the United States and

Groat Britain,

On the 18th day of June, 1822, the said Commissioners published their decision, which, in so far as it affects the point at issue, reads thus:—

"Thence to the middle of the mouth of the Detroit River, in a direction to enter the channel which divides Bois-blanc and Sugar Islands; thence up the said channel to the west of Bois-Blanc Island and to the east of Sugar, Fox and Stony Islands, until it approaches Fighting or Great Turkey Island; thence along the western side and near the shore of said last mentioned Island to the middle of the River above the same. Thence along the middle of said River, keeping to the south-east of and near Hog Island, and to the north-west of and near the Island called Isle à la Pêche to Lake St Clair; thence through the middle of said Lake, in a direction to enter that mouth or channel of the River St. Clair, which is usually denominated the Old Ship Channel; thence along the middle of said channel between Squirrel Island on the south-east and Herson's Island on the north-west, to the upper end of the last mentioned Island, &c., &c."

The said decision having been duly signed and sealed by the two Commissioners on the date mentioned, became final, and the line of boundary so defined by them must govern

this inquiry.

The only point upon which (as it appears to me) a question could possibly be raised, is as to where the point designated as "the mouth of the Old Ship Channel" is? If, as some would say, it is in deep water on the upper side of the Flats, then the line would run up through the Lake into the River, very nearly upon the line of the new Canal, and Canada would have no deep channel of water communication with the River St. Clair from the Lake of that name.

The only ground, so far as I have been able to ascertain, that exists favoring this view, is the fact that on the "Chart of St. Clair Flats, reduced from the original surveys of Captain George G. Meade, T. E., under the direction of Lieut. Col. J. Kearney, T. E., Superintendent of Lake Surveys, shewing also the improvement at the mouth of the South Pass, now being effected by the United States Bureau of Topographical Engineers, 1857," the boundary line is laid down as running directly across the Flats into the deep water of the Lake, and very nearly upon the line of the new Canal; but so far as I can judge, somewhat westward of it still. This line is about two miles to the eastward of the mouth of the channel at present used as the entrance to the South Pass, and which I find has generally been known and accepted as the Old Ship Channel.

From Captain James Hackett, I obtained the following statement:-

"I, the undersigned James Hackett, followed the occupation of mariner on the Lakes for many years. I commenced sailing in the year 1817, and continued in that line of life until I took charge of the Lighthouse on Bois-blanc Island in 1836. I remember the channel which we used to pass between the River and the Lake St. Clair over the Flats very well. We used to come down a reach of about a quarter of a mile through about three fathoms of water to the Elbow Lake; then we turned short to the left in about two fathoms of water for about half a mile to the Bar Stake, where we had about ten or twelve feet of water. We then proceeded on two or three different courses through the Stakes, and in about two fathoms, more or less, until we reached deep water—say about three fathoms and upwards. There was no channel but this one. On either side of it the water was only from four to five feet deep. The Americans used to keep the channel staked out—this was our guide in those days, as we had no maps or charts. The channel I have described was known as the Old Ship Channel."

(Signed,) JAMES HACKETT.

This was made to me at Bois-blanc Island, or 26th July, 1870.

There are several persons known to me, whose evidence can be obtained, if needed, which will be quite as clear and pointed as Captain Hackett's. It may be remarked also, that in many instances since the date of the seizure, several American newspapers have admitted, some the fact, and some the possibility, of the Canal having

been constructed in error within Canadian waters. The following is an extract from the Detroit *Tribune*, a paper not unfriendly to the present Government of the United States:

"The charges of the Canadian journals respecting the alleged illegal arrest of certain "men and vessels by the Americau authorities, at the new Ship Canal being built on the "St. Clair Flats, seem to have some foundation in fact; and it is not unlikely that not "only are the American authorities wrong in the seizures, but that the Canal itself may be entirely in Canadian waters, and a grand dead loss to the American people, after a "great amount of money has been expended upon."

A more recent issue of the chart of the St. Clair Flats, of what date I could not ascertain, but of the same survey, and printed from the same plate, does not show the boundary line continued over the Flats,—warranting the inference that the error in laying it down in the first issue, had been discovered and the correction made by expunging it from

the subsequent issue.

It may be remarked here, that all vessels built on, or engaged in navigating the lakes of the West, are entitled to receive from the office of the "Lake Survey," charts of the Lakes and Rivers, upon application.

The language of the same paper above referred to, in reference to the change made

in the chart, reads thus :-

"On the old maps in the Lake Survey Office here, the dotted boundary line does not "run through this channel entirely, but, coming down, branches off from the channel, "where the latter makes a great detour, and proceeds in almost a direct course, following "the line which the new canal now pursues. But on the more recent maps, "the dotted line, striking off from the channel, is not found at all, and it certainly looks "as though when these were prepared it had become known that this line on the old maps "did not truly represent the boundary, and it was lift again to the curving channel, "according to the terms of the Treaty."

In the year 1855, the Government of Canada appropriated \$20,000 (twenty thousand

dollars,) to aid in deepening the Flats of Lake St. Clair.

In 1858, the money was expended, and, in the Report of the Chief Commissioner of Public Works and the Assistant Commissioner, Letter H, dated 17th April, 1858, I find these words:—"The undersigned presume that the channel proposed to be improved, and called in the letter of the Board of Trade 'The South Channel,' is that known in this Province as the 'Middle or Walpole Channel,' the upper portion of which is the boundary line between the United States and Canada, and the lower part is through Canadian territory solely." This clearly shows that then the Chief and Assistant Commissioner of Public Works entertained no doubt whatever that even a portion of the channel navigated, and about two miles west of the canal now being constructed, was in Canadian waters.

I obtained a chart of the more recent issue, which I beg to submit herewith. On it,

is laid down the channel now used in navigation.

I have indicated as nearly as possible, by a red dotted line, where the boundary rans as laid down in the first issue; and, by a pencil line, the position of the new canal. The latter is not given as exact, but sufficiently so to indicate its position.

Again, referring to the decision of the Boundary Commissioners, I find these words:—
"do decide and declare that the following described line (which is more clearly indicated
"on a series of maps accompanying this Report, exhibiting correct surveys and delinea"tions of all the rivers, lakes, water communications and islands embraced by the 6th
"Article of the Treaty of Ghent, by a black line, shaded on the British side with red,
"and on the American side with blue; and each sheet of which series of maps is identified
"by a certificate, subscribed by the Commissioners, and by the two principal Surveyors
"employed by them), is the true boundary intended by the two before-mentioned treaties,
"that is to say," &c.

Now a reference to that portion of the series of maps referred to by the boundary Commissioners shewing the line through Lake St. Clair, to the mouth of the Old Ship Channel as then understood and accepted by the said Commissioners, should readily determine the question at issue.

I have not had opportunity of examining these maps; though, doubtless, they are easily to be had access to at Washington and London, if at any time required. I have obtained, however, and hereby submit a tracing purporting to be a copy of the map of the said Boundary-line Commissioners, shewing the line as they laid it down through Lake St. Clair, and into "the mouth of the Old Ship Channel." The tracing, of which this is a copy, was furnished by the Secretary of the Board of Trade of Buffalo (or by Watson A. Fox, Esq., Chairman of the Dredging Committee) in January, 1856, and previous to the first issue of the Charts by Captain Meade's surveys.

Assuming, then, this tracing to be a correct copy of the map of the Boundary Commissioners,—and there seems to be no reason to doubt its accuracy, it appears quite evident that, as I have already stated, the whole of the Canal now being constructed is

within Canadian waters.

This being the case, Mr. Little is clearly entitled to the interference of the Govern-

ment in his behalf.

I may be permitted, in conclusion, to say that the mistake in the location of the new Canal, affecting, as it does, the control of the main artery of the navigation of the Western Lakes, is one eminently requiring prompt attention, in order that friendly intercourse may be maintained,—the mutual interests of the two countries subserved and secured, and such difficulties as the future might possibly give rise to avoided.

I have the honor to be, Sir,

Your most obedient humble servant,

G. McMicken.

H. Bernard, Esq., Deputy of the Minister of Justice, Ottawa.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 30th August, 1870.

The Committee of Council have had under consideration the annexed Report, dated 26th August, 1870, from the Deputy of the Minister of Justice, concurred in by the Hon. Sir George Et. Cartier, acting for the Hon. the Minister of Justice, on an application on behalf of Hiram Little, respecting the seizure of two vessels belonging to him, and his own arrest at Detroit by the United States authorities, for an alleged attempt to evade the Revenue laws of that country; and they respectfully advise that the recommendations contained in the said annexed Reports be approved and adopted.

Certified,

Wм. H. Lee, Clerk Privy Council.

DEPARTMENT OF JUSTICE, OTTAWA, August 25th, 1870.

The undersigned has the honor to report that a complaint has been made by Mr. R. Stephenson, M.P., on behalf of Hiram Little, of Wallaceburgh, in the County of Kent, in the Province of Ontario, of an outrage committed upon the latter, and seizure of his property by the Customs authorities at Detroit.

From the allegation, it would appear that Little carried certain cordwood to works at the St. Clair Flats, now in course of construction by a Contractor on account of the Government of the United States, without attention to the Customs' regulations of the

United States.

Mr. Little alleges that the place at which he delivered the cordwood, is within the boundaries of the Dominion of Conada, and therefore not subject to the laws of the United States; and that the seizure has been wrongful, and to his great detriment.

The petition of Mr. Little was referred to Mr. McMicken, Commissioner of Police, who proceeded to make enquiry into the circumstances of the case, and a full report on the subject is submitted by him herewith.

The facts appear to be as follows:

Hiram Little, being the owner of the steam barge Reindeer, and wood barge Campbell, was proceeding with the same with cordwood taken on at the River Sydenham, in the County of Kent, to be discharged at the St. Clair Flats at the works or Canal now in course of construction by one, John Brown, for the Government of the United States. The steam barge, being 23 tons burden, propelled by a propeller steam engine, is of the value of \$2,300.00, and the wood barge, of the value of \$200.00.

That, on the 27th June last, the barges arrived at the Channel and discharged their cargo for the Contracter Brown, for use in the construction of his work; and that whilst so doing, three Revenue Officers from Detroit, seized the two barges and their cargo, and the following day seized Hiram Little himself; and he and the barges and the men in his employ were taken to Detroit for smuggling wood; and a ship-keeper was put in charge by the Collector of Customs at Detroit.

That the Collector suggested that bonds should be given to the amount of \$3,000, being \$2,500 for the barges, and \$500 for costs; upon giving which the barges were

released. Little himself was released without bail.

It appears further, that libels have been filed against the vessels and wood by the U.S, District Attorney of Michigan, which allege that the same are forfeited to the United States.

The point which is argued on behalf of Mr. Little is, in fact, whether, the newly dredged channel across the St. Clair Flats is in American or Canadian waters? Upon this point, Mr. McMicken states that he has obtained such information as leads to a thorough conviction that the new channel now being constructed by the Government of the United States, and where the seizure of the boats and wood was made, is wholly and unmistakably within Canadian waters. He refers to the 6th article of the Treaty of Ghent, of the 24th December, 1814, and the reference thereunder to two Commissioners to settle the boundaries alluded to in that article, and which would govern this question.

Messrs. Porter and Barclay were accordingly appointed for the United States and Great Britain respectively, and on the 18th June, 1822, they published their decision, and it is submitted that the line of boundary then established by them, and which is set out

in Mr. McMicken's Report, is that by which this question should be governed.

It will be seen that Mr. McMicken says that some question may possibly be raised as to the point designated by the Commissioners as "the mouth of the Old Ship Channel," but that such view could only be supported by reference to a chart, to which he makes allusion, and the division line of the Flats marked thereon, and which Mr. McMicken believes must have been made after the award of the Commissioners in 1822.

As to the view of the boundary line which has been taken by Canada hitherto, the same is referred to in the Report of the Chief Commissioner of Public Works of 1858, under which certain money to be expended by the Government of Canada was, the Commissioner presumed, to be for the channel "proposed to be improved, and called in the letter of the Board of Trade, 'The South Channel,' or that known in this Province as the 'Middle or Walpole Channel,' the upper portion of which is the boundary line between the United States and Canada, and the lower part is through Canadian Territory solely."

No doubt, however, should exist on this point, inasmuch as the decison of the Boundary Commissioners is given in precise words, and in which they speak of a series ofmaps exhibiting surveys of all the rivers, lakes and water communications, &c., embraced by the 6th article of the Treaty of Ghent by a black line shaded on the British side with red, and on the American side with blue, subscribed by the Commissioners and principal

Surveyors; and such is spoken of by them as the true boundary intended. It appears impossible at this moment to obtain a copy of that Report or of the plans attached thereto.

It will be observed that Mr. McMicken concludes his report by stating "that the mistake by the Government of the United States in the location of the new Canal, affecting, as it does, the control of the main artery of the Western Lakes, is one eminently requiring prompt attention, in order that friendly intercourse may be maintained, the mutual interest of the two countries subserved and secured, and such difficulties as the

future might give rise to, avoided."

The undersigned has therefore the honor to suggest that the Governor General should be requested to communicate, through Her Majesty's Minister at Washington, with the United States Government, representing the facts connected with the seizure of the steam barge and wood barge, and also with the personal arrest of the owner, Hiram Little; and further stating that, to save his property, he entered into bonds on account of the same; and claiming that as the seizure was made and the arrest affected on Canadian Territory, the United States Government should issue an order for the cancellation of the bonds so given by Mr. Little, and his release from any liability thereunder, to himself and his sureties; and that due compensation should be awarded to him in respect of the seizure of the barges and of his personal arrest.

The undersigned takes the liberty of suggesting that it is inexpedient to enter into any detail upon the boundary line question, or to act otherwise, in communicating the facts to the Government of the United States, than upon the facts of the seizure having

been made on Canadian Territory.

(Signed,)

H. Bernard, Deputy Minister of Justice.

I concur in this report

(Signed,)

GEO. ET. CARTIER,

Acting for the Minister of Justice.

Windson, Ontario, November 22nd, 1870.

SIR,—I have to report that in accordance with your instructions, I proceeded on the 18th inst., in the steam yatch, *Undine*, of Detroit, to the Flats of Lake St. Clair, and made the survey of the location of the Canal lately constructed by the Government of the United States in the vicinity of the boundary line between the United States and Canada.

I commenced by ascertaining the position and bearings of the north westerly side of the channel, called the "South Pass," at, and a short distance on each side of the mouth.

By this means, I defined a point in the channel bank of the mouth of the "Pass," which I could readily locate on the chart issued by the Bureau of Topographical Engineers

of the United States.

I then proceeded to lay down a meridian line by an observation of the North Star on its eastern elongation, which I took on the 19th inst., from the north westerly side of the Canal; and from this line, in connection with a base line measured along the side of the Canal, formed a series of triangles,—from which I subsequently calculated the distance and astronomical bearing of the point at the mouth of the "Pass" in relation to the several points on the sides of the Canal.

I also checked the position of the Canal by ascertaining the true bearing of a linpassing over the Channel bank on the Canadian side of the "Pass" at the extreme perturbately edge of the first curve in it. And, on subsequently plotting these lines on the

chart above mentioned, I found them to agree with the survey.

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The topography on the tracings which accompany this report is taken from the chart just mentioned; and the direction and position of the boundary line between the United States and Canada, from a Tracing purporting to be a true copy of part of the original map defining the boundary line between the two countries, signed by Messrs. Barclay and Porter, and referred to in their report.

By reference to the accompanying Tracings, it will be seen that the International

boundary line passes through a corner of the Canal at its north easterly end.

The portion of the Canal in British waters, consists of a triangular piece containing an area of 41,250 square feet, of which the easterly pier of the Canal occupies 25,000 square feet. In other words, the outermost side of the piece lies in British waters for a distance of about 750 feet, and the inner side,— a distance of 500 feet.

In arriving at these results, I have assumed, in accordance with your instructions, the International boundary line to be truely laid down on Messrs. Barclay and Potter's Map, and the topography and sounlings to be correctly represented on the United

States Chart furnished by you.

I have the honor to be, Sir Your obedient servant,

> FRED. L. FOSTER, Provincial Land Surveyor.

Gilbert McMicken, Esq., Police Commissioner, &c., Ottawa, Ont.,

OTTAWA, 30th November, 1870.

SIR,—I have the honor to report that, in obedience to your instructions, I charged mytelf with the duty of engaging the services of a good and reliable surveyor to locate the new Canal now being constructed (and nearly completed) by the Government of the United States of America across the Lake St. Clair Flats, so as to define its position in respect to the International boundary line as accurately as possible.

I was fortunated in securing the services of Frederick L. Foster, Esq., of Windsor, Provincial Land Surveyor, a gentleman eminent in his profession, of irreproachable character and habits, and enjoying the confidence and esteem of all who know him.

He happened to be in Boston when I called upon him, but, responding to my telegrams returned immediately to Canada, and, agreeing to undertake the work, we proceeded without loss of time to accomplish it.

On the 16th instant I engaged a small steam yacht to convey the surveyor, myself and assistants to the Canal, and early on the 17th we left Detroit in her. After getting a few miles out into the Lake, we were obliged to return, owing to the severe storm then prevailing, and the boat proving quite unseaworthy.

We procured another small steam yacht, the *Undine*, of somewhat greater length of keel and having a better engine. In her we started anew in the course of the night, and after six hours of a stormy and somewhat dangerous passage, arrived at the Canal on the

Flats on the morning of the 18th.

For what was accomplished there, to give effect to your instructions, I beg leave to

refer you to the Report of the Surveyor herewith submitted.

I feel very confident that the location of the Canal, as laid down by Mr. Foster, will be found as nearly as possible correct, and defined with all the exactness the data furnished him would permit. He was most indefatigable and painstaking in his efforts to secure a satisfactory result. In prosecuting this duty we were three days and nights exposed to the inclemency of the weather, without opportunity of changing our clothes or a place to tie down in. Fortunately, on the morning of the 19th, the clouds, which during the night had obscured the Polar Star, dissipated, and Mr Foster obtained an excellent observation.

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I trust what has been done will be found satisfactory, and the expense (a statement which I submit herewith) be considered in keeping with the closest economy.

I have the honor to be, Sir,

Your most obedient humble servant,

G. McMicken.

Documents submitted herewith:-

1st. Report of Surveyor F. L. Foster, Esq.

2nd. Plan shewing the position and location of the Canal,

3rd. Chart having location of Canal laid down thereon.

4th. Chart of latter date from same plate, but having the boundary line across the Flats omitted.

(No. 57.)

Quebec, September 1, 1870.

SIR,—I have the honor to forward herewith a copy of a minute of the Privy Council of the Dominion, covering a report from the Deputy Minister of Justice, with reference to the seizure, by the United States' authorities, of two barges, the property of Hiram Little.

2. The Ministers request me to bring the case, which the papers clearly set forth, under your notice, with a view to a representation being made thereon to the Government of the United States.

I have, &c., (Signed,) John Young.

Sir E. Thornton, &c., &c.

(Copy-No. 43.)

Washington, September 12th, 1870.

SIR,—With reference to Your Excellency's despatches, Nos. 57 and 58, of the 1st instant, in which you convey to me the wish of the Government of the Dominion, that I should make a representation to the United States Government relative to the arrest of Mr. Hiram Little, and the seizure of two barges belonging to him by United States' authorities, I have the honor, after due reflection, to submit to Your Excellency that it may be more prudent to defer making any communication upon the subject until it be clearly proved, by reference to the maps which must exist in England, that the point where the seizure was effected is really within British jurisdiction.

As I understand from Your Excellency that a statement of the case has been forwarded to Her Majesty's Secretary of State for the Colonies, an examination of the maps will no doubt be at once made, and very little delay will arise from awaiting the results, when I should be able to speak more authoritatively as to the proceedings of the United

States' authorities.

(Signed,)

I have, &c., Edward Thornton.

His Excellency,

The Right Honorable

Sir John Young, Bart., G.C.B.,

&c., &c., &c.

(No. 217.)

Quebec, September 23rd, 1870.

My Lord,—I have the honor to enclose a minute of Council, which adopts a report dated the 26th August last, from the Deputy of the Minister of Justice, "On an appli-

30th August, "cation on behalf of Hiram Little, respecting the seizure of two vessels "belonging to him, and his own arrest at Detroit by the United States' "authorities, for an alleged attempt to evade the Revenue laws of that country, and they "respectfully advise that the recommendations contained in the said annexed report be "approved and adopted."

No.51, Sep. 1. I duly forwarded the minute and report to Sin Line 1990 to

I quite concur with Sir Edward that it is desirable that the properly authenticated maps should be examined before any formal application is pressed upon the United States Government, so as to be on perfectly sure ground.

I may, however, observe that though several newspapers in the United States have commented upon these proceedings, not one of them suggests a doubt as to the canals

being within the limits of Canada.

I am also informed that, in times past, some amount of Canadian money has been expended on this very passage.

No intention exists of taking any advantage in the premises, or appropriating the

works as Canadian property.

On the contrary, every right acquired in the improvement will be respected, and it is in contemplation to afford pecuniary assistance towards its completion.

> I have, &c., (Signed,) JCHN YOUNG.

The Earl of Kimberley.

(Copy—No. 254.)

OTTAWA, October 29th, 1870.

My Lord,—With reference to my despatch, No. 217. of 23rd September, I have the honor to enclose copy of a despatch which I have received from Her Majesty's Minister at Washington, covering copy of a despatch which he had addressed to the Secretary of State for Foreign Affairs, on the subject of the Canal which has been recently constructed by direction of the Government of the United States, across the St. Clair Flats.

> I have &c., (Signed.) JOHN YOUNG.

The Earl of Kimberly, &c., &c., &c.

(Copy-No. 287.)

The Secretary of State for the Colonies to the Governor General.

DOWNING STREET, 4th November, 1870.

My LORD,-With reference to your despatch, No. 217, of the 23rd of September, respecting the case of Mr. Hiram Little, I have the honor to inform you that I have requested the Secretary of State for Foreign Affairs to give directions for the supply for the use of your Government of copies of the official maps shewing the boundary between Canada and the United States, on the St. Clair Lake and River.

These maps form only a small portion of the series accompanying the declaration of

the Commissioners appointed under the 6th Article of the Treaty of Ghent.

If the Canadian Government is desirous of receiving copies of the entire series, which are very bulky, I shall be happy to give directions for their preparation. I request that you will inform me if this is the case, and whether the Canadian Government are prepared to bear the expense of the copying, which will be entrusted to the Topographical Department of the War Office.

I have &c.,

(Signed,)

KIMBERLEY.

Governor General, The Right Honorable, The Lord Lisgar. &c., &c.

(Copy-No. 265.)

OTTAWA, 16th November, 1870.

My Lord,—I have the honor to transmit an approved Minute of the Privy Council of the Dominion, which requests me to apply to your Lordships for duly authenticated copies of all maps, plans, and reports by the Commissioners who were appointed to determine the boundary line between the United States and Canada.

I have &c., (Signed,) Lisgar.

The Earl of Kimberley, &c. &c.

(Copy-No. 309.)

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 14th November, 1870.

On a Memorandum, dated 10th November, 1870, from the Honorable the President of the Privy Council, submitting that in order to enable the Government of Canada to deal more readily with questions connected with the boundary between the United States and Canada, and to meet points of International law, which may occasionally arise, as well as to place the Government in possession of authentic records which might, if necessary, be used and recognised in Courts of Justice, Your Excellency will be pleased to apply to the Right Honorable Her Majesty's Secretary of State for the Colonies, for duly authenticated copies of all maps, plans, and reports by the Commissioners by whom the said boundary line between the United States and Canada was established.

The Commissioners submit the foregoing recommendation for Your Excellency's

approval.

Certified.

WILLIAM H. LEE, Clerk Privy Council.

(No. 354.)

DOWNING STREET,

14th February, 1871.

My Lord,—With reference to your despatches of the Nos. and dates noted in the No. 217, Sept. margin respecting the case of Mr. Hiram Little, I have to inform you that 23, 1870; No. copies of the charts of the Lake and River St. Clair, which are being prepared 254, Oct. 29. in the Department of Works, will be ready in about a fortnight.

I have, &c.,

(Signed,)

KIMBERLEY.

Governor General,

The Right Honorable,
The Lord Lisgar, G.O.B.,
&c., &c., &c.,

(No. 43.)

QUEBEC, February 16th, 1871.

My Lord,—With reference to previous communication on the same snbject, I have the honor to forward herewith a copy of a minute of the Privy Feb. 14, 1871. Council, covering a "Report of Capt. Cameron, R.A., marked confidential, Lord Lisgar, "upon the question of the true location of the International Boundary No. 217, Sept. between the United States and Canada, from the Detroit River to River 27, 1870; No. 254, Oct. 29, 1870.

2. The conclusion to which the Council have arrived, is that "with a "view to preventing difficulties in future, it is desirable that the boundary No. 287, Nov. "at St. Clair Flats should be marked on the spot, and the Committee of 4, 1870.

"Council recommend that the mixed Commission about to be appointed to

"mark the International Boundary between the Lake of the Woods and the Rocky Mountains, should be also charged with the duty of locating and marking the boundary
designated by the Commissioners under the 6th Article of the Treaty of Ghent."

3. In accordance with the recommendation contained in the last paragraph of the minute, I shall duly forward a copy thereof to Her Majesty's Minister at Washington.

I have, &c., (Signed,) LISGAR.

To the Earl of Kimberley.

(Confidential.)

Remarks upon the true location of the International Boundary Line at the mouth of the River St. Clair, with reference to the so-called American Canal.

Attention has been directed to this question in consequence of the seizure, by Custom officials of the United States, of the steam barge Reindeer and the wood barge Campbell, on Lake St. Clair Flats, on the 27th of last June, for landing cord-wood at a pier on the western side of a canal then being constructed through those flats.

The object of the following remarks is to shew that the Canal, as laid down on a plan, dated 22nd November, 1870, by Mr. F. L. Foster, Provincial Land Surveyor, of Windsor, Canada, and described thereon as "American Canal made by United States Government," is wholly within Canadian territory.

The arguments are:

1. The boundary line through Lake St. Clair, as laid down on a map Tracing of the accompanying Commissioners Barclay and Porter's Report, under the 6th Commissioners' Map and Article of the Treaty of Ghent, 1814, is not receivable as evidence of the nexed hereto position of the boundary.

2. The Report of the Commissioners describes a boundary line which runs over one and three-quarter miles to the westward of the Canal; and the position thus described is

that of the "true boundary."

3. But if the description given in the Commissioners' Report be held to support the accuracy of their map, then, their decision being contrary to the intent of the Treaty of 1783, is subject to reconsideration, for the Commissioners were See Treaty of only authorized to act "in conformity with the true intent of said Treaty." Ghent:

Where it has been considered proper to draw particular attention to certain passages,

these have been italicised.

Marginal references are given to indicate the authorities from which quotations have been made, and, with the exception of Mr. McMicken's Report, the authorities may be found in the Parliamentary Library.

The boundary line, as laid down on the maps accompanying Mesers. Barolay and Porter's Report, was intended to serve merely as a general illustration of the text of their decision, and has no legal force to limit or define the written description of the boundary as given in the report,—for the following reasons:—

1st. The contracting parties did not agree to be bound by maps.

Messrs. Barclay and Porter were appointed, under the 6th Article of the

Treaty of Peace between Great Britain and the United States, signed at Hertslets colGhent, 24th Decemer, 1814, "to designate" the boundary now in dispute Ireaties,
"by a report or declaration" under their hands and seals, and "to decide" Vol. II, p. 383.

to which of the parties several islands belonged. "And" in the words of the

Treaty, "both parties agree to consider such designation and decision as final and conclusive."

2nd. The contracting parties, by the Treaty of Ghent, specially excluded the use of

map records as a means of binding themselves.

Four of the Articles of the Treaty—the 4th, 5th, 6th and 7th,—have Idem.

reference to parts of the international boundary.

By the 4th Article, the contracting parties lay down that the Commissioners shall "by a declaration of report," under their hands and seals, decide, Idem, p. 380. &c., and both parties shall consider such decision as final and conclusive."

The 5th Article, after describing the purposes for which the Commissioners are to be appointed under its authority, lays down that they shall "be appointed, sworn and authorized to act exactly in the manner directed Idem, p. 382. "with respect to those mentioned in the next preceding Article, unless "otherwise specified in the present Article." The Article then specifies that

"The said Commissioners shall cause the boundary aforesaid," &c., "to be surveyed and marked," &c., "according to the said provisions" of the Treaty of 1783, and the said Commissioners shall make a map of the said boundary, and annex to it a declaration under their hands and seals, certifying it to be a true map of the said boundary, and particularizing the latitude and longitude of the North-west angle of Nova Scotia, of the North westernmost head of Connecticut River, and of such other points of the said boundary as they may deem proper. And both parties agree to consider such map and declaration as finally and conclusively fixing the said boundary."

The 6th article—that bearing specially on the subject in hand,—after describing certain doubts which had arisen with regard to the boundary as described in the Treaty of 1783, and repeating the injunction that the two Commissioners to be appointed, "shall be appointed, sworn and authorized to act exactly in Idem, p. 383.

"the manner directed with respect to those mentioned in the next preceding "article, unless otherwise specified in this present article," specifies that "the

"article, unless otherwise specified in this present article, specifies that "the "said Commissioners shall, by a report or declaration, under their hands and seals, designate the boundary through the said river, lakes, and water communications, and decide to which of the two contracting parties the several islands lying within the said river, lakes, and water communications, do respectively belong, in conformity with the true intent of the said Treaty of 1783, and both parties agree to consider such designation and decision as final and conclusive."

The 7th Article authorizes the Commissioners, appointed under the 6th Article, upon their oaths, "to fix and determine" the continuation of the boundary line to the most north-western point of the Lake of the Woods, and Idem, p. 381. "to decide" to whom the several islands lying along the boundary belong, and "to cause such parts of the said boundary as require it, to be surveyed "and marked;" and the Article then lays down that "the said Commissioners shall by "a report or declaration, under their hands and seals, designate the boundary aforesaid, "state their decision upon the points thus referred to them, and particularize the latitude and longitude of the most north-western point of the Lake of Hertilet's colticle who woods, and of such other parts of the said boundary as they may Treaties. "deem proper. And both parties agree to consider such designation and Vol. II, p.384." decision as final and conclusive."

From the foregoing, it appears that the exact manner in which the Commissioners were required to record their decisions, was particularly specified for each of the four cases, and the contracting parties bound themselves to consider as final, only the decisions recorded in the manner specified.

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Now, in the 6th Article, which authorizes the appointment of Commissioners to decide upon the boundary passing through Lake St. Clair, no mention is made of a map in the specification of the manner in which the Commissioners were to record their decision; and, inasmuch as the manner in which the Commissioners were required to record their opinion was specified without reference to a map, the injunction that they should be authorized "to act exactly in the manner directed in the next preceding "Article, unless otherwise specified in this present Article," pointedly excludes Idem, p. 383. maps which were required from Commissioners acting under the 5th Article.

The correctness of this view is further shewn by a comparison of the terms in which

the contracting parties agree to abide by the Commissioners' decisions:—

In the 5th Article "both parties agree to consider such map and declaraIdem, p. 382. "tion as finally and conclusively fixing the said boundary."

But in the 6th Article "both parties agree to consider such designation Idem, p. 333.

"and decision as final and conclusive."

Nor is there any room for doubt as to the meaning intended by the expression to designate "by a report or declaration," since in the "American Project of a Treaty as returned by the British to the American Plenipotentiaries, it 1821-1822. will be seen that the expresssion came particularly under the consideration Vol. IX., p. of the negotiating parties, and was applied by them to the case of the 4th 536, et seq. Article, which, from its very nature, required no map. And again, in the Idem—1826-Convention between Great Britain and the United States of America, relative 1827. Vol. to the reference to arbitration of the disputed points respecting the boundary XIV., p. 1904. line, under the 5th Article of the Treaty of Ghent, signed at London, September 29, 1827, the following sentences will be found in close proximity to one another:-

"No maps, surveys or topographical evidence of any description shall be Idem, p. 1001. "adduced by either party beyond that which is hereinafter stipulated."

"Each party shall have full power to incorporate in, or annex to, either its first or "second statement, any portion of the Reports of the Commissioners, or papers thereunto "annexed and other written documents laid before the Commission," &c.

The exceptions mentioned in the first sentence as adducible, are "the map called, Mitchell's Map " and "The Map A."

The word "Maps" in the above extract is clearly used in antithesis to "Reports" and "other written Documents."

3rd. The Commissioners did not annex to their maps a declaration, under their hands and seals, certifying the maps to be true ones of the boundary line.

Should it be contended, notwithstanding what has been said above, that the maps constitute more than a mere illustration of the Commissioners designation and decision, and that they form part of these in the same spirit that a map, under the 5th Article, was constituted a part of the Commissioners decision in that case; still, it is to be observed that the maps delivered with the decision under the 6th Article, are of no legal effect, for Hertslet's col. the Commissioners failed to comply with the condition of the 5th Article lection of Tree- which required them "to annex to the map, a declaration under their hands ties." Vol. II., "and seals, certifying it to be the true map of the said boundary."

The Commissioners in their Report, signed at Utica on the 18th of June, State Papers

The Commissioners in their Report, signed at Union the learly indicated by s. 1821-1822. Vol 1822, refer to the boundary merely as being "more clearly indicated by s. 1821 and 1822, refer to the boundary merely as being "more clearly indicated by s. 1821 and 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely as being "more clearly indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. 1822, refer to the boundary merely indicated by s. "black line on a series of maps accompanying this Report."—While on the Idem, p. 792. face of the maps, they are merely "identified by certificate, subscribed by "the Commissioners, and by the two principal surveyors employed by them."

4th. The Commissioners themselves did not contemplate that the maps delivered by them would be made use of to limit the deserption of the boundary given in their Report or Declaration.

In the preamble of the declaration of the Commissioners, they state their duty to be to "designate the boundary by a Report or Declaration, and to decide to Idem, p, 791. De to aesignate the obtaining by a Loperto. "which of the two contracting parties, the several islands, lying within the "said rivers, lakes, and water-communications do belong, in conformity with the true "intent of the Treaty of 1783."

Now, in the Report of the Commissioners, there are five distinct cases of reference to maps accompanying their Report:

a. As an assistance in tracing "the following described line" which Idem. p. 792. line, as described in writing, the Commissioners declare to be "the true "Boundary intended" by the Treaties of 1783, and of Ghent, 1814.

b. As "Exhibiting correct surveys and delineations of all rivers, Idem. "lakes, water-communications, and Islands embraced by the 6th Article of " the Treaty of Ghent."

c. As being "identified by a certificate, subscribed by the Commis-Idem. "sioners, and by the two principal surveyors employed by them."

d. As a means, by reference to letters and numerals, to distinguish Idem, pp. 792certain islands of which the names were not given; and to distinguish some of a group of islands, from others of the same group, have but one name applicable to all.

e. And, as shewing "a line (drawn on the map with black ink, and Idem, p. 794. " shaded on one side of the point of intersection with blue, and on the other "side with red) passing across the river at the head of St. Joseph's Islands, and at the "foot of the Neebish Rapids, which line denotes the termination of the boundary" under the 6th Article of the Treaty of Ghent.

But in no case will there be found any reference to a map, which will justify a belief that the Commissioners themselves regarded those they furnished, in any other light than as an assistance to a clearer understanding of their Report, more particularly with reference to the position of nameless islands, which could most easily be identified by an illustrative map.

This view is fully confirmed by the fact that the 1st, 2nd, 3rd and 5th State Papers, cases of reference are introduced merely parenthetically, while the character IX, p. 192. of the 4th case of reference clearly accounts for the greater importance Idem, p. 792. given to it by the omission of parenthesis.

In the former cases, the sense is clear, definite, and complete, without the parenthetical reference to maps; but in the 4th case, until the letters and numerals are associated with the islands to which allusion is made—the sense, although clear and complete, is undetermined; and the reference was, therefore, properly made without parenthesis. Yet in this case, the map cannot be considered as limiting the sense of the Report; -for, in spirit and in fact, the designation of an island by an arbitrarily chosen numeral, has exactly and only the same force as its designation by a name. The only difference between the cases,-and one arising out of their nature, is that names were already associated with the islands to which they referred, while a means,—in this instance maps,-had to be adopted for associating the numerals with the nameless islands to which they referred: but this association once established, the authority of the map ceases with regard to the boundary line, for the Commissioners and 794. "do decide and declare that the following described line is the true boun-

dary," and in that description no reference is made to maps, except for the purpose just above detailed.

5th. The location of the boundary line on the Commissioner's maps of Lake St. Clair, between Detroit River and River St. Clair, does not agree with the definition of that part of the line as described in the Commissioner's Report, which is declared to be the "true line."

The objects for appointing Commissioners are thus stated in the 6th Article of the Treaty of Ghent :-

"Whereas by the former Treaty of Peace, that portion of the bour-"dary," &c,—" was declared to be along the *middle* of the said river into Hertslet's Collection of

"Lake Ontario, through the middle of said Lake until it strikes the com-Papers

"munication by water between that Lake and Lake Erie, thence along the II, p. 383.

" middle of said communication into Lake Eric, through the middle of said Idem.

"Lake, until it arrives at the water communication between that Lake and

"Lake Superior. And whereas doubts have arisen what was the middle of said river, "lakes, and water communications, and whether certain islands lying in the same," &c.

"In order, therefore, finally to decide these doubts, they shall be referred to two Com-

" missioners," &c.

One of the duties of the Commissioners was, therefore, particularly to remove doubts

arising from the use of the word middle in the Treaty of 1783.

In laying down the line from Detroit River to River St. Clair, the Commissioners decided that, from the middle of the River above Great Turkey Island, it should pass by the northwest of, and near to the Island "called Isle à la State Papers.

"Peche, to Lake St. Clair; thence, through the middle of said Lake, in a 1821-1822, Vol. "direction to enter that mouth or channel of the River St. Clair which is IX, p. 794.

" usually denominated The Old Ship Channel; thence, along the middle of said

"channel, between Squirrel Island on the south-east, and Herson's Island on the north-

"west, to the upper end &c.: Thence-"

Now, after the description of the course of the line through the upper part of Detroit River by the North-west of Isle à la Péche to Lake St. Clair, the State Papers, sentence, "thence, through the middle of said Lake, in a direction to enter 1821-1822, Vol. "that mouth or channel of the River St. Clair usually denominated the Old IX, p. 794. "Ship Channel," evidently means that the line should be drawn from near the North-west point of Isle à la Pêche along the most direct navigable course, in this case directly to the entrance, wherever that entrance may be, of the Old Ship Channel. To read the sentence as implying an irregular or curved line stretching out into Lake St. Clair in an indefinate medial direction, is to suppose that the Commissioners had been inattentive to one of the only two kinds of doubts which they had to remove, viz., the meaning of the word "middle," and the sovereignty over the islands along the boundary. But, such a supposition is quite untenable, for immediately after using the words "through the middle of said Lake" the Commissioners accurately defined the course as " in a direction to enter that mouth or channel," &c.

Any irregular figure, such as that presented by Lake St. Clair, has a middle point; and a line might be drawn from any other point, such as the North-west angle of Isle à  $^{
m la}$ Pêche, through it in a direction ultimately to reach any third point, such as the entrance to the Old Ship Channel. But, again, to suppose that the Commissioners intended to convey this meaning, is to avoid a plain and simple construction, and to accept a rendering at once questionable, and laying them open to a charge of neglect. Moreover, the line, as indicated on the map, does not pass through the middle point of Idem. the Lake St. Clair; nor is it drawn, from its entrance into the lake, "in a

"direction to enter that mouth or channel of the River St. Clair which is usually denominated the Old Ship Channel."

The channel of a river is plainly not the river itself, but the deeper part or hollow in which the principal current flows; and, it may, or may not, be marked by banks shewing above the surface: and the channel of a river usually runs out for some distance beyond the visible banks.

As if purposely to guard against any other than the common acceptation of the word "channel "just given, the Commissioners introduced the alternative term "mouth,"which lucidly conveys the meaning that the channel is to be entered where it begins.

Again, in describing the course of the line passing from Lake Erie up Detroit River, the Commissioners say :-- "Thence" (that is, from the south of the Middle Sisters) "to the middle of Detroit River, in a direction to enter the channel which divides Bois blanc and Sugar Islands; thence up the said channel to the west of Bois-blanc Island, and to the east of Sugar, Fox, and Stony Islands, until it approaches," &c. But the islands,—Bois-blanc and Sugar, by which the particular channel meant is indicated,—are not at the mouth of Detroit River: they are at some distance up the stream. Yet it is clear that the word channel here implies that the deeper part or navigable course is to be followed from the mouth of the river up to the passage between the islands. Similarly the words "in a direction to enter that mouth or channel of the River St. Clair usually denominated The Old Ship Channel; thence along the middle of said channel, between Squirrel Island on the south-east and Herson's Island on the north-west" &c., must be understood as implying that the course of the Old Ship Channel up to Squirrel and Herson's Islands is to be followed.

The following "Sailing Directions for Lake St. Clair, to enter St. Clair "River by the South Pass or Channel," extracted from "The Coast Pilot, Coast Pilot, "compiled by Thomas S. Thompson, Licensed Pilot for the Lakes—5th 1869, p. 89. "Edition—published at Detroit 1869," will serve to show where the entrance

to the South Pass, or Old Ship Channel, of the River St. Clair really is; and also, will furnish an example of the common acceptation of the phrase "to enter by a channel."

"To enter the St. Clair River by the South Pass or Channel, run out of Detroit River E. N. E. until the two first points north of the Light-Idem.

"house are open; then, N. E, & N. 20 miles, till vou make the South

"Pass Lighthouse, when in 15 feet water, bring the Lighthouse and Beacon Light in "range, steer up on this range, passing black buoys to port, and red buoys to starboard, "till up to beacon light; thence, haul off to S. E. and leave red buoys to starboard and "black to port, until into the river." (See foot note.)

"There are range lights kept on the starboard hand, opposite the turning point into "the river, and are thus: red and white for each bend or reach, first from the beacon

"light to abreast the point, and then up the river and vice versâ."

Besides the above evidence as to the position and course of the Old Report by G. Mc-Ship Channel, charts and oral evidence in confirmation are referred to in 8.70 to H. Bernard Mr. McMicken's Report on this subject.

Esq., Deputy of the Minister of Lustice Ottawa.

The course above described is approximately laid down on the accompanying tracing from a United States Government Chart; also the boundary line transferred from the Commissioners Messrs. Barclay and Porter's the Deputy Minister of Marine.

It is, therefore, evident that the boundary line, as shown on the Commissioners' map, agrees neither in its departure from Detroit River, its course across the lake, nor at its arrival at the Old Ship Channel, with their description of "the true boundary intended" by the True is 1792 and 1814.

by the Treaties of 1783 and 1814.

And for the various reasons enumerated, the Commissioners' map has no legal force to limit or define their written description of the boundary.

This conclusion suggests the following questions, and calls for explanation: -

Why did the Commissioners furnish maps with their Report?

And since they did furnish maps, and indicated the course of the boundary line upon them, what reason is there for supposing that the line so laid down was not intended as an exact representation of the description in their Report?

The 8th Article of the Treaty of Ghent supplies a full answer to the first of these

questions. The Article directs that,-

"The several boards of two Commissioners mentioned in the four preceding articles, shall respectively have power to appoint a secretary, and to employ such surveyors or other persons as they shall judge necessary. Duplicates of all their respective reports, declarations, statements and decisions, and of their accounts, and of the journal of their proceedings, shall be delivered by them to the agents of His Britannic Majesty, and to

Note—What is here called "the River" is the channel confined between visible banks. See also the Sailing directions on the United States Government Chart.

"the agents of the United States, who may be respectively appointed and authorized to "manage the business on behalf of their respective Governments."

In reply to the second question, besides the reference made to the subject in the preceding pages, it is further to be observed, that on the "exact tracing" of that portion of the Commissioners' Map (furnished by His Excellency the Governor General) including the entrance to the River St. Clair, there is no reference to subaqueous topography,—and it is therefore assumed that no such reference will be found affecting the course of the houndary line, or any of the series of maps furnished by the Commissioners.

Now, as the Commissioners did not note on their maps, either soundings or the windings of subaqueous channels, it was not to have been expected that a line,—intended by them merely to afford a general illustration of their Report, and on so small a scale that such minute details as those here referred to would have been practically useless,—should have been drawn so as to shew the narrow and irregular entrance through the shoals at the mouth of the Old Ship Channel, since the "written description in a direction to enter that mouth or channel," sufficiently explained its course.

It is presumed, too, that the doubts with reference to the term "middle," and to the sovereignty over certain islands which the Commissioners had to remove, where not connected with uncertainty as to whether the line should be drawn so as to interfere or not with navigation;—but, assuming the right of navigation as inalienable, the doubts were with respect to the term "middle" as affecting the sovereignty over certain islands.

In the "former Treaty of Peace"—that of 1783,—the boundary was described as running along the middle of a river, water-communications, and lakes, without reference to islands; "and," in the words of the 6th Article of the Treaty of Ghent "whereas doubts "have arisen what was the middle of said river, lakes and water-communications, and "whether certain islands lying in the same were within the Dominion of His Britainic "Majesty or of the United States: In order therefore finally to decide these doubts," &c.

The quotation made from Mr. Clay's letter to Mr. Gallatin, the United States Minister Plenipotentiary at the British Court, shews that it was taken for granted that the boundary line was to be so drawn as not to interfere with the right of either of the nations occupying the opposite banks to the navigation throughout the co-terminous navigable boundary.

Again, the 1st Article of the Treaty of Ghent provides for the general restoration of captured territory: but, in the 8th Article there is a provision, applicable to the islands referred to in the 6th Article, which contemplates the transference of some of these-indubitably the property of one nation, to the other nation.

The application of this provision to the islands referred to in the 6th Article, is only explicable on the supposition that it was assumed the course of the boundary line was not to be decided merely with a view to determine the sovereignty over these islands; but, that this consideration was to be subordinated to another—the "reciprocal advantages and mutual convenience" of the Trenty of 1873—involving the necessity for drawing the line so as not to interrupt navigation for either country, and the omission, from the Commissioners' maps, of all notes of soundings and delineation of channels, is plainly consistent with the foregoing view.

Moreover, it was to be expected that had the Commissioners to define the exact position of the boundary line on maps, whether such delineation was to be binding on the contracting parties, or not,—the wording of the 6th Article of the Treaty would have conformed with that in the 5th and 7th Articles.

Under the former of these: "the Commissioners shall cause the boundary aforesaid" to be surveyed and marked," and under the 7th Article the Commissioners are directed to cause such parts of the said boundary as require it to be surveyed and marked."

But the 6th Article makes no reference to a survey.

The Commissioners then furnished maps in compliance with the 8th Article of the Treaty of Ghent, but not being required to mark the boundary in situ, nor to furnish delineations of subaqueous topography (which would have involved an enormous and unnecessary addition to their labor), they depicted the line as passing from visible to

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visible landmark, in a manner to generally illustrate their written description, which defined a navigable course, and thus may be accounted for—the indefinite medial direction given on the maps to the line when passing through large sheets of navigable water.\*

Assuming, then, that the map can be regarded only in the light of an illustration, except in so far as it associates certain letters and numerals with the islands to which these refer,—it remains to be decided where the line, described by the Commissioners as the true one, is; for they were not, as in other cases, required to mark it in situ.

Now, short of mathematical technical terms, it is conceived that no language can be clearer than that which the Commissioners themselves have used in describing the disputed portion of the boundary. In common terms, they have defined two points, and directed that the line should be drawn from one of these to the other.

But,—since the map illustration indicates an irregular line, while the simplest construction to be attributed to the written description, implies a straight line,—the question naturally occurs:—Could there have been any reason to induce the Commissioners to project the line irregularly?

If the whole boundary described by their report be followed throughout its course, it will be strikingly manifest that the Commissioners' decision was determined with a view to uninterrupted navigable communication being available to each of the contracting parties; and that, while this object was never neglected at any point throughout the line, the only deviations in degree, were made with a view to an equitable apportionment of island property. The latter consideration, however, was in no case allowed by them to supersede the former.

During negotiations between the United States and the British Government with reference to the right, claimed by the former, of navigating the Lower St. Lawrence—Mr. Clay in a letter (dated, Department of State, Washington 19th June, 1825), to Mr. Gallatir, refers to the Great Lakes, and says, "they are entirely enclosed within the "Territories of the United States and Great Britain, and the right to their navigation, "common to both, is guaranteed by the faith of Treaties, and rests upon State Papers, "the still higher authority of the law of nature. The Great Lakes are united 1831-1832, Vol. "by but one natural outlet to the Ocean, the navigation of which (Ocean) XIX., p. 1089. "is common to all mankind. That outlet, along a considerable part of its course, forms a "common boundary between the Territories of the United States and Great Britain and "to that extent the right of navigating it is enjoyed by both. The United State Papers, "States contend that they are invested with a right to pass from those lakes, 1831-32, Vol. "the incontested privilege of navigating which they exercise, through that IX., p. 1089. "natural outlet to the Ocean," &c.

From this extract it is clear that the United States' Government held the same view as the Report of the Commissioners indicates was held by them, with regard to the right of each of the contracting parties to retain uninterrupted navigable communication along the boundary the Commissioners had to define. Moreover, four years after the decision of the Commissioners, under the 6th Article of the Treaty of Ghent, had been delivered, the United States' Government are seen, in the foregoing quotation, to have declared that the right of navigation at the now disputed point—for it is included in the "common boundary" to which reference was made,—besides resting on the supreme law of nature was also guaranteed to both parties, by faith of Treaties.

But such guarantees could not have existed if the boundary was run as it is marked on the map of Lake St. Clair, which accompanies the Commissioners report,—for there was no navigable channel to the South or eastward of the Old Ship Channel leading out of Lake St. Clair into River St. Clair. On the other hand, there is another navigable, but circuitous channel in American water—the new Ship Channel,—to the north-west of the Old Ship Channel.

In 1854, a Bill passed both Houses of Congress, appropriating a large sum for the

<sup>\*</sup> It will be observed that the United States Bureau of Topographical Engineers' Charts of the lakes unit the boundary line when it enters the lakes.

improvement of the natural entrance to the Old Ship Channel. The President vetoed the Bill. Then the Secretary of the Buffalo Board of Trade wrote, on the 10th April, 1855, to the Provincial Secretary of Canada, asking aid from the Canadian Government, and saying, that on the Board attempting themselves to carry the object of the Bill into effect, "it was ascertained that the Channel was in Canadian water, and the project "was therefore abandoned." Canada made the required grant, and the United States' Government afterwards appropriated some funds for the same work.

Again, it may be asked: Why did the Commissioners select the Old Ship Channel as the course of the boundary? A more direct line might have been drawn from Detroit River to River St. Clair than that indicated on their map,—and this, too, supposing their object to have been to give Squirrel Island to one of the parties, and to assign Herson's Island to the other. Nor, to accomplish this, was it necessary to cross dry land, for there are several other courses,—at least three, to the eastward of the boundary line, and all more direct, which would have satisfied the condition of mere water-communication, if that were all that was required by the Treaty of 1783. The only explanation,—and it is a very simple one, and quite consistent with the principle which manifestly actuated the Commissioners throughout the performance of their duty,—is that the Old Ship Channel afforded the most direct navigable communication between Lake St. Clair and Lake Huron.

A reference to charts, or to the "Sailing Directions" already quoted, will show that no interruption to navigation occurs between the north-west point of Isle à la Pêche, or near thereto, and the entrance to the Old Ship Channel by its mouth;—while, on the other hand, the lighthouses, beacons, and irregular course indicated in the former, and the soundings noted on the latter, prove the existence of unnavigable shoal water between Isle à la Pêche and the point where the existence of the navigable channel is first market by banks shewing above the surface of the water.

Now the so-called American Canal strikes into the Old Ship Channel quite close to Foster's Maps, the point just mentioned, and is cut through the shoals referred to, nearly Copy attached parallel to, and a little to the westward, or American side of the boundary thereto. line indicated on the Commissioners' map; while the mouth of the channel, or its true connecting point with Lake St. Clair basin, is more than a mile and three-

quarters to the westward of the American Canal.

It is to be observed, too, that whether the straight line implied by the words "in a State Papers," "direction to enter that mouth or channel of the River St. Clair usually Vol. IX., p. "denominated the Old Ship Channel"—whether such a straight line, from near Isle à la Pêche, be drawn to the true entrance to the Old Ship Channel, or to intersect it over one and three-quarter miles up its course, and be considered the "true boundary line intended," in either of these cases the Canal will be within Canadian Idem, pp. 791 jurisdiction,—in the first, wholly so; in the second, all but the upper and 792. I portion of its western side.

On the other hand, if it be held that the Commissioners' Report supports the view that the Canal is in American water, it follows that before 1842\* Canada had no navigable communication between Lake St. Clair and Lake Huron, and the question is immediately raised—Did the Commissioners comply with the true intent of the Treaty of 1783, which, Chalmer's col. in its preamble declares that intent to have been "to establish such a benelection of "ficial and satisfactory intercourse between the two countries, upon the Treaties, 1604- "grounds of reciprocal advantages and mutual convenience, as may promote p. 528." "and secure to both perpetual peace and harmony?"

<sup>\*</sup>By Article VII, of the Ashburton Treaty, 1842, all the channels and passages between the River and Lake St. Clair were declared "equally free and open to the ships, vessels and boats of both parties."—State Papers, vol. 30, 1841-42, p. 365.

Note.—But it may be observed that a probable effect of diverting the stream of the Old Ship Channel will be to throw a bar across the Channel just to the westward of the point where the Canal enters it,—and thus to close againt Canada the passage which, up to the present time, has been used in common by the two nations.

And a precedent for raising such a point may be found in the "Protest of the "American Minister at the Court of the Hague, against the decision of the State Papers,

"King of the Netherlands, upon the disputed points of boundary, under the 1831-32," "5th Article of the Treaty of Ghent, of 1814, between Great Britain and XIX, p. 1432.

"the United States—dated 12th January, 1831," which resulted in that Idem, p. 244. "decision being cancelled. The point of the Minister's protest was that the

King's decision did not comply with the requirements of the Treaty of 1783.

It has been shewn, then, that for many reasons, detailed above, the maps accompany ing the Commissioners' Report, under the 6th Article of the Treaty of Ghent, cannot be accepted as part of their decision.

On the other hand the written Report describes the true boundary, and is binding. The course described strikingly proves that the Commissioners were guided in theirdecision by an intention to confirm to each of the contracting parties a right of navigation along the water-communications between the eastern and western parts of their Terri-The American Government held that such a right was their's by nature; and, moreover, four years after the publication of the Commissioners' decision touching the boundary through Lake St. Clair they declared that the enjoyment of this right was further assured to both nations on the faith of Treaties. The existence of such a right can alone account for the transference of islands indisputably the property of one nation to the other as contemplated by the 8th Article of the Treaty of Ghent. And the Commissioners having to decide in conformity with the true intent of the Treaty of 1783, could could not have neglected this consideration.

But they did not neglect it; for it is only by a strained interpretation of the words of their written description that the course of the boundary line can be so drawn as to interfere with natural navigation. And the strained interpretation rests upon a mistaken

view regarding the maps furnished by the Commissioners.

No subaqueous topography is shewn on these maps; and it could not have been expected that on maps shewing a line only with reference to visible landmarks, the Commissioners would delineate that line conforming as to the windings of hidden channels, for, not being required to mark the line in situ, they would not have undertaken the unnecessary and laborious task of recording soundings.

Under these circumstances the general medial direction of the boundary line, as delineated on crossing large sheets of water is perfectly consistent with the most familiar and most literal interpretation of the Commissioners description of the true line as regards

Lake St. Clair.

But such an interpretation involves a line of about two miles to the westward of that assumed by the constructors of the so-called "American Canal," and brings the Canal entirely within Canadian jurisdiction.

Ottawa, 26th December, 1870. D. A. CAMERON,

Capt. Royal Artillery.

The Committee of Council to whom was referred the Report of Captain Cameron, R. A., upon the question of the true location of the International boundary between the United States and Canada, from Detroit River to River St. Clair through Lake St. Clair, have the honor to report as follows:--

On the 27th of last June, the steam barge Reindeer and wood barge Campbell, with their cargoes, were seized on Lake St. Clair, by Customs' officials of the

United States, on a charge of infringing the United States' Revenue laws.

The barges belonged to Mr. Hiram Little, of Wallaceburgh, Ontario, and were employed under a Canadian contractor, in supplying cord-wood for the construction, by the United States' Government, of a Canal across St. Clair Flats, at the mouth of the River St. Clair.

The wood was shipped at Sydenham River, County of Kent, Province of Ontario,conveyed thence direct to the Canal, and there unloaded; and there, also, the vessels and cargo were seized.

Mr. Little—to obtain the release of his barges,—was obliged to enter into bonds for \$3,000, subject to adjudication by the United States' Courts; but believing that the seizure was effected in Canadian territory, he forwarded an application to the Dominion Government seeking their intervention.

On the case thus coming to the knowledge of the Government, they caused a survey of the Canal to be made, and on carefully comparing its ascertained position with that of the International boundary line, as described in the Reportof the Commissioners appointed under the 6th Article of the Treaty of Ghent,—the Committee of Council have arrived at the conclusion that the Canal is wholly within Canadian Territory.

The Commissioners appointed, under the 6th Article of the Treaty of Ghent, to define that portion of the international boundary line which is embraced in Lake St. Clair district, described it as running from Detroit River "to Lake St. Clair, thence through the "middle of the said Lake, in a direction to enter that mouth or channel of River St. "Clair, which is usually denominated the Old Ship Channel; thence along the middle of "said channel, &c." Therefore, to the eastward of the Old Ship Channel is Canadian territory, and to the westward, American.

The Channel in question, is one which has hitherto been used in common by United States and Canadian vessels, in Navigating between Lakes St. Clair and Huron, and until the Ashburton Treaty of 1842 made all the mouths of the St Clair River equally free to the vessells of other Countries,—there was no other available for Canadian vessels. One of the names by which it was known was the Neutral Channel. Confined by low grass land, its course from the River St. Clair is in a general southerly direction, until it ceases to be bounded by visible banks, when it suddenly bends nearly due west, and stretching in that general direction joins the deep water of Lake St. Clair, about two miles from the point where it left Herson's Island. From Herson's Island to its termination, the Channel is separated from the deep water of Lake St. Clair by an extensive and unbroken shoal on the southern side. The so-called American Canal has been dredged through this shoal in a north-easterly direction, so as to connect the deep water of Lake St. Clair with the Old Ship Channel, at a point near Herson's Island, where the confining banks first become visible,—that is about two miles to the eastward of the natural entrance to the channel.

To maintain that, consistently with the Commissioners' decision, the Canal is in American territory, it would have to be shewn that the Old Ship Channel does not extend to the westward of the point where the Canal joins it. As a matter of fact, however, the channel does so extend for about two miles. But during their investigation of the case, the Committee of Council have discovered a circumstance of a kind well calculated to give rise to misapprehension on this point, and which possibly originated the claim to jurisdiction asserted by the officials of the United States' Gevernment:—

The Boundary Commissioners furnished maps with their Report; and on these maps the boundary line is so placed as to make the Canal appear to be in American territory.

The maps, however, are not receivable at evidence of the exact location of the boundary line determined by the Commissioners; for, by the 6th Article of the Treaty of Ghent, the contracting parties confined the Commissioners' decision, as regards the boundary line, to a "Report or Declaration." And, had it been otherwise, the Commissioners would have had to certify to the accuracy of the boundary line as delineated on the maps; but this they did not do. Again, besides the direct statement of the Commissioners themselves, in recording their decision, that they understood their duty to be to "designate the boundary by a Report or Declaration,"—there is evidence to show that, as regards the location of the line, they intended their maps to be viewed merely as generally illustrating its course. In their Report the course is described with reference to "channels," "straits," passages, "&c., but in no case have the channels been deliniated on the maps. The Commissioners made only one direct reference to the boundary line as delineated on the maps, and that reference is parenthetical. They certified to the correctness of the maps as regards the deliniation of rivers, lakes, water-communications, and islands, but made no such certificate as regards the accuracy of the delineation of the boundary line.

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Under these circumstances, the position of the boundary line at St. Clair Flats, as indicated by the Commissioners' maps, cannot be accepted as evidence of the Commissioners' intention to describe exactly such a line in their Report. On the contrary, the circumstances indicate that the delineation of the line might be expected to vary from the true line described, and notably at such points as those of which the description depends upon the course of the channels.

The Commissioners, under the 6th Article of the Treaty of Ghent, were not required to mark the boundary line; then what more lucid description of its course, with reference to unmarked channels, could possibly be given than the statement that it runs "along the middle" of these channels? It does not follow that, to render such a description conclusive, the map delineation should agree with it, and in this instance the variation is of such a character as to be quite consistent with the purpose which the Commissioners evidently had in view when furnishing the maps, and with the weight which they knew was attributable to this method of indicating the boundary.

International usage as regards navigable streams whose opposite banks are occupied by different nations,—the recorded language of the United States and British Governments at the time of the Treaty, and since; the attitude of these Governments towards one another, and the principle of "reciprocal advantages and mutual convenience" enjoined by the Treaty of 1783, by which the Commissioners under the Treaty of Ghent were bound to be guided, and directly opposed to an interpretation of the Commissioners' Report which, before 1842, would have had the effect of cutting off all free navigation, where such was possible, through natural channels, in the water separating the two countries.

The claim of nations occupying the opposite banks of streams to the right of navigation, has not only never been successfully disputed, but so inalienable have the United States' Government considered this right, that upon it they found a claim of right to navigation throughout such streams, even where they cease to be common boundaries.

But to maintain, now, that the American Canal is in American Territory—is equivalent to asserting that, prior to the Treaty of 1842, Canada had no such right of navigation between Lakes St. Clair and Huron,—and that the privilege she has since had by that Treaty may at any time cease:—for the United States may construct artificial channels through which Canadian vessels may not be permitted to pass, and which would effectually cut off communication through the natural channels. This effect is, indeed, likely to be produced in the Old Ship Channel by the newly cut American Canal.

Holding these views with regard to the International Boundary Commissioners' decision, the Committee of Council believe the action of the United States' Revenue Officers to have been taken under a misapprehension of the facts of the case, and that they may have been confirmed in their error by the circumstance that the new Canal was being constructed by Americans, unaware that, as lately as 1855, the Buffalo Board of Trade began the construction of a Canal at the natural entrance to the Old Ship Channel, but finding that it was partly in Canadian territory, sought and received aid from the Canadian Government to complete the work, and that funds were also supplied for the same purpose by the United States' Government, under whom, for a period of about twelve months, the work was solely carried on, but subsequently completed under the Buffalo Board of Trade

With a view to preventing difficulties in future, it is desirable that the boundary at St. Clair Flats should be marked on the spot, and the Committee of Council recommend that the Mixed Commission about to be appointed to mark the international boundary between the Lake of the Woods and the Rocky Mountains, should be also charged with the duty of locating and marking the boundary designated by the Commissioners under the 6th Article of the Treaty of Chent.

The Council concur in the foregoing recommendation, and advise that a copy of this minute be transmitted to Her Majesty's Secretary of State for the Colonies, and also to the British Minister at Washington, with a request that proceedings should be suspended against Mr. Hiram Little, pending the decision of the question of boundary, and an

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intimation that if it should be found that the Canal recently constructed by the Government of the United States is in Canadian Territory, this Government would be prepared to make suitable compensation for the outlay, or agree to such terms as may be considered equitable, for the joint use of that Canal by the citizens of both countries.

Certified.

W. H. LEE,

Clerk, Privy Council.

Privy Council Office.

14th February, 1871.

(Copy-No. 56.)

OTTAWA, March 7th, 1871.

My Lord,—With reference to my Despatch, No. 43, of the 16th February, transmitting a copy of a Report of the Privy Council of the Dominion and accompanying papers relating to the International Boundary Line at the mouth of the St. Clair River, I have the honor to forward herewith Copy of a Report by Mr. Gilbert McMicken, which is referred to in Captain Cameron's Report, enclosed in the above named despatch.

I also transmit additional tracings, showing the boundary line between St. Clair

River and the Canal recently constructed by the United States.

These documents have only just reached my hands.

I have, &c.,

(Signed),

LISGAR.

To The Earl of Kimberley.

(Copy-Canada-No. 380.)

The Secretary of State for the Colonies to the Governor General.

Downing Street, 23rd March, 1871.

My Lord,—With reference to my Despatch, No. 354, of the 14th of February, and Maps forwarded separately by Crown Agents to previous correspondence respecting the Maps of the Lake and River St. Clair, desired by the Canadian Government in connection with the case of Mr. Hiram Little, I have the honor to transmit to you the copies of the Maps in question as specified in enclosed list.

I have, &c., (Signed), KIMBERLEY.

Governor General,

The Right Honorable

Lord Lisgar, G. C. B.

(Copy.)

### MAPS-MISCELLANEOUS

#### AMERICAN BOUNDARY MAP3.

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N. B.—One copy of each Map retained in Colonial Office.

(Copy—Canada—No. 408.)

The Secretary of the State for the Colonies to the Governor General.

Downing Street, 27th April, 1871.

My Lord,—I have the honor to acknowledge the receipt of Your Lordship's Despatches, Nos. 43 and 56, of the 16th of February, and 7th of March, respectively, the first endorsing a Minute of the Privy Council, with a Report by Captain Cameron, R.A., upon the question of the true position of the International Boundary between the United States and Canada, from Detroit River to River St. Clair through Lake St. Clair, and the latter forwarding further documents bearing on the same question.

The opinion of the Law Officers of the Crown has been taken on these papers, and Her Majesty's Government are advised that the proposition that "maps are not receivable "in evidence of the exact position of the boundary line determined by the Commission-"ers," or that (as put by Captain Cameron) "if the description given in the Commission-"ers' Report be held to support the accuracy of their map, then their decision being "contrary to the intent of the Treaty of 1783, is subject to reconsideration, for the "Commissioners were only authorized to Act in conformity with the true intent of the "said Treaty"—is one which cannot be assented to. The latter proposition amounts to this, that the award of the Commissioners is not to be conclusive, but may be questioned by either party at any time. The duty of the Commissioners to "designate the boundary by a Report or declaration," does not preclude them from declaring the boundary by means of a map if they think fit to do so. Her Majesty's Government are further advised that considering the character of the Report, and of the reference to the map, the latter can only be referred to as illustrating the Report. If the Report and the Map should be found in any particular, at irreconcilable variance, the Report must prevail, but where the written description of the boundary is vague the maps referred to by the Commissioners must be looked to for its clear definition.

It certainly appears improbable that the Commissioners intending no doubt to illustrate and explain their meaning by a map, should have drawn their map altogether at variance with their Report, and it appears very difficult to contend that the Report and the map are irreconcilable, and the conclusion that the one contradicts the other, should not be arrived at except on the most cogent grounds.

Her Majesty's Government are, however, willing to submit to the High Commissioners at Washington the expediency of assenting to the proposal of your Government that "the mixed Commission about to be appointed to mark the International Bounday" between the Lake of the Woods and the Rocky Mountains should be also charged with "the duty of locating and marking the boundary designated by the Commissions under "the 6th Article of the Treaty of Ghent," and the papers will accordingly be forwarded to Her Majesty's High Commissioners by the Secretary of State for Foreign affairs.

I have, &c.

(Signed,)

KIMBERLEY.

(Copy—Canada—No. 9.)

The Secretary of State for the Colonies to the Governor General

Downing Street, 16th January, 1872.

My Lord,—I am directed by the Secretary of State for the Colonies to transmit to you, for your information, the documents specified in the annexed Schedule.

I have, &c.,

(Signed), ROBERT G. W. HERBERT.

The Officer administering the Government of Canada.

No.	DATE.	Description of Document.
	12th January, 1872,	Copy of letter from the F. O., forwarding a Despatch from Sir E. Thornton, covering a copy of a Bill submitted to the U. S. Senate for deepening the St. Clair Flats.

(Copy-No. 280.)

Lord Enfield to the Under Secretary of State, Colonial Office.

Foreign Office,

January 12th, 1872.

SIR,—I am directed by Earl Granville to transmit to you, for the information of the Earl of Kimberley, a copy of a despatch from Sir E. Thornton, enclosing a copy of a Bill submitted to the Senate for an appropriation for deepening the St. Clair Flats Canal.

I am, &c., (Signed), Enfield.

The Under-Secretary of State, Colonial Office.

(No. 180.)

Sir E. Thornton to Earl Granville.

Washington, December 25th, 1871.

My Lord,—I have the honor to enclose 3 printed copies of a bill, which was submitted to the Senate on the 11th inst., by Mr. Chandler, a Senator from Michigan, proposing that \$70,000 should be assigned to the object of deepening the St. Clair Flats Canal to not less than 16 feet at all stages of water in the season of navigation.

Should this bill be passed, and should the Dominion of Canada agree to the stipulations concerning it contained in Treaty of 8th May last, the Canadians will, according to the 27th Article of that Treaty, enjoy the use of these 16 feet on terms of equality with

the inhabitants of the United States.

I have, &c.,

(Signed),

EDWARD THORNTON.

The Earl Granville, K. C., &c., &., &c.

(Copy.)

42nd Congress, 2nd Session.

S. 345.

IN THE SENATE OF THE UNITED STATES, December 11th, 1871.

Mr. Chandler asked, and, by unanimous consent, obtained leave to bring in the following bill, which was read twice, referred to the Committee on Commerce, and ordered to be printed:—

#### ABILL

For deepening the St. Clair Flats Canal to sixteen feet.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the sum of \$70,000 be and the same is hereby appropriated to be expended under the direction of the Secretary of War. for deepening the St. Clair Flats Canal, so as to give a depth of not less than 16 feet at all stages of water in the season of navigation.

(No. 45.)

### RETURN

To an Address of the House of Commons, dated 18th April, 1872; For a statement of the number of cases which, during the three last years, from the 1st day of January, 1869, to the 1st day of January, 1872, were taken before Her Majesty in her Privy Council on Appeal of the Judgments rendered in each of the Provinces of Ontario, Quebec, New Brunswick and Nova Scotia; the number of Judgments in these cases, and the number of the cases which were still pending before the Privy Council on the 1st day of January last.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 17th May, 1872.

(No. 46.)

## RETURN

To an Address of the House of Commons, dated 1st May, 1872; For copies of all Correspondence, Inspector's Reports, and of all other Documents relative to the Establishment of a Daily Mail Service between Joliette, St. Ambroise de Kildare, and the Melanie d'Aillebout, in the County of Joliette.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 15th May, 1872.

[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not printed.]

(No. 47.)

### RETURN

To an Address of the House of Commons, dated 22nd April, 1872;—For a Return shewing all sums of money charged or received on account of salaries, extra services, travelling expenses, or on any other account, by the several Deputy Heads and Officers of Departments at Ottawa, following, to wit:—The Deputy of the Minister of Militia, the Deputy of the Minister of Justice, the Deputy of the Minister of Public Works, the Deputy of the Minister of Agriculture, the Deputy of the Minister of Customs, the Deputy of the Minister of Marine and Fisheries, the Commissioner of Customs, the Commissioner of Inland Revenue, the Under-Secretaries of State for Canada and the Provinces, the Deputy of the Postmaster General; the Deputy of the Adjutant General for Canada, and the several Post-Office Inspectors of the different Provinces, including the Chief Inspector at Ottawa, or any or either of them, for services rendered to the Government as such Deputy Heads of Departments or Officers as aforesaid, for the year ending the 31st March, 1872, and the authority for such payment (if any), together with the vouchers therefor.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 2nd May, 1872.

(No. 47.)

# RETURN

To an Address of the House of Commons, dated 22nd April, 1872;—For a Return shewing all sums of money paid to any Departmental Clerk or Officer, and to whom and when paid, and by whose order, by way of extra pay for extra writing or otherwise, at any time during the fiscal year, ending 30th June, 1871, together with the vouchers therefor.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 17th May, 1872.

[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not printed.]

### RETURN

To an Address of the House of Commons, dated 18th April, 1872;—For Copies of all Correspondence between the Dominion Government and the Government of Ontario, respecting the North-West boundary of Ontario.

By command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF SECRETARY OF STATE, OTTAWA, 16th May, 1872.

(No. 101.)

GOVERNMENT HOUSE,

TORONTO, 17th July, 1871.

SIR,—I have the honor to call your attention to the necessity which exists for the settlement of the true boundary or division line separating the Province of Ontario from what is known as the North-West Territory.

The importance of accomplishing this object has been recognized both by the House of Commons and the Legislature of this Province, and appropriations made by them for defraying the expense of a Commission for that purpose; one member of which to be appointed by His Excellency the Governor General and the other by myself. As the season is fast advancing, it is desirable that these appointments be made at as early a date as possible.

It would be superfluous to urge the necessity of having the boundary line in question

ascertained without délay.

Numbers of emigrants and others are now making their way from Thunder Bay to-

wards Red River, and, when on the route, require to be protected.

With that view, it is necessary that the limits of the territory, on which the authority of this Government extends, be clearly defined, as well as of that over which the Government for the North-West Territory holds jurisdiction.

I would add that this Government, on the appointment of the Commissioners, will be prepared to agree to joint instructions to be given them as their guide in executing the test to be according to th

task to be assigned to them.

I have, &c.,

(Signed)

W. P. HOWLAND.

The Honorable

The Secretary of State for the Provinces, Ottawa.

(No. 453.)

Office of the Secretary of State for the Provinces, Ottawa, 20th July, 1871.

SIR,—I have the honor to acknowledge the receipt this morning of your despatch, No. (No. 834.)

(No. 834.)

101, of the 17th instant, calling attention to the necessity which exists for defining the true boundary or division line separating the Province of Ontario from the North-West Territories.

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Your despatch will be brought under the early notice of His Excellency the Governor General in Council.

I have, &c.,

(Signed) Joseph Howe, Secretary of State for the Provinces.

The Hon. W. P. Howland, C.B., Lieutenant-Governor, Toronto.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 28th July, 1871.

On the application of the Government of the Province of Ontario requesting the Dominion Government to appoint a Commission to act with the Commissioner of the Ontario Government to determine the boundary line between Ontario and the North-West Territories;

The Honorable the Minister of Public Works reports that Parliament voted at its last session the sum of fifteen thousand dollars (\$15,000) to pay one half of the cost of surveying the said boundary line, and recommending that a commissioner be appointed, and that the said commissioner be Eugène E. Taché, Esquire, of the City of Quebec.

The Committee submit the above recommendations for your Excellency's approval.

Certified.

(Signed)

WM. H. LEE, Clerk, Privy Council.

To the Honorable

The Secretary of State for the Provinces, &c., &c.

(No. 482.)

Office of the Secretary of State for the Provinces, Ottawa, 31st July, 1871.

SIR,—With reference to your despatch, No. 101, of the 17th instant, I have the honor to inform you that His Excellency the Governor General in Council has been pleased to appoint Eugène E. Taché, Esq., of the City of Quebec, to be a Commissioner to act on behalf of the Dominion with the Commissioner to be appointed by the Government of Ontario to determine the boundary line between that Province and the North West Territories.

I have, &c.,

(Signed)

Joseph Howe.

Secretary of State for the Provinces.

The Honorable W. P. Howland, C.B., Lieutenant-Governor, Toronto.

> GOVERNMENT HOUSE, TORONTO, 21st September, 1871.

SIR,—With reference to correspondence that has passed on the subject of a Commission to settle the boundary line between Ontario and the North West Territories, I now have the honor of informing you that I have appointed The Honorable William

McDougall, C.B., &c., &c., Commissioner on behalf of this Province, to co-operate with Mr. Tache, the nominee of His Excellency the Governor General in Council.

I have, &c.,

(Signed) W. P. HOWLAND.

(Nc. 644.)

OFFICE OF THE SECRETARY OF STATE FOR THE PROVINCES.

OTTAWA, 26th September, 1871.

SIR,—I have the honor to acknowledge the receipt of your despatch of the 21st inst., stating with reference to previous correspondence on the subject that you had appointed the Hon. W. McDougall, C.B., Commissioner on behalf of the Province of Ontario, to co-operate with the Commissioner appointed by the Dominion Government, to determine the boundary line between that Province and the North West Territories.

I have, &c.,

(Signed)

G. POWELL.

For the Under Secretary of State for the Provinces.

The Hon. W. P. Howland, C.B., Lieut.-Governor, Toronto.

(No. 757.)

OFFICE OF THE SECRETARY OF STATE FOR THE PROVINCES, OTTAWA, 30th November, 1871.

SIR, I have the honor to transmit to you herewith a copy of an order of His Excellency the Governor General in Council on the subject of the granting (No. 1,002). Mining Licences and Patents for Lands in the neighbourhood of Lake She-28th Nov., 1872. bandowan, and in places about the head of Lake Superior.

May I request that you will have the goodness to bring the matter under the early notice of your Government, and communicate to me their views thereon for the informa-

tion of His Excellency in Council.

I have, &c., (Signed)

Joseph Howe,

Secretary of State of the Provinces.

The Hon. W. P. Howland, C.B., Lieut.-Governor, Toronto.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 28th November, 1870.

On a Memo dated 25th November, 1871, from the Honorable the Secretary of State, submitting that applications have been made to him for Mining Licences, and Patents for land in the neighbourhood of Lake Shebandowan, and in places about the head of Lake Superior, and recommending that pending the locating of the boundary line between the North West Territory and the Province of Ontario, no action be taken upon these or any similar applications.

And further recommending that the Lieutenant Governor of Ontario be informed of the course proposed to be taken by Your Excellency's Government, and that it be suggested that the Government of that Province should in like manner refrain from granting Patents or Mining Licences in the region of Country about the head of Lake

Superior and Lake Shebandowan, until after the boundary line shall have been so located, and further submitting that it is of much consequence that the ascertaining and fixing on the ground of the boundary line in question should be as far as possible expedited.

The Committee concur in the above recommendation, and submit the same for Your

Excellency's approval.

Certified.

(Signed.)

WM. H. LEE,

Clerk, Privy Council.

To the Honorable

The Secretary of State for the Provinces, &c., &c.

GOVERNMENT HOUSE,

Toronto, 6th January, 1872.

Sir, -With reference to your despatch dated 30th November, covering a copy of a report of a Committee of the Privy Council, making certain recommendations as to the issue of Patents in the neighbourhood of Lake Shebandowan, and urging the early settlement of the boundary question; I now have the honor to inform you that the subject has been referred to the consideration of the Commissioner of Crown Lands in this Province, and that as soon as his report upon it can be obtained, the Executive Council will come to a decision in the matter.

In the meantime, I concur in the view expressed in the Minute of the Privy Council that the boundary line in question should be ascertained and fixed with all possible speed, and to prevent unecessary delay, would suggest that a draft of the instructions proposed to be given by the Government of the Dominion to the Commissioner appointed, be transmitted for the consideration of the Government of this Province at the earliest moment.

I have, &c.,

(Signed.) W. P. HOWLAND.

The Honorable

The Secretary of State for the Provinces, Ottawa.

(No. 14.)

Office of the Secretary of State for the Provinces. OTTAWA, January, 11th, 1872.

SIR.—I have the honor to acknowledge the receipt of your Despatch of the 6th instant, in reply to mine of the 30th November last, in reference to the locating of the boundary line between the North West Territory and the Province of Ontario, near the head of Lake Superior, and suggesting that a draft of the instructions given by the Dominion Government to the Commissioners appointed on its behalf be furnished to your Government.

I have, &c.,

(Signed,)

JOSEPH HOWE,

Secretary of State for the Provinces.

The Honorable W. P. Howland, C.B.,

Lieutenant Governor, Toronto.

(No. 174.)

OFFICE OF THE SECRETARY OF STATE FOR THE PROVINCES. OTTAWA, 14th March, 1871.

SIR,—With reference to your Despatch, No. 138, of the 6th January last, I have the honor, in compliance with the request therein contained, to transmit to you herewith a copy of the instructions to be given to the Commissioner appointed

to act on behalf of the Dominion of Canada, in the survey and location of the boundary line between the North West Territory and the Province of Ontario.

I have, &c.,.

(Signed) JOSEPH HOWE, Secretary of State for the Provinces.

The Honorable W. P. Howland, C.B.,

Lieutenant Governor, Toronto.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 12th March, 1872.

The Committee have had before them a Memorandum dated 11th March, 1872, from the Honorable the Minister of Justice, stating that reference having been made to him of the Order in Council of the 28th November last, on the subject of applications for Mining Locations and Patents for Land in the neighbourhood of Lake Shebandowan, and about the head of Lake Superior, and also of the Despatch of the Lieuienant-Governor of Ontario,

on such Order in Council, he reports :-

That the Lieutenant-Governor in his Despatch of the 6th January, states as follows:-In the meantime I concur in the views expressed in the Minute of the Privy Council, that the boundary line in question should be ascertained and fixed with all possible speed; and to prevent unnecessary delay, would suggest that a draft of the instructions proposed to be given by the Government of the Dominion to the Commissioner appointed, be transmitted for the consideration of the Government of this Province at the earliest moment.

That with the view therefore of meeting the desire expressed by the Lieutenant Governor, and after consultation with Surveyor-General Dennis, he the Minister of Justice recommends that a copy of the draft instructions annexed to his memorandum, be transmitted to the Government of Ontario.

The Committee submit the above recommendations for Your Excellency's approval.

Certified,

(Signed)

WM. H. LEE,

Clerk, Privy Council.

To the Honorable

The Secretary of States for the Provinces, &c., &c., &c.

(No. 177.)

OFFICE OF THE SECRETARY OF STATE, FOR THE PROVINCES, OTTAWA, 15th Msrch, 1872.

SIR,—With reference to my letter of the 14th instant, I have the honor to transmit to you herewith a tracing which it is requested may be substituted for that No. 1,002. which accompanied the draft of instructions to be given to the Commissioner appointed by the Dominion, in the survey and location of the Boundary Line between the North-West Territories and the Province of Canada, a copy of which was enclosed in my letter above referred to.

May I request that you will have the goodness to cause the tracing for which the

enclosed is substituted to be returned to this Department.

I have, &c.,

(Signed)

JOSEPH HOWE, Secretary of State for the Provinces.

The Honorable W. P. Howland, C.B., Lieutenant-Governor, Toronto.

OTTAWA, March 11th, 1872.

Reference having been made to the undersigned of the Order in Council of the 28th November last, on the subject of applications for Mining Locations and Patents for Land in the neighbourhood of Lake Shebandowan, and about the head of Lake Superior, and also of Despatch of the Lieutenant-Governor of Ontario on such Order in Council, he

begs leave to report :---

That the Lieutenant-Governor, in his Despatch of the 6th January, states as follows:—"In the meantime, I concur in the view expressed in the Minute of the Privy Council, that the boundary line in question should be ascertained and fixed with all possible speed; and to prevent unnecessary delay, would suggest that a draft of the instructions proposed to be given by the Government of the Dominion to the Commissioner appointed, be transmitted for the consideration of the Government of this Province at the earliest moment.

The undersigned, with the view therefore of meeting the desire expressed by the Lieutenant-Governor, and after consultation with Surveyor General Dennis, begs leave to recommend that a copy of the draft instructions hereunto annexed be transmitted to the Government of Ontario.

All which is respectfully submitted.

(Signed)

JOHN A. MACDONALD.

Draft of instructions to be given to the Commissioner appointed to act on behalf of the Dominion of Canada, in the survey and location of the boundary line between the North-West Territories and the Province of Ontario, in conjunction with a Commissioner

to be appointed by the Government of Ontario.

1. The Boundary in question is clearly identical with the limits of the Province of Quebec, according to the 14th Geo. 3rd, Cap. 83, known as the "Quebec Act," and is described in the said Act as follows, that is to say:—Having set forth the westerly portion of the southern boundary of the Province, as extending along the River Ohio "Westward to the Banks of the Mississippi," the description continues from thence; (i.e., the junction of the two rivers), "and northward to the southern boundary of the territory granted to the Merchants Adventurers of England trading to Hudson's Bay."

Having determined the precise longitude west of Greenland of the extreme point of land marking the junction of the north and east banks respectively of the said rivers;

You will proceed to ascertain and define the corresponding point of longitude or the intersection of the meridian passing through the said junction with the international boundary between Canada and the United States.

Looking however at the tracing enclosed marked A, intended to illustrate these instructions, it is evident that such meridian would intersect the international boundary

in Lake Superior.

Presuming this to be the case, you will determine and locate the said meridian, the same being the westerly portion of the boundary in question, at such point on the northerly shore of the said lake, as may be nearest to the said international boundary, and from thence survey a line due south to deep water, marking the same upon and across any and all points or islands which may intervene, and from the point on the main shore found as aforesaid draw and mark a line due north to the southern boundary of the Hudson's Bay Territory before mentioned.

This will complete the survey of the westerly boundary line sought to be established. You will then proceed to trace out, survey, and mark eastwardly, the afore-mentioned "southern boundary of the territory granted to the Merchants' Adventurers of England

" trading to Hudson's Bay."

This is well understood to be the height of land dividing the waters which flow into Hudson's Bay from those emptying into the Valley of the Great Lakes, and forming the northern boundary of Ontario, and the same is to be traced and surveyed, following its

various winding till you arrive at the angle therein between the Provinces of Ontario and Quebec, as the latter is bounded; having accomplished which the service will have been completed.

Your requisition for such assistance, scientific and otherwise, as may be necessary to enable you to determine the necessary longitude with precision, and to effect the practical surveying operations in the field, and for such instruments as may be required, will receive due consideration.

Further instructions relating to the character of the boundary marks to be erected, conveying other information which you will probably require, will be duly sent you.

### GOVERNMENT HOUSE, TORONTO, 19th March, 1872.

Sir,—I have the honor to acknowledge the receipt of your despatches of the 14th and 15th instant, enclosing tracings with reference to the boundary line between this Province and the North-West Territories, and to return herewith as requested, the tracing enclosed in your former despatch.

I have, &c.,

(Signed) W. P. HOWLAND.

The Honorable

The Secretary of State for the Provinces, Ottawa.

(No. 444.)

### GOVERNMENT HOUSE, TORONTO, 26th March, 1872.

SIR,—With reference to your despatch, dated 14th instant, relating to the location of the boundary line between the Province of Ontario and the North-West Territories, I have the honor to transmit herewith a copy of an Order in Council approved on the 25th instant, having regard to that matter.

I have at the same time to intimate that the Commissioner appointed on behalf of my Government has been instructed to abstain from any further action under his commission.

I have, &c.,

(Signed)

W. P. HOWLAND.

To the Honorable

The Secretary of State for the Provinces, Ottawa.

Copy of an Order in Council approved by His Excellency the Lieutenant Governor, the 25th day of March, A.D., 1872.

The Committee of Council have had under consideration the despatch dated 14th March instant, from the Secretary of State for the Provinces, to Your Excellency, together with the instructions transmitted therewith, and the report of the President of the Council, dated 22nd March instant, in reference thereto.

The Committe advise that the Government of Canada be informed that the Province of Ontario claims that the boundary line is very different from the one defined by the said instructions, and cannot consent to the prosecution of the commission for the purpsec

of marking on the ground the line so defined, and that the Commissioner appointed by the Government of Ontario should be instructed to adstain from taking any further action under his commission.

Certified.

(Signed)

J. G. Scott,

Clerk of the Executive Council.

Executive Council Chamber, 26th March 1872.

(No. 237.

Office of the Secretary of State for the Provinces, Ottawa, 5th April, 1872.

SIR,—I have the honor to acknowledge the receipt of your Despatch, No. 444, of the No. 1159. 26th Ultimo, covering a certified copy of a minute of your Executive Council passed on that day, on the subject of the location of the boundary line between the Province of Ontario and the North West Territories, and at the same time intimating that the commission appointed by your Government to act on their behalf in fixing the said boundary, has been instructed to abstain from any further action under his commission,

I have, &c.,

(Signed)

JOSEPH HOWE,

Secretary of State for the Provinces.

The Honorable W. P. Howland, C.B., Lieut.-Governor, Toronto.

(No. 244.)

OFFICE OF THE SECRETARY OF STATE FOR THE PROVINCES, OTTAWA, 10th April, 1872.

SIR,—I have the honor to transmit for the consideration of your Government, a No. 1159. certified copy of an order of His Excellency the Governor General in 9th April, 1872. Council, on your despatch of the 26th ultimo, on the subject of the location of the boundary line between the Province of Ontario and the North West Territories.

Permit me to call your attention to the concluding paragraph of the Order in Council, and for the reason therein set forth, to invite your government to communicate their opinion on the subject discussed in the order, together with a description of the boundary line which they would suggest as the correct one.

I have, &c.,

(Signed) JOSEPH Howe, Secretary of State for the Provinces.

The Honorable W. P. Howland, C.B. Lieut.-Governor, Toronto.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 9th April, 1872.

To the Honorable

The Secretary of State for the Provinces, &c. &c.

On the Desputch of the Lieutenant Governor of Ontario, dated 26th March last, on

the subject of the location of the boundary line between the Province of Ontario and the North West Territories, the Committee of the Privy Council beg leave to report :-

That in a Despatch from the Secretary of State for the Provinces to the Lieutenant Governor of Ontario, dated 30th November last, based upon a Minute of Council of the 28th November, it was suggested to the Government of Ontario that it was of great consequence that the ascertaining and fixing on the ground of the boundary line in question. should be as far as possible expedited.

That the Lieutenant-Governor in his Despatch of the 6th of January last, expressed his concurrence in the necessity for immediate action, and to prevent unnecessary delay suggested that a draft of the instructions proposed to be given to the Commissioner appointed on behalf of the Dominion to locate the line, should be transmitted for the

consideration of the Government of Ontario, at the earliest moment.

That with the view of meeting the desire so expressed, a draft of the instructions was transmitted to the Lieutenant-Governor by Despatch, dated the 14th of March last,

That the Lieutenant-Governor in reply, transmitted with the Despatch of the 26th of March, now under consideration, an Order of his Executive Council to the following effect:

"The Committee advise that the Government of Canada be informed that the Province of Ontario claims that the boundary line is very different from the one defined by the said instructions, and cannot consent to the prosecution of the Commission for the purpose of marking on the ground the line so defined, and that the Commissioner appointed by the Government of Ontario should be instructed to abstain from taking any further action under his Commission."

The Committee of the Privy Council regret that the Government of Ontario, while expressing their difference of opinion from that of the Dominion, omitted to give their own views on the subject, and they did not state what their claim as to the location of

the boundary line was.

As it is of the greatest consequence to the peace and well being of the country in the vicinity of the dividing line, that no questions as to jurisdiction, or the means of prevention or punishment of crime should arise or be allowed to continue, the Committee recommend that the Government of Ontario be invited to communicate their opinion on the subject to Your Excellency, together with a description of the boundary line which they would suggest as the correct one. Should it be found, after an interchange of opinions, that the two Governments cannot agree as to the location of the line, the Committee do not doubt that both Governments will feel it their duty to settle without delay upon some proper mode of determining in an authoritative manner, the true position of such boundary.

Certified.

(Signed)

WM. H. LEE, Clerk, Privy Council.

GOVERNMENT HOUSE, TORONTO, 19th April, 1872.

Sir,-Adverting to the correspondence that has taken place with reference to the settlement of the boundary line between the Province of Ontario and the North West Territories, I have now the honor to transmit a copy of an Order in Council approved this day, having regard to that question, and to invite the attention of the Dominion Government thereto. I have, &c., (Signed)

W. P. HOWLAND.

The Honorable

The Secretary of State for the Provinces, Ottawa.

48 - 2

Copy of an Order in Council approved by His Excellency the Lieutenant Governor the nineteenth day of April, A.D., 1872.

The Committee of Council have had under consideration the despatch from the Secretary of State for the Provinces of the 10th inst., on the subject of the Boundary line of Ontario and the Copy of an approved Minute of the Privy Council of Canada enclosed. In this minute the Privy Council regrets "That the Government of Ontario, while ex- "pressing their difference of opinion from that of the Dominion, omitted to give their "own views on the subject, and did not state what their claim as to the location of the "Boundary was."

The Committee would observe that the despatch on which their Minute was founded did not contain any invitation to the Government of Ontario to express its views or state its claim.

The Government of Ontario is now invited to do so, and the Committee advise that the Government of Canada should be informed that this Government proposes the boundary contained in the annexed description.

The Committee further advise that the Government of Canada should be informed that as to the Western limit in the opinion of this Government there are grounds for maintaining the contention of former Governments of Canada, that the limit of Ontario is further West than the one proposed in the description, and that while this Government is prepared in view of all the circumstances to agree to the Western limit so proposed in case the same is accepted by the Government of Canada, this Government does not consider itself bound by the proposal in any other event.

As to the Northern limit it will be observed from the description that this Government maintains the position which is supported by the contentions of all former Governments, and by the indisputable facts that the Northern boundary lies North of the watershed of the St. Lawrence system, the line of which watershed is the Northern boundary laid down by the Government of Canada, and the Committee advise that the Government of Canada should be informed that in view of all the circumstances this Government will be prepared in case its position as to the Northern boundary is agreed to by the Government of Canada, to consider any proposal which may be made by that Government for the establishment of a conventional limit to the North of that watershed

Certified.

(Signed)

J. G. Scott, Clerk of the Executive Council.

Proposed Descriptio referred to in the annexed Minute of Council.

The boundary line of Ontario is the international boundary from the mouth of the Pigeon River, on Lake Superior to a point West of the Lake of the Woods, where the International boundary line would be intersected by a line drawn North from the source of Mississippi River, thence the boundary line of Ontario runs North to the point of intersection of the Southern boundaries of the Hudson's Bay Territories, thence the boundary line of Ontario is the Southern boundary of those territories to the point where that boundary would be intersected by a line drawn North from the Head of Lake Temiscaming.

No. 273.

Office of the Secretary of State for the Provinces. Ottawa, 22nd April, 1872.

instant, adverting to previous correspondence with reference to the settle-(No. 1159.) ment of the boundary line between the North West Territories and the 19th April, 1872. Province of Ontario, and covering a copy of an order of your Executive Council in relation to that question.

I have, &c.,

(Signed) JOSEPH HOWE, Secretary of State for the Provinces.

The Hon. W. P. Howland, C.B., Lieutenant Governor, Toronto.

(No. 343).

OFFICE OF THE SECRETARY OF STATE FOR THE PROVINCES, OTTAWA, 16th May, 1872.

No. 1159. Sir,—Referring to your despatch of the 19th ultimo, covering an Order in Council of the Government of Ontario of the same date, on the subject of the northern and western boundaries of that Province, I have the honor to enclose, for the information of your government, a copy of an Order of the Governor-General in Council, dated today, together with a copy of the memorandum of the Honorable the Minister of Justice mentioned therein.

2. I am, at the same time, for reasons set forth in the memorandum, to invite the Government of Ontario to concur with the Government of Canada in a statement of the case now in dispute between the said governments, respecting such boundaries, for immediate reference to the Judicial Committee of the Privy Council, with a view to the settlement by a judgment or decision of that tribunal of the western and northern boundaries of Ontario.

3. I am also to urge upon the Government of Ontario the necessity, in view of the facts stated in the last paragraph of the accompanying memorandum, of arranging with the Government of the Dominion for some joint course of action as to the granting of land and of mining licenses, reservation of royalties, &c., in the portion of territory in controversy; and for this purpose I have to request you to move your government to appoint a Commissioner to meet the Hon. J. C. Aikins to arrange such joint system on the understanding that any such arrangement when ratified by the two governments shall be held to bind both, and shall be subject to the decision of the judicial committee of the Privy Council upon the question of the boundary, and that, after such decision. titles of lands or mining rights shall be confirmed by the government, whether of Canada or of Ontario, which shall, under the decision of the Privy Council, be the proper party to legalize the same.

I have, &c.,

(Signed) JOSEPH HOWE, Secretary of State for the Provinces.

The Honorable W. P. Howland, C.B., Lieutenant-Governor, Teronte.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor-General in Council, on the 16th May, 1872.

The Committee of Council have had under consideration the annexed memorandum, dated May 1st, 1872, from the Hon. the Minister of Justice, having reference to the settlement of the question of the northern and western boundaries of the Province of Ontario; and they respectfully report their concurrence in the recommendations submitted in the said memo., and advise that the same be approved and adopted.

Certified,

(Signed)

W. H. LEE, Clerk, Privy Council.

.To the Honorable

The Secretary of State for the Provinces, &c., &c., &c.

DEPARTMENT OF JUSTICE,

OTTAWA, May 1st, 1872.

With reference to a despatch of the Lieutenant-Governor of Ontario, of the 19th April, transmitting an Order in Council of that Province of the same date, on the subject of the northern and western boundaries of the Province of Ontario, and in which the government of that Province transmits a description of what it holds those boundaries to be.

The undersigned has the honor to report that a considerable difference exists between the Government of Canada and that of Ontario, in respect to the said northern and western boundaries of Ontario, and until such boundaries are properly ascertained and defined, no criminal jurisdiction can be effectively established or exercised in the disputed territory.

Having reference to the prospect of a large influx of people into the North-West Territories, it is very material that crime should not go unpunished or unprevented, and in this view the undersigned has the honor to suggest that the Government of Ontario be invited to concur in a statement of the case for immediate reference to the Judicial Committee of the Privy Council of England, with a view to the settlement by a judgment or decision of that tribunal, of the western and northern boundaries of Ontario.

This is the more necessary as no conventional arrangement between the two governments as to boundary can confer criminal jurisdiction on the courts of Ontario, unless the place where any crime may be committed is by law within the Province.

The undersigned has the honor also to call attention to the fact that the mineral wealth of the north-west country is likely to attract a large immigration into those parts, and with a view to its development, as well as to prevent the confusion and strife that is certain to arise and continue among the miners and other settlers so long as the uncertainty as to boundary exists; the undersigned begs leave to recommend that the Government of Ontario be urged to arrange with that of the Dominion for some joint course of action as to the granting of land and of mining licenses, reservation of royalties, &c. And, for this purpose, he would suggest that the Government of Ontario be moved to appoint a Commissioner to meet the Hon. J. C. Aikins, and arrange some joint system; and that any such arrangement when ratified by the two governments shall be held to bind both, and shall be subject to the decision of the Judicial Committee of the Privy Council upon the question of the boundary; and that after such decision, titles to lands, or mining rights shall be confirmed by the government whether of Canada or Ontario, which shall, under the decision of the Judicial Committee, be the proper party to legalize the same.

All which is respectfully submitted.

(Signed) JOHN A. MACDONALD.

(No. 49.)

# RETURN

To an Address of the House of Commons, dated the 1st May, 1872;—For copies of all Correspondence since the 1st November last, between the Government, the Agent at Caughnawaga, and the Iroquois Indians, relative to the conduct of the Chiefs of those Indians; and also of all communications from the said Chiefs in explanation of their conduct.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 20th May, 1872.

[In accordance with the recommendation of the Joint Committee on Printing, the above Return is not printed.]

(No. 50.)

## RETURN

To an Address of the House of Commons, dated 18th April, 1872;—For copies of all Accounts paid or received for Departmental and Confidential Printing since the date of last Returns, with the Orders in Council relating thereto, and of all Accounts paid or received for Binding since the work was given without tender to the present Contractor.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 16th May, 1872.

### FINANCE DEPARTMENT,

OTTAWA, May 15, 1872.

SIR,—I have the honor to enclose sundry statements, in accordance with an Address of the House of Commons, respecting Confidential Printing.

Your obedient servant,

John Langton, Auditor.

E. Parent, Esq.

(Copy.)

OTTAWA TIMES PRINTING & PUBLISHING COMPANY, South Wellington Street, (formerly Her Majesty's Theatre.)

OTTAWA,

187

Privy Council

To the Ottawa Times.

1871.

April 28. To Printing (Confidential) 25 copies Lieut. Butler's Report. :-

Press work, 12 tokens

Paper, 7 quires,

35cts. 25cts. \$4 20 1 75

\$5 95

Settled, September 16, 1871.

(Signed),

Jas. Bailiff, Manager.

RETURN OF CONFIDENTIAL PRINTING done under Requisitions of Queen's Printer, and audited by him from 15th October, 1870, date of last Return (contained in Report of Secretary of State of Canada, for 1870,) to 31st March, 1872.

#### By MONTHS.

Month.	Year.	Year ended 12th Oct., 1871, per last Report.	Amount called for from date of last Report, to 31st March 1872.	Total.
November	1870 1871 1872	\$ cts. 10 03 657 60 72 72 325 43	\$ cts.	\$ cts.
	· .	1,065 78	28 32	1,094 10

### BETURN OF CONFIDENTIAL PRINTING-Continued.

#### By DEPARTMENTS.

Department.	Year.	Oct., 1871, per last	Amount called for from date of the last Report, to 31st March 1872.	Year.
Finance		1 550 60	\$ cts.	\$ cts.
Privy Council			28 32	
		1,065 78	28 32	1,004 10

B. CHAMBERLIN, Queen's Printer.

Office of the Queen's Printer, Ottawa, 31st, March, 1872.

(1,417.)

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 3rd May, 1870.

The Committee have had under consideration a memorandum, dated 2nd May, 1870, from the Honorable the Secretary of State, representing that his attention has been called to the necessity of establishing a rule for the guidance of the Finance Department in the payment of accounts for Departmental printing, and recommending that henceforward all confidential documents sent from any Department to be printed, shall be considered and treated as ordinary printing of the Privy Council Office; and on the receipt of the printer's account therefor, and of the certificate of the Minister ordering the same, the charges shall be checked by the Queen's Printer, according to a tariff to be hereafter established.

The Committee submit the above recommendation for Your Excellency's approval.

Certified.

WM. H. LEE, Clerk, Privy Council.

(1,417.)

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 26th October, 1870.

On a communication, dated 24th October, 1870, from the Queen's Printer, reporting in reference to the Confidential Printing for the Departments, which forms the subject of the Order in Council of 3rd May last, that, as in its execution no opportunity of profit from rule and figure work, catalogue work, change of headings or titles, &c., &c., occurs, as in the ordinary printing, or is reduced to a minimum, the present contract rates are manifestly and largely insufficient.

That for the most part the setting will be solid, to be paid for to the journeymen, at the rate of 25 cents per 1,000 ems. That more than that is now paid, he believes. That on these wages 25 per cent. for rent, fuel, light, wear and tear of material and profit is not an exorbitant charge, nor is  $12\frac{1}{2}$  per cent. an extravagant allowance for the extra care required for confidential work. That in fact that extra allowance is paid to one firm in Montreal by the Montreal Agency for the printing of its book, which is of necessity absolutely confidential. That this would give a price altogether of between 34 and 35 cents per 1,000 ems. That he would recommend that 35 cents should be paid. That inasmuch as extraordinary care is peculiarly required in the press room also, for confidential work, and it is generally printed in small numbers, a similar price is not too much for the average token, and he recommends that 35 cents per token be also given for the press work to the party employed.

On the recommendation of the Honorable the Secretary of State the Committee advise that 35 cents per token be given for the press work to the party employed, and 35 cents for every 1,000 ems.

Certified.

WM. H. LEE, Clerk, Privy Council.

Department.	May, 1871.	June, 1871.	July, 1871.	August, 1871.	September Octeber, November 1871.	October, 1871.	November 1871.	December, 1871.	January, 1872.	February, 1872.	March, 1872	Total
A	s cta.	e cts.	e cts.	s cts.	e cts.	e cts.	e cts.	S cts.	e cts.	e cts.	S cts.	e cts.
Census.	5 32	41 02	65 17	43 10			4 41	10 46	63 75	15 80	92 08	
Customs	255 45	105 36	475 46	102 44	153 37	75 60	144 37	39 30	13 76	229 68	18 41	11 97 1,613 2 <b>6</b>
ery, &c.	64 26 54 26	327 47	32 13	4 08	14 77	17 71	13 28	504 80	203 71	295 14	61 47	
Intercolonial Reviews	251		78 27		45	93 88			125 95	15 53	63 75	1,168 28
Justice	10 34	1 35	10 86		38.	22 55	9 00	9 13	46 99	2 71	13 64	
Marine and Fisheries	22			5 45 19 41			2 96	4 80			1 29	5 45 206 38
Post Office.	356 23	24 8 25 8 35	3 52 1.101 68		31 63	10 01 464 58	22 68		37 69	2 70	2 600	
Savings Bank.							1 :	27 02				
Public Works	06.0						15 36	173 79				
Receiver General.	:	356 89					4 33	58 14			14 07	
Printer, &c.	11 55	369 21	118 62		17 99	38 32	20 70	6 38	:	45 65	110 16	738 58
Provinces	5 57	27 57	33	2 37		:		19 36	5 04	1 35	:	61 65
	<b>\$</b> 666 <b>\$</b>	1,671 38	1,960 35	1,452 61	2,009 13	938 87	671 04	1,096 44	1,895 19	1,227 96	1,042 68	14,965 59
			-					-				

B. CHAMBERLIN, Queen's Printer.

Office of the Queen's Printer, Offawa, May, 1872.

(No. 51.)

## RETURN

To an Address of the House of Commons, dated 25th April, 1872;—For copies of all Tenders sent in for repairing or enlarging the Grenville Canal, and also for copies of all Contracts entered into, Orders in Council, and all other documents relating thereto.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 22nd May, 1872.

(No. 52.)

## RETURN

To an Address of the House of Commons, dated 20th May, 1872;—For copies of all Reports made to the Department of Public Works, by the Engineer in charge of the Survey of the Welland Canal in 1871, giving the quantity of earth and rock excavation required to be done to complete the Canal for Lake Eric Level, by Port Colborne and Port Maitland route respectively; also copies of any Reports on the same subject by the Chief Engineer of the said Department.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 23rd May, 1872.

[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not printed.]

# RETURN

To an Address of the House of Commons, dated 20th May, 1872; For a Return of all Correspondence with the Government of the United States, and persons in the Dominion, on the subject of Meteorological Observations and Weather Reports.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 12th June, 1872.

OTTAWA, 12th June, 1872.

SIR,—I have the honor to enclose herewith Return to the Address of the Honorable the House of Commons, of 20th May last, calling for Correspondence on the subject of meteorological observations and weather reports.

I beg also to enclose file No. 863, of your Department, in reference to this return.

I have the honor to be, Sir,

Your most obedient servant,

WM. SMITH,

Deputy Minister of Marine and Fisheries.

E. Parent, Esq., Under-Secretary of State.

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(No. 1.—Copy.)

### PROFESSOR KINGSTON TO HON. P. MICTHELL.

## MAGNETIC OBSERVATORY, TORONTO, 13th Oct., 1870.

SIR,—I have the honor respectively to request that you will be pleased to sanction the employment of some of the lighthouse keepers, in different parts of the Dominion, in taking certain simple meteorological observations in connection with a system which, with some measure of success, I am endeavoring to organize throughout the Dominion, and of which the Toronto Observatory is the centre.

In order that you may understand my purpose in addressing you, I will take the liberty of laying before you my views, as to the organization that should eventually be in operation, and the preliminary steps that should be taken now; and also, give an account

of what has been done towards the object.

The complete and future organization would need the following agencies, which I

shall refer to as I, II, III.

I. A meteorological office to exercise supervision over the observing stations, as regards instruments, modes of registration, &c., &c., and also to receive reports from them tor reduction and compilation.

II. a. A few well equipped stations where observations may be taken, day and night, at equal intervals, not exceeding three hours, for determining certain constants needed in

reducing observation from inferior stations.

b. A few similarly equipped stations, in telegraphic communication with the central office, to supply materials for storm warnings. a and b would often, though not always, be identical.

III. Numerous stations more or less furnished according to the duties to be performed.

## On the manner of defraying the cost of organization.

I. The central office to be supported entirely by the Dominion.

II. In some instances it may be requisite for the Dominion to establish and defray the entire cost of stations in the sub-classes a and b, but it is possible that private observers, or others supported partly by academic or provincial or any local sources, may be induced to add to their labours to the extent required, by the payment of a moderate annual subsidy.

III. The large mass of observers would be unpaid, and for the most part bear the cost of the instruments which they use; but in some cases, it may be expedient to lend instru-

ments to them on the condition of their making periodic reports.

The formation of any such organization should be gradual, that all concerned in it may be educated to their work. The sudden establishment of a full grown system would entail enormous expense, and probably fail after all. This is strikingly true with regard to storm warnings, for the official issue of which I consider that we are not yet or pared, but need first the collection of data by which our storms may be studied.

# Temporary Arrangements.

I. Meteorological Office.—The Toronto Observatory, a Dominion Institution, for thirteen years under the Imperial Government, and supported for more than seventeen years by the general Government of Canada, may be fitly regarded (provisionally at least), as the central meteorological office. As the work grows, additional computers will be needed, but at present, with my regular staff, and such supernumerary aid as I am empowered to employ, I am able to undertake and in fact do actually perform the duty referred to.

II. Chief Stations.—These will grow out of Class III, as Observers give evidence of

special adaptation for their work.

III. To increase the number and efficiency of ordinary stations, a moderate annual grant would be needed to supplement local or private liberality, by purchasing instruments to be *lent* to observers on condition of their conforming to the regulations of the central office. I believe that the cause would be best served by placing the selection and distri-

bution of instruments, entirely under the central office; but if a strong desire be shown by local associations to manage their share of the grant, it might be well to accord to them that privilege, subject, however, to their working in harmony with the general system. As regards the sum required, I consider that \$200 for each Province, including Manitoba, or \$1,000 in all, would not be too much; but I believe that I could obtain very valuable data in one branch of the science with a much smaller sum.

The judicious employment of a small annual grant, besides gaining its proper equivalent, would be the means of developing gratuitous services that would otherwise be lost, and, as a collateral advantage, would lead to the discovery of agents for carrying out a future and

more perfect system.

The grant referred to would be for ordinary or minor stations (some of which could be furnished at sums varying from \$3.00 to \$10.00 each). The chief stations in 11, of which there should be one in each of the Provinces of Nova Scotia and New Brunswick, at least two in each of the larger Provinces, one in Manitoba, and at least one at some point or points between Manitoba and Canada proper, would need separate consideration.

### Present condition of the Organization.

During the last year I have procured the establishment of nineteen new minor stations in Ontario, and have opened correspondence with

6 Stations in Quebec.

9 " Nova Scotia.

2 " New Brunswick.

Of the nineteen stations in Ontario, eight are worked with instruments lent for the purpose, but at the others the observershave provided instruments at their own cost. In every case however the instruments have passed through my hands. For eight of the stations in N.S. I am indebted to the energy of Mr. F. Allison, of Halifax. Mr. Murdoch, of St. John, N.B., has served the cause very efficiently, and I consider that both these gentlemen deserve great credit for their sustained devotedness to the science. Dr. Smallwood, also, of Montreal, has given me his cordial support.

The Rev. Dr. Ryerson has kindly allowed me the temporary use of the meteorological returns from the ten Ontario Grammar Schools, so that I have directly or indirectly forty-six

stations communicating with me.

The managers of the railways have shewn their appreciation of the work, by allowing their station masters to act as observers when invited by me to do so, and a so by giving free passes to enable me either in person or by deputy to visit the meteorological stations,—frequent visitation being a part of the arrangement on which its success greatly depends.

Having given a description of the organization, sufficient to make the object of my

application intelligible, I will recur to the request with which I began this letter.

It is easy to see that the lighthouses, placed near the highways of commerce and usually in exposed positions, are well adapted in a local point of view for furnishing data with which to study the great atmospheric movements. They present facilities also of a personal kind, as the keepers, besides being steady men, are necessarily compelled to be at their posts. I am therefore very anxious to secure the voluntary and gratuitous services of some of these persons to take certain observations (the details of which I need not now give), and to transmit their returns to me, either directly or through your Department, and I earnestly hope that you will give your sanction to my proposal.

The printed forms for registration and the instructions I would supply gratuitously; and as to the instruments although progress would be hastened if you saw fit to charge your Department with their cost, I would undertake myself the responsibility, rather than

that this consideration should be a bar to your consent.

In the event of your regarding my request with approval, I will take an early opportunity to visit Ottawa, and confer with your Department respecting the selection of stations and other details, and in the course of the winter would procure and test the instruments preparatory to commencing work next spring.

I have, &c.,

(Signed,)

G. T. KINGSTON, Director.

(No. 2.—Copy.)

THE DEPUTY OF MINISTER OF MARINE AND FISHERIES TO PROFESSOR KINGSTON, TORONTO.

OTTAWA, 3rd November, 1870.

Sir,—I have to acknowledge receipt of your letter of the 13th inst., addressed to the Minister of Marine and Fisheries, requesting him to sanction the employment of some of the lighthouse keepers, in different parts of the Dominion, in taking certain simple meteorological observations in connection with the system which you are endeavoring to organize throughout the Dominion, and of which the Toronto Observatory is the centre; also, informing him that the printed forms for registration, and the instructions you would supply gratuitously, and with reference to the instruments, although progress would be hastened if their cost was charged to this Department, you would undertake yourself the responsibility of furnishing, rather than that this consideration should be a bar to the projected undertaking; also stating, that in the event of your request being favorably considered, you would take an early opportunity to visit Ottawa, and confer with this Department respecting the selection of stations and other details, and in the course of the winter would procure and test the instruments preparatory to commencing work next spring. In reply, I have to inform you that the Minister of Marine and Fisheries approves of the scheme proposed by you, and when you have selected the stations at which you require the observations to be made, will give the necessary directions to the lighthouse keepers to carry out your views in the matter.

As the Minister has no funds at his disposal for the purpose of procuring the instruments alluded to by you, he cannot undertake at present to find the necessary means for purchasing them, but when you make your proposed visit to Ottawa, he will then be able to ascertain from you the description and cost of the instruments required, and will then

give the matter due consideration.

I am, &c., (Signed,) Wм. Sмітн, Deputy of Minister of Marine, &c.

(No. 3.—Copy.)

Professor Kingston to the Deputy of the Minister of Marine and Fisheries.

Magnetic, Observatory,

TORONTO, CANADA, 22nd Nov., 1870.

SIR,—Herewith I send two sheets containing a list of lighthouses from which I propose that the meteorological observers should be selected, and I shall be much obliged if you will kindly procure for me the information indicated by the headings of the columns.

I have also to request answer to the following questions.

I remain, &c.,
(Signed.) G. T. KINGSTON.

Questions.

1. Are the lighthouses usually or always furnished with wind vanes?

2. Are there any marks by which the true points of the compass are known?

3. Would 7. a.m., 2 p.m. and 9 p.m. suit the duties and habits of the keepers on ordinary days as hours of observation?

4. Would it be practicable in the case of heavy gales to make a record of the wind at intervals of six hours, in addition to the observations at the regular hours?

5

LIST of Light Houses, from which Professor Kingston, of the Toronto

Number on Admiralty List.	Name of Light.	Place.	Latitude. Longitude.	In operation from to.	Artisan within reach,
1 2	Amour Point	Extreme S. point of island  Forteau Bay, S.E. side  Newfoundland	50 22 W. } 51 28 N. } 56 51 W. }		
22 24 25 28 29 30 31 32	Amherst Rosier Cape Heath Point S.W. point W. point Point des Monts Father Point	N.E. point of island Magdalen Islands On Cape Anticosti Island  ,, , Rimouski Bicquette Island	47 51 N		
100 103 104 ::	Brandy Pots	Sable Island  S.E. end of islet  Kamouraska  Five miles west of Kingston  Drake Island  E. shore  Hill on shore	47 38 N		
115 118 126 127 128 131 132 133	Oakville	Pier Head	78 13 W. } 43 27 N. } 79 41 W } 42 54 N. } 41 50 N. } 82 38 W. } 41 52 N. } 82 30 W. } 42 50 N. } 83 07 W. } 44 04 N. } 81 44 W. } 45 20 N. } 81 44 W. } 44 44 W. } 45 20 N. } 81 44 W. } 44 44 W. } 44 44 W. } 44 44 W. } 44 44 W. } 44 44 W. }		
i	Nottawasaga Island4	. 7	80 42 W. 44 33 N. 80 08 W.		

Observatory, proposes to select some for Meteorological Stations.

C	OMMUN	ICATIO:	N.		10				
relegraph.	Mails.	Parcela.	Visits,	Name of Person in charge.	Age, within 10	Previous. Occupation.	General Qualifica- tions,	Mechanical skill.	Remark
							-		
						-			
							C		

# List of Light Houses, from which Professor Kingston, of the Toronto Observa-

137 Christian 138 Red Rock 141 Clapperto Sulphur I Lonely Is 142 St. Ignace 143 Miscou Is 144 Miramich 165 Sea Wolf 170 Scattarie 172 Canso Gu 173 ,, 177 Canso Ca	ne of Light.	Place.	Latitude. Longitude.	In operation from to.	Artisan within reach.
138 Red Rock 141 Clapperto Sulphur I Lonely Is 142 St. Ignace 143 Miscou Is 144 Miramich 165 Sea Wolf 170 Scattarie 172 Canso Gu 173 ,, 177 Canso Ca	<b>T</b> 1 1				
143 Miscou Is 144 Miramich 165 Sea Wolf 170 Scattarie 172 Canso Gu 173 ,, 177 Canso Ca	kon Island	† mile from main land Red Rock Point N. Point Grand Bay	45 48 N. } { 81 36 W. } { 46 04 N. } { 82 19 W. }		
179 Beaver Is 191 Liverpool 200 Seal Islam 206 Digby or 220 Lepreau.	sland	3 miles from island Birch Point Escuminac Point Summit Island N.E. Point W. Side Sand Point Cranberry Island William Island	48 01 N		

35 Victoria.

tory, proposes to select some for Meteorological Stations.—Continued.

C	OMMUN	ICATIOI	٧.		10				
Telegraph.	Mails.	Parcels.	Visits.	Name of Person in charge.	Age, within 10 years.	Previous Occupation.	General Qualifica- tions.	Mechanical skill.	Remarks.
::									
									-
	,						,		
:					770000				

(Copy, Enclosure.)	
Rules for filling up Paper relative to Lighthouses for Mete	corological Stations.
In column "Artisan within reach," if there be any :-	
Suitable artisan, write	O.
In column "Telegraph," write X or O, according as there station near at hand.	is or is not a telegraph
In columns Mails  ,, ,, Parcels  Weekly  Two or three times a week	W
Monthly by	
If only once or twice in the year, name the month.	
General qualifications and mechanical skill:—	
To be expressed by such terms as	Poor. Moderate. Good.

(No. 4.—Copy.)

THE DEPARTMENT OF MARINE AND FISHERIES TO MR. KINGSTON.

OTTAWA, 5th December, 1870.

( Very good.

SIR,—I have to acknowledge receipt of your letter of the 22nd ult., enclosing two sheets containing a list of lighthouses, and requesting certain information, in view of establishing meteorological staticns at the lighthouses referred to. In reply, I am to inform you that I have written to the agents of the Department to supply the information, which is not already in possession of the Department, and as soon as this is received I will have the lists filled up and returned.

I am, &c., (Signed,) Wм. Sмітн, Deputy of Minister of Marine, &c.

(No. 5.—Copy.)]

#### PROFESSOR KINGSTON TO THE HON. P. MITCHELL.

MAGNETIC OBSERVATORY, TORONTO, 7th Dec., 1870.

SIR,—In a letter which I had the honor of addressing to you on Oct. 13th, 1870, I gave a brief sketch of the organization which, in my opinion, should eventually be brought into operation for prosecuting climatological enquiries in Canada, and of the preliminary measures to be taken in view of the gradual development of the work.

I also requested your sanction to the employment of some of the lighthouse keepers in taking simple meteorological observations in connection with a system, which, with some measure of success, I have been endeavoring to organize throughout the Dominion.

I have now the honor to acquaint you that, in compliance with the suggestion which you were pleased to make, I have prepared a list of more than forty lighthouses, from which, with your permission, I propose to select from twenty to thirty as stations to which meteorological instruments may be furnished.

In making the selections, I shall be guided by the suitability of the persons in charge and the facilities of communication, matters about which Mr. Smith is now kindly seeking

for information.

Although there will only be from twenty to thirty stations at which instruments will at first be needed, I think that all or nearly all the lighthouses might be had in requisition for keeping a record of the direction of the wind and its estimated force at certain hours, with miscellaneous notices of weather.

In consequence of the infrequency of communication, these stations would of course be unavailable for storm warnings, but their contributions in conjunction with analogous data from other stations would be most valuable in studying storms a year or so after their occurrence, and of testing predictions founded on data from accessible stations, and I believe that if tabulated in a suitable manner, they would be much prized on both sides of the Atlantic.

In the first year the only expense for the majority of stations would be the cost of about a quire of registered forms for each station, but I would endeavor to increase their efficiency by gradually introducing some inexpensive wind-gauges to supersede the method

of judging the force by estimation.

For the lighthouses turnished with instruments of any kind, I consider that the sum of \$200 for the purchase of instruments would be sufficient for the first year, and it is probable that a smaller sum in each of the few subsequent years would suffice for their maintenance, and for the gradual extension which the future may show to be desirable. Thanking you for the encouragement which you have given to me in this matter,

(Signed,) I remain, &c., G. T. KINGSTON.

(No. 6.—Copy.)

THE DEPUTY OF MINISTER OF MARINE AND FISHERIES TO PROFESSOR KINGSTON, TOBONTO.
OTTAWA, 24th March, 1871.

SIR,—I beg to inform you that the sum of \$5000 has been placed in the estimates for meteorological observations with a view of ultimately establishing storm-signals, and I have to request you to favor me with a report, for the information of the Minister of Marine and Fisheries, giving an outline of the scheme you propose to put in operation; describing the objects you have in view, and stating the amount you propose to expend, and the manner in which you propose to expend it.

I am, &c.,
(Signed,) Wm. Smith,
Deputy of Minister of Marine, &c.

(No. 7.—Copy.)

PROFESSOR KINGSTON TO THE DEPUTY OF THE MINISTER OF MARINE AND FISHERIES.

MAGNETIC OBSERVATORY, TORONTO, 31st March, 1871.

SIR,—In reply to your letter of March 24th (received on the 29th), acquainting me that \$5,000 had been placed in the estimates for meteorological observations, and requesting a statement, for the information of the Minister of Marine and Fisheries, as to the scheme proposed, and the mode of expending the appropriation, I have the honor to enclose the accompanying memorandum.

I have, &c.,
(Signed.) G. T. KINGSTON.

(Copy, Enclosure.)

### MAGNETIC OBSERVATORY, TORONTO, March 31st, 1871.

Memorandum relative to a proposed Meteorological organization in British North America.

General description of the objects proposed, and of the organization that will be eventually needed.

Objects.

I. To collect climatological statistics.

11. To give practical application to the principles founded on data so collected, and more particularly by giving notice by telegraph of actual and of expected weather.

Agencies needed to effect the objects above named:-

I. A meteorological office.

II. A few chief stations in each Province.

III. Several telegraph stations.

IV. A large number of ordinary stations.

The several agencies considered separately.

I. Meteorological Office.—Its functions and financial support.

Functions.—To select and superintend formation of new stations. To select and distribute instruments and issue forms of registration. To exercise supervision over all stations by visitation and correspondence. To receive, scrutinize and compile returns, and issue such publications as may be advisable. Eventually to receive telegraphic messages, and to issue daily bulletins and special warnings of expected storms.

Financial Support.—The whole cost of the central office to be borne by the Dominion.

II. Chief Stations.—Their functions, number, and financial support.

Functions.—What I have named chief stations are those at which observations of all the elements are made day and night, for several years, at equal intervals not exceeding three hours, for the purpose of determining certain constant numbers which are needed for the reduction of observations made at other stations. The instruments should be of a first-class character, and eventually apparatus for photographic registration should be introduced. An essential feature also in chief stations is the length of their duration. This favors the selection of those places at which good observations have been carried on already continuously for several years, and also furnishes an argument for their permanence not being left wholly dependent on individual liberality.

Their Number.—There should be at least one in Nova Scotia, one in New Brunswick,

two in Quebec, two in Ontario, one in Manitoba, and two in intervening regions.

Financial Support.—When it is desired to plant a chief station in aremote region, where no suitable private observer resides, or where there is no institution that can be utilized for the purpose, it should be supported wholly by Dominion funds, but if in the locality fixed on there be a good private observer actually at work, or an institution supported by academic or provincial funds, and suitable for the purpose, and of which the officers manifest a sufficient interest in the object, the observations, or rather the additional observations, might be secured by a moderate subsidy. The subsidy would vary in amount according to circumstances, and need not be regarded in the light of a grant to the Institution as such, and as establishing a precedent for similar grants to similar institutions which do not perform or desire to perform the special duty, but simply as a payment or a partial payment for services rendered.

III. Telegraph Stations.—For these stations, the nature of whose functions are expressed by their name, very expensive instruments are not required. The observations need not be so frequent as in the case of chief stations, and permanence is not so essential. Several railway operators are employed gratuitously in making observations in connection with Toronto, and it is probable that among these, and others in the same capacity, observers might be found who would be willing, when required, to keep up telegraphic correspondence with Toronto, on receiving a moderate gratuity, which would be derived of

course from Dominion funds.

As a matter of course the chief stations would be in telegraphic communication.

Ordinary Stations.—Functions, number and financial support.

Functions.—The stations may be conveniently arranged in four sub-classes :-

a. Stations where rain and snow only are recorded.

b. Where temperature also is observed.

c. Where, in addition to the foregoing, a record is kept of the extremes of temperature,

of cloud, wind and miscellaneous phenomena.

d. Where all the ordinary observations are made at least three times a day, and which differ from the chief stations, partly because the observations are not so frequent, and also, because for these *permanence* is not so essential, and need not be secured by payment.

Number.—Of sub-class (a) there can hardly be too many. If it were practicable, one of these might be placed on every ten miles square, and for every five of these I would place a station (b.), and sometimes a station (c.) or (d.), but it would be premature to lay

down any precise rule as to number.

Financial Support.—The observers would be usually unpaid, or rather not in the pay of the Dominion, though exceptions might be made in the case of remote regions, where qualified persons are rare, and where it might be difficult to obtain those who would take up such pursuits from inclination. To a great extent also the observers at ordinary stations would work with instruments supplied at their own cost; but it would be frequently expedient to lend instruments to them on condition of adherence to the regulations of the central office.

The cost of	f supplying	a	(rain)	statio	n(a) wo	uld be		. \$ :	2 50
99	"	a	static	on (b.),	includin	g thermome	eter she		
"	,,		,,	(c.),	,,	,,	,,		5 00
"	"		,,	(d.).				100	) to 150

If the outer thermometer sheds be furnished the cost would be from \$6.90 to \$8.00 in addition.

The organization to be developed gradually.

The scheme, of which the preceding is a sketch, should be formed gradually, and in such a way that private voluntary effort, though stimulated, should not be superseded by state action, and that all concerned in it may be educated to their work by actual experience. This is true respecting storm warnings, for issuing which we are not yet prepared, although in another year, and to a limited extent, telegraphic daily reports of existing weather might be published.

In accordance with the opinion just expressed and with a view to a more perfect system hereafter, certain temporary arrangements have been set in operation, and which might be greatly promoted by pecuniary aid in the manner to be hereafter described. And here I take occasion to remark, that they should not only serve the designed purpose directly, by collecting meteorological data, but indirectly also, partly by training observers and partly also by revealing their comparative suitability for greater responsibilities

hereafter.

Temporary arrangements based on the supposition that the appropriation is \$5,000.

As the probable cost of furnishing the lighthouse stations with instruments is \$350, the balance available for the five Provinces will be \$4,650.

It is proposed to divide this into five unequal portions, thus:-

For Nova Scotia	\$930
New Brunswick	930
Quebec	1,030
Ontario	030
Manitoba	900

13

One portion, amounting to \$430, will be expended in the same way for all the Provinces:—

Purchase of instruments to be lent to ordinary stations, with cost of fittings and of distribution  Extra computation, &c., at headquarters	\$200 100 100 30
The disposal of the other portions will be as follows:—	
Nova Scotia.—Mr. Allison, Superintendent at Halifax, for improving instruments, appliances, &c., \$100; to enable him to procure assistance needed in observing at three hours interval, \$400	500
New Brunswick.—Mr. Murdoch, Superintendent at St. John, the same as at Halifax	500
Province of Quebec.—Dr. Smallwood, at Montreal, for assistance to carry on observations partially at three hours interval.  Captain Ashe, at Quebec, the same  Instruments between Montreal and Quebec according to need of each	250 250 100
	\$600

Ontario.—The reduction on the Ontario share, consequent on the addition to that of Quebec, prevents the establishment of any chief stations in that Province. I propose therefore to expend a portion of the \$400 in aiding a station at which an important portion of the duties are now conducted gratuitously. I propose to expend another portion in bringing gradually forward as telegraph stations two points on railways, where the work is gratuitously, and as far as it goes, very efficiently done, and the remainder in promoting the establishment of stations in the outskirts of Ontario.

Munitoba.—It is probable that the efficient furnishing of a chief station, taking into account the cost of transportation and necessary erections where labour is scarce, would absorb too much of \$500 to leave enough to cover the cost of frequent observations in the first year, and hence unless funds from other sources be available, it would be necessary in the first year to restrict the observation to three or four daily.

With respect to instruments for general service in Manitoba, although the number of available stations would be less than in the older Provinces, the cost of supplying each would be greater, on account of carriage; and also because few persons would be found even partially supplied with instruments.

# Remarks on the Temporary Scheme.

As respects the purchase of instruments, I think it would be extremely undesirable that the money designed for this purpose should be handed over to the respective Provinces, or to individuals residing there. The instruments should be regarded as the property of the Department at Ottawa, to which the Meteorological Office is attached, and should be purchased and distributed under the general orders of that Department by one officer. In every case when an instrument was lent, a receipt to that effect should be given, in which the true ownership is stated, and, I propose that the borrower should be allowed to purchase, at a price named in the receipt, and with a reduction of a certain rate per cent for each year in which he had sent in approved returns.

It would not be expedient to supply instruments to beginners beyond those named for sub-class (b), more expensive instruments being reserved for observers, who have been some time at work, and who show capacity for using them, and also for observers who

had already partially supplied themselves at their own cost. Seeing that from \$100 to \$150 is needed for a first-class ordinary station, the \$200 would soon be absorbed without such a restriction.

The money designed for aiding observers at the chief stations might be paid directly to those at Halifax, St. John, Montreal and Quebec. For Ontario since the \$300 is to be divided, it might be placed at my disposal, or it might be paid by the Department on my certificate or through my requisition.

The case of Manitoba is exceptional, and will need special enquiry.

As regards the appropriation for computation, printing, publishing, &c., it might be placed at my disposal as a whole, or it might be paid to me from time to time on requisition, vouchers of course being given certifying to its proper expenditure.

In naming \$400 for observations at a chief station, I have assumed that the grant was designed for all the Provinces. But for this, I would have proposed a larger sum for

the chief stations at Halifax and St. John.

If the superintendent be also head of the institution, having trustworthy subordinates at command, and whose duties require them to be up at night, the work might be done at the cost of a trifling gratuity to each observer; but where the superintendent is a private person, who must either take all the observations himself, or pay for assistance, \$400 is about the lowest sum that could be offered to secure permanence, and it would only do this when the observer, as in the case of Mr. Allison and Mr. Murdoch, was deeply interested in the success of the undertaking.

The above is respectfully submitted.

(Signed,)

G. T. KINGSTON.

(No. 8.—Copy.)

PROFESSOR KINGSTON TO THE HON. P. MITCHELL.

Magnetic Observatory,

Toronto, 25th April, 1871.

SIR,—In reply to a letter from Mr. Smith (March 24th) informing me that \$5,000 had been placed in the estimates to aid the extension of the present meteorological system, and requesting me to express my views regarding the mode of employing the grant, I wrote a memorandum on the subject, dated 31st March.

I have now the honor to request that you will be pleased to give me information on

the following points:-

1. Is it intended by the Government that I should take part in extending the system, which, with the aid of its friends, I have already inaugurated?

2. In such a case, to what Department am I to look for necessary authority?

3. Assuming that it is the Department of Marine and Fisheries, may I venture to ask whether the suggestions offered by me have received your approbation, and whether I may be permitted forthwith to prepare for speedy action?

While submitting this matter to your consideration, I beg leave to offer the follow-

ing remarks:-

It conduces greatly to the truth of final results to have the instruments tested at headquarters before they are issued. The testing takes time, and, if possible, should be done both in hot and in cold weather.

Thermometers change their condition when new, and a considerable number therefore should be procured in advance to be kept at headquarters for at least one year,

or till their final condition has been reached.

Instrument makers are more careful to supply good instruments, when they know that they will be tested by experienced persons. Reduction will be made in the first cost of the instruments when imported through one channel, and the cost of freight will also be less.

There are many appliances connected with the observations which cannot usually be

purchased when required, and which must be made in advance.

Anticipating the demand, and having experienced the inconvenience of being suddenly called on to procure instruments, I have ordered a few thermometers, in addition to some now ready, for lighthouse service. I have also employed a workman for several weeks in constructing a large number of thermometer screens—contrivances very useful, and which cannot be purchased; and also, in making and packing the portable thermometer sheds for the lighthouses, as well as in making by contract a large number of raingauges for the lighthouses and other stations. I have also been under the necessity of printing a supply of register forms.

The above named preparations, in justice to the progress of the enterprize, I am compelled to make, although at my own risk, and I was persuaded that without this preparation there would be either a serious delay or an evil of greater magnitude—a hasty

recourse to inefficient tools.

I have therefore to request that you will be pleased to place me in a position to meet the expenses, which, in regard to the well-being of the organization has obliged me to incur, and also to give your sanction for my procuring and distributing such instruments and register forms as may be necessary; stating at the same time the extent as regards cost to which I am free to go. To meet my present needs \$400 would be sufficient, but I urgently advise that no time be lost in ordering the greater part of the instruments that may be required for lending.

With reference to my memorandum of 31st March, I earnestly hope that should any parts of it be apparently open to objection, they must not be hastily set aside. Regard to brevity induced me to limit my statement to a mere outline of the scheme, but I have thought out the details with great care, and am prepared to give ample explanations should you think fit to give me an opportunity of doing so. Regarding one part of the proposed expenditure, I will anticipate an explanation. I refer to \$100 from each Pro-

vince, or \$500 in all, to aid computation at headquarters.

This certainly ought not to be looked on as an increase to the cost of the Toronto Observatory, as it will be expended on the observations from other stations, and also at a very economical rate, since the superintendence—usually the most expensive part—is gratuitous.

An important collateral purpose to be answered by part of this \$500 will be that of supporting temporary assistants, who may qualify themselves at Toronto for taking part in the work at other stations.

Respectfully offering the foregoing remarks to your favourable consideration.

I have, &c., (Signed,) G. T. KINGSTON.

(No. 9.—Copy.)

PROFESSOR KINGSTON TO THE DEPUTY OF MINISTER OF MARINE AND FISHERIES.

Magnetic Observatory, Toronto, 6th May, 1871.

SIR,—I have the honor to enclose a list of lighthouses, which, with the approval of the Minister of Marine, I intend to employ as meteorological stations.

I propose that at all the stations a record be kept of the direction and force of the wind, the amount of cloud, and the general state of the weather. To some of them I propose that rain-gauges be sent, and that a few of these latter stations be also provided with thermometers.

By limiting the number of instruments, till the reports from observers shall enable me to test their capabilities, risk of loss will be lessened, while valuable materials may at the same time be gathered even without the aid of instruments.

In making the selection I have been guided partly by geographical considerations, and

much also by the opinions of the superintendents of the districts.

As the superintendent for New Brunswick expresses epinions not favorable to the capacity of the lightkeepers, excepting in the case of the keeper of the Grindstone. I have put Grindstone in Class A, and the others in Class C.

As the officers of the Trinity House give no opinion respecting the capabilities of the keepers, I have, therefore, thought it imprudent to furnish instruments to many stations in the Province of Quebec, and in the list now sent I have been compelled to exclude those who are unacquainted with the English language. As soon as time will allow, register forms and instructions will be prepared in the French language, and, if it be not too late in the season, arrangements will then be made for providing instruments to some other lighthouses in the Quebec District.

The instruments to be furnished to the three classes of stations marked respectively

A, B, C, will be as follows:—

- A. Rain-gauge and measure. Thermometer. Thermometer screen (a small safe, formed of louvres, to guard the instruments from radiation). Portable shed, to keep off rain and early and late sun. The shed is about two feet each way, and is made in separate parts for the convenience of packing, but it can be put together easily in a few minutes. A small rough model of the shed is sent with it, in order that the observer may see the mode of putting it together and placing it.
  - B. Rain-gauge and measure.

C. No instruments.

The packages to be sent to the different stations will be as follows:—

- A. One box containing instruments, thermometer screen and stationery, measuring 18x13x10 inches. One package containing portable thermometer shed, measuring 29x29x7 inches.
  - B. One box containing rain-gauge, &c., and stationery, measuring 18x8x8 inches.

C. One box containing stationery, measuring  $18x4\frac{1}{2}x4\frac{1}{2}$  inches.

### Stationery.

The regular annual supply to each station will be two register books, each sufficient to hold the ordinary observations of rather more than six months, and intended for service in the next year commencing January 1st. Printed instructions bound up in each register, and half a quire of forms suited for extra records in stormy weather.

In the first instance further provision will be made for the last six months of the year in which the record was commenced; and in order to afford opportunity for correcting faulty practices at the commencement of the observations, I propose that the earlier observations be copied by the observer on loose forms, and be sent by mail or otherwise.

to the Marine Department, or (if it be thought better) to myself.

The arrangements for equipping the several stations are complete, with the exception of the printed instructions. The instructions of a strictly scientific kind are in the press. but there are some others, which I would issue on my own responsibility, if they were ostensibly from myself, but which, as they will be supposed by the lightkeepers to emanate from the Department of Marine, should be submitted, I conceive, to that Department for approval or modification before they are printed.

I send a copy of the passage to which I refer, and request that you will let me know what alterations, if any, are needed, in order that the printing may be completed without

As I shall be ready in a few days to send off the instruments, I have to request that you will give me information on the following points:-

What are the names and addresses of the agents to whom the packages should be

consigned?

Will the names of the stations as they are given in the first columns of the last annual report, be sufficient addresses for the packages, provided that they be sent to the care of the agents?

Should the packages be sent to the agents through the ordinary channels of traffic, or

are there special conveyances from Toronto at the command of the Department?

35 - 3

At what dates should the packages be in the possession of the agents in each district? Would it be practicable for some of the agents who visit the lighthouses, to meet myself, or one of my assistants here, or at Quebec, or at some other place? If I were placed in communication with the visiting agents, I might arrange such meetings, or, if that were not possible, I might convey to them in writing certain details which could not be properly included in the printed instructions.

Waiting your replies to the foregoing questions.

I have, &c., (Signed,) G. T. KINGSTON.

(Copy, Enclosure.)

Copy of certain passages in the Instructions to Observers to which reference has been made in the accompanying letter.

This book is sufficient for registering the observations of rather more than half a year. A new book should be commenced on the 1st of January, and another, if possible, on the first of July; and two half yearly books, namely, one ending on the 31st of December, and the other commencing on the 1st of January, should be sent to the Department of Marine and Fisheries, when the first visit after the first of July is made to the station.

If the time of the visit be before the first of July, and no suitable opportunity for returning the book is likely to occur afterwards, the book should be returned then, and another brought into use.

Two new books will usually be sent each year for service in the following year, but at the time when the observations are first brought or introduced, a third book will be sent for service in the last six months of the current year.

A few loose papers are provided on which the lightkeepers are requested (?) to copy the first few pages of their register book. Each paper must be sent to the Department of Marine and Fisheries as soon as possible after it has been filled in.

If any lightkeeper wishes to keep a second copy of his observations for his own use, he may obtain register books for that purpose by making application to the Department of Marine and Fisheries.

The register books are intended for observations made with the thermometer and the rain-gauge, as well as for other observations for which no instruments are needed.

In the first instance only a few stations will be provided with rain-gauges, and a still smaller number with thermometers. At stations unprovided with thermometers, column 3 must be left blank, and column 2 as well as column 3 must be left blank when neither rain-gauge nor thermometer is provided.

No observations need be taken on Sunday, but the depth of rain and snow must be registered as on other days.

AT PRESENT PROPOSED THAT A RECORD OF THE WEATHER BE KEPT.

LIST OF LIGHTHOUSES AT WHICH IT IS

Class A includes Stations supplied with Thermometers, Thermometer Shades, &c., and Rain-gauges.

Class B includes Stations supplied with Rain-gauges only.

Class C includes Stations at which records are made which do not need the assistance of instruments.

The stations in each class are arranged in the order in which they stand in the Report of the Honorable the Minister of The numbers in the second and third columns for each class in the following list refer respectively to the page of the Marine and Fisheries, for the year ending June, 1870, and bear the names given in the first column of the Report. Report, and to the position on the page, reckoning from the top.

A Sura A								
CLASS A.			CLASS B.	·		CLASS C.		
Name,	Page.	Position.	Name.	Page.	Position.	Name.	Page.	Position.
Cape Rosier Anticosti, S. W. Point Father Point Flee Island Clapperton Island Liverpool Sable Cape Amapolis Grindstone	172 174 174 186 190 198 198 202 204	10 2 2 17 13 13 13	Belle Isle Amour Print Snake Island Pigeon Island Petee Spit Amhersburg Chanty Island Isle of Coves, Georgian Bay Sulphur Island Sea Wolf Island, C. B Scetterie Island Canso Cape.	27172 888 888 888 888 888 888 888 888 888 8		Outer Drake, Lake Ontario, Criffith Island Nottawasaga Island Christian Island Christian Island Lonely Island Red Rock St. Ignace Hiscon Island Escuminac Point North Canso Sand Point Sand Point Sand Point Herran	200 200 200 200 200 200 200 200 200 200	6 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -

MAGNETIC OBSERVATORY, TORONTO, May, 1871.

## (Copy, Enclosure.)

List of Lighthouses in Nova Scotia District, to which Meteorological Instruments and Register Books were sent from the Toronto Observatory, May 22nd, 1871.

Each box or package is addressed to the name of the lighthouse as given in the first column of the list in the last annual report of the Hon. the Minister of Marine and Fisheries, and also to the care of H. W. Johnston, Esq., Agent of Department of Marine and Fisheries, Halifax and Nova Scotia, via Quebec and Pictou.

Lighthouse.	No. of Packages to each Station.	
Liverpool	2	1 Portable thermometer shed, in package, measuring 29x29x7 inches. Box containing instruments and registers, measuring 18x13x10 inches.
Sable Island	2	Same as preceding.
Annapolis	$egin{array}{ccc} 2 & 2 & 1 & 1 \\ \hline & 1 & & & \end{array}$	Same as preceding.
Sea Wolf or Margaree	_	Box containing rain-gauge, and registers, measuring 18x8x8 inches.
Scatterie	1	Same as preceding.
Canso Cape	1	Same as preceding.
Beaver Island		Same as preceding.
North Canso	1	Box containing register book, measuring 18x4½x4½.
Sand Point	1	Same as preceding.
Seal Island	1	Same as preceding.
<u> </u>		

The last named boxes are connected by battens which can be removed after the packages have been received by the agent.

## (Copy, Enclosure.)

List of Lighthouses in New Brunswick District, to which Meteorological Instruments and Register Books were sent from the Toronto Observatory, May 22nd, 1871.

Each box or package is addressed to the name of the Lighthouse as given in the first column of the list in the last annual report of the Hon. the Minister of Marine and Fisheries, and also to the care of G. W. Smith, Esq., Agent for Department of Marine and Fisheries, St. John, New Brunswick, via Quebec and Shediac.

Lighthouse.	No. of Pack- ages to each Station.	
Grindstone	$\left\{ egin{array}{c} 2 \\ 1 \\ 1 \\ 1 \end{array}  ight\}$	1 Portable thermometer shed, in a package measuring 29x29x7 inches. 1 box containing instruments andregisters, and massuring 18x13x10.  A Box containing register books, measuring 18x4½x4½ inchse.

The four latter small boxes are connected by battens which can be removed after the packages have been received by the agent.

(No. 10.—Copy.)

THE DEPT. OF MARINE AND FISHERIES TO MR. KINGSTON.

OTTAWA, May 16th, 1871.

SIR,—Referring to your letter of the 31st March last, enclosing outline of scheme recommended, in reference to meteorological observations, and also to your letter of the 25th ultimo, addressed to the Minister of Marine and Fisheries, requesting information on certain points; I beg to state, that under an Order in Council of the 1st instant, your proposed scheme of expenditure has been approved, and this Department has been authorized to make the necessary arrangements to carry out the intentions of Parliament in connection with this branch of the Public Service, and expenditure of the appropriation of certain portion of the \$5,000 has been placed under the control of this Department. have, therefore, to request that you will proceed with your arrangements for carrying out the scheme submitted to the Department, for extending the system which you have already inaugurated. You will please advise me as to the funds which you at present require for this purpose, from time to time; you will please make requisitions, specifying the amount and the particular object for which it is required. The steamers Napoleon and Druid will leave Quebec on the 7th July next, for the lights in the River and Gulf of St. Lawrence below Quebec, so that the instruments you propose sending to the light stations will require to be ready by that time.

With reference to your letter dated 6th instant, enclosing list of lighthouses which you intend to employ as meteorological stations, I have to observe that the Department is of opinion that Belle Isle, at the eastern end of the Straits of Belle Isle; Sable Island, one hundred miles to the south-east of Halifax; and Bird Rock, in the Gulf of St. Lawrence, are all first-class stations, and in most prominent positions, and should, by all means, be in class A. With reference to the copy enclosed by you, of certain passages in the instructions to observers, the Department is not aware of any alterations necessary, and is of opinion that these instructions should be all signed by you, and forwarded by

this Department to the observers, with directions to carry them out.

The name of our agent at Quebec is J. N. Gregory, Esq.; at Halifax, H. W. Johnston. Esq.; and at St. John, N.B., George W. Smith, Esq., all agents, Marine and Fisheries

Department.

The name of the lighthouses, as contained in the first column of the last annual report, will be sufficient, giving the District also, and send them to the care of the agents. The Department has no special conveyances from Toronto at its command, and the packages should therefore be sent through the ordinary channels of conveyance; those for Halifax via Quebec and Pictou, and those for St. John via Quebec and Shediac. packages for the Quebec District and the Gulf should be in the possession of the agent by the 3rd July next; at Halifax and St. John as soon as they can possibly be sent. the packages for lighthouses above Toronto, such as Pelee Island, Clapperton Island, Pelee Spit, Amherstburgh, Point Clark, Chantry Island, Isle of Coves, Sulphur Island, Griffith Island, Nottawasaga Island, Christian Island, Lonely Island, Red Rock and St. Ignace, should either be sent to the lighthouse keeper at Gibraltar Point, at the entrance of Toronto Harbor, or to Kingston, which ever is cheapest and most convenient; addressed to the Superintendent of the Lighthouses in Ontario, previous to the 2nd July, when the supply steamer could take them up with her. If you decide to send them to Gibraltar Point Lighthouse, I will direct the lighthouse keeper there to place himself in communication with you, and take charge of them.

Those for Snake Island, Pigeon Island, and Outer Drake, can be sent to Kingston, in care of Darius Smith, Acting Superintendent of Lighthouses, Kingston, as soon as you have them ready, and when you have advised me of your plans, I will advise these parties, and direct them to be looking out for the packages. As the Superintendent of Lighthouses in Ontario is a new man, whom I do not know and have never seen, and not a

scientific man, I do not think it would be advisable to incur the expense of sending him to Toronto at present. His name is Isaac Hope, Kingston, but he is not employed by

this Department vet, and is not under pay.

The Acting Superintendent, Mr. Darius Smith, of Westbrook, near Kingston, is an intelligent person, and a mechanic, and it is intended that he should visit the Lighthouses in Ontario this year, in company with the new Superintendent, and it is possible that he may have an opportunity of calling and seeing you in Toronto before the annual visit takes place, but I think it advisable that you should give all your explanations and instructions in the printed documents.

(Signed,)

I am, &c.,

Wm. Smith,

Deputy of Minister of Marine, &c.

(No. 11.—Copy.)

PROFESSOR KINGSTON TO THE DEPUTY OF THE MINISTER OF MARINE AND FISHERIES.

MAGNETIC OBSERVATORY, TORONTO, 19th May, 1871.

SIR,—I have to acknowledge yours of May 16th, acquainting me that my scheme of expending Parliamentary grant for Meteorology had been approved by Order in Council, and requesting me to state what funds I required at present to carry out the scheme; and also, giving me sundry information relative to lighthouses.

I need at present the sum of five hundred dollars (\$500). The precise amount devoted to each purpose will be given by me with vouchers at the end of the present quarter, but in the meanwhile I give the following approximate estimate of the manner in

which the money will be expended:-

For construction of rain-gauges, thermometer screens, ther-		
mometer pertable sheds, packing cases, &c	\$250	00
Payment for instruments received or shortly expected		
Extra writing and compilation	50	00
Miscellaneous, including cost of distributing instruments		00
•		
	\$500	00

I do not give the cost of printing register books, as only a portion of it is completed, and there is no need for immediate payment.

As regards the lighthouses which you mention as fit to be in Class A, I have placed

Belle Isle, Sable Island and Bird Rock in that class.

In my list Belle Isle was in Class B, because the agent stated that the keeper was a boatman, and that his qualifications were unknown. My design, with regard to most places, is to test the capabilities of the observer, by supplying them at a moderate cost, and then to increase the expenditure when they are found worthy. I did not include Bird Rock, because I understood that it was very difficult of access.

I included Sable Island to be on the list of Class A, but as I could not find that name in the annual report, I supposed that the agent in recommending Sable Island referred to

what appeared in the the report as Cape Sable.

I trust that on Tuesday next I shall send off all the apparatus for New Brunswick and Nova Scotia.

The instructions are stitched up in the register books, but there will be also a printed circular sent to the lightkeepers, copies of which, addressed to each man, will be forwarded to you in order to receive the endorsement and authority of the Department.

I have, &c., (Signed,) G. T. KINGSTON.

(No. 12.—Copy.)

PROFESSOR KINGSTON TO THE DEPUTY OF THE MINISTER OF MARINE AND FISHERIES MAGNETIC OBSERVATORY.

TORONTO, 23rd May, 1871.

SIR,—In reply to yours of 18th inst., enclosing copy of letter from Mr. Allison, dated May 1st, I shall take up the several points of his letter in order.

A station very near the sea, though suited for meteorological observations, is in an exceptional condition, and therefore, not well adapted for a chief station, which should be representative and typical of the region for whose benefit it chiefly exists. I therefore think that some such site as that which Mr. A. recommends should be chosen; I think, however, that the residence of the superintendent, if he takes part in the routine work (as he must in the present state of things), ought to be very near the locality of the instruments.

Magnetic Instruments.—There are two clases of magnetic observations:—I. Those by which the absolute values of the elements are found; and II. The differential observations.

I. Requires the attention of the observer for only a part of two or three days in each month. For a portion of these observations, i. e., the determination of the declination, or popularly, the variation of the compass, there is very great need, considerable care and skill now required to take the observations properly, but might be acquired by an intelligent man, and the reductions could be done by us. The buildings need not cost more than from \$100 to \$200. A position should be chosen from which there is a distant and well defined object in view that is not likely to be built out. Before steps are taken in this matter, it would be advisable to enquire for details from me, as much useless expenditure would be avoided.

II. The differential observations require a large amount of personal attendance and experience, and the apparatus whether for eye observations or photography as well as the buildings are expensive. There is, moreover, no need for such in Halifax. Observations of this sort started at Cambridge, U. S., were found to be mere reproductions of those at Toronto, and were discontinued in consequence. I beg to notice in connection with this, that magnetic instruments should not be purchased with money designed for meteorology,

which is a distinct science. Time Ball.—I consider that a time ball apparatus should be in every large scaport, but there is no need for the transit to be near it. The mast of course should be in sight of the shipping, whereas the telescope and clock would be more conveniently placed elsewhere. It would be a great saving of expense if the ball were dropped by Captain Ashe, and the cost of the transit and clock or part of the cost employed in the purchase of an anemograph. These instruments should be eventually furnished to all the chief stations, but the cost (\$350) besides support, &c., is too high for present grant. The fact that Mr. Allison's observations extend ever nearly five years is an argument in favor of a site near his present one, as continuity is of great importance.

As regards furnishing the chief stations under Mr. Allison with instruments, when I named \$400 for the superintendent and \$100 to improve instrumental arrangements, I supposed that he would continue a private person, and that his former instruments would remain his own property, and that \$100 would be given him to help in his most pressing

Now, if each Province is to have an average of \$500 for chief stations, it is evident the Government cannot pay Mr. Allison the cost of his instruments, and add to them besides, and give him even a salary of \$400. If, however, the time ball money be united with that for meteorology, a very efficient chief station might be supported. An assistant might hoist the ball, and either drop it by signal from Quebec or put the apparatus in gear for dropping it by electricity.

Duplicates of Instruments.—This is necessary for thermometers, but it would be too expensive (at the outset at least) to have duplicate barometers unless the second be an

inferior one.

Cost of Register Books.—It is more economical to have these printed at the central office. I have printed forms sufficient to supply all the chief stations for two years, and here I would remark, if any chief stations are established, it would be well that the superintendents be informed of the preparations made for them by me, and that they be directed to confer with me on other subjects, as the interests of the whole scheme would be thereby promoted, and the funds of each station would be more available for other uses. For small stationery, &c., small sums would be needed, and (say) \$10 annually for postage.

Printing.—The final results should be printed at head-quarters, as they are vastly more valuable when those from different stations are printed on the same page. Printing occasional papers by superintendents would, perhaps, increase the interests of the neighborhood in the subject, but it would not be well to spend much in this way. I would suggest that (say) \$50 be given for printing, postage and small stationery, leaving the superintendent to make the most of it, and to save what he could for other purposes in the same or other years. But over \$50 could not be taken from the present appropriation, if all the Provinces be considered, or without diverting the money from the uses, in the interests of which it was voted.

I remain, &c., (Signed,) G. F. KINGSTON.

(No. 13.—Copy.)

THE DEPARTMENT OF MARINE AND FISHERIES TO MR. KINGSTON.

Оттаwa, 29th May, 1871.

SIR,—I have to acknowledge receipt of your letter of the 19th instant, with reference to the funds at present required for meteorological purposes, and the arrangements made to carry out your scheme. In reply I am to enclose herewith official cheque No.——on the Bank of Montreal, for the sum of \$500, the amount at present required. I beg to state, also, that of the \$5,000 voted by Parliament for this service, the sum of \$4,000 only have been placed by Council at the disposal of this Department, and that it will be necessary for you to reconsider your proposed division of the funds, as you will only have \$4,000 to dispose of instead of \$5,000 as originally contemplated.

The department is desirous to allow Doctor Smallwood the sum of \$500 per annum, for his services in connection with this subject, and I may add that he is now about to place himself in communication with the authorities at Washington, with the view of making public in Montreal the daily reports of weather given, and bringing into practical

utility this branch of meteorological observations.

The Department does not think it necessary to pay any additional sum to Commander Ashe, at Quebec, as he is already in receipt of a good salary from the Government for his services, and it will inform him that it expects him to contribute the additional information required without further remuneration. I have also to request that you will be kind enough to inform me whether you could arrange to place yourself in communication with Washington, and have announcements as to expected weather, made in Toronto daily, similar to those proposed to be made by Doctor Smallwood, as the Department is of opinion that by so doing the subject of meteorological observations would be invested with interest, and its practical utility exhibited.

With reference to Sable Island not appearing on the list of lights, I beg to inform you that the reason for this is, no light is exhibited on Sable Island; but it is expected ere long to have two lights on the island, one at the east end and the other at the west end, and also to place a fog whistle in the centre of the island. There is, however, and has been for many years back, a humane establishment in existence on this island, consisting of a superintendent and fifteen men, whose duty it is to save life and property. The

superintendent is well qualified to attend to observations.

The circulars have been received, and a letter has been appended to each, directing the lighthouse keeper to carry out your views.

I am, &c., Wm. Smith, Deputy of Minister of Marine and Fisheries.

(No. 14.—Copy.)

THE DEPUTY OF MINISTER OF MARINE AND FISHERIES TO PROFESSOR KINGSTON.

OTTAWA, 7th June, 1871.

Sir.—I beg herewith to enclose for your information, letter with accompanying documents from Mr. A. Watson, of Washington, with reference to the establishment of storm and flood signals, and I have to request that after perusal you will return these papers, with any remarks you may have to make thereon.

> I am, &c., WM. SMITH, (Signed,) Deputy of Minister of Marine, &c.

(Copy, Enclosure,)

MR. A. WATSON, WASHINGTON, TO THE MINISTER OF MARINE, AGRICULTURE OR WAR.

Washington, D. C., June 2nd, 1871.

SIR,-I have seen it in the papers that the system of storm advertisements as established by Col. Myer, under the control of the War Department, was about to be extended to the Dominion of Canada. In my opinion this plan is of little or no value, while it is very expensive. The idea, that the "probable" weather, over a territory of 1,000 miles square, could be given in four lines, is simply impossible, and stamps the man as a charlatan, which he is well understood to be here; and the War Department as yet refuses to test my plan, which is so highly recommended by State and city officials; and lastly, by the highest officers in the navy and army. But this will be done soon, when the present plan is seen by all to be a costly failure. I offer you my plan in preference to that of Col. Myer.

Very respectfully, A. WATSON, 220, 12th St.

(No. 15.—Copy.)

PROFESSOR KINGSTON TO THE DEPUTY OF THE MINISTER OF MARINE AND FISHERIES.

MAGNETIC OBSERVATORY, TORONTO, CANADA, 7th June, 1871.

SIR,-I have the honor to acknowledge your letter of 29th May, which I found on

my return to Toronto, and containing a cheque for \$500.

With respect to weather signals by telegraph, I have to state, that in compliance with the desire verbally expressed to me by the Honorable P. Mitchell, I have opened a communication with the officer in charge of the Signal Department in Washington, and have suggested the outlines of a plan suited to the present conditions of our meteorological stations, and which can be extended hereafter. As soon as I have gained his consent, and the concurrence of the telegraph companies in the two countries, I shall be prepared to issue a code for expressing the messages.

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The plan is briefly as follows:—

- 1. To collect each morning, at Toronto, the present conditions of weather at certain chief stations.
  - 2. To transmit this information in a condensed form to Washington.
- 3. To receive from Washington a statement of probable conditions in certain specified regions during the 24 hours, commencing say 6 p.m.

4. To forward the opinions of coming weather to the districts concerned.

1. Would be borne by the Dominion.

2. Dominion and the

3. \ United States.

4. By the Dominion as far as regards the stations from which the information was collected, but if other ports desire messages, the local authorities should bear the cost.

Notices at the ports, whether by placards or by hoisting signals, would also be made at the cost of the local authorities.

In the above scheme the responsibility of making forecasts is thrown on Washington, as our area of observation is too limited at *present* to allow of our attempting to do it in a satisfactory manner.

I have always had in view the eventful organization of weather signals as one of the most useful applications of meteorological science, and the course which I have been pursuing, at a moderate cost, would have placed Canada in a position to organize an efficient system in two or three years. As a means of exciting public attention, and as an act of compliance with public expectation, this premature movement may not be without its uses, provided that none of the grant intended for meteorological purposes be devoted to its support, but to divert any of the funds from the operations which are immediately necessary would be destructive to the enterprise.

I remain, &c,
(Signed,) G. T. KINGSTON.

(No. 16.—Copy.)

PROFESSOR KINGSTON TO THE DEPUTY OF THE MINISTER OF MARINE AND FISHERIES.

MAGNETIC OBSERVATORY,

TORONTO, 13th June, 1871.

SIR,—I have to acknowledge your letter of June 7th, enclosing papers from a Mr. Watson, and which I return herewith.

The justice of the condemnation pronounced by Mr. Watson on the weather notices of the War Department of Washington depends much upon what that system pretends to accomplish. I do not consider that any person, occupying the position of the officer in charge, is able to give notice of the weather that will occur in each locality. All that he can do (in the present state of knowledge) and all that I presume he claims to do, amounts to his giving notice that there is an atmospheric disturbance somewhere, which may possibly reach the place to which the warning is sent. By issuing such a notice from the central office, local vigilance is roused, and special local knowledge of weather indications is brought into play by people on the spot, and the precise form of the danger is thus provided against.

In a centralized system, compilation and forecasting rests with the central office, while the mass of observers, as they need not possess any scientific acquirement, can be procured with comparatively little difficulty. In the plan of Mr. Watson, the responsibility is thrown upon the telegraph operator, who needs a much more cultivated intelligence than in the former case.

In Mr. Watson's plan, notice of a storm in the neighborhood may warn a farmer not to cut his hay, but the absence of the notice will not assure him that he may cut it with safety.

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To give something approaching to the required security, a wide range of observation is needed, and it is that, that a central officer, viewing as it were the whole country, may predict a probable period of dry or calm weather, as well as any coming disturbance.

As regards the costliness of the army system of the United States, I have no doubt but that it is very costly, but I think also (unless it be supported by local funds) Mr. Watson's plan would be as costly. While in efficiency, if taken alone, it would be inferior to the army system, supposing the latter to be conducted on sound principles.

I consider that both plans might ultimately be brought into harmonious action under one management, when the work which I am striving to accomplish has had time to mature, but that it would be inexpedient to become committed in any way whatever to Mr. Watson, and that it would be wiser to let his scheme be put to trial in his own country.

I now take occasion to state that I have an answer from the signal officer at Washington, to the effect that he will cheerfully co-operate in exchanging weather intelligence, provided that we in Canada will send messages at three different hours—Washington time. To do this at Toronto will cause no difficulty that cannot easily be overcome, but I fear that it will give much additional labor at other stations.

The financial and telegraphing difficulty I apprehend will be a much greater one, and I must here repeat that it would be suicidal to divert to this purpose the money needed for those preliminary measures without which all telegraphy would be a delusion.

The United States army system is very new; in fact I consider if their operations had been privately rehearsed without publication for a year or so, it would eventually have been far more satisfactory than at present, and at any rate it would be wise policy for Canada to allow time for the further development of the system before becoming committed to any costly telegraphing arrangements.

In order to prepare for making application to the telegraph company, I shall at once enquire further regarding the length of the messages which it will be necessary to send. Should the application which the Honorable Mr. Mitchell proposes to make to the Montreal Telegraph Company be satisfactory, I will be ready to go on with the exchange of intelligence in September, after the completion of arrangements which necessitate my frequent absence from Toronto.

On the other hand, if the terms be too expensive, or if there be no funds from other sources to meet them, it will be necessary to postpone final terms with the Washington office.

I have, &c. G. T. KINGSTON. (Signed,)

(No. 17.—Copy.)

DEPUTY MINISTER OF MARINE AND FISHERIES TO PROFESSOR KINGSTON.

OTTAWA, 16th June, 1871.

SIR,-I have to acknowledge receipt of your letter of the 8th inst., in reference to the proposed expenditure for meteorological observations.

In reply, I beg to inform you that the Department sanctions the proposed expenditure of \$1,950 as stated in your letter, and that there is no objection to your opening communication with the Bishop of Rupert's Land.

I beg also to inform you that the Department will sanction the expenditure proposed to be made at Quebec, and Captain Ashe will be requested to co-operate with you to as great a degree as possible.

With reference to the establishment at Ottawa, I am to inform you it will be provided for out of the \$1,000 remaining after the expenditure of \$4,000 of the appropriation. I have to request that you will inform me as to the stations you wish to be placed in communication with, and the Department will take the necessary steps in the matter.

I am, &c., (Signed,) Wm. Smith, Deputy of the Minister of Marine, &c.

No. 18, -Copy.)

PROFESSOR KINGSTON TO THE DEPUTY OF THE MINISTER OF MARINE AND FISHERIES.

Toronto, 21st June, 1871.

SIR,—I have to acknowledge receipt of your letter of 16th June, acquainting me that the Department sanctions the expenditure of \$1,950 in the manner proposed by me in my letter of 8th June, and also that I am authorized to communicate with the Bishop of Rupert's Land. I take for granted that this authority empowers me to state that the sum of \$450 will be available if His Lordship will consent to see after its employment in accordance with the proposed scheme. The stations with which I desire the Department to place me in official communication are those only which are, or hereafter may be, supported or subsidized from public funds intended for meteorological purposes. As far as I am aware the only stations so circumstanced and at present in operation, are the following:—

Montreal, Superintendent, Dr. Smallwood.
Quebec , Capt. Ashe, R.N.
St. John, N. B. , G. Murdoch.
Halifax , F. Allison.

I consider that the superintendents of these or of any stations receiving aid for meteorological purposes, should be required to take such observations, and at such hours as may be prescribed by me as the Director of the Central Office; to transmit to me such periodical or occasional returns as may be demanded, and take counsel with me regarding the general arrangements of their stations, including the most advantageous employment of their grants for the purchase of instruments.

Should any other place or person receive public pecuniary aid for meteorological purposes, I conceive that the superintendent should be required to conform to the prescribed arrangements as a necessary condition for receiving his grant of subsidy. With respect to stations which do not receive subsidies from the public funds, as the connection between them and myself is a voluntary one—the only assistance which they receive being advice, blank forms, and in some cases the temporary use of instruments—I do not think it necessary for the Department to take any action with regard to them.

In conclusion, I request you to inform me whether Mr. Murdoch and Mr. Allison are appointed to superintend the stations at St. John and Halifax. I ask this because I purpose to visit New Brunswick and Nova Scotia in July and August, partly to make arrangements with those gentlemen regarding sundry details.

I have, &c., (Signed,) G. T. KINGSTON.

(No. 19.—Copy.)

DEPUTY OF THE MINISTER OF MARINE AND FISHERIES TO PROFESSOR KINGSTON.

OTTAWA, 22nd June, 1871.

SIR,—I beg herewith to enclose for your information, copy of letter received from

Doctor Jack, President of the University of New Brunswick, offering suggestions in reference to the carrying out of your proposed scheme of meteorological observations.

I am, &c.
(Signed,) Wm. Smith,
Deputy of the Minister of Marine, &c.

(Copy, Enclosure.)

PROFESSOR JACK TO THE DEPUTY OF THE MINISTER OF MARINE AND FISHERIES.

University of New Brunswick, Fredericton, June 12th, 1871.

SIR,—In answer to your proposal, conveyed to me in your letter dated the 6th inst., to make Fredericton a chief station for taking meteorological and climatological observations for the Dominion, I have the honor to assure you that this University will willingly cooperate in any such work as is proposed, and employ a competent observer for the purpose.

From your letter I infer that the Department of Marine and Fisheries means to supply the requisite instruments for the stations. This is right, as it is very desirable that there should be as much uniformity in them as possible, in order that the results

obtained may be compatible.

It is scarcely necessary for me to make any remarks on the important system of observations contemplated, as you have such competent men to consult as Professor Kingston and Dr. Smallwood. In my opinion the system should, as far as possible, be compatible to that of the Smithsonian Institution, which so extensively prevails on this continent. I beg to state that the barometers, especially for this place and the Maritime Provinces generally, should be graduated to some extent above 31 inches, so as to admit of reading by Vernier a little higher than 31—a height at which the barometer sometimes stands here. The thermometers, both the common and the dry and wet bulbs, should register as low as 30° below zero, if the Fahrenheit scale be employed. All the instruments too, previous to use, should be tested at the Kew Observatory, near London.

The lighthouse keepers would require some instructions for the proper placing and reading of the instruments, and should you think that my services could be turned to any useful account in this direction, you may command them. Such instructions might be given at the several lighthouses during my long summer vacation, or at any time at the

University to such keepers as might find it convenient to attend.

This is a very busy season with me, as the Session is just drawing to a close, but on any point on which I can furnish information or advice, I shall be happy to do so.

(Signed,) I am, &c. W. BRYDONE JACK.

(No. 20.—Copy.)

PROFESSOR KINGSTON TO THE DEPUTY OF THE MINISTER OF MARINE AND FISHERIES.

TORONTO, 26th June, 1871.

SIR,—I have to acknowledge receipt of your letter of the 22nd June, enclosing a

copy of one from Doctor Jack, President of Fredericton College.

It is gratifying to learn that a gentleman in his position is willing to give his attention to the advancement of meteorological science in this Dominion. His remarks are judicious, and accord, on the whole, with the views long held by myself. I am fully sensible of the advantages of the co-operation of the Kew Observatory, and, in fact, have myself frequently visited that establishment, and have been in correspondence with it for sixteen years. As regards the readiness of Doctor Jack to visit and instruct light keepers, I hold that one of the future functions of the superintendent of chief stations

will be to aid the central office by works of this kind. I think, however, that before I have fully organized the system, and have made the chief agents acquainted with my plans, it would lead to disorder if observers were to receive instructions from others than from myself, or persons deputed by me.

I consider that it would be desirable to furnish a good set of instruments on loan to Fredericton, on condition that the observations are taken at the prescribed hours, and that the returns are transmitted to me. If it be the intention of the Department to supply instruments only, and not to give a money grant, at present, for observations, it would be sufficient if the observations were made at the hours in use at first-class ordinary stations, viz., at 7 a.m., 2 p.m. and at 9 p.m., and it would then rest with Doctor Jack whether he could make it practically a chief station by employing gratuitous service, in order that the observations might be taken at all the hours required.

I consider that in accepting any grant for observations, Doctor Jack should bear in mind what is conveyed in the following remarks:—

To fulfil the purposes of *chief stations*, it is necessary to take the ordinary observations night and day, at equal intervals of three hours, and to continue them for a few years, with no interruption, unless it be on Sunday, Good Friday, and Christmas Day.

As \$400 would probably be inadequate to keep up the *full* observations at these short intervals, unless paid service be largely supplemented by gratuitous service, it will be sufficient in the first year to confine these frequent observations to temperature.

As less skill is required for this than for some observations, it might be safe during part of the twenty-four hours, to employ watchmen or others, whose services might be secured at a lower remuneration.

In my judgment it would be inexpedient to make a money grant for observations on easier conditions than those which I have named.

Throughout England numerous members of the meteorological society observe three times every day, and report each month to their secretary, and not only do they not get paid but pay for the privileges of membership. In various parts of Canada I have correspondents working, in many instances, with their own instruments, who observe three times a day, and I fear that it may awaken expectations which could not be realized, if observations, in no respect superior to their own, were to be rewarded with public grants.

Doctor Jack speaks of procuring an observer. Now it is impossible for all the observations to be taken by one observer, although the whole time of any one man is not needed. The proper course would be, first, to appoint some college officer to the general oversight, and to take such a portion of the work as he finds compatible with his duties; and, second, to employ part of the time of two or three persons for the remaining observations.

When three assistants have received anything like suitable compensation, much will not be left for the superintendent.

This, therefore, for the present at least, must be a nearly gratuitous service. I trust that the time will come when a definite allowance will be given to the superintendents of the chief stations apart from that to be paid to assistants. In nearly every case, however, it would be for his partial services, as his income must naturally come from other sources.

In connection with the above remarks, I may state that at the Observatories in England,—correspondence with the Meteorological Office, and which are analogous to the proposed chief stations in Canada,—the annual allowance is nearly, if not entirely, spent in paying the assistants, and in the current expenses, little or nothing being left for the superintendent.

The only exception is a remote station where it is necessary to maintain a superintendent, because no suitable person was found on the spot.

30

If you will inform me as to the footing on which it is intended to place Fredericton financially, and will also make Doctor Jack acquainted with the relation in which he is to stand with me, I will endeavour to call on him, and make arrangements regarding the future.

I have, &c., (Signed,) G. T. KINGSTON.

(No. 21.—Copy.)

DEPUTY OF MINISTER OF MARINE AND FISHERIES TO PROFESSOR KINGSTON.

Оттаwa, 4th Sept., 1871.

SIR,—Referring to your letters of the 26th June and 11th July last, in reference to Frederictor as a station for meteorological observations, I have to request that you will inform me whether you have visited Dr. Jack, and if so, whether you have made any arrangements with him as to the description and nature of the observations you wish him to make at that place.

I have also to request that you will favor me with your opinion as to the remuneration you think should be allowed for the meteorological service at this station.

1 am, &c., (Signed,) Wм. Sмітн, Deputy of Minister of Marine, &c.

(No. 22.—Copy.)

The Deputy of Minster of Marine and Fisheries to Professor Kingston.

OTTAWA, 13th Sept., 1571.

SIR,—This Department has received a letter from Professor Jack, of the Fredericton University, dated 5th instant, in which he states that he learned from you, when you were at Fredericton, that you had already appropriated all the money at your disposal in subsidizing other stations, and that you had none left for the University at that place.

I have to request that you will inform me if there was not \$400 left while making with me the proposed division of the \$5,000 voted for meteorological purposes, as Professor Jack is anxious to get there of the grant, not that it may benefit him individually, but so as to enable him to pay for such assistance as he will require at his station. I have also to request that you will inform me upon what footing you propose to place Fredericton with reference toimeteorological observations.

I am, &c., (Signed,) Wм. Sмітн, Deputy of Minister of Marine.

(No. 23.—Copy.)

PROFESSOR KINGSTON TO THE DEPUTY OF MINISTER OF MARINE AND FIGHERIES.

Toronto, 16th September, 1871.

Sir,—I have to acknowledge your letters dated September 4th and 13th, the former

received on my return to Toronto, and the other received yesterday.

In reply to the first, I have to state that I recently visited Fredericton, and was much impressed with its suitability for a chief meteorological station. I also had several conversations with Dr. Jack, and understood from him that he was willing to undertake the duties of a chief station if he were provided with funds necessary for obtaining assistance. He further testified his readiness, under any circumstances, to go on with the work of an ordinary station, by requesting me to procure certain instruments at the expense of the College.

I believe Dr. Jack to be a gentleman of considerable acquirements, and it will be a satisfaction to me to obtain his co-operation as the superintendent of a chief station; unless it be the opinion of the Department, that having two such stations in one Province when other Provinces as yet have but one, may cause dissatisfaction elsewhere.

I suggest, therefore, that the sum of \$100 be placed at the disposal of Dr. Jack, to be expended in meteorological instruments and arrangements connected therewith, and that an allowance be made, at the rate of \$400 per annum, to aid in the observations, such allowance not to commence till Oct. I, 1871, since \$300 only will remain available for

this purpose after other claims have been met.

In making this recommendation, I consider that Dr. Jack, and all other persons receiving subsidies should understand that they are required to conform to the directions of the officer appointed to superintend the Central Office; and that one of the primary duties of a chief station is to record observations day and night, at intervals not greater than three hours.

With reference to your letter of 13th September, I see that Dr. Jack did not quite

understand what I said about available funds.

The sum of \$4,000, which was the only part of the \$5,000, of whose distribution I had prepared an estimate, was all appropriated; but there remained \$1,000, of which I understand \$600 was to be employed at Ottawa, thus leaving \$400, which might be used in the manner above suggested.

(Signed,) G. T. KINGSTON.

(No. 24.—Copy.)

REPORT TO COUNCIL BY MINISTER OF MARINE AND FISHERIES.

OTTAWA, 28th April, 1871.

The undersigned has the honor to submit to Council, Professor Kingston's report in reference to the proposed expenditure for meteorological and climatological purposes. He also begs to state to Council, that he has carefully considered the scheme of expenditure proposed by Professor Kingston, and generally approves of the same. He therefore recommends that he be authorized to make such arrangements to carry out the intentions of Parliament in connection with this branch of the Public Service, and that the expenditure of the appropriation of \$5,000, made for that purpose, be placed under the direction of the Department of Marine and Fisheries.

Respectfully submitted.

(Signed,) P. MITCHELL,
Minister of Marine and Fisheries.

(No. 25.—Copy.)

PROFESSOR KINGSTON TO THE SIGNAL OFFICER, WASHINGTON.

Magnetic Observatory, Toronto, 6th June, 1871.

SIR,—I am authorized by the Honorable P. Mitchell, Minister of Marine and Fisheries of Canada, to open a communication with you relative to a systematic interchange, by

telegraph, of meteorological information between Canada and Washington.

I will briefly state the nature of these operations which I propose, and after learning whether you favor the proposal, and can make arrangements for meeting the expenses of telegraph within the territory of the United States, I will be prepared with your concurrence to decide on the matters most suitable to be communicated, and on the most convenient mode of communicating them. I may also add that the practicability of carrying out any scheme, as regards this side of the lines, will depend upon our making satisfactory arrangements with the Telegraph Companies.

The limited area within which observations are carried on in Canada, places this country in a far less advantageous position than the United States, in collecting data for forecasts of weather. Preparations are in progress for improving this state of things, but it is my belief that for the present, at least, the arrangement most beneficial for both countries would be for us to give you present facts, and for you to give us opinions as to coming weather.

The order of the arrangement would be as follows:—

1. Each morning, about 9 a.m., I would send you a message, giving the meteorological conditions at 7 a.m., as observed at Halifax, St. John, N.B., Quebec, Montreal and Toronto.

2. You would then, as soon as practicable, send to me your opinion as to the most probable weather during the 24 hours, from (say) 6 p.m. of that day in various regions, including the Lakes and River St. Lawrence, the Gulf of St. Lawrence, and the coasts of New Brunswick and, Nova Scotia.

I understand that Dr. Smallwood, of Montreal, has opened some communication with I would not wish to disturb arrangements made by him, unless a single channel of intercourse between the two countries can be shewn (which I believe it can) to be more convenient and economical.

Waiting to learn your opinion on the subject of my letter,

I remain, &c., G. T. KINGSTON. (Signed,)

(No. 26.—Copy.)

THE SIGNAL OFFICER, WASHINGTON, TO PROFESSOR KINGSTON.

OFFICE OF CHIEF SIGNAL OFFICER, WASHINGTON, U.S., June 9th, 1871.

Sir,—I am directed to acknowledge the receipt of your favor of the 6th inst., in reference to an exchange of weather reports, and to say in reply that such an exchange will be cheerfully made on the part of this office, provided your observations can be made synchronous with those made by our observers, and transmitted at hours and in a manner that will render them immediately available.

The telegraphic observations for this division are made three times daily, at 7.35 a.m., 4.35 p.m., and 11.35 p.m., Washington mean time, and reach the central office here,

by a special arrangement of circuits, at 9 a.m., 6 p.m., and 1 a.m., respectively.

Reports from the points named by you would be valuable if their receipt at these hours could be relied upon, and without them the synopsis and probabilities could not be made sufficiently definite to be of much value to you. The synopsis leaves the office three times daily, at the hours of 10.30 a.m., 7.30 p.m., and 1.15 a.m., respectively.

I have the honor to enclose copies of our daily weather map, showing points from which reports are now received. It is proposed to extend the system as rapidly as men can be properly instructed and instruments secured. If the hours named meet your approval, any details necessary to perfect arrangements can be speedily made.

Very respectfully, &c.,

H. W. Howgate, Acting Signal Officer's Assistant.

(No. 27.—Copy.)

PROFESSOR KINGSTON TO THE CHIEF SIGNAL OFFICER, WASHINGTON.

MAGNETIC OBSERVATORY, TORONTO, 12th July, 1871.

Sir, I have been apparently discourteous in not replying sooner to your letter of 9th June, but I will explain. 33

53--5

It is easy to see that unless the observations at distant points are synchronous, their

value for purposes of prediction will be much impaired.

Now, for the ordinary objects of meteorological research, namely, those for which our larger stations are being now reorganized, it is local and not absolute time that must be kept, and it will be necessary either to take these three observations in addition to the others, or to establish special stations where the observations are made at absolute time only. I am inclined hereafter to follow the last named course, and hope in due time to select from among my correspondents a corps of about fifty observers, where observations may be made with special reference to this object.

In the meantime, however, as a temporary measure, it will be necessary to get our chief stations (of which Montreal will be considered as one) to take the additional observations required for this synchronous system. They must be additional, for it would not do to abolish the observations for which these stations are now in course of formation.

I am about to make a tour of inspection in Quebec, New Brunswick and Nova Scotia, and shall confer with the *chief* observers as to the manner in which these observations may be made compatible with the primary duties of their station. On my return, I will again write to you, and make arrangements for furnishing our Canadian contingent to your work.

Yours respectfully, (Signed,)

G. T. KINGSTON.

(Copy-No. 28.)

PROFESSOR KINGSTON TO SIGNAL OFFICER, WASHINGTON.

MAGNETIC OBSERVATORY, TORONTO, 10th October, 1871.

Sir,—Referring to my letter of 6th June, 1871, in which I propose to exchange weather reports with Washington and sundry points in Canada; referring also to your reply of June 7th, and to my subsequent letter dated July 12th, in which I stated that I was about to make official visits to meteorological stations in the Lower Provinces, I have now to inform you that I have made arrangements with Mr. Allison, of Halifax, my chief meteorological agent in Nova Scotia, and with Mr. Murdoch, who occupies a similar position at St. John, New Brunswick, whereby these gentlemen will be ready to send to Washington the usual messages of twenty words in the morning and ten words in the afternoon (Washington time), but that for the present the night report cannot be sent from Halifax, on account of the early closing of the telegraph office.

From Toronto I will send the three messages. I have said we are *ready* to send the messages, but I must add that our actually sending them will depend on our making satisfactory arrangements to meet the cost of telegraphing, for which no provision has

been made.

As the signal office has extensive dealings with the telegraph companies, it is probable that your negotiations would be more successful than mine to open communications with Halifax and St. John, and to enable Toronto to send through Buffalo on the same terms as Montreal now sends through Portland.

Connected with this matter, there are two points on which I shall feel thankful for information. Is the number of words in the message returned to a station from Washington (for each station included in the message) the same as the number of words sent

from that station to Washington?

What is the relative cost of the message sent and the returned messages?

Supposing the financial question to be satisfactorily arranged, I will be thankful if return messages from a few selected points were sent to Toronto, St. John, New Brunswick and Halifax.

Our meteorological system in Canada is in its infancy, and as it depends chiefly on gratuitous labor, much time must elapse before many new observers can be brought to take part in a telegraphing service. There are, however, a few places in course of preparation, and if you think it worth while to suggest to me any points within the Dominion and the reach of the wires, from which daily intelligence would be specially desirable to make your system complete, I would make an effort to perfect the equipment of such stations as may be nearest to the points which you name, so that you as well as ourselves may have the benefit of them.

The following are some of the stations which within a year might be made

available:---

Sydney, Cape Breton; Father Point, Lower St. Lawrence; Pictou, Nova Scotia; Stayner, near Collingwood; Yarmouth, Nova Scotia; Pembroke, Upper Ottawa; Cape

Rosier, Gaspé.

As the care of this service in Canada has been entrusted to me by the Government, I shall be obliged (in the event of the proposed arrangements being carried out) if you will send to myself for circulation any statement or probabilites with which you are disposed to favor this country, in which case I would make a daily public acknowledgment of the authority from which the forecasts were derived.

May I request that you will kindly send to myself as well as to Mr. Allison, of Halifax, and Mr. Murdoch, of St. John, copies of the pamphlets of instructions and

specimens of the forms and other documents relating to this service.

I am, &c., (Signed,) G. T. KINGSTON.

(No. 29.—Copy.)

Mr. H. W. Howgate, of the Office of Chief Signal Officer, Washington, to Professor Kingston.

WASHINGTON, 16th Oct., 1871.

SIR,—I am directed to acknowledge the receipt of your favor of the 10th inst., and to say, in reply, that the Chief Signal Officer will be pleased to exchange reports with you, provided those made by your observers can be taken in the manner and at the times necessary to make them synchronous with our own observations.

I send by this mail a copy of the "Instructions to Observers," from which you will be able to gather the information you desire in reference to the kind of reports and the

manner of sending them.

The arrangements made with the Western Union Telegraph Co. for the transmission of the reports, provides for the payment of two (2) cents per word for each circuit over which they pass, the circuits ranging in length from three hundred to twenty-seven hundred miles. This, of course, applies only to the Western Union and other lines doing business in the United States.

We pay the Montreal Company the same rate for the report from Montreal, which is kindly furnished by Dr. Smallwood. The number of words returned to a station varies with the estimated wants of the station. The stations along the sea and gulf coasts, for instance, receiving full reports from all other stations, while those remote from the coast receive a much smaller number. The returned reports are paid for at the same rate as

those received.

The Chief Signal Officer has named the following places in Canada as desirable ones to receive regular reports from—Toronto and Kingston on Lake Ontario; Ports Talbot and Dover on Lake Erie, and some point on Lake Huron as far north of Goderich as possible. Collingwood would be preferable to Goderich, but a station on the lake would be better than that.

35

The other points named by you will be interesting but not of special value to our service at present.

For reports from the stations named, the regular rate of two (2) cents per word for each report made in the established form, will be paid for on delivery at Buffalo or some other point to be selected in the United States.

Should you desire any reports in return they will be furnished by our Observer at

Buffalo, free of expense—you paying for the transmission from that place.

Hoping to hear from you again upon this subject,

I remain,

Very respectfully,

Your obedient servant,

(Signed.)

H. W. HOWGATE.

Assistant.

(No. 30.—Copy.)

PROF. KINGSTON TO MR. H. W. HOWGATE, OF THE OFFICE OF CHIEF SIGNAL OFFICER, WASHINGTON.

Washington, 23rd Oct., 1871.

SIR,—I have the honor to acknowledge your letter of Oct. 16, 1871, and to state in reply, that I will be ready to commence sending reports to Washington as soon as the necessary arrangements with the Montreal Company shall have been completed.

In the meantime, I desire explanations on the following passages in your letter:— "The other points mentioned by you would be interesting but not of special value to our " service at present." Am I to understand that this applies to Halifax and St. John, or do you desire reports from these stations? In the latter case do you propose to pay the cost of transmission to Washington?

With reference to places named in your letter as proposed reporting stations, would Port Stanley serve as well as Port Talbot, and would Simcoe, a town a few miles inland,

serve as well as Port Dover. miles inland of Collingwood.

As regards Lake Huron and Georgian Bay, the only place at present available is nine

I am, Respectfully yours,

(Signed.)

G. T. KINGSTON.

(No. 31.—Copy.)

Mr. H. W. HOWGATE, OF THE OFFICE OF THE CHIEF SIGNAL OFFICER, WASHINGTON, TO PROFESSOR KINGSTON.

Washington, 27th Oct., 1871.

DEAR SIR,—I am directed to acknowledge the receipt of your favor of the 23rd inst., and to say in reply that reports from Halifax and St. John are not considered essential at present, although they would be interesting. The limited appropriations at the disposal of this office compels it to select those points only which are of immediate use, and of these, besides Toronto and Kingston, are Port Dover (not Simcoe), Port Stanley, as you suggested instead of Port Talbot, and Collingwood. The place you refer to, nine miles from the latter town, would not meet the needs of the office.

The cost of transmitting these reports three times each day, when made in accordance with the forms furnished, and sent at the hours indicated by this office, will be paid by the Chief Signal Officer, provided it does not exceed two cents per word for each report.

I enclose a copy of the last annual report of the Chief Signal Officer, and invite your special attention to that part of it which refers to the working forms of circuits, and suggests that you adopt a similar method of circuiting the Canadian wires for the transmission of meteorological reports as a measure of economy. I also enclose a copy of the agreement made by this office with the Western Union Telegraph Company.

I should be pleased to hear from you again soon, and hope that you will be prepared to start the reports from some of the points named at once, in order to benefit as much as possible the shipping interests on the lakes, for which Canada ought to feel as much

responsibility as the United States.

Very respectfully, &c.,
(Signed,)

H. W. HOWGATE,
Lieut. and Brevet Capt. U. S. A.

(No. 32.—Copy.)

PROF. KINGSTON TO MR. H. W. HOWGATE, OF THE OFFICE OF THE CHIEF SIGNAL OFFICER, WASHINGTON.

Washington, 30th October, 1871.

SIR,—I beg to state that I am prepared to send to Washington weather telegrams in accordance with your programme on every day but Sunday. The Montreal Telegraph Company, at present, makes a difficult regarding the transmission of messages on Sunday, but I trust that a way will soon be found of removing that difficulty.

Will you be so good as to inform me by what distinguishing number Toronto will be known, and also on what day the Buffalo Observer will be prepared to repeat my messages.

With reference to a station on Lake Huron, or Georgian Bay, I have in view the establishing a station at Saugeen, at the mouth of the Saugeen River, but as no Observer has yet been found there, some time must elapse before the station can be organized. At Collingwood I could probably start observations by the end of the year; but at Stayner, a village some miles from Collingwood, on the Northern Railway, where I have a very good Observer, I could procure reports in two weeks from this.

If you will be so good as to let me know whether any one of these three places would suit your purpose, and also whether you would prefer Stayner now, or Saugeen four months hence. I will give my attention in the first instance to the place

which you select.

I am, respectfully yours, (Signed,) G. T. KINGSTON.

(No. 33.—Copy.)

THE SIGNAL OFFICER AT WASHINGTON TO PROFESSOR KINGSTON.

Office of the Chief Signal Officer, Washington, U. S., Nov. 6th, 1871.

SIR,—I am directed to acknowledge the receipt of your favors of October 30th and 31st,\* and to say, in reply, that the Chief Signal Officer would be pleased to have the Toronto reports commenced with the morning of November 12th. The observations to be made at 7.25 a.m., 4.25 p.m. and 11.25 p.m., and the reports to be telegraphed to Buffalo at 7.50 a.m., 4.50 p.m. and 11.50 p.m., Toronto mean time.

Instructions have been issued to the Observer at Buffalo to receive these reports, and to forward in return such as you may select from our list,—these latter to be paid for by

you.

<sup>\*</sup> The letter from Toronto, dated October 31st, and here referred to, was merely an acknowledgment of books presented to the Observatory at Toronto by the Signal Office at Washington.

G. T. Kingston.

Reports from Saugeen are preferred to those from Collingwood, if they can be had in time to guard against the spring storms on the lakes.

Very respectfully, &c.,
(Signed,)

H. W. Howgate,
Assistant, &c.

(No. 34.—Copy.)

PROFESSOR KINGSTON TO THE SIGNAL OFFICER AT WASHINGTON.

MAGNETIC OBSERVATORY, TORONTO, Nov. 8th, 1871.

SIR,—In reply to yours of Nov. 6th, in which you express the desire of the Chief Signal Officer, that Toronto should commence on Nov. 12th, I regret to state that in consequence of the refusal of the Montreal Company's officer here to keep the telegraph office open on Sunday, I shall not be able to commence till the morning of Nov. 13th.

With respect to receiving your reports in return, I shall be compelled for a few days to forego that advantage; indeed I shall prefer to wait till I can send the reports from at least one more station in Canada, which I hope to do in about fourteen days hence.

(Signed,) I am, &c., G. T. KINGSTON.

(No. 35,-Copy.)

THE SIGNAL OFFICER AT WASHINGTON TO PROFESSOR KINGSTON.

OFFICE OF THE CHIEF SIGNAL OFFICER, WASHINGTON, U. S., Nov. 27th, 1871.

SIR,—The reports from Toronto are so important in reference to the commercial interests upon Lake Ontario, that it is very essential there should be no interruption of these on Sundays as at present, and I write by direction of the Chief Signal Officer, to ask if you cannot arrange with the telegraph company to have its office kept open on Sundays during the hours for the transmission of these reports.

Perhaps if the importance of the work were clearly pointed out to the gentlemen con-

trolling the line to Buffalo, they would not choose to decline your request.

Reports from Quebec are desired as soon as three reports per day can be assured, and I should feel greatly obliged if you will keep me informed, from time to time at your convenience, of the progress making in arrangements for this work, and for the station on Lake Huron.

Very respectfully, &c.,
(Signed,)

H. W. Howgate,
Assistant, &c.

(No. 36.—Copy.)

PROFESSOR KINGSTON TO THE SIGNAL OFFICER AT WASHINGTON.

MAGNETIC OBSERVATORY, TORONTO, Dec. 12th, 1871.

DEAR SIR,—I hoped to have sent reports to-morrow from Kingston and Stanley; but all things considered, I have thought it wiser to postpone this till the new cypher comes into use. On the morning of January 2nd, therefore, you may expect the messages from Kingston, Daver, and Stanley; and, unless some untoward event occurs, from Saugeen

Speedy action is sadly checked at this season by the difficulties of travelling; in fact, the establishment of these stations will have involved journeys by stage to the amount of 370 miles. On January 2nd I shall be thankful to receive all or nearly all the reports which at present are received at Buffalo, and as a preparatory step, I propose, on the morning of Dec. 26th, to receive reports from a few stations to be presently named, and will feel obliged if you will instruct your Buffalo Observer accordingly, and also that the reports be sent as one message.

> I remain, Yours respectfully, (Signed,) G. T. Kingston.

The following are the stations from which weather reports are desired at Toronto on the morning of January 2nd, 1872:-

St. Francisco, Milwaukie, Portland, Counne, Chicago, Boston, Omaha, Detroit, Philadelphia, St Louis, Buffalo, New York.

(No. 37.—Copy.)

MR. H. W. HOWGATE, OF THE OFFICE OF THE CHIEF SIGNAL OFFICER, WASHINGTON, TO PROFESSOR KINGSTON.

WASHINGTON, U. S., December 16th, 1871.

DEAR SIR,—In accordance with your request of the 12th instant. I have directed the Observer at Buffalo to send the reports designated by you on the 26th instant. have also mailed to your address two copies of each edition of the cipher.

Arrangements will be made to receive the reports from Kingston, Port Stanley, Port Dover and Saugeen, on the morning of January 2nd, as suggested by you, and our

own reports will be sent you at Toronto, in full or in part as you may wish.

Very respectfully, etc.,

H. W. Howgare,

Assistant, etc.

(No. 38—Copy.)

PROFESSOR KINGSTON TO MR. H. W. HOWGATE, OF THE OFFICE OF THE CHIEF SIGNAL OFFICER, WASHINGTON.

TORONTO, February 14th. 1871.

Sir,-I regret to state that I am compelled to suspend the weather telegrams from the four out stations in Canada till Parliament has voted the necessary supplies, or until I can make some other arrangement for meeting the cost. I shall continue to send the Toronto tetegram as usual on the week-days, and, if possible, on Sunday also; but it is not unlikely that the Company may again refuse to forward them on that day.

I am getting Quebec into working order, and shall have it ready before the time that

our operations begin again.

I am, &c., (Signed,) G. T. KINGSFON.

(No. 39—Copy.)

H. W. HOWGATE TO DR. C. SMALLWOOD.

WAR DEPARTMENT, OFFICE OF THE CHIEF SIGNAL OFFICER, WASHINGTON, D. C., April 2nd, 1871.

Six, Prof. Henry, of the Smithsonian Institution, and Commodore Sands, of the Naval Observatory, have referred to this office communications from you in reference to the interchange of meteorological observations, and, in reply, I am directed by the chief signal officer to say, that he will be pleased to correspond with you upon the subject, with the view of making arrangements that will prove mutually satisfactory and useful. He is desirous of getting reports from various points in the Dominion, ranging from Georgian Bay in the west, to Quebec in the east, for the purpose of protecting, in an effectual manner, the interests of commerce upon the lakes and seaboard, from the influence of storms approaching from the northward.

In this connection I am directed to request suggestions from you as to the best means of accomplishing this object, stating for your information that the observers at our present stations are non-commissioned officers of the United States' army, specially instructed in the use of iustruments, and manner of making accurate observations with them. It is possible that permission can be obtained from the Colonial Government to send our own observers to such stations as may be desired, but if not, information as to the cost of

civilian observers will be valuable.

Very respectfully, &c.,
(Signed,) H. W. Howgate,
Acting Signal Officer & Assistant.

(No. 40-Copy.)

H. W. HOWGATE TO DR. C. SMALLWOOD.

WAR DEPARTMENT,

Office of the Chief Signal Offices, Washington, D. C., April 14th, 1871.

DEAR SIR,—I have the honor to acknowledge the receipt of your favor of the 6th instant, and in reply, I am directed by the Chief Signal Officer to say, that he is now negotiating for the telegraphic service necessary for the ensuing year, and that in view of your generous offer he will include the Montreal reports in any arrangement that may be made, and it will afford him pleasure to exchange observations with so distinguished a meteorologist as yourself, in such manner as may be found practicable.

Very respectfully, &c.,
(Signed,) H. W. HOWGATE,
2nd Lieutenant and Brevet Captain, U. S. A.,
Acting Signal Officer & Assistant.

(No. 41.—Copy.)

H. W. HOWGATE TO DR. C. SMALLWOOD.

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
WASHINGTON, D. C., May 23rd, 1871.

DEAR SIR,—I am directed to inform you, that after the 24th inst., reports from forty-eight stations will be received by our Observer at Portland, Me., three times a day, and that instructions will be given him to furnish you with as many of them as you desire, provided they be taken without additional expense to this Department. These reports will be taken at 7.35 a.m., 4.35 p.m., and 11.35 p.m., Washington mean time. We should be pleased to receive, at Portland, in exchange, such reports as it may be in your power to give from points north of the great lakes.

Very respectfully, &c.,
(Signed,) H. W. HOWGATE,
2nd Lieutenant and Brevet Captain, U. S. A.,
Acting Signal Officer & Assistant.

(No. 42.—Copy.)

### H. W. HOWGATE TO DR. C. SMALLWOOD.

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
WASHINGTON, D. C., June 6th, 1871.

DEAR SIR,—Fearing that a previous letter of mine has failed to reach you, I repeat

the substance of its contents by direction of the Chief Signal Officer.

In accordance with your request, it is proposed to furnish you at Portland, Me., with such of the signal service weather reports as you may select from the enclosed list, which comprises all the stations now occupied. Reports from various points of the Dominion would be of great value to this office, and an exchange is solicited, this office paying for transmission from Montreal to Portland the same rate that is paid for like service in the United States, which is two cents per word, provided of course the work cannot be done for less.

It is desirable that the reports be synchronous with our own, the observations for which are taken daily at 7.35 a.m., 4.35 p.m. and 11.35, Washington mean time. Should you decide to make such in exchange, the necessary blanks, &c., for making out the reports and recording the observations will be furnished by this office on application. The details of time, of transmission, &c., can be arranged by correspondence. I have the honor to enclose herewith, a copy of to-day's issue of the weather map, distributed by this office, together with a copy of daily bulletin.

(Signed,) Very respectfully, &c.,

(H. W. Howgate,

Acting Signal Officer & Assistant.

(No. 43.—Copy.)

H. W. HOWGATE TO DR. C. SMALLWOOD.

WAR DEPARTMENT, OFFICE OF CHIRF SIGNAL OFFICER, WASHINGTON, D. C. June 21st, 1871.

DEAR SIR,—Your favor of the 12th inst., has remained unanswered for several days, on account of the absence of the Chief Signal Officer from the city. He has now returned, and directs me to say in reply, that before concluding arrangements with you, it would be necessary to get information on the following points:—

1st. What kind of instruments will your observers use?

2nd. Can these observers be relied on to make the three daily observations without fail?

3rd. What authority do you exercise over these observers?

4th. Can you make any arrangement with the Director of the Magnetic Observatory

in Toronto by which the receipt of these reports can be ensured?

This information is necessary for the Chief Signal Officer before he can authorize expenditure of any public money. He directs me to state that it will give him great pleasure to co-operate with you in the matter as soon as these points are settled.

Very respectfully, &c.,
(Signed,)

H. W. Howgat,
Acting Signal Officer & Assistant.

(No. 44.—Copy.)

#### H. W. HOWGATE TO DR. C. SMALLWOOD.

WAR DEPARTMENT, OFFICE OF THE SIGNAL OFFICER, WASHINGTON, D. C., July 1st, 1871.

Dear Sir,—I have to acknowledge receipt of your favors of the 23rd and 27th ultimo, with telegram of the latter date, and am instructed to reply, that the reports from Toronto, Quebec and Montreal, will be accepted with the understanding that the observations shall be synchronous with our own, and shall eventually be made with instruments furnished by this office. Until these instruments are furnished, the observations will of course be made with those now in use.

It is especially desirable that the reports should be made regularly and promptly, in order that they may be of value.

Additions can be made from time to time to the list of stations, whenever assurance

can be given that the reports will be made regularly.

I forward by this mail three copies of "Instructions to Observer Sergeants" of the Signal Service, U. S. A., one for each of the three stations named, giving the time of observation and report at each, and in detail, the manner of making, correcting and recording observations.

Instructions have been issued to the Observer at Portland to furnish you regularly,

on application, such reports from our stations as you may select.

A sufficient quantity of the necessary forms for recording observations is forwarded to your address, with the request that they may be used habitually, and that the weekly reports on Form 4, be made out and sent to this office regularly at the end of each week.

Very respectfully, &c.,
(Signed,)

H. W. Howgate,
Acting Signal Officer & Assistant.

P.S.—Should this arrangement prove satisfactory, I take the liberty of naming July 15th, as the day on which the reports commence. Please inform me if this is satisfactory.

H. W. H.

(No. 45. -Copy.)

#### H. W. HOWGATE TO DR. C. SMALLWOOD.

Washington, 9th July, 1871.

Dear Sir,—I have forwarded you, by this day's mail, 200 copies of Form 5, for afternoon and night reports; 100 copies Form 1, for morning reports; 50 Forms 4 weekly reports, and 300 Forms 2, receiving sheets, and shall esteem it a favor if you wil distribute them equally to the three stations. Will send a fresh supply, if necessary before these are gone. Have instructed the Portland Observer to furnish you all reports called for. His address is:—" Sergt. R. E. McGrudy, Observer, Signal Service, U.S.A., Portland, Maine." Trusting that the exchange of reports will prove mutually satisfactory,

I remain, &c.,
(Signed,)

H. W. Howgate,
Acting Signal Officer & Assistant.

(No. 46.—Copy.)

#### H. W. HOWGATE TO DR. C. SMALLWOOD.

Washington, 22nd July, 1871.

Dear Sir,—Your favor of the 19th instant received, and in reply I am directed say, that arrangements have been made with the Western Union Telegraph Co. by which that Company settle with the Montreal Co. as suggested.

42

Cannot the morning and afternoon reports from Quebec and Toronto be sent until arrangements are made for the midnight observations?

Very respectfully, &c.,

(Signed,)

H. W. HOWGATE,

Acting Signal Officer & Assistant.

(No. 47.—Copy.)

H. W. HOWGATE TO DR. C. SMALLWOOD.

WAR DEPARTMENT, OFFICE OF THE CHIEF SIGNAL OFFICER, Washington, D.C., August 24th, 1871.

DEAR SIR,-In reply to your favor of the 14th instant, I am directed to say, that your request to be supplied with the synopsis and probabilities will be brought before the Secretary of War, and it is believed his decision will be favorable. The Chief Signal Officer also directs me to thank you, in his name, for the energy with which you have co-operated with this office, and for your efforts to extend the service throughout the Dominion, but he is so deeply impressed with the necessity of having the reports from the points named by you, similar in substance and in form to those made by the regular observers, that he desires to know whether all or any of them cannot be had in full, and in the same cipher as those of United States. The names of such as can make full and regular reports are desired, as also information as to what action is necessary to ensure such reports from all desired points. The Chief Signal Officer is unwilling, except in a case of the greatest necessity, to complicate the formal reports of the office with those made casually and irregularly. Very little additional labor would be required to fill up the forms in proper shape after making the observation referred to in your letter. Please give me the location of \*Cape Rosier and of \*Sackville, as neither of them are on our office maps.

Hoping to receive a speedy reply,

I remain, &c.,

H. W. HOWGATE,

(Signed,) H. W. Howgard, 2nd Lieutenant & Brevt. Captain, U.S.A.

Acting Signal Officer & Assistant.

(No. 48.—Copy.)

DR. C. SMALLWOOD TO HON. P. MITCHELL.

Montreal Observatory, June 12th, 1871.

HONORABLE AND DEAR SIR,-I have only this day concluded arrangements with the Montreal Telegraph Company, in connection with the Signal Office of the War Department of the U.S., for the transmission and reception of their reports.

I have submitted to the Montreal Telegraph Company the request of your's of the

30th May last, and they will send on reports to Ottawa at two cents per word.

As to the hours of transmission, I cannot yet positively state the hour, until final arrangements are made with the Signal Office at Washington. The whole of the observations received and transmitted will be in Washington mean time, which of course I must correct for your local time at Ottawa.

Immediately upon the receipt of final instructions from Washington, I shall lose no

time in advising you of the arrangements.

Would you kindly state if the services as above would be satisfactory to you.

Believe me, &c.,

(Signed.)

C. SMALLWOOD

<sup>\*</sup> Have found them both since the above was written. H. W. H.

(No. 49.—Copy.)

THE DEPARTMENT OF MARINE AND FISHERIES TO C. SMALLWOOD, M. D.

OTTAWA, 20th June, 1871.

Sir,—I have to acknowledge receipt of your letter of the 12th inst., addressed to the Minister of Marine and Fisheries, in reference to the transmission of the weather reports from Washington. With reference to the rate charged by the Montreal Telegraph Company, I beg to inform you that the Department has no funds at its disposal at present, with which to defray the expense of telegraphing at the rate referred to.

I have to request that you will be good enough to inform me how many words would

probably be required to be sent to make a report intelligible.

The Department does not consider it advisable that any messages should be sent in the meantime until further information is obtained. Enquiries are now being made as to whether the Telegraph Company would, in the interests of science and the public welfare, transmit messages either free or at nominal rates, and when this has been ascertained I will again communicate with you.

I am, &c., (Signed,) WM. SMITH,

Deputy of Minister of Marine, &c.

(No. 54.)

# RETURN

To an Address of the Senate, dated 23rd April, 1872; For Copies of all Correspondence with the Imperial Government, or with any person or persons since the 28th February, 1871, in relation to the question of "Copyright," as well as to that of "Reprinting British Copyright Works in Canada." Also a Return shewing the amount of duty collected upon copies of British Copyright Works imported into the Dominion from the United States, during the fiscal year 1870-71, and shewing further, the amount of such duties as have been paid to the Author or Authors of such Works; and further, a Return stating at what dates and periods, with reference to the dates of publications, lists of works which are copyright, are transmitted from the proper Department in London for the guidance of the proper Department for collecting the duty on copies of such copyright works in this Country.

By Command.

J. C. AIKINS.

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 7th May, 1872.

(No. 55.)

## RETURN

To an Address of the Senate, dated 10th April, 1871; For a Return of all the cases in the Dominion of Canada, in which sentences of corporal punishment have been carried into effect, with a statement of the ages of the criminals, the nature of the offences committed, the names of the Judges, Magistrates or Justices who passed the sentences, the number of the lashes ordered to be administered in each case, the instrument with which they have been inflicted, and of the time which elapsed between the infliction of the punishment and the discharge of the prisoner.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 16th April, 1872.

[In accordance with the recommendation of the Joint Committee on Printing the above Returns are not printed.]

(No. 56.)

## RETURN

To an Address of the House of Commons, dated 20th May, 1872; For copies of Tenders for the supply of Coal Oil for Lighthouse purposes for the years 1870, 1871 and 1872, with the reports of the Inspectors on Samples.

By Command.

J. C. AIKINS.

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 27th May, 1872.

(No. 57.)

## RETURN

To an Address of the House of Commons, dated 23rd May, 1872; For all correspondence between the Government and the Lieut.-Governor of Manitoba, and the North West Territories, and generally all reports and representations made to the Government, having reference to the introduction into the North West Territory, by persons not being British subjects, of intoxicating drinks, arms, ammunition and other supplies, for sale or disposal to natives of the said Territory and others residing therein.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 29th May, 1872.

(No. 58.)

## RETURN

To an Address of the House of Commons, dated the 20th May, 1872; For a copy of the Laws of Manitoba, enacted during the last Session of the Local Legislature, relating to the registration and qualifications of Electors, and the constitution of a Supreme Court.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 29th May, 1872.

[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not Printed.]

# RETURN

## ON THE ELECTIONS OF THE PROVINCES

OF

# MANITOBA AND BRITISH COLUMBIA.

## RAPPORT

SUR LES ELECTIONS DES PROVINCES

DΕ

# MANITOBA ET DE LA COLOMBIE ANGLAISE.

BY-PAR

EDOUARD J. LANGEVIN, ESQUIRE, ECUYER,

Clerk of the Crown in Chancery for Canada. Greffier de la Couronne en Chancellerie pour le Canada

PRINTED BY ORDER OF PARLIAMENT.



OTTAWA:
PRINTED BY I. B. TAYLOR, 29, 31 & 33 RIDEAU STREET.

# RETURN

Prepared from the records of the Elections, to the present House of Commons, in British Columbia and Manitoba, showing the aggregate number of Votes polled in each Electoral Division in which there has been a contest, with the total number polled in each such Division, and the number of Votes on the Voters' Lists of the same respectively, and the Population in each Constituency as shown by the last Census.

# RAPPORT

Fait d'après les Archives des Elections des Membres de la présente Chambre des Communes pour la Colombie Anglaise et Manitoba, indiquant le nombre total de votes enregistrés dans chaque division électorale (où il y a eu contestation) avec le nombre total de votes enregistrés dans chaque telle division, le nombres de votes inscrits sur les listes électorales de ces divisions, respectivement, et la population de chaque collége électoral, telle qu'indiquée par le dernier recensement.

Electoral Districts.	Sub-Divisions.	Names of Cand Number of V for each of th sub-division.	ames of Candidates, and Thumber of Votes polled for each of them in each sub-division.	Fotal Number of Stocks polled in each Division,	Names of Candidates, and Total Number of Number of Votes Population Number of Votes polled Votes polled in the Voters' each Con Cardinision.  Sub-division.  Division.  Division.  Census.	Population in cach Constitueery as shewn by the last Census.	Remarks.
Districts Electoraux.		Noms des Candidats on nombre de votes dor pour chacun d'eux chaque subdivision.	oms des Candidats et le l nombre de votes donnés pour chacun d'eux dans chaque subdivision.	Noms des Candidats et le Nombre total des nombre de votes donnés votes donnés pour chacun d'eux dans dans chaque subdivision.	Nombre d'élec- teurs inscrits sur la liste des électeurs dans chaquedivision	Population de chaque Collége Electoral d'a-près le dernier recensement.	Observations,
PROVINCE OF MANITOBA. PROVINCE DE MANITOBA.		Smith.	Taylor.				
Selkirk	Headingly and St. Charles St. Boniface East and West St. James, Winnipeg	94	38 1	106		667 821	and Fort.
	St. John and Kild man	2.7	2	141		1,332	
	Totals	239	103	342	:	2,820	
	Majority for Donald A. Smith, Esquire, 136.	A. Smith, Esq ", Ecu	luire, } 136.				
		Delorme.	Dease.				
Provencher	St. Norbert Ste. Anne	157 15	88	183 18		1,098 323 356 356	and St. Norbert Sud. Ste. Agathe. St. Vital.
	Totals	172	29	201		2,143	
	Majority for Pierre Delorme, Esquire Majorité pour ,, Eeuler, 142.	Delorme, Esqu	ire 143.				

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Electoral Districts.	Sub-Divisions.	Names of Can Number of V for each of the sub-division.	ames of Candidates and' Number of Votes polled for each of them in each sub-division.	Total Number of Votes polled in each Division.	Names of Candidates and Total Number of Numberof Voters Population in Number of Votes polled in Votes polled in On the Voters' each Constitution of them in each each Division.  In each of them in each each Division. Division. Thy the last Census.	Population in each Constituency as shewn by the last Census.	Bėmarks.
Districts Electoraux.		Noms des Candidats nombre de votes do pour chacun d'eux chaque subdivision.	oms des Candidats et le nombre de votes donnés pour chacun d'eux dans chaque subdivision.	Noms des Candidats et le Nombre total des nombre de votes donnés pour chacun d'eux dans dans chaque chaque subdivision.	Nombre d'électeurs inscrits sur la liste des électeurs dans chaque division	Population de chaque Collége Electoral d'a- près le der- nier recense- ment.	Observations,
Province of Manitoba. Province de Manitoba.		Schultz.	Inkster.				
Lisgar	St. Andrew's Nord St. Andrew's South		4 ;	83		1,484	
4	~ ! ! !	#88% T	2 H 68	74 43 69 112		260 447 918 17	Scanterbury.
	Totals	315	65	380		3,126	
	Majority for John Schultz, Esquire, \$250. Majorité pour ', ', 'Ecuier, }	chultz, Esquire,	, } 250.				

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	275 145 142 142 512 316 1,837	3,864
	282 46 236	564
James S. Lynch.	281	282
Angus McKay.	1 235 236	282
	High Bluff Lake Mantoba White Horse Plains	Totals
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Electoral Districts.	- - - - -	Names of Cand Number of V for each of th sub-division.	ames of Candidates and Number of Votes polled for each of them in each sub-division.	Names of Candidates and Total Number of Number of Votess Population Number of Votes polled Votes polled in on the Voters each Cons for each of them in each Division.  List in each by the by the Census.	Number of Voters on the Voters' List in each Division.	Population in each Constituency as shewn by the last Census.	Remarks
Districts Électoraux.	Sub-Divisions,	Noms des Candidats nombre de votes do pour chacun d'eux chaque subdivision.	oms des Candidats et le nombre de votes domés pour chacun d'eux dans chaque subdivision.	Noms des Candidats et le Nombre total des pour chacun d'eux dans dans chaque subdivision.	Nombre d'électeurs inscrits sur la liste des électeurs dans chaque division	Population de chaque Collége Electoral d'apprès le dernier recensement.	Observations.
PROVINCE OF BRITISH COLUMBIA. PROVINCE DR LA COLOMBIE BRITANNIQUE.		Nelson.	Scott.				
New Westminster New W Burrare (Chilliw)	New Westminster City and District City et District Burrard Inlet Chilliwhack Langley	44 11	8 10	49 25 21	119 113 49 51	1,356	
	Totals	125	24	149	332	1,356	
	Majority for Hugh Nelson, Esquire, Majorité pour '', '', Ecuier, '	elson, Esquire ., Ecuier,	e, } 101.			4	
Cariboo	J. Spencer Thompson,	ire, } Acclama	tion	{ Fsquire, } Acclamation		1,955	
Yale	. Charles Frederick Houghton, $\{Esquire, \}$ Acclamation	Esquire, A. Ecuier,	celamation			1,316	
Victoria Henry	Henry Nathan, jun., { Esquire, } and Amor De Cosmos,	, and Amor		Esquire, Accla	Acclamation	4,540	

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		EDOUARD J. LANGEVIN, Clerk of the Crown in Chancery, Canada. Greffer de la Couronne en Chancellerie, Canada.
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	ancouver Island } e de Vancouver}	DEFICE OF THE CLERK OF THE CLERK OF THE CLERK OF THE FOR THE PEREFIER OTTAWA, SOTTAWA,

# RETURN

To an Address of the House of Commons, dated 20th May 1872; For Copies of all Correspondence between the Secretary of State for the Provinces, and any party or parties, including Officers of the Department, respecting Lot 51. Front of the Indian Reserve at Sarnia, and all valuations of said Lot or other documents relating thereto.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 31st May, 1872.

[In accordance with the recommendation of the Joint Committee on Printing, the above Return is not printed.]

# RETURN

To an Address of the House of Commons, dated 22nd May, 1872; For Copies of all Correspondence, Memorials, Reports and Orders in Council, since the 1st of July, 1867, relating to trade relations between Canada and the West Indies.

By Command.

J. C. AIKINS.

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 31st May, 1872.

Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 21st May, 1872.

The Committee of Council have had under consideration the annexed memorandum, dated 30th April, 1872, from the Honorable the Minister of Public Works, having reference to the expediency of subsidizing a line of steamers between Canada and the Spanish West Indies, and recommending that Parliament be asked to place at the disposal of the Government the sum of \$60,000, to enable it to subsidize, during 1872-73, one or more such lines of steamers to ply between the British and Spanish West India Islands, or one or the other of them, and the Dominion of Canada; such steamers to call at Halifax, N.S., on each voyage to and from Quebec, except during the winter months, when they will ply between the West Indies and Halifax, N.S., or St. John, N.B., as may be arranged with the owners of the steamers, and that any contracts made with such steamship lines shall be for a term of three or five years, as may be deemed most expedient.

The said memorandum and the documents thereto annexed having been referred for the report of the Honorable the Postmaster General, and the Honorable the Minister of Public Works,—the Postmaster General submits a report, dated 17th May, 1872, concurred in by the Minister of Public Works, stating that the establishment of direct mail communication by steamers between Canada and the British West Indies would tend beyond doubt to augment trade intercourse between the two countries, and that he concurs with Mr. Langevin in thinking that a line of steamers, under the Spanish flag, to Cuba, would also be a very valuable adjunct to the commercial facilities of the Dominion.

That no practical proposition to establish such a line has been submitted to the Government, however, and he thinks that that should be the first step in the matter.

That, with a company of sufficient resources to construct and run suitable steamers for such a line, the Government would have no difficulty in negotiating at any time should they be so disposed, without having any actual money voted by Parliament in advance.

That, acting upon the suggestions of the West Indies Commissioners, Mr. Barr, Member of the Court of Policy of Demerara, made, in 1869, on behalf of the Government of that Colony, a proposal to him, the Postmaster General, which was in substance,—that if Canada would establish a monthly line of steamers from Halifax to Demerara, touching at Barbadoes each way, they would contribute one-half the necessary subsidy. That Barbadoes, Mr. Barr thought, would also contribute, though this was, of course, mere matter of opinion. That he had repeated interviews with Mr. Barr, and also separately or with him saw Mr. (now Sir Hugh) Allan, as to the cost of such a line to the Governments concerned.

That the recommendation of the West Indies Commissioners on the subject was "to establish promptly a line of steamers, suitable for the carriage of mails, passengers, and freight, between Halifax, N.S., and St. Thomas in the West Indies, touching (until the completion of the Intercolonial Railway) at Portland, in the United States, so as to ensure regular semi-monthly communication between the ports mentioned," and that he, the Post Master General, was exceedingly anxious to forward the matter. That there were, however, considerations connected with the then expected union of Newfoundland with the Dominion, which rendered a postponement expedient.

That that colony desired as part of the terms of union—should one be made—that a monthly line from St. John to England, and a fortnightly one to Halifax and Quebec, should be established, and they also desired to be put in communication with the West Indies. That these necessities he found could have been conveniently worked in with the original proposition of a line from Halifax to Demerara, and in the hope of their making a union more advantageous, he postponed for the time—after submitting the matter to

the Premier of the Government-making any recommendation on the subject.

That the simple monthly service from Halifax to Demerara would at the time have

been undertaken by Mr. Allan for £1,000 a voyage.

That he is of opinion that communication should be had with the Governments of Demerara and Barbadoes, and that if they are willing to contribute towards the necessary subsidy he should be authorized to negotiate with the owners of lines of steamers on the Atlantic for a monthly line from Halifax to Demerara.

That the line under a Spanish flag to Cuba would necessarily have to be a separate one, and he thinks it might be intimated that the Government were willing to consider propositions for the establishment of such a line.

The Committee concurs in the foregoing report, and submit the same for Your

Excellency's approval.

Certified.

WM. H. LEE,

Clerk, Privy Council.

(Copy.)

DEPARTMENT OF PUBLIC WORKS,
OTTAWA, April 30th, 1872.

#### Memorandum.

The undersigned has the honor to report:-

That at a recent interview had with a deputation from the Quebec Board of Trade and Manufactures, it was represented to him that the Government of Canada would facilitate and increase the trade relations between Canada and the West Indies by according a bonus or subsidy to one or more steamship lines, to ply between the Dominion and the British and Spanish Antilles.

That since the said interview, the undersigned has somewhat examined the question of permanent trade between Canada and the West India Islands, and has gathered the

following facts:-

The Yearly Imports of the British West India Islands, from 1862 to 1869, inclusive, were as follows:—

	1862,	1863.	1864.	1865.	1866.	1867.	1868.	1869.
	£	£	£	£	£	£	£	£
	Sterling.	Sterling.	Sterling.	Sterling.	Sterling.	Sterling.	Sterling.	Sterling.
Bahamas Turk's Island Jamaica Virgin Islands St. Christopher Nevis Antigua Montserrat Dominica St. Lucia St. Lucia St. Vincent Barbadoes Grenada Tobago Trinidad	35,956 1,141,983 7,722 166,872 31,125 186,353 22,387 60,592 93,607 140,289	4,295,316 45,183 1,087,529 8,876 151,885 36,022 173,912 20,090 47,755 69,584 108,489 70,073 46,869 710,972 7,770,764	5,346,112 70,199 1,142,919 8,148 128,561 28,227 178,789 17,612 43,558 90,364 136,148 910,080 121,314 49,782 883,940 9,155,753	1,470,467 80,549 1,050,984 8,638 151,394 37,176 160,571 15,795 52,374 70,758 121,145 953,335 114,111 47,487 810,347	328,622 56,091 10,209 175,917 34,933 203,257 18,685 62,188 91,504 158,158 988,082 122,255 57,645 930,329 4,268,674	365,316 52,121 \$59,186 11,329 173,486 40,657 190,342 17,788 51,047 71,138 126,412 989,503 111,918 54,826 858,847 3,973,916	231,526 40,778 1,024,566 14,691 198,712 54,804 169,904 20,100 51,181 97,845 130,376 1,134,251 108,767 48,895 927,796 4,260,189	240,584 34,873 1,224,414 6,120 183,076 61,013 174,357 25,254 64,765 90,954 145,456 1,026,221 176,477 52,168 1,027,230 4,532,962

The Yearly Imports of the British West India Islands, from Great Britain alone, were as follows:—

	1862. £ Sterling.	1863. £ Sterling.	1864. £ Sterling.	1865. £ Sterling.	1866. £ Sterling.	1867. £ Sterling.	1868. £ Sterling.	1869. £ Sterling.
Bahamas	762,627	1,054,775 1,868	1,218,914 13,417	417,326 12,961	52,124 9,535	55,818 14,302	53,719 1,258	40,512 1,297
Turk's Island Jamaica	5,660 603,081	581,227	627,888	642,785	684,448	534,097	623,663	775,088
Virgin Islands. St. Christopher. Nevis	72,768 7,639 73,891 1,037 25,768 32,089 49,978 343,845 47,749 18,824 287,169	59,779 8,429 69,946 1,138 15,771 17,663 41,777 304,175 36,944 11,816 294,754	60,108 6,412 70,063 5 14,898 31,238 53,690 363,109 65,832 17,401 426,325	77,890 11,714 64,999 834 21,107 26,623 35,817 366,053 56,920 17,990 430,815	94,902 8,579 72,815 1,032 25,941 31,715 61,500 379,725 52,115 23,481 500,666	35 89,855 16,621 79,695 1,300 16,701 23,823 46,889 389,543 51,657 22,458 403,018	100,232 22,819 63,089 2,254 23,821 42,631 53,882 396,208 49,804 21,324 422,969	80,693 24,196 64,253 2,510 27,777 35,434 62,662 344,875 98,332 24,070 358,736
£	2,334,105	2,500,062	2,969,300	2,183,834	1,998,578	1,745,812	1,877,763	1,930,435

In 1869, the Imports of the three leading British West India Islands consisted, among others, of the following articles:—

	1		,
	Jamaica.	Barbadoes,	Trinidad.
Meat, salted or pickled Ale and Beer	214,835 gallons, £28,020 4,838 cwts., £8,263 3,539 , £16,748 41,6274 tons, £30,129 11,515 barrels, £10,115 £217,677 73,175 cwts., £62,918 51,261 barrels, £53,597 78,083 barrels, £146,876 £116,194 £54,557 £59,708 4,664 barrels, £17,024 5,553,514 lbs., £32,143 2,167,434 lbs., £26,362	332,146 bush., 72,190 brls £107,574 Cottons and Linens, £110,932 2,913,150 M. £29,132 87,673 quintals, £52,604 104,950 brls., £131,188 £27,098 7,000 tons, £70,000 9,722,620 lbs., £48,613	£138,447 4,664,693 lbs., £36,326 47,861 brls., £60,357 £81,065

In the three leading British West India Islands the following were the import duties charged on the undermentioned articles:—

<del></del>	Jamaica,	Barbadoes.	Trinidad.
Iron and Ironmongery	Part free; 10 per 100 part 12½ additional per 100. on all duties	3 per 100 20 per 100 additional on all d't's.	
Machinery		, do do	3½ per 100
Leather	12½ per 100— do do	do do	5 per 100 Gloves, 10 per 100
Oils	3d. to 9d. per gallon  Tallow, 7s. per cwt.,  Other kinds, 10s. per	Kerosine, 2d. per gallon Other kinds, 3 per 100 ad valorem	
	cwt.	Tallow, 4s. 8d. per cwt. Other kinds, 9s. 4d. do	Tallow, 2s. 4d. per cwt Other kinds, 6s. 83d.
Coals	Free.	2s. 1d. per ton. {	per cwt. In bulk, 3d. per hhd. 1s.
Beef and Pork (Salted)	1s. 1½ do 18s. 8d. do 8s. 5d. do 18s. 8d. do 9d. per bushel	1s. 2d. per cwt. Free. 4s. 8d. per cwt. 4s. 8d. do 7s. do 24d. per bushel 24d. do 3s. 6d. per barrel	Jer 18d, 19.  18. 13d, per cwt,  31 per 100, ad valorem  4s. 8d, per cwt.  4s. 8d, do  9s. 4d, do  23d, per bushel  23d, do  5s. per barrel

	Jamaica.	Barbadoes.	Trinidad.
Fish (dried)  Fish (pickled)  Pickles and Sauces  Beer and Ale (in wood)  do (in bottle)  Spirits  Wines (in wood)  Wines (in bottle)  Tobacco (unmanufactured)  Tobacco (unmanufactured)  Cigars  Paper and Stationery  Books	Other, 2s. 6d. do 2s. to 10s. 6d. per barrel 124 per 100, ad valorem 6d. per gallon 1s. per dozen 10s. per gallon 2s. 6d. per gallon 5s. per dozen 6d. per lb. 1s. do 5s. do 124 per 100, ad valorem	2d. per cwt. 4d. per barrel 3 per 100, ad valorem 4d per gallon. 3s. per dozen 2s. to 3s. 4d per gallon. 15 per 100, ad valorem. do do 2d. per lb. do 25s. per 1000 3 per 100, ad valorem Free.	1s. 1½d. per cwt. 2s. 6d. per barrel 3½ per 100 ad valorem 2d. per gallon 6d. per dozen 6s. per gallon 2d. to 1s. per gallon 4s. to 6s. per dozen 4½d. per lb. 6d. do 9d. do 3½ per 100, ad valorem Free.

The yearly total values of exports from the British West India Islands have been as follows:—

	Sterling.
	£4,925,069
· · · · · · · · · · · · · · · · · · ·	6,140,584
***************************************	8,487,712
***************************************	5,946,926
	4,879,648
£7************************************	4,573,472
	4,844,862
	4,758,417

In 1869 the Exports of the British West India Islands, taken separately, are valued as follows:—

	Total Exports.	Exports to Great Britain.
	Sterling.	Sterling.
Buhamas	£163,002	£32,045
Purk's Island		37
Jamaica		848.961
Virgin Islands	8,210	i
St. Uhristopher	206,550	161,226
Nevis		40,037
Antigua		177,687
Montserrat		40,209
Dominica		53,569
St. Lucia		111,940
St. Vincent		168,623
Barbadoes		447,706
Grenada		104,448
Pobago		71,274 1,170,187

Notwithstanding that the imports and exports of the British West India Islands in 1869 amounted to—

Imports	£ $4,532,962$	=	about		\$22,500,000
Exports	4,758,417	=	1,,,	••••••	23,750,000

they were slight, in comparison with those of the Spanish West India Islands.

In 1864 the imports and exports of the latter were as follows:---

Exports	(	171,412,100
The Island of	f Cuba figuring as follows in this commercial mo	vement:—
Imports		\$129,542,383
Exports		166,446,718

The undersigned has not been able to procure the exact figures of the imports and exports of all the Spanish West India Islands for the years 1869 and 1870, but he has assured himself that the exports of sugar and molasses alone from Cuba, in 1870, exceeded £13,000,000 = \$65,000,000.

Moreover, the exports from Porto Rico in 1871, compared with those of 1867, give the following results:—

1867.			1871.	
Sugar	1,327,667		2,127,667 quintals.	
Molasses	5,067,094		7,590,915 gallons.	
Coffee	207,343		210,668 quintals.	

The total imports and exports of Porto Rico were:-

	1869.	1870.
Imports	 \$16,000,000	\$15,000,000
		14,500,000

These statements, for which the undersigned is partly indebted to His Excellency the Consul General for Spain at the Port of Quebec, were accompanied by the remark, that a similar progressive increase is observed in the trade of Cuba, from which it seems more than probable that the total sum of the Spanish West Indian imports and exports for 1871 is far in excess of that given for 1864.

The population of Porto Rico is about 630,000, and that of Cuba 1,200,000.

It is therefore important, when considering the question of more frequent commercial relations between Canada and the Antilles, to keep in view the extensive trade of the Spanish West India Islands, and to weigh the fact that, whilst the products of our fields, forests, mines, fisheries and manufactures may find an advantageous outlet in the British West India Islands, the market they would find in the Spanish West India Islands is much more considerable.

The only important difficulty which present itself to this trade, is the system of differential duties imposed in the Spanish West India Islands in favor of vessels flying the national flag. These exceptional duties are often excessive, as may be judged from the following table, which shows the duties levied in the year 1871 on certain articles when imported by vessels under the Spanish flag, and the duties charged on the same articles when imported in vessels flying a foreign flag.

Articles.	Spanish Flag.	Foreign Flag
At dictes.	Rate of Duty.	Rate of Duty.
Ale, British (bottled)'.  Apples Baccn Becans Bran Brooms Brooms Butter  Candles (Composition) Cheese (American) Coals Coals Coal Oil Cod-fish (Newfoundland) Empty Casks Jorn Flour  Jin Hams (American) Hay Herrings Lard	\$ cts.  0 38 per Imperial gallon 1 15 ,, barrel 2 87½ ,, quintal 0 20½ ,, arroba 0 44½ ,, quintal 2 76 5 22½ per quintal, including weight of jars. 6 48 ,, quintal 2 87½ , do 0 48½ ,, English ton. 2 20½ ,, quintal 0 82½ ,, do 0 34½ each 0 12½ per arroba 4 32 ,, barrel of 8 arroba, weight of barrel included 0 04½ ,, litre 2 87½ ,, quintal 0 82½ ,, do 0 34½ each 0 12½ per arroba 4 32 ,, barrel of 8 arroba, weight of barrel included 0 04½ ,, litre 2 87½ ,, quintal 0 36½ ,, do 0 32½ , do	\$ cts. 0 48 1 474 3 844 0 284 3 68 6 67 8 64 3 844 0 61 1 125 0 457 0 056 0 057 3 844 4 484
Lumber Dats Dnions Paper (wrapping) Pickles:	4 80 , M feet	6 40° 0 64 <del>3</del> 0 64 <del>3</del> 1 74°
laster'otatoes	0 16\frac{1}{2}	3 65 <del>2</del> 0 23 0 643

It is therefore apparent that should the Government of Canada subsidize a line of steamers between Canada and the Spanish West Indies, it would be for the benefit of

Canadian commerce that such steamers should sail under the Spanish flag.

The undersigned has therefore the honor to recommend that Parliament be asked to place at the disposal of the Government of Canada, the sum of sixty thousand dollars (\$60,000) to enable it to subsidize, during 1872-3, one or more lines of steamers, to ply between the British and Spanish West India Islands, or one or the other of them, and the Dominion of Canada; such steamers to call at Halifax, Nova Scotia, on each voyage to and from Quebec, except during the winter months, when they will ply between the West Indies and Halifax in Nova Scotia, or Saint John, New Brunswick, as may be arranged with the owners of the steamers, and that any contracts made with such steamship lines shall be for a term of three or five years, as may be deemed most expedient.

Respectfully submitted.

(Signed,)

HECTOR L. LANGEVIN, Minister of Public Works.

(Copy.)

The establishment of direct mail communication by steamers between Canada and the British West Indies would tend beyond doubt to augment trade intercourse between the two countries, and I concur with Mr. Langevin in thinking that a line of steamers,

under the Spanish flag, to Cuba, would also be very valuable adjuncts to the commercial facilities of the Dominion. No practical proposition to establish such a line has been submitted to the Government however, and I think that that should be the first step in the matter. With a company of sufficient resources to construct and run suitable steamers for such a line, the Government would have no difficulty in negotiating at any time, should they be so disposed, without having any actual money voted by Parliament in advance.

Acting upon the suggestions of the West Indies Commissioners, Mr. Barr, Member of the Court of Policy of Demerara, made, in 1869, on behalf of the Government of that Colony, a proposal to me, which was in substance, that if Canada would establish a monthly line of steamers from Halifax to Demerara, touching at Barbadoes each way, they would contribute one-half the necessary subsidy. Barbadoes, Mr. Barr thought, would also contribute, though this was, of course, mere matter of opinion. I had repeated interviews with Mr. Barr, and also separately or with him, saw Mr. (now Sir Hugh) Allan as to the cost of such a line to the Governments concerned. The recommendation of the West Indies Commissioners on the subject was, - "To establish promptly a line of steamers, suitable for the carriage of mails, passengers and freight, between Halifax, Nova Scotia, and St Thomas, in the West Indies, touching (until the completion of the Intercolonial Railway) at Portland, in the United States, so as to ensure regular semi-monthly communication between the ports mentioned," and I was exceedingly anxious to forward the matter. There were, however, considerations connected with the then expected union of Newfoundland with the Dominion, which rendered a postponement expedient. That colony desired as part of the terms of union-should one be made-that a monthly line from St. John to England, and a fortnightly one to Halifax and Quebec, should be established, and they also desired to be put in communication with the West Indies. These necessities, I found, could have been conveniently worked in with the original proposition of a line from Halifax to Demerara, and, in the hope of their making a union more advantageous, I postponed for the time—after submitting the matter to the Premier of the Government-making any recommendation on the subject.

The simple monthly service from Halifax to Demerara would at the time have been

undertaken by Mr. Allan for £1,000 a voyage.

I am of opinion that communication should be had with the Governments of Demerara and Barbadoes, and that if they are willing to contribute towards the necessary subsidy, I should be authorized to negotiate with the owners of lines of steamers on the Atlantic for a monthly line from Halifax to Demerara.

The line under a Spanish flag to Cuba would necessarily have to be a separate one, and I think it might be intimated that the Government were willing to consider proposi-

tions for the establishment of such a line.

(Signed,)

A. CAMPBELL.

I agree and concur.

(Signed,)

HECTOR L. LANGEVIN,

Minister Public Works.

17th May, 1872.

## RETURN

To an Address of the House of Commons, dated 23rd May, 1872;—For the Report and Estimates relating to the Bay Verte Canal.

By Command.

J. C. AIKINS, Secretary of State.

Department of the Secretary of State, Ottawa, 1st June, 1872.

OTTAWA, 31st May, 1872.

Enclose address out of 23,188, and copy 22,692.

Sir,—I have the honor to transmit herewith copy of Report and Estimates relating to the Bay Verte Canal, asked for by the accompanying Address of the House of Commons dated the 23rd May, 1872.

I have the honor to be, Sir.
Your Obedient Servant,

J. Braun, Secretary.

The Honorable Secretary of State for Canada, Ottawa.

(Copied from No. 22,692.)

REPORT OF THE BAIE VERTE CANAL SURVEY, 1870-1871.

Оттаwa, 8th April, 1871.

SIR,—I have the honor to transmit you herewith the general map, plans and profiles, showing the routes examined for the projected Baie Verte Ship Canal across the Isthmus between Cumberland Basin at the head of the Bay of Fundy and Baie Verte on the Gulf of St. Lawrence.

The survey, upon which the following report is now submitted for your consideration, embraces all the routes you instructed me to explore, and their termini in both bays, as far as the line of three fathoms of water in depth or more at lowest tides. It extends over an area of 200 square miles; the field work was commenced in August, 1870, and completed in June, 1871.

Map.

Having been unable to procure any correct map showing the general features of the country to be traversed by the projected canal, these had to be determined by means of a regular trigonometrical survey; the map furnished shows nothing but what has been thus

62-1

established. It has been drawn to a scale of 800 feet per inch, and measures 15ft  $\times$  5ft; although the smallest scale that could conveniently be used for the purpose intended, has been adopted, it does not embrace all that has been surveyed, the width of the paper being insufficient. The proportions of survey not shown are the branches of the River Tintamarre, as far as Gravelly and Long Lakes, and the main trunk of the River Gaspereau to the upper end of Lowther's lake.

The various lines measured and levelled are drawn in green, the distances being marked in the same color, and the relative corresponding elevations of the ground indicated

by red figures.

The red dotted lines indicate the probable location of each route in order to obtain the best curves, lowest ground and proper termini in each case.

The full line, in red lead, represents the route recommended for the canal.

The soundings of the Bay of Fundy and Baie Verte are referred to extreme low water in each bay, the blue figures indicating the depth of water below this level, and the yellow figures, the elevation of the bottom of the sea above it.

The depth of water in the lakes is marked in black.

## Profiles.

These are drawn to a scale of 400 feet horizontal, and 20 feet vertical per inch.

The datum line adopted for all the levels shown on the map and profiles is 50 feet

below ordinary low water of spring tides of the Bay of Fundy.

The profiles show the probable nature of the material to be excavated according to borings made by means of iron rods with bits and augurs. The rock surface so determined must only be considered as approximate, as it is quite possible that the boring rods may in some cases have struck boulders instead of solid rock.

## General description of Isthmus.

The general course of the Isthmus from the Bay of Fundy to Baie Verte is westerly, and its length on a straight line across the narrowest part is  $15\frac{1}{4}$  miles; it is bounded towards the north by the high lands, extending from Sackville to the head of the River Gaspereau at Lowther's lake, and towards the south by those extending from Amherst to the River Tidinsh; its breadth on the Bay of Fundy, from Sackville to Amherst, is 9 miles, and on Bay Verte from Port Elgin near the mouth of the Gaspereau, to the Tidinsh,  $4\frac{1}{4}$  miles.

The eastern section of this tract of country is occupied chiefly by uplands, which attain their greatest elevation at Mount Uniacke, whence they incline northward to the Gaspereau, southward to the Tidinsh, eastward to Baie Verte and westward to the Cumberland bogs and lakes. From the summit of this mount the view extends over the entire Bay eastward as far as Northumberland Straits and Prince Edward's Island, and across the low lands westward as far as Amherst and Mount Whatley on Cumberland Basin.

The western section is occupied by extensive bogs, marshes and numerous lakes in the valleys of the streams which discharge into the Bay of Fundy; these valleys are separated from each other by tracks of higher land, the most elevated of which is that whereupon the post road is located from the Fort Cumberland to Baie Verte Village; its most prominent points command a general view of the low land section on either side.

The general direction of the high land dividing the waters which flow into the Gulf from those waters that flow into the Bay of Fundy is from north to south, and covers a

breadth of about 9½ miles from the Baie Verte shore.

#### Rivers.

The principal streams emptying into Baie Verte are the Gaspereau on the north side, and the Tidinish on the south side; the tide flows up the former a distance of two

and a quarter miles, or as far as Turner's mill dam, and up the latter as far as Doyle's mill dam, a distance of three and two-thirds miles. Prior to the erection of this dam it ascended about one and a half miles farther.

Those discharging into Cumberland Basin are the Rivers Hebert Macan and Napan, some seven miles above Amherst, and the La Planche Missiquash, Au Lac and Tinta-

marre between Amherst and Sackville.

The three former were not surveyed, not being on the isthmus. The outlets of the La Planche and Missiquash are at three and a half miles below Amherst, and are so contiguous to each other that they will essentially merge into one entrance; the outlets of the Au Lac and Tintamarre are one and three quarter north-west of Fort Cumberland,

or three miles below Sackville, and are close to each other.

The tides have been shut out from La Planche and Au Lac by means of dams with tide gates called Aboideause; but before these were constructed, they followed up the Au Lac a distance of about seven miles, and up the La Planche eight miles or more towards McLellan's mill and Long Lake. They ascend the Missiquash as far as the Black Island bogs and lakes, a distance of more than seven miles, and up the Tintamarre to Gravelly and Long Lakes about seven miles above Sackville. The tides are allowed to flow up the two last named rivers as far as they can reach, and new channels have been cut to conduct them still further, in order that the Bay of Fundy mud deposits may form new marsh land in the shallow lakes and on the surrounding bogs and swamps.

### Marshes, Bogs, Dykes, &c.

The surface of the marshes and bogs around Cumberland Basin is from one to three feet lower than the average range of the Bay of Fundy spring tides, for more than seven miles inland; the average tidal range here referred to is 89.77 feet above the datum adopted for all the levels as already explained. The original settlers found it necessary therefore to exclude the sea water from these low lands by constructing dykes near the margin of the bay and along all the streams subject to the influence of the tides, these dykes extend several miles inland, and now enclose vast tracts of rich alluvial meadow land; the undyked portions are covered with coarse grasses and are unproductive; the extent of these dykes along the various streams from their mouth upward is shown on

Beyond the dyked marshes the low land is generally wet and boggy, especially near the lakes; in the Valley of the Missiquash, these bogs commenced five miles from the outlet of that river, and extend seven miles or more further up; they consist of decayed vegetable matter saturated with water and covered with coarse grasses or moss, varying from four to eight feet in thickness. This crust of semi-fluid muck rests upon clay, or sand and clay of a compact nature, below which rock is found at various points at depths varying from nineteen to twenty-four feet, whilst at other points an understratum of hard black muck of a peaty nature is found below the first layer of clay and land at of depths of from thirteen to twenty-four feet below the top surface of the bog. This peaty understratum which rests chiefly on hard white sand, has been also found beneath the soil of the dyked marshes at depths varying from fifteen to twenty-five feet below their surface: it appears to extend for a distance of about nine miles from the Bay of Fundy eastward, and to have a thickness of from one to four feet as shown by the profile of the Missiquash line. The same peaty substance and underlying soil crop out on the banks of Cumberland Basin, where pine and beech stumps are found imbedded in a similar description of soil near the outlets of Sharp's Creek, the River La Planche and Cumberland Creek, when the tide is out; this would lead to the supposition already made by Professor Dawson, in his Acadian Geology, that the Cumberland marshes rest on old upland surfaces, and that either a subsidence of the soil has taken place, or that the tides have increased in height.

Ridges.

Southward of the La Planche, the high land is known as Amherst ridge; the valley of this stream is separated from that of the Missiquash by the Fort Lawrence ridge; the upland between the valley of the latter and that of the Au Lac is called the Fort Cumberland or Pont à Buot ridge. The Valley of the Au Lac is separated from that of the Tintamarre partly by Coles's Island near the post road from Sackville to the Au Lac railway station, and chiefly by what is generally known as the Jolicœur Ridge.

These ridges and the Sackville uplands together with the uplands around Baie

Verte are well settled for the greatest part.

### Routes Explored.

Several lines have been examined for the projected canal across the Isthmus, and the bays at both ends have been carefully sounded in order to determine the best location with respect to the lowest ground, the nature and quality of the material to be excavated, the proper termini in the Gulf and in the Bay of Fundy, and the water supply.

The following is a general description of each line.

The Sharp's Creek line commences at its western terminus in Cumberland Basin, at a distance of one-and-a-quarter miles below the mouth of Sharp's Creek, at the level of ordinary low water, whence it strikes the shore between the La Planche and Sharp's Creek at three-fourths of a mile below the entrance of the latter; thence, with the requisite curves, it traverses the marshes eastward between Amherst ridge and the La Planche, crosses the Post Road, Intercolonial Railway and Eddy Road at about half a mile north from Amherst, and continues thence in a direct line, crossing the last named stream several times, until it connects with the La Planche line at a distance of eight and sixtentlis miles from Station Zero on the shore; it afterwards follows the La Planche line towards Tidinsh and Baie Verte.

The elevation of the bed of Cumberland Basin at the Bay of Fundy terminus, at extreme low water, varies from fifty to sixty-two and eighty-eight feet above datum; the elevation of the marshes on this line to where it intersects that of the La Planche is from ninety to ninety-four above the same datum. The levels of the remainder of the Sharp's Creek line are given inthe description of the La Planche line.

#### The La Planche Line.

The western terminus of this line extends from the shore down the outlet of the La Planche to the ordinary low water line of Cumberland Basin in a westerly direction, and for a distance of 3,700 feet. Eastward from the shore, and southward from the Fort Lawrence ridge, the line crosses the Intercolonial Railway and Post road two miles from Amherst, and afterwards the Eddy road; thence it curves slightly along the south side of Black Point and Fox Point, and crosses the outlet of Long Lake, runs into the La Planche; thence passing about three-fourths of a mile southward of this lake, and in a north-easterly direction, it ascends the high ground which separates the waters of the La Planche from those of the Tidnish, and afterwards on a more easterly course it descends into the valley of the latter as far as the Tidnish bridge and down the south-east side of Tidnish Head at a quarter of a mile therefrom; thence the line terminates in Baie Verte at a depth of sixteen feet at extreme low water.

The elevations of the ground on this and the other lines to be described are all referred to the same station as the Sharp's Creek line, and are marked in feet; the distances are given from Station Zero at the western end of each line, and are marked in chains of one hundred feet.

#### Elevations and distances on La Planche Line.

The bed of the water terminus in Cumberland Basin, at extreme low water, varies between forty-seven, seventy-two, fifty and eighty-seven feet in a distance of thirty-seven chains from station zero; thence eastwards, the elevation of the marsh and bog land as far as Long Lake run at 310 chains, is from eighty-nine to ninety-five feet, and thence to the junction of the Sharp's Creek line at 400 chains it is from ninety-four to 120 feet.

From this junction to the summit level at 510 chains, the elevation of the ground increases to 130 feet; thence it decreases to eighty-one feet at 650 chains; thence to the intersection of the Au Lac line at 720 chains it varies from eighty-one to 111 feet.

From this intersection to Tidnish Bridge at 795 chains the ground is very uneven, and the levels vary from 111 to seventy-five feet; thence towards Tidnish Head at 908 chains, they vary from seventy-three to 104 and seventy-five feet; thence, or from the shore along the eastern terminus of the line, as far as sixteen feet of water in depth at extreme low water in Baie Verte, the elevation of the bed of the bay is from seventy-one to forty-nine feet at a distance of 1,000 chains from the western end of the line at Station Zero, on the shore of Cumberland Basin.

From the junction of the La Planche line with that of the Au Lac, the distances marked upon the map are given from station zero of latter line to the end of its eastern terminus in Baie Verte, and are  $88\frac{1}{3}$  chains greater than those marked above.

### The Missiquash Line.

The western terminus of this line on the shore of Cumberland Basin is about one quarter of a mile below the mouth of the Au Lac, and corresponds with that of the Au Lac line; thence the Missiquash line runs in a south-easterly direction across the marsh towards the base of the Fort Cumberland Heights at their western extremity, where it intersects the Intercolonial Railway; thence curving to the eastward, it cuts the Post road and Mount Whatley road and ascends the valley of the Missiquash, which it follows until it connects with the Au Lac line, which it afterwards follows, via Tidnish Head, to its deep water terminus in Baie Verte.

## Elevation and Distances of Missiquash Line.

Those of the western terminus seawards, being the same as upon the Au Lac line, will be given in the description of that line. The elevation of the Missiquash marshes and bogs from Cumberland Basin to the junction of the Au Lac line at  $614\frac{2}{10}$  chains from station zero, varied from ninety to one hundred feet above datum. From the junction down to Tidnish Head and along the eastern terminus in Baie Verte at 996 chains from Station Zero, the elevations are the same as on the Au Lac line.

## The Au Lac Line via Tidnish.

The western terminus of this line from Station Zero, ‡ of a mile below the mouth of the Au Lac, to a depth of 16 feet water at extreme low water in the Bay of Fundy, follows a westerly direction; thence or from Station Zero, which is on the shore, the line ascends the valley of the Au Lac between the south side of this river and the base of the Fort Cumberland ridge on a north-easterly course; it runs across the Intercolonial Railway and Post road between Sackville and Amherst at about 700 feet south of the Au-Lac Railway station, and intersects three cross roads from Cumberland ridge to Jolicœur ridge and Upper Sackville; it also intersects the River Au Lac westward and eastward of the last of these cross-roads which leads to the head of Joliceur Lake; thence curving to the south-eastward it runs across the Post road between Fort Cumberland and Baie Verte at a distance of 8½ miles, whence it passes over and between the lakes and the bogs at the head of the Missiquash line at  $11\frac{6}{10}$  miles from Station Zero, and at  $\frac{1}{4}$  mile south of Goose Lake, thence two courses may be followed—one to the south-eastward and the other more to the eastward, as far as  $15\frac{6}{10}$  miles towards the River Tidnish. Supposing the latter course to be adopted, the line from opposite Goose Lake continues in an easterly direction as far as the thirteenth mile, at 694 chains from Station Zero, after which it takes a southeasterly course to the summit level at  $787\frac{1}{2}$  chains, or at  $14\frac{9}{10}$  miles; thence curving eastward towards the valley of the Tidnish, it connects with the La Planche line at 8071 chains, it afterwards runs in a north-easterly direction to Tidnish Bridge and towards Tidnish Head, whence it terminates on an easterly course in Baie Verte at a depth of 16 feet of water at extreme low water, and at a distance of nearly 20 6 miles from Station Zero on the Bay of Fundy shore. 5

#### Elevation and Distances on the Au Lac Line via Tidnish.

At the western terminus seaward the bed of Cumberland basin is from 31 to 89 feet above datum, and the distance from Station Zero on the shore is 4,500 feet, thence eastward, the elevation of the marshes varies from 90 to 92 feet for a distance of 410 chains, or up to the road leading from Roy's Corner to the head of Jolicœur Lake; near the Baie Verte Post road at 448 chains the levels of the ground increase to 110 feet, and afterwards decrease to 96 feet towards the Province Boundary at 506 chains; thence to the Junction of the Missiquash line at  $613\frac{2}{10}$  chains they vary from 96 to 99 feet; the ground thence ascends gradually until it attains an elevation of 113 feet at 685 chains; thence descending to the valley of the north-west branch of the Tidnish, the elevation decreases to 99 feet at 713 chains; and increases to 116 chains at the summit level, or at  $787\frac{1}{2}$  chains; thence to the junction of the La Planche line at  $807\frac{1}{3}$  chains the levels vary from 116 to 106 feet.

From the junction of the Au Lac and La Planche lines to Tidnish bridge at 882 chains the ground is very uneven and the levels vary from 111 to 75 feet; thence to Tidnish Head at 995 chains they vary from 73 to 104 feet, 75 feet thence the line terminates in Baie Verte at 1,087 chains into 16 feet depth of water, at extreme low water, and the elevation of the bed of the bay varies from 71 to 49 feet above the datum.

## Au Lac Line via Baie Verte Village.

This line has already been described from the Bay of Fundy to the intersection of the Baie Verte Post road at 448 chains from Station Zero; it afterwards curves around the base of the Jolicœur ridge in an easterly direction, and around the base of Hall's Hill on a north-easterly course, passing across the head of the Missiquash bogs near the Province boundary, as far as Station 627; thence it crosses the Baie Verte Post road a second time at 632 chains or at 5 chains east from the portage bridge; thence following the Missiquash Gully, it attains the highest elevation at 691 chains or at 23 chains above Rufus Oulton's mill; whence it continues in a north-easterly direction to the west branch of Baie Verte creek at 730 chains, and at ½ mile north of the Post road from Fort Cumberland; thence the line courses to the eastward until it reaches the Cobourg road at 801 chains; thence passing between the Methodist and Episcopal Churches of Baie Verte Village, on a south-easterly course, the line reaches Dank's Point at 900 chains, and terminates in a depth of 16 feet water, of extreme low tide, in Baie Verte at 1,090 chains from the Bay of Fundy.

#### Elevation and Distances on Au Lac Line via Baie Verte Village.

From the 450 chains near the intersection of the Baie Verte Post road to 475 chains on the Missiquash bog levels vary from 104 to 110 and to 97 feet, from 475 to 628 chains at the head of the Missiquash bog near the Portage bridge on the Baie Verte Post road, the ground is very uneven, and the levels vary from 93 to 112 feet; from 628 chains to the summit level at 691 chains and 800 feet north from the post road, the levels vary from 98 to 160 feet; from the summit level to 733 chains in the valley of the west branch of Baie Verte Creek the elevation of the ground decreased from 160 to 105 feet; from 733 chains to the lower intersection of the west branch of Baie Verte Creek at 787 chains the levels vary from 105 to 119 for a distance of 10 chains, and thence to 81 at the Creek. From 787 chains to Dank's Point at 900 chains, the levels vary from 82 and 72 feet; thence to a depth of 16 feet water at extreme low water in Baie Verte, along the eastern terminus of the line which ends at 1,090 chains from Station Zero, the levels vary from 71 to 49 feet above the datum.

#### The Tintamarre Line.

This line at its western terminus follows the channel of the River Tintamarre in a south-westerly direction to its junction with the River Au Lac, thence it continues along the common outlet of both streams into Cumberland Basin. The breadth of the Tintamarre channel at extreme low water is from 200 to 400 feet wide to the junction of the River Au Lac, whence it increases to 700 feet, at the outlet into Cumberland Basin.

From the eastern shore of the Tintamarre or from Station Zero, the line runs on a straight course eastward across the Intercolonial Railway, the adjoining Post road and two cross roads from the Baie Verte road to the Joliceur road, and terminates at 384 chains where it joins the Au Lac line a short distance below the road leading to the head of Joliceur Lake.

The first 220 chains are upon the Tintamarre marsh north of the River Au Lac; the remainder of the line is in the valley of the Au Lac, between Fort Cumberland and Joliceur ridges, where it cuts the La Courve stream from the Joliceur Lake and bogs, and also the main stream of the Au Lac several times.

From 384 chains the Tintamarre line follows that of the Au Lac to Baie Verte Village or to Tidnish.

#### Elevation on the Tintamarre Line.

The depth of water in the channel of the Tintamarre and Au Lac varies from 6 to 18 ft. at extreme low water into Cumberland Basin. From Station Zero on the shore of the junction of the Au Lac line, the elevation of the ground is generally from 90 to 92 feet.

### Bay of Fundy.

According to the sailing directions published in 1866 "Ships navigating the Bay "of Fundy have to encounter an atmosphere almost constantly enveloped in dense fogs, "the tides setting with great rapidity over the rocks and shoals with which it abounds, "and a difficulty of obtaining anchorage on account of the depth; so that, under these "circumstances, the most unremitting attention is requisite to prevent the disastrous "consequences which must necessarily attend a want of knowledge and caution."

From St. John to the entrance of the River Au Lac, on Cumberland Basin, the course of the bay is north-eastward, and the total distance on a direct line is about 100 miles; the breadth across from St. John to the entrance of Didby Gut is nearly 41 miles.

At Cape Chignecto at the junction of the Chignecto Channel, and the branch leading easterly to the Basin of Minas, or at 55 miles above St. John, the entire breadth of the Bay is 30 miles, the entrance of the Chignecto channel being  $15\frac{1}{2}$  miles from the Cape to the north shore. The depth of water from St. John to this channel varies from 50 to 20 fathoms, and the current is at the rate of  $1\frac{1}{2}$  knots per hour.

At Cape Enragé, on the north side of the bay at 70 miles above St. John, the distance across the Chifinecto channel is  $5\frac{1}{2}$  miles, the depth varies from 20 to 30 fathoms,

and the current from  $1\frac{1}{2}$  to 2 knots.

From Cape Enrage to Grindstone Island, on the west side of the common outlet of the Petitcodia, and Memramcook Rivers, at a distance of  $12\frac{3}{4}$  miles farther eastward, the depth of water at centre of the channel is from 20 fathoms to 6, and the breadth across from the north to the south shore is about 6 miles.

From Grindstone Island across, the mouth of the last named rivers to Cape

Maringouin  $3\frac{3}{4}$  miles upwards, the depth is from 6 to 5 fathoms.

The velocity of the current from Cape Enrage to the latter is from 2 to 3 knots,

except off Grindstone Island, where it runs from 2 to 4 knots an hour.

At Cape Maringouin, 85 miles above St. John, the Chignecto channel divides into two branches, the one running northerly up the River Petitcodiac, and the other northeasterly to Cumberland Basin; the latter is  $1\frac{1}{2}$  miles wide, and 5 to 12 fathoms deep across to Boss Point, and the current is at the rate of 4 knots.

From Cape Maringouin to Woody Point, at 97 miles from St. John, the depth varies from 5 to 3 fathoms; the breath of the navigable channel is from  $1\frac{1}{2}$  to  $1\frac{1}{3}$  miles, and the

current from 4 to 5 knots.

From Woody Point to the mouth of River Au Lac. at 100 miles, the channel is

about  $\frac{1}{4}$  mile wide, and 5 to  $2\frac{1}{2}$  fathoms in depth.

Thence south eastward up Cumberland Basin, towards Sharp's Creek, the distance is 4½ miles, and the depth diminishes to almost nothing at extreme low water, which is about 3 feet below ordinary low water; the depths stated in the foregoing are referred to

the latter or to low water of ordinary spring tides; the distances are expressed in statute miles.

## Anchorage, Bay of Fundy.

See Admiralty salling directions, published in Cape St. Mary, on the south point of the outlet of Shepody River, west of Grindstone Island.

"Temporary anchorage may be obtained in moderate weather along the whole extent of coast between Cape Spencer, 10 miles S.E. of St. John and Cape St. Mary, on the south point of the outlet of Shepody River, west of Grindstone Island.

There is an anchorage in 4 fathoms of water to the northward of Grindstone Island, between it and the mouth of the Shepody, on the west side of the Petitco, but it is somewhat difficult of approach, and the holding ground is not good. There is another anchorage to the N.E. of the Island by which is frequently used in about 3 fathoms, a short  $\frac{1}{2}$  mile N.E + E. from its eastern point.

Eastward from Pick point, 2 miles N.E. from Cape Maringouin to Woody point, on the north shore of the channel leading to Cumberland Basin, vessels may anchor any where except during strong westerly winds, which frequently occur when the ebb stream, which attains a velocity of 4 or 5 knots an hour, causes a very disagreeable sea."

"Both branches of the Chignecto channel are encumbered by extensive flats of quick sand and mud, many of which are left dry at low water, and require careful pilot navigation."

#### Winds.

"The prevailing winds throughout the whole coast of Nova Scotia are from W.S.W. to S.W., nearly as steady as trade winds, except during the summer months, when they become rather more southerly, accompanied with but little intermission of fog, which requires a north-westerly wind to disperse." (See Sailing Directions, published in 1866.)

## Local Information respecting Bay of Fundy.

The led of the channel from Woody Point upward is from 1 to 2 feet deeper in April, May and June, than what it is from June to November.

Navigation opens towards 1st April; it closes between 15th November and 1st December for ship navigation, and towards Christmas for the navigation of coasting vessels. Between 1855 and 1857 navigation opened on 18th April, when a vessel was fast in the ice between Cape Enrage and the Joggings; this may happen once in 10 years. Floating ice was seen on the 7th May same year, but this may occur once in 70 years.

The prevailing winds during the season of navigation are S.W. to W., and in April and October they are north-easterly, after the equinoxes; in November the winds are N.N.E. and westerly, but chiefly westerly.

The calmest months are the latter half of May, June and July; the worst months for wind are the latter half of September, October and November.

#### Baie Verte.

The following is from the St. Lawrence Pilot, published by order of the Admiralty: "Baie Verte is 9 miles wide across its entrance from Indian Point at the southern extremity of the promontory called Cape Tonnentine, in New Brunswick, to Cold Spring Head in Nova Scotia, but contracts to the breadth of  $2\frac{1}{2}$  miles near its head. It is 11 miles deep, and separates the Province of New Brunswick from that of Nova Scotia; their boundary continuing across the isthmus from the head of Baie Verte to Cumberland Basin.

Baie Verte is completely open to easterly winds, as well as very shallow near its head, where flats of mud and weeds dry out to a distance of  $\frac{3}{4}$  mile from the shore. It was formerly erroneously represented as being free from danger, with mud bottom, shoaling gradually to its head. The Admiralty survey has in great part deprived it of that character by the discovery of the following dangerous rocky shoals lying directly in the way of vessels entering the bay."

Proceeding south-westward across the entrance of the bay, these shoals are the Spear shoal, having a patch of rock with 10 feet least water near its east end; the Heart Shoal lying about a mile W.N.W. from the Spear Shoal, and S.W. by S. 1½ miles from Cape Spear has 9 feet water, and 15 feet between it and the shore; the Laurent Shoal, of rock and sand, with 16 feet least water, is about ¾ mile long by half that distance in breadth; this shoal is bold on the east side, where there are 4½ fathoms close to; the Aggermore rock, with 18 feet least water, and bearing N.E. ½ E., 2¾ miles from Cold Spring head, is, like the Laurent shoal, merely one of the shallowest points of an extensive rocky bank, which is thinly covered with mud and sand, and which extends out from Cape St. Laurent and Ephraim Island, in a S.E. direction, so as to leave a deep channel, about 2 miles, between it and Cold Spring Head.

At low water, not more than 3½ fathoms could be safely reckoned upon, in running between the Aggermore rock and the Laurent Shoal, or between the latter and the

Ephraim banks, extending off the northern shore.

Between Boss and Jackson Points, there is a dangerous shoal called Boss's sandspit, extending  $\frac{3}{4}$  mile from the south shore at  $3\frac{1}{4}$  miles to the north-west from Cold Spring head. This spit dries out to its edge, and is so steep too, that there are 17 feet water close

to its outer point.

The depth of water between these shoals and Jackson's Point varies from  $3\frac{1}{4}$  to 6 and  $3\frac{1}{4}$  fathoms; from Jackson's Point midway towards Tidnish Head it decreases to  $2\frac{3}{4}$  fathoms. Further up the bay there are two patches of stone with 3 and 5 feet water at the distance of  $\frac{1}{4}$  and  $\frac{3}{4}$  of a mile N.N.E.  $\frac{1}{2}$  E. from Tidnish Head; the depth of water at about  $1\frac{1}{4}$  mile northward from the shore is 2 fathoms; thence it diminishes gradually towards the head of the bay.

## Local Information respecting Baie Verte.

Navigation opens sometimes on 1st March, but generally on 1st April, and closes towards 30th November.

The most prevalent winds are S.W. in spring, S. to S.W. in summer, and N.W. in autumn. Easterly winds are not of frequent occurrence; the worst winds causing the roughest sea are from the E. and S. E.

There is less water in the bay than 30 years ago; between Jackson's and Weeks' Points, the bottom was of clay, and is now covered over with sand one foot in depth; one of the worst parts for sand is about one mile out from Weeks' Point. Towards the entrance of the Tidnish there are oyster and mussel beds.

#### FRESH WATER DISCHARGES FROM RIVERS AND LAKES.

The volumes of fresh water discharged by each of the streams was measured in August, 1870, after a succession of several weeks of very dry weather, and may therefore be considered as a minimum, is as follows:—

Gaspereau	per Section.
Tidnish	10.11
Tintamarre	
Au Lac (almost dry)	
Missiquash	
La Planche	

The general surface elevation of the streams and lakes available for the supply of a canal across the isthmus, is scarcely above the level of the highest spring tide of the Bay of Fundy, Square Lake, or Lowther's Lake at the head of the Gaspereau, is about 50

feet above this level, its depth is about 14 feet, and it covers an area of nearly half a square mile.

The supply that could, under any circumstances, be derived for navigation from any of these sources is so small compared to what will be required, and would be so soon exhausted that its use would not warrant the expenditure necessary to obtain it.

#### TIDAL FLUCTUATIONS.

### Bay of Fundy and Baie Verte.

The variations of the tide were noted every five minutes each day in both bays, except when stormy weather or other obstacles prevented, by means of guages divided into feet and tenths from low water level upwards. The Bay of Fundy gauges were placed near the mouth of the Au Lac, the Baie Verte tide gauges next in the Tidnish Bridge, one and a quarter miles from the outlet of the same. At the Bay of Fundy the tide register was kept from 13th August, 1870, to 21st January, 1871, when the guages were broken down by floating ice; at Baie Verte it was kept from 10th August, 1870, to 1st June, 1871. According to these registers and other observations the tidal fluctuations affecting the practicability of the canal may be enumerated as follows, viz.:—

## Bay of Fundy Tidal Observations, 13th August, 1870, to 11th January, 1871.

	Elevation	on above Datum.
		Feet.
	High water sax by tidal wave, October, 1869	100.00
	Highest water observed during survey, 25th October, 1870	
	Average maximum range of high water, taking the highest	
	spring tide of each month	94.08
	Average mean range of high water, taking the average of high	
	water of every day of each month	
	Average minimum range of high water, taking the lowest neap	
	tide of each month	85.71
	Average maximum range of low water, taking its highest elevation of each month	57.13
	Average mean range of low water, taking the average low	
	water of each month	52.90
	Average minimum range of low water, taking the lowest tide of	
	each month	
	Ordinary low water spring tides	
	Extreme	<b>47</b> ·20
	Feet.	
	Spring tides rise—per Bayfield	
	Neap	
N. 1	B.—High water, Bay of Fundy, remains stationary from 15 to	20 minutes.

# Baie Verte Tidal Observations,

	1100	August, 1010	, w iscoune,	1011.	
Highest tide	bserved	l prior to surv	ey		77.60
do	do	29th Decemb	per, 1870		77.37
A verage max			water, taking		100
spring tie	ie of ea	ch month		5 S S S S	75.75

10

Average mean range of high water, taking the average of	
high water of every day of each month	93
Average minimum range of high water, taking the lowest neap	
tide of each month	15
Average maximum range of low water, taking the highest	
elevation of each month	66
Average mean range of low water, taking the average low	
water of each month, or ordinary low water 69.	28
Average minimum range of low water, taking the lowest tide	
of each month	85
Lowest water observed 30th September, 1870 66	87
Extreme low water, according to local information,—Baie	
Verte soundings are referred to this line	57
Rise of extreme spring tides, or greatest variation	
observed between extreme high and extreme low Feet.	
water 10.50	
Difference between lowest tide observed, and average	
maximum of spring tides 8.88	
Spring tides rise—per Bayfield 9.00	
Neap do do 5.00	

Comparison of tidal fluctuations, Bay of Fundy and Baie Verte, shewing difference of elevation between both bays at high water and low water, affecting the question of lockage.

YEAL WALL	Above	Datum.	Elevation Bay of Fundy above
High Water.	Bay of	Baie	Baie
	Fundy.	Verte.	Verte.
Highest known tides Highest water observed during survey Maximum range of high water, Mean do do Minimum do do	100.00	77 · 60	22·40
	96.00	77 · 37	18·63
	94.08	75 · 75	18·33
	89.77	73 · 93	15·84
	85.71	72 · 15	13·56
Low Water.			Elevation Baie Verte above Bay of Fundy.
Lowest water, according to local information do observed during survey  Maximum range of low water  Mean do do  Minimum do do	47·20	65·57	18·37
	47·20	66·87	19·67
	57·13	70·66	13·53
	52·90	69·28	16·38
	48·26	67 85	19·59

Any further details respecting the rise and fall of the tides may be obtained by reference to the summary appended to this Report, pages 39 and 40, and to the tide guage register books.

August, 1870 to January, 1871.—Longest duration of the lowest range of high water observed during 4½ months.

		Date.	Feet above Datum.	Length of time the water re- mained above elevation of 85 feet over Da- tum.
13th A	Lugust, 1	1870	90.4	2.38
14th	do .		90.2	2.36
15th	do		88.9	2.25
16th	do		88.4	2.15
17th	do		87.5	1.55
18th	do	•	87.7	2.0
19th	do	• • • • • • • • • • • • • • • • • • • •	85.6	1.0
20th	do	••••••••••	85.0	0.0
21st	do		85.0	0.0
		• • • • • • • • • • • • • • • • • • • •		1.5
22nd	do		85.5	
23rd	do		86.0	1.30
24th	do		86.5	1.35
25th	do		88.2	2.10
26th	do		89.7	2 30
27th	do		90.9	2.40
28th	do	, , , , , , , , , , , , , , , , , , , ,	91.5	2.55
29th	do		92.5	3.5

Rise of extreme spring tides, or greatest variation observed between extreme high and extreme low water	48.80
of spring tides	46.88
Spring tides—rise per Bayfield	45.25
Neap	38.00

Difference of time of high and low water at Baie Verte, St. John and Cumberland Lakes.

According to calculation the difference is as follows, viz.:—

		М.
Earlier at Baie Verte than St. John	2	22
" St. John than Cumberland Basin	0	38
,, Baie Verte ,, ,,	3	00
According to simultaneous observations made at each place, the		
difference is		
•	H.	M.
Earlier at Baie Verte than St. John	<b>2</b>	00
,, St. John than Cumberland Basin	0	30
,, Baie Verte ,,	<b>2</b>	30

ELEVATION of Bay of Fundy Tides above ordinary low water, according to tide guage, half a mile below mouth of the River Au Lac, from 13th August, 1870, to 21st January, 1871:—

116.11	1	High Wate	r.	]	Low Water	
Year and Month,	Maximum	Mean.	Minimum.	Maximum	Mean.	Minimum.
1870.  August  September October November December  1871.	1	38·70 40·44 40·35 39·98 39·92	35·00 35·00 35·00 36·20 37·10	Lower sect 5.75 8.50 7.30 7.00	ion of guag by vessel. 0.38 3.07 4.40 3.76	2.75 -2.60 -1.00 -0.60
January	42.60	39.25	36.00	Lower sect	ion of guag by ice.	e destroyed
	264 · 50	238 · 64	214 · 30	28.55	11.61	-6.95
Average	44.08	39.77	35.71	7.13	2.90	-1.74

N.B.—2.75 feet added to the above figures in each column will show elevation of tides above extreme low water.

50 00 feet added to the same figures will show elevation of tides above the datum

line to which the levels of the canal lines have been referred.

The zero of the Bay of Fundy guage was placed at ordinary low water of spring tides, and the datum 50 feet below that level.

Extreme low water of spring tides is 2.75 feet below zero of guage.

The soundings in the Bay of Fundy have been referred to extreme low water.

ELEVATION of Baie Verte Tides above extreme low water of Baie Verte, to which line the soundings of that Bay have been referred. From 11th August, 1870, to 1st June, 1871.

	]	High Wate	r.	1	Low Water	r <b>.</b>
Year and Month.	Maximum	Mean.	Minimum.	Maximum	Mean.	Minimum
1870.  August September October November December  1871.  January February March April May	9·45 9·66 11·00 10·00 11·80 9·38 9·38 10·08 10·20 10·80	8·40 8·32 8·00 8·30 8·83 7·76 8·32 8·41 8·66 8·56	6·95 6·10 5·30 6·50 7·18 5·83 6·61 7·18 7·03 7·10	3·60 4·17 4·00 4·30 5·58 5·63 5·95 6·00 5·85 5·85	2·69 2·40 2·90 3·10 3·64 3·82 4·81 5·07 4·50 4·19	1·60 1·30 1·41 1·70 2·08 2·63 3·45 4·06 2·60
Mean for 10 months	101.75	83.56	6:58	5.09	$\frac{37 \cdot 12}{3 \cdot 71}$	22.82
	Elevation			bove ordinar Bay of Fund		er of Spring
1870. August September October November December 1871. January	25·02 25·23 26·57 25·57 27·37 24·95 24·95	23 · 97 23 · 89 23 · 57 23 · 87 24 · 40 23 · 33 23 · 89	22:52 21:67 28:87 22:17 22:75 21:40 22:18	19·17 19·74 19·57 19·87 21·15	18 · 26 17 · 97 18 · 47 18 · 67 19 · 21	17 17 16 87 16 98 17 27 17 65
February March April May	25.65 25.77	23·89 23·98 24·23 24·13 239·26	22·18 22·75 22·60 22·67 221·58	21.52 21.57 21.42 21.42 206.63	20 · 38 20 · 64 20 · 07 19 · 76	19.02 19.57 18.17 17.62
Mean for 10 months	25.75	23.93	22.15	20.66	19.28	17.85

N.B.—2 75 feet added to elevations above ordinary low water, Bay of Fundy, will give elevation above extreme low water of that Bay.

#### Mud Deposits, Bay of Fundy.

The waters of the Bay of Fundy are highly charged with mud and sand washed by the sea from the red sandstone cliffs and the banks on the borders of the bay.

During the first four hours or more of the rise of the tide, and during the last four hours of its fall, these waters contain so much sediment that they cannot be then used for a canal.

According to the tidal fluctuations observed, the Bay of Fundy waters are available for feeding a canal only when the tide is at least eighty-five feet above datum.

In the event of any lock being placed, or any channel being dredged below the level of extreme low water, provision will have to be made for the purpose of cleaning out the

bottom of the lock chamber, so as to ensure the proper working of the lock gates, and a dredge may be required for cleaning out the channel.

#### Source of Supply Recomended.

From the foregoing data, it is evident that the only source of supply adequate to the requirements of a ship canal is the Bay of Fundy.

Under the above circumstances, the following mode of obtaining an efficient supply of

comparatively clear water is proposed.

1. To admit the Bay of Fundy water freely into the projected canal, after it has

attained an elevation of eighty-five feet in Cumberland Basin.

2. To keep as great a volume of water as possible in reserve in the canal, in order to draw the supply therefrom during low neap tides, without permanently impairing the drainage of the marshes.

3. If this supply is found to be insufficient to construct dams across one or more of the rivers emptying into Cumberland Basin near their outlets, in order to convert them into reservoirs from which water can be drawn when required.

#### Reservoirs.

The rivers or portions thereof that may be used as reservoirs of supply, in connection with the several lines examined, are the Tintamarre, Au Lac, Missiquash and La Planche.

In order to be in position to accelerate the flow of the supply to be derived from the reservoirs, towards Baie Verte, as much as their natural disposition on the isthmus will permit, and moreover to provide for the simultaneous distribution of the water over as large an extent of canal as practicable, it is of importance that the upper reach of the canal should be accessible from these reservoirs, and contiguous thereto at their extreme eastern end, and at several intermediate points, between it and the Bay of Fundy.

Bearing in mind that Fort Cumberland ridge is between the Rivers Au Lac and Missiquash, and Fort Lawrence ridge between the Missiquash and La Planche, it is evident that the only rivers suitable as reservoirs on each of the routes examined, are the Rivers Tintamarre and Au Lac for the Tintamarre and Au Lac lines, the River Missiquash for the Missiquash line, and the River La Planche for the La Planche and Sharp's Creek lines.

These streams have been accuratively surveyed and cross-sectioned at various points.

The following are their respective capacities for one foot in depth, at ordinary high water, or when the tide has reached an elevation of eighty-seven to eighty-eight feet above datum.

Cub. Feet. Large bend of the Tintamarre cut off by dam's X and Y, the river diverted being into new channel Z, so as to allow the tide to ascend as usual to long and Gravelly Lakes, for the forma tion of new marsh land..... 8,500,000 River Au Lac, as far as tide water will reach at an elevation of River Missiquash, from outlet to first intersection with Missi-4,700,000 quash Canal line...... River La Planche, from outlet to Aboideau on Post road ...... 7,800,000 River Tidnish from bridge on post road, at east end of Province boundary, to Doyle's mill dam, during ordinary high water at Baie Verte, or when the tide has reached an elevation of 2,500,000 about seventy-four feet..... The Tidnish is merely intended to receive the waste water from the canal. Proposed Canal.

The draught of water, as recommended by the Canal Commissioners

Draught of water in their Report of the 24th February, 1871, is fifteen feet in the canal; in the canal. they have omitted, however, to state whether this draught should be available during low water at each terminus.

According to the soundings taken, the depth available at extreme low water for vessels ascending the Bay of Fundy to Comberland Basin, towards the Tintamarre and Au Lac is 16 feet at 31:20 above datum. Thence the channel leading to Sharp's Creek becomes very shallow and circuitous, and is obstructed by cross current shifting quicksands, mud deposits, boulders and ledges of rock; it ceases to be navigable at low water except for small craft, part of the way.

The only terminus therefore for a canal accessible at low water to vessels of fifteen

feet draught, is near the mouth of the River Au Lac.

The terminus for a canal accessible to vessels of the same draught at about half tide, or when the surface of the water in Cumberland Basin has attained an elevation of sixty-six feet, above datum, can be located between Au Lac Point and Sharp's Creek; the best entrance in such case would be between the outlet of the La Planche and Sharp's Creek.

Bay Verte In Baie Verte the tide recedes from one half to three-fourths mile terminus. from the west shore sea-wards, at extreme low water, which is at an eleva-

tion of 65.57 above datum.

Any channel below this level must be obtained by dredging, and the sides of the cut must be protected by crib-work from the shore eastward. In order to obtain such a channel with a navigable depth of fifteen feet at extreme low water, at the shortest distance from the western shore, the eastern terminus of the canal should be located near Tidnish Head, whence the distance is 9,200 feet to sixteen feet depth of water.

At the eastern terminus of Lac line viâ Baie Verte Village, near Dank's Point, the length of artificial channel to be dredged to the same depth, and to be protected by crib-

work, would be 19,000 feet.

Line recommended for canal. The most favorable route with respect to access at low water, elevation ed for canal. of the ground, water supply and drainage of adjoining lands, is the Au Lac line, viâ Tidnish.

Level for canal The levels best adapted for insuring an uninterrupted and sufficient and reservoir &c. supply of clear water are as follows, viz:—

Water surface, upper reach of canal and reservoirs,—minimum	Above Datum.
elevation	
Water surface of tide water retained in upper reach of canal and	
reservoirs, maximum elevation	88.00
Canal bottom, upper reach	69.00
Top of embankment and towing path two feet higher than highest	
known tides, minimum elevation	102.00
Top of dykes along river Au Lac from which the tide is now	
shut out by the Etter Aboideau	98.00

If this river is converted into a reservoir, the aboideau will have to be removed for the passage of the water, and a bridge constructed for the post road and railway across the same; new dykes will also have to be constructed in the place of the old ones, which are now in a dilapidated condition, for a total length of 19,000 lineal yards by about eight feet in height.

The total number of locks required is four at the western and two at the eastern terminus; their respective elevations and lifts from one level to the other, are as follows:—

At Cumberland Basin:—	Elevation above Datum.	
1st lift from extreme low water in lock	No. 1 at 47.20	} 15.13
2nd lift from water surface of lock	No. 2 at 62.33	12.33
3rd lift from water surface of lock	No. 3 at 74.66 at \$8.00	<b>13·33</b>

Lock No. 4 has been added in order to exclude the tide from the upper reach of the canal, after it has reached a greater elevation than eighty-eight, in case it should be found necessary to do so.

At Baie Verte :—	Elevation above Datum.	Lift Feet.
1st lift from extreme low water in lock  At eastern entrance to water surface of tide l  2nd lift from surface of water in lock  To surface of water in upper reach of canal	No. 6 at 55.57 \ lock, No. 5 at 77.57 \ No. 5 at 77.57 \ at 88.00 \	12·00 10·43
· · · · · · · · · · · · · · · · · · ·	<u></u>	22:43

As the increase of trade might prove hereafter to be such as to require a depth of nineteen instead of sixteen feet in the canal for vessels of a greater draught, it is desirable to sink Locks Nos. 4 and 5 three feet lower at each end of the upper reach than what is actually required for a draught of fifteen feet over the sills. In such case, however, at extreme low water spring tides, vessels drawing over fifteen feet can neither enter the canal nor leave it before the tide has risen at least three feet, or to an elevation of 50·20 above the datum line.

It may be proper to observe that the word draught, in all cases, means the depth of water over the tops of the lock sills, and that the sills are placed one foot above canal bottom.

At the western terminus there is a basin of 600 by 300 feet above each of the first three locks; at the eastern terminus there is the same number of basins, one above lock No. 5, one between Locks Nos. 5 and 6, and one below Lock No. 6.

Basins. These basins will give increased accommodation to vessels in their passage from one lock to another; they will also serve to economize the greater portion of the water that would otherwise be lost, in case of successive lockages in opposite directions through the same flight of locks.

At the western terminus on Lac Point, the artificial channel to be excavated is some 2,000 feet in length and 300 feet in width between the piers required for its protection from the shore westward; thence some dredging will be required for a distance of 2,500 feet further in the same direction.

From Lock No. 4 to Lock No. 5 above Tidnish bridge, the bottom of the canal prism on the upper reach is 100 feet wide, at the elevation of 69 feet, and the side slopes are two horizontal to one vertical; the depth of water is three feet more than what is required for navigation in order to ensure a full supply towards the Baie Verte end of the canal and to provide against the emergency of the water being drawn off by repeated lockages faster than it can be supplied during a long succession of neap tides; this surplus quantity will also be required in case the supply from the reservoirs should have to be stopped for the purpose of cleaning out or repairing the same.

From the basin below Lock No. 6 at Tidnish Bridge, the canal prism as far as Tidnish Head, is of the same dimensions as on the upper reach; thence to sixteen feet water in Baie Verte, at extreme low water, the channel to be dredged from the shore, seaward, is 9,200 feet in length and 300 feet in width between the piers necessary for its production.

### Efflux and Supply of Water.

The probable average maximum lifts on which the volume of efflux depends, are effected by the tidal fluctuations at each end of the projected canal; they may be set down at thirteen feet in the Bay of Fundy, and at eight feet in Baie Verte.

If sixty lockages per day of twenty-four hours, through the canal, are taken as the basis of calculation, the average volume of water discharged daily into Cumberland Basin, after deducting 20,000 cubic feet for the space occupied by a vessel in any of the locks,

62—3

would be	
The whole would thus be equivalent to a daily discharge of	11,084,000
or to a semi-diurnal discharge of	
thereto, for scouring purposes, leakage, evaporation and absorption, is	
The total semi-diurnal discharge, will therefore probably amount to	

As tide water supplies are intermittent and variable according to the phases of the moon, it is evident that in order to be constantly in a position to meet the daily consumption of 12,800,000 cubic feet, the total volume of water kept in reserve and available at elevations varying from 85 feet upwards above datum, must necessarily be large enough to allow of keeping up the supply the whole of the time during which the semi-diurnal tidal influxes fail to make up the corresponding losses sustained.

Although such a deficiency in the supply might occur for as many as ten consecutive days, during an unfavorable succession of tides similar to that observed in August, 1870, when the water rose scarcely to an elevation of 88 feet, or to the height proposed for the summit level of the upper reach of the projected canal (see tidal fluctuations, page 37)—it may be safely assumed that the volume of water that would have to be drawn from the surplus kept in reserve between the elevations of 85 and 88, would never exceed the total quantity necessary to work the canal during 6 days, viz:—76,800,000 cubic feet; this quantity is considered sufficient to supply the total deficiency during a range of tides such as that referred to.

Out of the total volume required, 44,000,000 cubic feet are admitted directly into the canal; the remaining 32,800,000 cubic feet, and a surplus quantity of 5,000,000 are held in reserve in the River Au Lac between the same elevations of 85 and 88, by means of a dam constructed across it towards its outlet; the water from this reservoir must be furnished to the canal by means of supply weirs and raceways, as indicated on the plan at the points marked A. B. C. D. E.

If a greater quantity of water is required any time, on account of the deepening of the canal, for the passage of vessels of eighteen feet draught, instead of fifteen, or for other purposes, the portion of the River Tintamarre before referred to, may be converted into a reservoir, thus adding 25,000,000 cubic feet to the volume of water in reserve.

The main feeder at the western entrance of the car al, as shown on the plan, is about 5,000 feet in length, and varies in width from 500 feet at the shore end, to 250 feet at its junction with the canal; its elevation at bottom is 84 feet above datum, and its water surface corresponds with that of the tide above this elevation.

The bottom elevation of the supply weirs and raceways should be the same as that of

the main feeder, the water surface being the same as that of the reservoirs.

The dam at the mouth of the Au Lac should be constructed with sluice gates for the purpose of emptying the reservoirs when necessary at low tide, and for draining the canal; it should also be built so as to maintain the water at the required height in the reservoirs, and so as to shut out the tide if found necessary.

Two of the supply weirs should be sunk to a depth of one foot below the bottom level of the canal or to an elevation of sixty-eight above datum at B and D, so as to drain off the water into the River Au Lac, and two waste weirs should be constructed at the points H and I, so as to drain the canal, or let off the surplus water into the River Tidnish, independent of the three waste weirs shown at the points F, G and J, for the efflux of the surface water.

#### Excavation.

In calculating the quantity of excavations to be done for the construction of the canal, provision has been made for the removal of the muck and soft material from the side slops of the canal prism, and from the seat of all embankments across the bogs, swamps or other wet lands.

On the south side of the canal, where it is proposed to place the towing path, if the elevation of the ground is greater than 102 feet above datum, it is reduced to the level for a breadth of 20 feet, including 5 feet for a side ditch, or to a lower level if necessary on account of mucking. On the north side, the breadth calculated to be removed to prevent the sliding of muck, land, or of any soft material into the canal, is 10 feet.

The towing path embankment is supposed to be 10 feet wide at the top, with side slopes of two horizontal to one vertical.

The calculation of the dredging at the termini includes the removal of all material for a breadth and depth sufficient to sink the piers to the same level as the bed of the channel.

At the eastern end of the canal, the lower locks Nos. 5 and 6 are shown on the upper side of Tidhish bridge, with dams on either side across the river, for which a new channel with a regulating weir is supposed to be constructed for the passage of the water through the lower reach of the canal into Baie Verte.

This location appears to be advisable—

1st. In order to avoid the construction of a tunnel for the escape of the river water under the canal, because it would be liable to fill up with sand and saw dust or other refuse matter from the stream and mills thereon above.

2nd. If a dam is built across the Tidnish without any outlet for the water, the mills would become useless, and extensive area of low land would be permanently flooded, and the drainage of lands along the river would be much impaired.

3rd. The soil between Tidnish bridge and Tidnish Head, for a distance of  $1\frac{1}{2}$  miles, according to the borings made, is of a sandy nature and does not appear to be suitable for lock foundations.

4th. Even if a good foundation can be found, on further examination, by the sinking of test pits, the waters of the Tidnish would be permanently raised to the same height as the summit level of the canal and the low lands inundation for several miles upwards, or a tunnel for the escape of the water would have to be built, if the locks were placed near Tidnish Head.

The location of the locks near Tidnish bridge, will however involve the necessity of excavating an extra depth of  $1\frac{1}{2}$  miles, or an additional quantity of 443,500 cubic yards.

As ditches for the drainage of the lands on the north and south sides of the canal must be dug, the quantity to excavate for this purpose has been included with the other excavation.

The probable quantity of excavation to be done on each of the lines examined for the projected canal, the length of each line, and that of the piers required at the various termini are shown on the comparative statement appended hereto at pages 21 & 22.

#### Land Required.

The extent of land that would probably be required for the canal and outside drainage is about 500 feet in width for a distance of 1,884 miles, equal say to 1,146 acres.

Its cost, according to an estimate made by A. Monro, Esq., P.L.S., who acted as one of my assistants during the survey, will probable amount to \$68,000, including water damages.

### Fencing Required.

The total length of fencing required on both sides of the canal from the shore to shore, will be about 199,000 feet.

#### Number of Bridges Required.

One permanent bridge of probably 700 feet in length will be required across the River Au-Lac for the Intercolonial Railway and Post road, and 9 swing bridges across the other roads traversed by the canal.

Extent of Bog and Bush Land.

The line passes over 27,000,000 feet in length of bog land, and 24,000,000 feet of bush land.

In concluding this Report on the Baie Verte Canal Survey, I beg to acknowledge the valuable assistance rendered during the survey by Messrs T. Guerin, A. Monro and R. Steekel

Should any further information be required during my absence from Ottawa this spring and next summer, I beg to refer you to Mr. Steckel, who has assisted me constantly on the field, and has prepared the general map and principal profiles of the entire work.

I have the honor to be, Sir, Your most obedient servant,

(Signed,)

G. F. BAILLAIRGE,

Assistant Chief Engineer, Public Works.

John Page, Esquire,
Chief Engineer,
Department Public Works.

COMPARISON of the various lines described, with respect to Length, Quantity of Excavation and the Piers at the Termini.

	Length	_	intity of Exc	Quantity of Excavation to be done.	ne,	Total	Length of	Total
Names of Lines.	line.	Dredging. Cub. yds.	Mucking.	Earth. Cub. yds.	Rock. Cub. yds.	excavation.	Termini. — Feet.	Piers at Termini. Feet.
Sharp's Creek line, accessible only at half-tide, at the Bar of Fundy Terminus, for vessels of 15-ft. draught, Shore to shore.  Do do ordinary low water, Bay of Fundy  Do do 16-ft. at extreme low water, Baie Verte	18.07 0.60 1.74						West. 6,000:00 East. 18,400:00	
	20.41	1,572,222.12	308,967-51	16,156,463.87	3,686,529.02	21,724,182.52	24,400.00	24,400.00
La Planche line, accessible only at half-tide, at the Bay of Fundy Terminus, for vessels of 15-ft. draught  Shore to shore  Do do ordinary low water, Bay of Fundy  Do do 16-ft. at extreme low water, Baie Verte.	17.19 0.70 1.74						West. 7,200:00 East. 18,400:00	
	19.63	1,811,657.31	342,963.80	15,542,697.02	3,686,529.02	21,383,847.15	25,600.00	25,600.00
Missiquash line, accessible at extreme low water in Bay of Fundy and Bale Verte, for vessels of 15-ft draught Shore to ahore.  Do do 16-ft at extreme low water, Bay of Fundy Do do ", Bay of Fundy Do do ", Bay of Fundy Do do ", Bay of Fundy Do do ", Bay of Fundy Do do ", Bay of Fundy Do do ", "	18'86 0'70 1'74						West. 4,000.00 East. 18,400.00	
	21.45	2,255,677.73	493,198.14	18,684,358.89	1,207,508.47	22,640,743.23	22,400.00	22,40 0.00
Au Lao line viä Tidnish, accessible at extreme low water in Baie of Fundy and Baie Verte, for vessels of 15-ft, draught.  Shore to shore  Do do 16-ft at extreme low water, Bay of Fundy Do do	18.84 0.85 1.74						West. 4,000:00 East. 18,400:00	
	21.43	2,255,677-73	357,505.90	357,505·90 16,972,395·29	2,472,054-22	22,057,633-14	22,400.00	22,400.00

COMPARISON of the various lines described, with respect to Length, Quantity of Excavation and the Piers at the Termini.—Continued.

Cub vds		West. 4,000.00 East. 38,000.00	West. 4,000 '00 - East. 38,000 '00	West. 4,000 '00 - East. 38,000 '00 42,000 '00	West. 4,000'00 Bast. 38,000'00 42,000'00 West. 500'00 Bast. 18,400'00
Cub. yds.	-		6 4,878,815.81	66 4,878,815-8	698,927.79 12,812,249.26 4,878,815.81
Cub. yds.			12,812,249.26	12,812,249.26	698,927.79 12,812,249.26
Cub. yas.			638,927.79	698,927.79	698,927.79
Cub. yas.				3,787,785-15	3,787,786.15
TATTICE.		3.60 3.60	17.04 y 0.85 y 3.60 21.49	17.04 17.04 17.04 21.49	21.49
		Au Lac line via Baie Verte Village, accessible extreme low water in Bay of Fundy and Baie Verfor vessels of Lb-ft, draught.  Bhore to shore.  Do do 16-ft at extreme low water, Bay of Fundy Do do,,, Baie-Verte	Au Lac line vià Baie Verte Village, accessible extreme low waster in Bay of Fundy and Baie Vert for vessels of 15-ft, draught. Shore to shore. Do do 16-ft at extreme low waster, Bay of Fund Do do ,, ,, ,, Baie-Verte	Au Lac line via Baie Verte Village, accessible extreme low waster in Bay of Fundy and Baie Verfor vessels of 15-ft. draught.  Shore to shore.  Do do 16-ft at extreme low waster, Bay of Fundy Do do """.  """ Baie-Verte ""  Tintamarre line via Tidnish, accessible at extreme low waster in Bay of Fundy and Baie Verte ""  """ Baie-Verte ""  "" Baie-Verte "" "" "" "" "" "" "" "" "" "" "" "" ""	Au Lac line via Baie Verte Village, accessible at extreme low water in Bay of Fundy and Baie Verte for vessels of 15-ft, draught.  Blore to shore.  Do do 16-ft at extreme low water, Bay of Fundy Do do ""." Baie-Verte.  SThitamarre line via Tidnish, accessible at extreme low water in Bay of Fundy and Baie Verte for vessels of Bhore to shore.  Do do 16-ft at extreme low water, Bay of Fundy Do do do ""." Baie Verte.

## RETURN

To an Address of the House of Commons, dated 22nd May, 1872;—For copies of all correspondence, Orders in Council, reports, estimates, plans, specifications and other papers relating to the deepening of Shippegan Gully.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 5th June 1872.

[In accordance with the reccommendation of the Joint Committee on Printing, the above Return is not printed.]

### **RETURN**

In reference to the expenses of transport of Emigrants over the Red River Route, during the summer of 1871.

[In obedience to the Order of the House of Commons of 22nd April, 1872.]

Оттаwa, 21st May, 1872.

Memorandum.

Annexed is a statement shewing the number of emigrants conveyed over the Red River Route, between Lake Superior and Fort Garry, during the summer of 1871.

No teams or men were maintained at Prince Arthur's Landing last year, exclusively for the conveyance of emigrants. The number of teams on the Thunder Bay road varied from 15 to 30 and they had to be kept up for the carriage of stores to the works in progress, and the transport of troops as well as for the use of emigrants. The average cost of each team with driver, including passage from Collingwood and all expenses, was \$4.00 per day.

On the navigable sections, between the westerly terminus of the Thunder Bay road and the north-west angle of the Lake of the Woods (310 miles) a number of boats and steam-launches were maintained for the conveyance of emigrants, stores for the works and the transport of troops, but there was no separate organization for emigrants. When they made their appearence they were taken forward by the men on the works.

In regard to the Lake of the Woods road, that is, the road extending from the north-west angle to Fort Garry, the mode of conveyance was by carts drawn by horses or oxen. The hire of a man with two such carts averaged 8 shillings sterling per day. The man was supplied with rations, but he had to find his own cattle in provender. If the carts had to be kept waiting at the north-west angle, which was frequently the case when emigrants were expected, they were then allowed only 5 shilings sterling per day, that is, for a man with two carts and two horses or oxen.

Last year, the number of emigrants being small, no fair criterion was afforded of what the cost per head would be for greater numbers; but in the present state of the route if as many as one thousand emigrants should offer, they could be taken through at \$25.00 per head; two thousand would cost, about \$15.00 per head, and four thousand might be taken at \$10.00 per head that is, from Prince Arther's Landing to Fort Garry.

When the spring opened last year, the route with the exception of the Thunder Bay and Fort Garry roads, was in a very primitive condition; during the past summer the portages were opened and dams built to improve the navigation. By the 1st of August of the present year, there will be 9 steam launches and two large steamers on the navigable sections. Barges are being provided for the conveyance of horses and heavy articles and waggons and teams have been purchased for the Fort Garry road.

When the means of transport now being prepared are in operation, farmers will be able to take their horses and heavy implements over the route without difficuty or any great delay. During the past winter, comfortable buildings were put up for the accommodation of emigrants at Shebandowan, Kashabonne, Height of Land, and Fort Francis. Material is in readiness for sheds and houses which will shortly be put up at the North-West Angle, and between that point and Fort Garry there are houses and sheds at convenient in tervals.

Respectfully submitted, (Signed,) S. J. Dawson.

F. Braun, Esq., Sscretary.

Department of Public Works, Ottawa.

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RED RIVER ROUTE.—

# RETURN shewing number of Emigrants passed over the route from

	1		1		1
No. of Persons.	1			T 1	
46.08	Date.	Name.	Country.	Last place	Religious
	Date.	) Traine.	Country.	Residence.	Denomination.
ŝ.	1		i	Tresidence.	. Denomination.
	·	<u> </u>			
_	1871	25.0		J	<u>_</u>
1	June 21	George McCrea Joseph Glann	Canada	Co, Bruce	Presbyterian
<b>2</b> 3	T 99	Alfred Andrews	Theland	Co. Grey	Charles E. Hard
4	o une 22	P A Robertson	Canada	Co Northfold	Prosbuterion
5	"	E. Armstrong	Ireland	(,	Church of England.
6	4.6	M. McFaden	Canada	Stratfort	Church of England Presbyterian Church of England
					1
~		C . M. DLENE	١, ,		
7 8	"	Den Farbes	Move Seetie	Seaforth	Roman Catholic Presbyterian
9	"	D. H. Coulter	Canada	Co. Porth	Methodist
10	"	S. G. Dorand	••	(6	Quaker
11	"	Geo. Edwards	**	1	i Mathodist
12	"	Andrew Laing	"	Owen Sound	Presbyterian
10	,,	Hanny Marchall			
13 14		Henry. Marshall G. McLaughlan		Co Wellow	
15	"	Ben. Jones	Canada	Owen Sound	Mathodist
16	"	Barbara Jones	• • • • • • • • • • • • • • • • • • • •	"	Presbyterian
17	44	Margaret Wilson	Scotland	66	
18		Christiana McKay	**	**	"
19	"	B. J. Jerolamy	Canada	<b>"</b>	
20 21	"	B. J. Jerolamy Adam Beathy J. Smith D. Baxter John Kickwood	W	Co. Leeds	
22	46	D. Bayter	England Trelend	Mnakoka	Church of England
23	**	John Kickwood	Canada	Toronto	Frespyteman
24		Weiter Depend	••	Co Tooda	Church of England
25	"	Anderson	England	Toronto	" ingland
26	**	John Dailing Wm. C. Calklin John W. Geddie	Canada	Co. Leeds	Presbyterian
27 28	**	John W. Geddie	Nova Scotia	Halifax	Methodist
20		Philip Thomas	England	Co Double "	Presbyterian
29 30	"	Elizabeth Thomas	England	Co, Fertil	Church of England
31 !	66	Wm. Thomas	Canada	"	"
32 33	66	Wm. ThomasGeo. Thomas	««	"	"
33				66	***
34 35	"	Priscilla Thomas Philip Thomas Richard Thomas	· · · · · · · · · · · · · · · · · · ·		66
36		Richard Thomas	"	"	45
37	- 1.	camina inomas	•	"	,
38	1	Margaret Thomas	*	"	"
39		Frank McPhillips	"	Windsor	Roman Catholic Church,
40		Magnus Regg	••	Ottown	Ducabertonia n
41 42	"	John D. Parr	Ingland	Stratfort	Church of England
43	"	Charles Smith	England	Montreal	*****
44		wm. Gooderiage	** **********	Co. Northumberlandi	"
45	"	W. A. Piers		Halifax	"
46		Chas. Goodridge	** **********	Co. Northumberland!	**
47 48	"	D. H. McKenzieJohn McKenzie	Nova Scotia	Nova Scotia	Presbyterian
49		A		******	• • • • • • • • • • • • • • • • • • • •
50	"	Sydney S. Scouten	Canada	Co Fronteneo	Church of England Methodist
51	· · .	A. C. Kemp	England	Middlegey	66
52	" []	N. Hutchison	4		Deist
53 54		John Matheson	Canada	Welland	Methodist
55		George King	maranai	York	Unurch of England
56	66 13	Wm Lanican 1	Two law d	O	"
57	* "	Wm. McDonald	44	∪ævæ	* *****
58	- "	Wm. Sawnders	Jermany	Rhine Pro	Roman Catholic Church
59	June 7 1	Richard Pelly	England.	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Episcopalian
			2		· ≠=== * *** *** * * * * * * * * * * * *

### NORTH-WEST TERRITORIES.

Fort William to Fort Garry, for the year ended 31st December, 1871.

Age.	Single,	Married.	Children.	Trade or Occupation,	No. of Tickets.	Issue of Tickets.	Remarks.
30 32 21 23 45 42	annan :	M		Farmer	1 1 1 1 1 1	At. Govt. Depot T. Bay.	Paid Cash
59 21 24 54 22 24		M M		FarmerJoinerFarmerCarpenter		Per Steamer Chicora	23 lbs. ex-baggage, pd. 35 c. at
21 28 48 36 18 27	മതതയ: : ത	M M M		" Clergyman	1 1 1 4 1 2	" ····	Depot, T. Bay. 260 lbs. ex-baggage, pd. \$3.90 at Depot, T. Bay. 2850 lbs ex-baggage, pd. \$42.25 at Depot, T. Bay.
27 27 26 18 21 21	aaaaaaaaa			Surveyor's Asst. Draftsman Farmer Gentleman Miller Gentleman	1 1 1 1 1 1 1	Per Northern R, Co. Tor. "" "" "" "" ""	
20 22 19 40 36 14	SSS ::::	M M		Merchant Chemist and Druggist Clerk Farmer	1 1 1	" "	50 lbs. ex-baggage, pd. 75 c.
9 7 5 4 2			8	<u> </u>	5		160 lbs. ex-baggage, pd. \$2.40
24 21 21 21 20 22 19	a a a a a a a a a a a a a a a a a a a			Surveyor  Asst  " " Draftsman Farmer Clerk	1 1 1 1 1 1	   	303 lbs. ex-baggage, pd. \$4.54 25 lbs. ex-baggage, pd. 37 c.
20 36 27 23 23 21 27 25 26 27 30		M		Surveyor Baker Surveyor's Clerk.	1 1 1 1 1	" " Gov. Depot T. Bay	Ch, to Dept. Militia & Defence
21 27 25 26 27 30	mananan	••••		Laborer Carpenter Silk Spinner Laborer Baker	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	46	66 66
31 22	8	••••	••••	Silk Spinner Surveyor	1	" 3	Charge Maintoba Survey.

## RED RIVER

_	.1				
of ersons.	1			I Tankalasa '	Delimina
<u>س</u> [08	T	NT	C	Last place	Religious
	Date.	Name.	Country.	of Residence.	Denomination.
NO. P.	1	!		itesidence.	Denomination.
2	l		! <del></del>		
	1871		j		
60		Hamnet Pinhey	Canada		Roman Catholic
61	! "	Peter King	! **		Presbyterian
62	"	G. A. Doucette	"	Cacouna	Roman Catholic
63	"	J. A. Beaudry	"	Montreal	
64	"	C. C. Smith		"	Episcopalian
65	1	A. Piché	*******	••••••	Roman Catholic
66	June 8	And. White	Scotland	Halton	Presbyterian
67 68		Philip McKay	Canada	Claman	
69	"	James Irvine		Glengarry York	Episcopalian
70	"	Sarah Mellon	England	"	Episcopanan
71	"	Philip Mellon	Canada	66	
$7\overline{2}$	"	Wm. Mellon			
$7\overline{3}$	"	Wm. McCarthy	"	Richmond	Presbyterian
74	"	Joseph Hall	"	Simcoe',	
75	1 "	Ed. Brook		Perth	"
76	"	Sarah Brook	"		46
77	1 :: 1	John J. Brook	********		
78	"	Ed. Brook			
79	! "	Letitia Brook.			
80 81	"	Mary A. H. Brook		**********	
82		F. J. Brook W. H. Brook	"	**	
83	"	Wm. Gorden	Nova Scotia	Bradfort	"
84	June 24	Fred. Measen	England	Ottawa	Episcopalian
85	٠٠	David Ferneri	Canada	Madoc	** **********
86	"	Daniel Low	"	County Bruce	"
87	"	Sarah Low	Ireland		"
88	."	Jos. Low	Canada	<u> </u>	
89	"	Jas. Humphreys	England	Toronto	
90	"	Geo. Berridge		"	Lutheran
91 92	A 770	W. Wagner	Germany	,,	Lucheran
93	Aug	F. Fener	"		"
94	"	R. Woods	"		Presbyterian
95	"	H. McRae	Canada	Glencoe	
96	"	W. Nordheimer	"	Toronto	Episcopalian
97	"	W. Brabascon	"	"	""
98	"	W. Barbascon, Jr	"		••••••
99		Moses Frost	Germany	Sand Point	• • • • • • • • • • • • • • • • • • • •
100		L. Frost	g	o "a ·:·····	Dank
101	1 " 1	John Smith	Scotland	Owen Sound	Presbyterian
102 103		R. W. Rossiter Henry Daniels	England	Toronto	***************************************
104	Scha,	Tir othy O'Brien	76	1019110	Roman Catholic
105	"	John Conway	. "	"	Presbyterian
106	'' '	James McIlroy	Scotland,	County Perth	
107	46	Mrs. Mulvey	Ireland	County Haldimand.	46
108	"	W. Mulvey	Canada		"
109	66	Barbara Mulvey	**	"	"
110	"	John Mulvey	"	"	"
111	" 1	Stewart Mulvey	"	"	
112		Thos. Mulvey	"		Baptist
113 114		Francis Willock			
115	"	Thos Ellis	"	" "	Presbyterian
116	**	John Wrixon	Ireland	Peterboro'	Episcopalian
117		Ellen Wrixon	England.	44	*********
118		mannan wrixon	***********	64	66
119	"	Chas. Wrixon		"	
120	_ "	Joseph Lodge		Toronto	46
121	Sept. 17	Geo. Wright	"	Charlotteville	
122		John Provan	Scotland		Presbyterian
123	zept. 19	Saml, Jas, Corbett		County Victoria	minmcolumn
			4		

## ROUTE.—Continued.

Age.	Single.	Married.	Children.	Trade or Occupation.	No. of Tickets.	Issue of Tickets.	Remarks.
23 24	SS	 		Asst. Surveyor	1	Per Northern R. Co Gov. Depot T. Bay	Charge Manitoba Survey.
32 28	S	····	····	Surveyor	$\frac{1}{1}$		"
21 27	S			" Asst	1	Northern R. Co	"
24	S			Stone Cutter	1 1	Northern R. Co	
$\frac{27}{24}$	S			Quarry man Farmer	1	"	
33	ļ	M		"	1		İ
$\frac{22}{2}$				• • • • • • • • • • • • • • • • • • • •	1	••••••••	
í					1 1/2	"	
44		M		Storekeeper	1	· · · · · · · · · · · · · · · · · · ·	
47 48	S		• • • • •	Farmer		Str. Chicora	  900 lbs. ex-baggage, pd. \$13.5
35		М		Carpenter	1	" " " "	boo ibs. ox bugguge, pa. wib.e
11				•••••	11	"	
9				• • • • • • • • • • • • • • • • • • • •	13	1	
6			•••		}1	"	
3 1		i			1 1	"	
1					1 1	"	543 lbs. ex-baggage, pd. \$8.1
$\frac{38}{16}$	S	• • • •	• • • •	School Master	1 1		1010 IDB, CX-Diaggago, put 4012
21	š			Surveyor	1	Gov. Depot T. Bay	
40		M		Farmer	1	Chicora	926 lbs. ex-baggage, pd. \$13.8
36 19	•••	M	• • • •	•••••	1 1	"	
28		м		Clerk	ī	Northern R. Co	
24	S	1		Sailor	1		490 lbs. ex-baggage, pd. \$7.3
53 28		M		Surveyor	$\begin{vmatrix} 1 \\ 1 \end{vmatrix}$	"	
45	S			Asst. Surveyor	l i	"	
32	S			"	1	"	
$\frac{30}{21}$	S		••••	Gentleman	1 1	"	
50		M	l::::	Surveyor	1	"	1
19	S			Asst. Surveyor	1	Thunder Bay	Paid \$2
39 28	l s	M	••••	Lumberman	1 1	1 nunder Day	
32		M		Carpenter	1		1180 lbs. ex-bag- " 2
33		M	ļ	- "6	1 1	Northern R. Co	} gage, pd. \$17.71.   " 2
16 16	S	• • • •		Asst. Butcher	1 1	· · · · · · · · · · · · · · · · · · ·	!
16	S		i	No Trade	1	" ·······	
52		M		Carpenter		Str. Algoma	
$\begin{array}{c} 34 \\ 12 \end{array}$	, <u>c</u>	M			1	"	1
10	SS		l		<b>}</b> 1		
8	8		ļ		11.		
6 3	88	••••	• • • •		1		
50		M		Farmer		Thunder Bay	Paid \$2
36		M		"	1	"	46 2
20 39	s	1.35		46	1	Northern R. Co	80 lbs. ex-baggage, pd. \$1.20
28		M	 	"	1	"	1
24		M			1	"	1 1
2	S			36. 15.5A	12		110 lbs. ex-baggage, pd. \$1.6
25 52	••••	M	• • • • •	Machinist Butcher	i	66	
24		M		Mechanic	1	"	100% the av becomes nd #2 25
27	1	M		Farmer	1 1	St. Chicora	225 lbs. ex-baggage, pd. \$3.37

### RED RIVER

No. of Persons.	Name.	Country.	Last place of Residence.	Religious Denomination.	
1871 124 Sept. 17 125 Sept. 17 126 " 127 128 " 129 " 130 " 131 " 132 " 133 " 134 " 135 " 136 "	Samuel Corbett John Ham Rebecca Corbet Margaret Corbet Mary Mathilda Corbet Maryt. Angeline Corbet Laura Ann Corbett R. S. Corbet Wm. H. Corbet John Spratt Elizabeth Spratt John McLean Alfred Dalton	England. Canada Ireland. Canada	" " " " " Co. Russell Co. Peterboro'	Methodist Episcopalian  ""  ""  ""  Methodist	

OTTAWA, 31st December, 1871.

### ROUTE.—Continued.

	1 Gtm Chicana	1
A School Teacher	1 " "	. 225 lbs. ex-baggage, pd. \$3.37½
Farmer	1   Northern R. Co   1   1   Gov. Depot T. Bay	Paid \$25
1	Farmer	Farmer 1 Northern R. Co

Certified correct.

(Signed,) D. A. GRANT,
Acct. and Pay Master.

RED RIVER ROUTE.—NORTH-WEST TERRITORIES.

RETURN shewing number of Passengers forwarded over the Route from Fort Garry and intermediate Stations to Thunder Bay, Lake Superior, to 31st December, 1871.

	Remarks.	These men worked their way over part the route, from Fort Garry to Thunder.  Bay, and were allowed an abatement.  harge to Dept. Militia and Defence.  do do do
		\$ cts.   These men worked their way over 10 00   Liber outs, from Fort Garry to Thu 10 00   Liber outs, from Fort Garry to Thu 15 00   Liber outs, from Fort Garry to Thu 15 00   Liber outs, from 1
	Amount received from Passengers,	25 25 25 25 25 25 25 25 25 25 25 25 25 2
	To.	Thunder de Bay de de de de de de de de de de de de de d
	From.	Fort Garry  do do do do do do do do do do do do do
	Name.	W. Paden D. McKenzie W. E. Jones W. H. Head W. E. Jones W. H. Hand W. A. Linn H. A. Allan R. J. Wettenhall Robert Dillworth John Kelly Thos. Savage J. Collins R. Boulton R. D. Wollins R. Boulton R. Offloers 2nd Batt. Quebec Rifles J. Pickfort J. Pickfort Offloers 2nd Batt. Quebec Rifles Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers Non-com. Officers
	Date.	Sept. 11 Sept. 25 Sept. 25 Sept. 30  Cot. 6  '' '' '' July 15
	No.	

8

Certified correct.

D. A. GRANT,
Act. and Pan Master

(Signed,)

OTTAWA, 31st December, 1871.

## RETURN

To an Address of the House of Commons, dated 1st May, 1871; For Copies of all correspondence relative to Fees charged by American Officials on Goods and Produce passing through the United States in bond.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE. OTTAWA, 10th May, 1872.

CONSULATE GENERAL OF THE UNITED STATES FOR THE BRITISH NORTH AMERICAN PROVINCES.

MONTREAL, February 25th, 1858.

SIR,—In order to prevent detention at the frontier ports, you are directed to notify shippers of the following regulations of the Treasury Department of the United States:—

Invoices are required to be certified by Consular Officers in the following cases:—

1st.—On dutiable goods, where the owner does not reside in the United States.— Treasury Regulations of 1857, Articles 203, 204, 206, 207, 209, 281, 287, 706 & 707.

2nd.—Where the manufacturer is part owner, notwithstanding another part owner resides in the United States, the invoice of the goods must be accompanied by a Consular Certificate.—Treasury Regulations of 1857, Art. 710

3rd.—Articles of the produce of the United States exported to the British North American Provinces, and brought back in the same condition as when exported, claiming to be entered free of duty, must be accompanied by a certificate of the Collector of the former port from which the re-importation is made, of the identity of the goods, and of their unchanged condition, which certificate must be authenticated by a Consular Officer.—

Treasury Regulations of 1857, Articles 242, 246, 286, 293, 930 & 936.

4th.—Merchandise of the value of one hundred dollars and upwards claiming exemption from duty under the Reciprocity Act, the affidavit of the owner to the invoice, stating the place of the growth or production of the goods, and their value, verified by a certifi-

cate of a Consular Officer, is required.

If there be no Consular Officer at the place of export, the eath to the certificate may be taken before a local magistrate, and the Consular Officer most convenient to the shipper is authorized to authenticate the same.—Treasury Regulations of 1857, Articles 922, 223 & 924, and Treasury Circular of February 12, 1858, published herewith.

Consular Officers are also authorized to certify invoices without the oath of the owner, if they believe the place of production and value are correctly stated therein.—

Treasury Circular of February 12, 1858.

Goods and merchandise passing from the United States into Canada free under the Reciprocity Act, and there undergoing any change by process of mauufacture, cannot be

re-imported into the United States tree, but are dutiable.

In all such cases Consular Agents will certify the fact for the decision of the Col-

lectors.—Treasury Regulations of 1857, Art. 930.

The forms prescribed by the Department; published herewith for the information of Consular Officers; also a Circular of the Secretary of the Treasury, modifying the provisions of Article 922. Sec. 3rd, Cap. 10, of the Regulations under the Revenue Laws for 1867, and enforcing the same as modified.

WYMAN B. S. Moor, U. S. Consul General for B. N. A. Provinces,

Consular Agent.

CIRCULAR INSTRUCTIONS TO COLLECTORS AND OTHER OFFICERS OF THE CUSTOMS.

TREASURY DEPARTMENT, February 12, 1858.

Collectors and other officers of the Customs of the frontier ports are instructed, that on all importations from the North American British Provinces claiming exemption from duty under the stipulations of the Reciprocity Treaty, the proof prescribed in Section 3, Article 922, of the growth or production of the merchandise, is required in all cases where the actual value of the merchandise shall exceed the value of one hundred dollars, and where there in no Consular officer at or near the port of exportation, the oath prescribed in forms Nos. 278 and 279 may be taken before a local magistrate, duly authorized by the laws of the country to administer oaths, which oath, so taken, shall be accompanied by a Consular certificate in the following form:—

I certify that———, the person signing the above certificate as a magistrate, is duly authorized to administer oaths by the laws of this Province, and that I believe the statement contained in the above certificate to be true.

statement contained in the above certificate to be true (Date)

U. S. Consul.

The oaths prescribed in forms Nos. 280 and 281 are dispensed with.

In cases of parcels or packages of merchandise of a value not exceeding one hundred dollars, the same may be admitted to entry without the aforesaid proof, provided the collector is satisfied that they are the growth or produce of the said Provinces.

A Consular certificate of the origin of the merchandise, in the form following, may also be received by collectors as sufficient evidence of origin to entitle merchandise to entry under the Reciprocity Act:—

I certify that the goods or merchandise described in this invoice are of the growth or produce of the Province of \_\_\_\_\_\_, and of the value within stated.

U. S. Consul.

Howell Cone, Secretary of the Treasury.

No.	
I, A. B. do solemnly and truly swear, that the goods in the invoice now produced and hereunto annexed, account, or for account of myself and partners in the said contain a true and faithful account of the actual cost the and that no discounts, bounties, or drawbacks are contain as have been actually allowed on the same; and that said of the Province of————	were actually purchased for my I purchase; and that said invoice reof, and of all charges thereon; ned in the said invoice but, such
(Signed,)	A. B.
Sworn to and subscribed before me, at—————, the and of the independence of the United States of Americantify that I am satisfied that—————————, who subscribes he represents himself to be; that he is a credible person by him under said oath (or affirmation, as the case may be [L.s.]	rica the——; and I do further the foregoing oath, is the person; and that the statements made be) are true.
	U. S. Consul.
No.	
I, ———, do solemnly and truly swear, that the in unto annexed, contains a true and faithful account of the market value at ————, at the time the same were proceed the charges thereon; and that said invoice contains no do but such as have been actually allowed; and that said go of the Province of ———————————————————————————————————	goods therein described, at their ared or manufactured, and of all iscounts, bounties, or drawbacks, bods are the growth or product  day of, A.D. 18, rica the; and I do further
he represents himself to be; and that he is a credible pe made by him under said oath are true.	
	U. S. Consul.
No	
I ——, do solemnly and truly swear, that the invento annexed, contains a true and faithful account of the market value at ——, at the time the same were prethereon; and that said invoice contains no discounts, bou have been actually allowed; and that said goods are Province of——.  Sworn to and subscribed before me, at ———, the—	goods therein described, at their boured, and of all the charges anties, or drawbacks but such as the growth or product of the
	Justice of the Peace.
United States'	CONSULATE GENERAL, B. N. A. Provinces. ————————————————————————————————————
I certify that ————, the person signing the above duly authorized to administer oaths by the laws of this statement contained in the above certificate to be true.	e certificate as a magistrate, is
	U. S. Consular Agent.

No.

United States' Consulate General, B. N. A. Provinces.

\_\_\_\_18

I certify that the goods or merchandise described in this invoice, are of the growth and production of the Province of———, and of the value within stated.

Date.

U. S. Consular Agent.

Copy of a Report of a Committee of the Honorable the Executive Council, approved by H's Excellency the Governor General in Council on the 11th March, 1858.

On a memorial of the Montreal Ocean Steamship Co., the G. T. Railway Co. of Canada, the Montreal and Champlain Railway Co., and others, interested in the trade between Canada and the United States, representing that under the Consular Regulations issued by Wyman B. S. Moor, Esq., United States Consul General for the B. N. A. Provinces, dated Montreal, the 25th Feby. last, a fee of \$2.00 for the Consular certificate and seal on every shipment or invoice of goods passing through the United States to or from Canada will become payable, that thereby a serious charge on the trade between Canada and the United States is imposed, which will not only materially embarrass the working of the Reciprocity Treaty, but also the existing system of passing goods in bond through the United States.

The Committee of Council respectfully recommend that a representation of the facts be made to the Treasury Department of the United States, through the British Minister at Washington, and that his earnest and early attention be solicited to obtain a withdrawal of that regulation, or such a modification thereof as shall relieve the trade from

the charge now for the first time exacted.

Certified.

Wm, H. Lee, Clerk, Privy Council.

Privy Council Office, 4th May, 1872.

(Copy.)

HER BRITANNIC MAJESTY'S LEGATION, WASHINGTON, March 20th, 1858.

SIR,—I have the honor to acknowledge the receipt of Your Excellency's letter of the 15th instant, enclosing a report of a Committee of the Executive Council respecting the fees exacted by the Consul General of the United States.

I have lost no time bringing this matter under the notice of the Secretary of State

whose reply will be transmitted to Your Excellency.

I have, &c., (Signed,) NAPIER.

His Excellency Sir Edmund Head, Bart, &c., &c., &c.

### Lord Napier to Sir Edmund Head.

(Copy.)

WASHINGTON, June 3rd, 1858.

Sir,—I have the honor to transmit to Your Excellency herewith, copy of a letter addressed by the Secretary of the Treasury to the Secretary of State, respecting the fees demanded by the Consul General of the United States in Canada, for the signature of certificates and other official documents.

The reply of the Secretary of the Treasury does not afford much prospect of an abatement in the charges alluded to, but if Your Excellency will inform me more particularly of your views, and explain in what manner the fees might be reduced, with most benefit to the trade of the Provinces, I will again apply to General Cass on this subject.

I have, &c., (Signed.)

NAPIER.

His Excellency

Sir Edmund Head.

Mr. Howell Cobb to the Hon, Lewis Cass.

(Copy.)

TREASURY DEPARTMENT, May 28th, 1358.

SIR,—I have the honor to acknowledge the receipt of your communication of the 25th March last, enclosing a copy of a letter to yourself from Lord Napier of the 24th of that month, together with a copy of a communication to him from the Governor General of Canada, and a report of the Executive Council, in reference to the fees demanded by the consular officers of the United States, in the exercise of their functions in regard to the trade between the United States and the British North American Provinces, and expressing an apprehension that these charges will materially embarrass the working of the Reciprocity Treaty and the transit traffic through the United States.

I have to state, in reply, that Consular officers of the United States are now established, in pursuance of law, within the Provinces, at the several points convenient to the commerce seeking the markets of the United States. The general law regulating importations into the United States, as well as a faithful execution of the Reciprocity Treaty, devolves on these officers certain duties which this Department is obliged to enforce, and to which the law has attached a specific compensation.

These fees, of which complaint is made, are for Consular certificates of origin in the case of merchandise claiming free entry into the United States under the Reciprocity Treaty of the 5th June, 1854, and certificates authenticating the oaths of non-resident owners to the correctness of their invoices, required by the supplemental collection law of the 1st March, 1823.

The Reciprocity Treaty of the 5th June, 1854, describes specifically the articles entitled to enter the United States free of duty if "of the growth and produce of the Provinces."

Some proof of origin is, of course, to be required. Such is the intimate and frequent commercial intercourse between the United States and the Provinces, a long and expensive frontier, but feebly guarded by officers of the Revenue, and such the difficulty of distinguishing Provincial products entitled to free entry under the Treaty, from the productions of other countries which may be imported through the Provinces into the United States, that the Provincial origin of merchandise claiming free entry should be as conclusively established as the circumstances will allow.

This proof the Department has required to be furnished in a form as little burdensome to commerce as is consistent with a proper protection of the public revenue, to wit: the affidavit, as to the origin of the merchandise by some person cognizant of the fact, before a local Magistrate, and authenticated by a Consular certificate, as a certificate of the consul alone; and these are required only in importations exceeding one hundred

dollars in value. The border traffic in articles of small value is relieved of the expense of Consular certificates, collectors at the several ports of entry being authorized to admit, free of duty, on any proof satisfactory to them, all importations of the value of one hundred dollars and less.

The other Consular services for which fees are allowed by law, the authentication of the oaths of non-resident owners expressly required by the supplemental collection law of March 1, 1823, this Department cannot, of course, dispense with, but to prevent the expense of two certificates, one of authentication and another of origin, it has combined the two in one, subject to the charge only of a single consular fee.

The foregoing are in substance the regulations adopted by the Department in pursuance of law. Less stringent they could not have been, consistent with the due protection of the public revenue and a faithful execution of the Treaty. Every effort has been made to the extent of my official power, as you will perceive, to relieve the trade from unnecessary burdens; and I am quite confident that the legitimate interests of the commerce between the two countries will be promoted by a rigid enforcement of the new regulations.

I have, &c.,
(Signed.) Howell Cobb,
Secretary of the Treasury.

The Honorable Lewis Cass, &c., &c., &c.,

Sir Edmund Head to Lord Napier.

(Copy.)

GOVERNMENT HOUSE, TORONTO, December 1st, 1858.

My LORD,—With reference to former correspondence, I have thought it desirable, to obtain from the Commissioner of Customs in Canada, answers to the following queries:—

1st. Where the fees on Consular certificates are taken?

2nd. By whom they are taken, and to whom the money goes?

3rd. The amount of fee demanded on each certificate?

4th. Whether the fees now taken are the same as before, or whether any increase has occurred, and by whom it was imposed?

5th. How the issue of certificates could be simplified or consolidated, so that one deed might embrace more articles?

6th. Whether the fees levied by British Consuls on certificates are lighter than those taken by American Consuls, and in what degree?

7th. Whether any expedient for the mitigation of the American fees could be decided,

which would satisfy the Canadian people?

Such answers are annexed to this despatch that it may be in your Lordship's power to convince the Government of the United States of the fact that the course now pursued has a direct tendency to make the people of Canada doubt the benefit of the Reciprocity Treaty, and question the policy of opening our Canals and Fisheries to the citizens of the United States.

I have, &c., (Signed,) EDMUND HEAD.

His Excellency Lord Napier, &c., &c., &c., Washington. (Copy.)

Report upon the reference of a letter from Her Majesty's Minister at Washington, dated 16th November, 1858, relative to the fees charged by United States consular agents.

The undersigned has the honor, in obedience to the order of reference, to submit the following answers to the several points of enquiry referred to the Department:—

1st. The Consular fees are, it is presumed, taken at the office of the Consular agents in the principal Canadian cities, and at certain points on the frontier where the intercourse with the United States is most frequent.

2nd. The Consular agents are the immediate recipients of the fees, but the under-

signed has no knowledge of the disposition made of such fees when collected.

3rd. The amount of the fee on such certificates is \$2, but an additional charge of \$1 seems to be incurred in the preparation of documents, which is probably paid to some broker or agent obtaining the Consular certificate.

4th. No certificates were required and no Consular fees demanded in reference to exports from Canada, under the Reciprocity Treaty, until the issuing of the American

Treasury order of the 12th February last.

5th. Most of the articles comprised in the Schedule to the Reciprocity Treaty, are bulky, and as it sometimes happens that partial shipments only can be made, whether by water or by railroad, the shipper is bound to take a certificate for each partial shipment, for which he, on each occasion, pays the usual Consular fee of \$2.

6th. The undersigned is not prepared to state what fees are exacted by British

Consular agents at American Ports under similar circumstances.

7th. In answer to the last query proposed, it is respectfully submitted that the course adopted by the Canadian Government in reference to the admission of American produce, under the Reciprocity Treaty, is, in the opinion of the undersigned, sufficient to prevent frauds. The importer of any article from the United States under the Reciprocity Treaty, is bound to make, on the face of the entry at the Custom House, a declaration, equal to an oath in its legal consequences, that the articles for which he claims exemption are bond fide of the growth and produce of the United States. Indeed the very nature of the articles themselves is, in most cases, demonstrative of the fact; and it is believed that few frauds, if any, have resulted from the facilities thus offered to the entry into Canada of Free Goods under the Reciprocity Treaty.

All of which is humbly submitted.

(Signed,)

R. S. M. Bouchette, Commissioner of Customs.

29th November, 1858.

(No. 66.)

## RETURN

To an Address of the House of Commons, dated 29th April, 1872; For a Return of the number of double furrow ploughs entered at the Port of Guelph, the value of the said ploughs, the number on which duty has been paid, and the amount of said duty; the number (if any) which were passed free of duty, and the grounds on which the duty on such was remitted.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 2nd May, 1872.

(No. 67.)

## RETURN

To an Address of the House of Commons, dated 20th May, 1872; For copies of all Correspondence and Reports relating to the building of the Dam across the outlet of Mud Lake, in the Township of Bedford, in the County of Addington, Ontario, in the year 1871.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 11th June, 1872.

[In accordance with the recommendation of the Joint Committee on Printing the above Returns are not printed.]

(No. 68.)

## RETURN

To an Address of the House of Commons, dated 20th May, 1872; For copies of all Correspondence since 1st July, 1869, between this Government and the Government of Great Britain or any Foreign Government, or with Boards of Trade, with Individuals or with Shipping Masters, relating to the shipping or desertion of Seamen, or what is known as the Crimping business.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 7th June, 1872.

(No. 69.)

## RETURN

To an Address of the House of Commons, dated 23rd May, 1872; For a Return of the Tariff of Fees under Cap. 46, Consolidated Statutes of Canada, now charged to Lumbermen for supplying specifications, and allowed to Cullers for measuring, &c., respectively.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 8th June, 1872.

[In accordance with the recommendation of the Joint Committee on Printing the above Returns are not printed.]

(No. 70.)

## RETURN

To an Address of the House of Commons, dated 20th May, 1872; For copies of all tenders received for the heating apparatus in the Post Office, Quebec, with the report of the Chief Architect of the Department of Public Works thereon; with all Orders in Council, and all papers relating thereto.

By Command.

J. C. AIKINS, Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 10th June, 1872.

(No. 71.)

# RETURN

To an Address of the House of Commons, dated 20th May, 1872; For copies of all tenders received by the Department of Public Works, for the excavation of earth and rock in deepening and improving Port Colborne Harbor, on Lake Erie, last year.

By Command.

J. C. AIKINS.

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 10th June, 1872.

[In accordance with the recommendation of the Joint Committee on Printing the above Returns are not printed.]

(No. 72.)

### RETURN

To an Address of the House of Commons, dated 19th April, 1872; For a Return shewing all the cases which have been decided by the Dominion Board of Arbitrators since Confederation, with the awards made, and all the amounts paid to the said Arbitrators as salaries and travelling expenses, or on any other account.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OFTAWA, 10th June, 1872.

(No. 73.)

## RETURN

To an Address of the House of Commons, dated 20th May, 1872; For a Return of all correspondence between the Imperial Government and the Government of the Dominion, respecting the proposed arrangement for obtaining a portion of Her Majesty's Dockyard at Halifax as a terminus for the Intercolonial Railway.

By Command.

J. C. AIKINS,

Secretary of State.

DEPARTMENT OF THE SECRETARY OF STATE, OTTAWA, 10th June, 1872.

[In accordance with the recommendation of the Joint Committee on Printing the above Returns are not printed.]