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Various pagings.

Sessional papers No. 19 & No. 22 not printed.

Part of Sessional papers No. 20 & No. 21 not printed.

In Sessional papers No. 21, Return (21s), page 9 is incorrectly numbered page 8.

# SESSIONAL PAPERS.

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VOLUME 10.

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FIFTH SESSION OF THE THIRD PARLIAMENT

OF THE

DOMINION OF CANADA.

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SESSION 1878.

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VOLUME XI.

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PRINTED BY MACLEAN, ROGER & Co., WELLINGTON STREET, OTTAWA.

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# LIST OF SESSIONAL PAPERS.

VOL. XI.—SESSION 1878.

ARRANGED ALPHABETICALLY.

	No.		No.
Accidents, Railway .....	78	Gauvreau, J. P. ....	118
Accounts, Public.....	5	Geological Survey.....	126
Advertising.....	87	Giblin, John.....	95
Agricultural Report.....	9	Governor General, Expenses to Manitoba .....	39
Alaska.....	125	Great Village.....	145
Ammunition, Volunteers.....	103		
Appointments to Office.....	146	Halifax Commission.....	147
Arichat, Hawkesbury and Antigonish Mails..	40	Harbour Board, Lake St. Peter .....	27
do Pilotage Rules.....	40	Harbour Commissioners, Q. M. O. and O. Ry.	26
do Breakwater.....	40	Harbour of Matane.....	57
Australian Colonies.....	43	Harbour Master, Collingwood.....	100
		Harbour Master, Port Colborne.....	78
Baie St. Paul, Piers, &c. ....	36	Harvey, John.....	29
Banks.....	15	Haws, Suit of.....	143
Baptisms, Marriages, &c.....	13	Horses, &c., Imported.....	72
Bonds and Securities.....	35		
Boswell, J. K.....	98	Indian Lands, Timber Sales.....	79
Breakwater, West Arichat, C.B.....	138	Ingonish Harbour.....	74
British Columbia, Money paid to.....	37	Inland Revenue Report and Supplements.....	3
do Fisheries.....	42	Insurance Reports.....	14
do Pensions of Public Officers.....	131	Intercolonial Railway.....	21
		Interior Report.....	10
Cadets, Royal Navy.....	99	Iron, purchased by Government.....	88
Cadigan, J.....	113		
Canada Central Extension.....	28	L'Ardoise Breakwater.....	54
Canada Pacific Railway.....	20	La Banque Nationale.....	135
do do Spikes.....	108	Lachine Canal.....	23
do do Telegraph.....	52	Lake Erie Harbour.....	47
Canada Southern Railway.....	75	Lakes, Manitoba, &c., Surveys.....	110
Canadian Built Ships.....	70	Land, Canal Purposes.....	130
Carron Brook Village.....	117	Lapsed Balances, 1876-77.....	67
Cascumpec Harbour.....	92	Library of Parliament.....	11
Certificates, Schools of Gunnery.....	133	Lingan Harbour, C.B.....	51
City and District Savings Bank, Montreal.....	105		
Collingwood, Harbour, Master of.....	100	McDonald, D.....	111
Corbett, James.....	114	McFarlane, Hon. Alex.....	102
Cow Bay, C.B.....	120	McNeil, R.....	124
Cullers' Pensions.....	59		
Customs.....	141	Mails, Quebec and Murray Bay.....	121
Customs Duties, St. John, N.B.....	77	Malpeque Breakwater.....	60
		Matane and Fox River Telegraph.....	25
Dawson Route.....	90	Matane, Harbour of.....	57
Dominion Lands.....	53	Maritime Court of Ontario.....	31
Dominion Police.....	137	Marine Department, Quebec, Employes of.....	63
		Marine and Fisheries Report with supplements	1
Employés, Department of Marine, Quebec.....	63	do do Prince Edward Island.....	138
Estimates.....	5	Meat, Imported.....	73
Excise, Stamps and Customs.....	141, 142	Military College and Schools.....	49
Expenses of Committees.....	34	Military Forts, Point Lévis.....	50
		Militia Report.....	8
Fish-Breeding, Miramichi, N.B.....	81	Ministerial Changes, Quebec.....	68
Fort Frances Lock.....	32	Miramichi, N.B., Fish-Breeding.....	81
Fraser River, Salmon Fishing.....	89	Montreal City and District Savings Bank.....	103
		Montreal Harbour Board, Lake St. Peter.....	27

	No.		No.
<b>Montreal Harbour Com., Q. M. O. and O Ry.</b> .....	26	Ross, Angus.....	94
<b>Morris, Hon. A.</b> .....	132	Royal Navy, Cadets.....	99
<b>Muir Post Office.</b> .....	144	<b>St. Athanase, Parish of</b> .....	104
<b>New Campbellton Post Office.</b> .....	48	St. Charles River.....	69
<b>"Northern Light," Steamer.</b> .....	101	St. John's Bridge.....	93
<b>Northern Railway, Royal Commission.</b> .....	119	St. Peter's Canal.....	46
<b>North-West Territories.</b> .....	45	Salmon Fishing, Fraser River.....	89
<b>North American Continent.</b> .....	127	Saskatchewan River.....	61
<b>O'Donoghue, W. N.</b> .....	55	Schools of Gunnery.....	133
<b>Oromocto Shoals.</b> .....	82	Secretary of State's Report.....	4
<b>Ottawa River, Sixty-Mile Level.</b> .....	22	Ships, Canadian Built.....	70
<b>Pacific Railway, Canada.</b> .....	20	South Gut, Post Office.....	106
<b>Paris Exhibition.</b> .....	85	Special Warrants.....	17
<b>Pemba Branch Railway.</b> .....	64	Spikes, Canada Pacific Railway.....	108
<b>Penitentiaries Report.</b> .....	12	Stamps.....	141
<b>Pensions, Cullers.</b> .....	59	Statutes.....	19
<b>Pensions, Public Officers, B.C.</b> .....	131	Steam Vessels, Remeasurement.....	71
<b>Philadelphia Exhibition.</b> .....	62	Superannuation.....	18
<b>Piers, Baie St. Paul, Malbaie, &amp;c.</b> .....	36	Supreme and Exchequer Courts.....	80
<b>Pilotage Rules, Arichat.</b> .....	40	Surveys, Lakes Manitoba, &c.....	110
<b>Plaster of Paris.</b> .....	122	<b>Taylor, I. B., and Moylan, J. G.</b> .....	30
<b>Poplar Point, Manitoba.</b> .....	84	Territories, N. A. Continent.....	127
<b>Port Colborne Harbour Master.</b> .....	76	Thousand Islands.....	134
<b>Port Hastings and Narrows, N.S.</b> .....	107	Tignish Breakwater.....	66
<b>Postmaster-General's Report.</b> .....	6	Timber Sales, Indian Lands.....	79
<b>Post Offices, N.B.</b> .....	112	Timber and Sawed Lumber, Imported.....	139
<b>Prince Edward Island, Printing.</b> .....	33	Tolls, Upper Ottawa Improvement Company.....	136
<b>Prince Edward Island Railway, Wire Fence...</b>	109	Trade and Navigation Report.....	2
do    Marine & Fisheries Dept	138	Trawls or Bultows.....	86
<b>Public Accounts.</b> .....	5	Tremblay, P. A.....	65
<b>Public Works Report.</b> .....	7	Tubing.....	118
<b>Public Works, sums expended on</b> .....	44	<b>Unforeseen Expenses.</b> .....	16
<b>Quarantine Hospital, Sydney, C.B.</b> .....	83	Upper Ottawa Improvement Company.....	136
<b>Quebec and Murray Bay Mails.</b> .....	121	<b>Vallée, J. S.</b> .....	129
<b>Railway Accidents.</b> .....	78	Veterans of 1812-13.....	38
<b>Railway Reserve, Winnipeg.</b> .....	56	Victoria Bridge, Grand Trunk Railway.....	24
<b>Railway Statistics of Canada.</b> .....	96	Victoria Harbour, Wood Island.....	91
<b>Railway Stock in Bond.</b> .....	123	Victoria Mines, C.B.....	115
<b>Rat River Settlement.</b> .....	128	Volunteer Ammunition.....	103
<b>Red River Losses.</b> .....	97	<b>Warrants, Special.</b> .....	17
<b>Re-measurement of Steam Vessels.</b> .....	71	Welland Canal.....	58
<b>Rimouski, Gaspé and Bonaventure.</b> .....	41	West Arichat, C.B., Breakwater.....	40
		Windsor and Annapolis Railway.....	140
		Wire Fence, Prince Edward Island Railway..	109

# LIST OF SESSIONAL PAPERS,

ARRANGED NUMERICALLY AND IN VOLUMES.

## CONTENTS OF VOLUME No. 1.

No. 1... **MARINE AND FISHERIES** :—Tenth Annual Report of the Department of, for the fiscal year ended 30th June, 1877.

— **SUPPLEMENT No. 1** :—List of Lights on the Coasts, Rivers and Lakes, of the Dominion of Canada, on the 31st December, 1877.

## CONTENTS OF VOLUME No. 2.

**MARINE AND FISHERIES**—**SUPPLEMENT No. 2** :—Report of the Chairman of the Boards of Steam-boat Inspection, Examiners of Masters and Mates, Harbour Commissioners, Pilotage Authorities, &c., for the fiscal year ended 31st December, 1877.

— **SUPPLEMENT No. 3** :—Reports of the Meteorological, Magnetic and other Observatories of the Dominion of Canada, for the calendar year ended 31st December, 1877.

## CONTENTS OF VOLUME No. 3.

**MARINE AND FISHERIES**—**SUPPLEMENT No. 4** :—List of Vessels on the Registry Books of the Dominion of Canada, on the 31st day of December, 1877.

— **SUPPLEMENT No. 5** :—Report of the Commissioner of Fisheries, for the year ending 31st December, 1877.

## CONTENTS OF VOLUME No. 4.

No. 2... **TRADE AND NAVIGATION** :—Tables of the Trade and Navigation of the Dominion of Canada, for the year ending 30th June, 1877.

## CONTENTS OF VOLUME No. 5.

No. 3... **INLAND REVENUE** :—Report, Returns and Statistics of the Inland Revenues of the Dominion of Canada, for the fiscal year ended 30th June, 1877.

— **SUPPLEMENT No. 1** :—To the Inland Revenue Report, for the year ended 30th June, 1877.

— 2 :—Weights and Measures for 1877.

— 3 :—Adulteration of Food for 1877.

No. 4... **SECRETARY OF STATE FOR CANADA** :—Report of, for the year ended 31st December, 1877.

## CONTENTS OF VOLUME No. 6.

No. 5... **PUBLIC ACCOUNTS OF THE DOMINION OF CANADA** :—For the fiscal year ended 30th June, 1877.

**ESTIMATES** :—Estimates of the sums required for the service of the Dominion, for the year ended 30th June, 1879.

— **Supplementary Estimates** of sums required for the service of the Dominion, for the year ending 30th June, 1878.

— **Further Supplementary Estimates** of sums required for the service of the Dominion, for the year ending 30th June, 1878.

— **Further Supplementary Estimates** of sums required for the service of the Dominion, for the year ending 30th June, 1879.

## CONTENTS OF VOLUME No. 7.

No. 6... **POSTMASTER GENERAL** :—Report of, for the year ending 30th June, 1877.

No. 7... **PUBLIC WORKS** :—General Report of the Minister of, for the year ended 30th June, 1877.

## CONTENTS OF VOLUME No. 8.

- No. 8... **MILITIA** :—Report on the State of the Militia of the Dominion of Canada, for the year 1877.
- No. 9... **AGRICULTURE** :—Report of the Minister of Agriculture for the Dominion of Canada, for the calendar year 1877.
- No. 10... **INTERIOR** :—Report of the Department of the Interior, for the year ended 30th June, 1877.

## CONTENTS OF VOLUME No. 9.

- No. 11... **LIBRARY OF PARLIAMENT** :—Report of the Librarian on the state of.
- No. 12... **PENITENTIARIES** :—Report of the Minister of Justice on, for the six months ended 30th June, 1877.
- No. 13... **BAPTISMS, MARRIAGES AND BURIALS** :—General Statement of, for certain Districts in the Province of Quebec, for the year 1877. (*Not printed.*)
- No. 14... **INSURANCE** :—Report of the Superintendent of, for the year ending 31st December, 1876.  
 ———— Abstract of Statements made by Companies licensed to do business of Fire or Inland Marine Insurance in Canada, for the year 1877.  
 ———— Names of the Foreign Mutual Life and Stock Companies that have not complied with the Consolidated Insurance Act of last Session in respect of deposits for future business.
- No. 15... **BANKS** :—List of Shareholders of the several Banks of the Dominion of Canada.

## CONTENTS OF VOLUME No. 10.

- No. 16... **UNFORESEEN EXPENSES** :—Statement of Payments charged to Unforeseen Expenses under Orders in Council from the 1st of July, 1877, to date.
- No. 17... **WARRANTS, SPECIAL** :—Statement of Special Warrants of His Excellency the Governor General, issued in accordance with the Act 31 Vic., cap. 5, sec. 35, from the 1st of July, 1877, to the 9th of February, 1878, inclusive.
- No. 18... **SUPERANNUATION** :—Statement of Allowances and Gratuities under the Act 33 Vic., cap. 4.  
 ———— Return to Order, Statement of the reason in each case for the superannuation of the persons in the Civil Service mentioned in the Return laid before this House on the 18th February.
- No. 19... **STATUTES** :—Official Return of the distribution of the Statutes of the Dominion of Canada, being 40 Victoria, Fourth Session of the Third Parliament, 1877. (*Not printed.*)
- No. 20a... **PACIFIC RAILWAY, CANADA** :—Return to Order, Reports of Engineers and correspondence having reference to any actual surveys, or proposed survey, in connection with the Canadian Pacific Railway from the Red River westward, south of Lake Manitoba. (*Not printed.*)
- No. 20b... ———— Return to Order, Correspondence with the Minister of Public Works and the Engineer staff of the said Department in connection with the engagement of employees for the Pacific Railroad survey, and the routes (if any) they were instructed to take; also correspondence in reference to the carrying of emigrants, &c., by the Sarnia or Collingwood route since 1874. (*Not printed.*)
- No. 20c... ———— Return to Order, Statement of the number of miles surveyed, and the expenditure for such surveys, on the Pacific Railway, &c. (*Not printed.*)
- No. 20d... ———— Return and Supplementary Return to Address, Reports made in 1877, by Admiral DeHorsay, respecting the Port or Ports most suitable for a Terminus of the Canadian Pacific Railway in British Columbia.
- No. 20e... ———— Return to Order, Statement showing the amount of moneys disbursed up to 1st January, 1878, upon Contracts Nos. 13, 14, 15, 23 and 25, of the Canada Pacific Railway. (*Not printed.*)
- No. 20f... ———— Return to Order, Copy of every Report of the Chief Engineer, or any other Engineer of the Canadian Pacific Railway, suggesting or recommending a survey in 1876 and 1877, of the whole or part of the route between Burrard's Inlet and Yellow Head Pass, with copy of any order or instructions sent respecting the said survey. (*Not printed.*)
- No. 20g... ———— Return to Address, Progress estimates of work done under Contract 15 of the Canada Pacific Railway, and information as to the mode of making payments therefor. (*Not printed.*)

No. 20a.	Return to Order, Statement showing the number of miles actually graded and ready for track-laying and ballasting, under Contracts Nos. 13, 14, 15 and 25, of the Canada Pacific Railway; also number of miles of rails actually laid under said Contracts up to 1st January, 1878.
No. 20i.	Return to Order, Reports of Engineers, relating to the survey and location of the line of the Pacific Railway between the Red River and Battleford, and also all Reports relating to the proposed line of said railway between the same points, but south of Lake Manitoba.
No. 20j.	Reports and Documents in reference to the location of the line and the Western Terminal Harbour, of the Canadian Pacific Railway, by Sandford Fleming, C.M.G., Engineer in Chief, 1878.
No. 20k.	Return to Address, Copies of all Contracts on which tenders were invited for the construction of houses for the Engineers on the branch of the Canada Pacific Railway from Fort William to Selkirk—the cost of each house, the names of the contractors, the number of houses built, with the amount paid the contractor, and the number of those houses destroyed by fire, if any.
No. 20l.	Return to Order, Report of Exploration made by Mr. Bell, C.E., on the proposed route of the Canada Pacific Railway from Nipigon to the junction with the Thunder Bay, or Kaministiquia Branch of the said railway.
No. 20m.	Return to Address, Instructions to Mr. Fleming, Engineer-in-Chief of the Pacific Railway, on the subject of a series of questions, submitted through the Colonial Office to naval officers and others, relating to certain harbours in British Columbia, and a site for the terminns of the line on the Pacific Coast. ( <i>Not printed.</i> )
No. 21a.	INTERCOLONIAL RAILWAY:—Return to Order, Statement shewing the particulars of all amounts in addition to salary paid to any General or Departmental officer of the Intercolonial Railway, during the year 1876. ( <i>Not printed.</i> )
No. 21b.	Return to Order, Statement showing the quantity of work done in enlarging the Railway Water Works at Moncton, during the year 1876. ( <i>Not printed.</i> )
No. 21c.	Return to Order, Statement showing the sums of money paid C. J. Brydges, for the year ending 30th June, 1876, showing salary whilst the Intercolonial Railway was under construction; and salary for management; also expenses of his office at Montreal, Ottawa and Moncton; and amount of his travelling expenses for the same period. ( <i>Not printed.</i> )
No. 21d.	Return to Order, Correspondence between Mr. James Niven, of Newcastle, Miramichi, N. B., and the Officers of the Intercolonial Railway and the Government, in reference to the killing, by one of the trains of said road, on the 23rd of February last, of five head of cattle of the said James Niven. ( <i>Not printed.</i> )
No. 21e.	Return to Order, Statement showing for each month of the two years ending 31st December, 1876, the following particulars in relation to the working and management of the Intercolonial Railway:—1st. The number of miles run by the engines in each service; 2nd. The gross working expenses, without deductions, &c.; 3rd. The particulars of all charges made for the use of engines and cars, as well as for railway freight, &c.; 4th. The average in detail before and after deductions have been made; 5th. A statement giving detailed information in relation to the special trains for the conveyance of passengers or officers of the railway, which were run from the 1st July, 1875, to the 31st December, 1876. ( <i>Not printed.</i> )
No. 21f.	Return to Order, Statement showing the original size and cost, exclusive of heating apparatus, of the brick building at Moncton known as the general offices of the Intercolonial Railway, &c. ( <i>Not printed.</i> )
No. 21g.	Return to Order, Statement showing the particulars in regard to a main brick sewer constructed through the station yard of the Intercolonial Railway at Moncton during the past year, &c. ( <i>Not printed.</i> )
No. 21h.	Return to Order, Statement shewing the expenditure incurred during the last two years ending January 31st, 1877, for carpets, furniture, &c., fittings for the General Offices of the Intercolonial Railway at Moncton. ( <i>Not printed.</i> )
No. 21i.	Return to Order, Statement of the number of miles of the Intercolonial operated on 1st July, 1873, and the cost; also for 1st July, 1874, 1875, 1876, 1877.
No. 21j.	Return to Address, All Orders in Council, &c., relative to the fixing of the headquarters of the Intercolonial Railway at Moncton. ( <i>Not printed.</i> )
No. 21k.	Return to Order, Statement shewing the quantities, kinds and cost of rails, fish-plates, bolts and nuts, spikes and sleepers on hand but not in use on 30th June, 1875—received during the year ending 30th June, 1876—used and otherwise disposed of during the same period—the balance on hand but not in use at that date, &c. ( <i>Not printed.</i> )
No. 21l.	Return to Order, Statement shewing which of the Bridges and Culverts of the Intercolonial Railway between Pictou and Halifax received extensive repairs and alterations, or were renewed in part or in whole, during the seasons of 1875 and 1876, &c. ( <i>Not printed.</i> )
No. 21m.	Return to Order, Of all expenditure for repairs and additions incurred by the Intercolonial Railway Department on the Tupper House, Hollis Street, Halifax, used as a Ticket Office for that Department. ( <i>Not printed.</i> )
No. 21n.	Return to Order, Statement shewing the names, &c., of all persons, except ordinary mechanics and laborers, in the service of the Intercolonial Railway on the 31st March, 1876, and on the 31st December last.



- No. 21o. —Return to Address, Correspondence between the Government and T. M. Boggs in relation to his dismissal from the office of Train Despatcher at Truro on the Intercolonial Railway. (*Not printed.*)
- No. 21p. —Return to Address, Correspondence connected with the removal from office or resignation of George Taylor from the office of Assistant Railway Superintendent of the Intercolonial Railway. (*Not printed.*)
- No. 21q. —Return to Order, Correspondence between Mrs. Edward Murphy, of Barnaby River, Miramichi, N. B., and the officers of the Intercolonial Railway, in relation to the killing of a cow on said Railway. (*Not printed.*)
- No. 21r. —Return to Address, Correspondence relating to shipment of grain or other articles, by way of the Intercolonial Railway, at Halifax for Europe.
- No. 21s. —Return to Address, Statement shewing all contracts given since 1867, including those of the Intercolonial Railway, those awarded to the lowest tender, and those given to others.
- No. 21t. —Return to Address, Correspondence respecting a Railway Bridge across the Falls at St. John, New Brunswick, to connect the Intercolonial Railway with that of Western Extension at said Falls. (*Not printed.*)
- No. 21u. —Return to Order, Statement shewing the amounts paid annually for carrying the Mail between Kamouraska and the Railway Station at St. Paschal since the Express Train on the Intercolonial Railway began to deliver the Mail at that Station. (*Not printed.*)
- No. 21v. —Return to Order, Shewing all fees paid by the Department of Justice, in connection with the Intercolonial Railroad, to Counsel and Attorneys in connection with any business before the Supreme Court. (*Not printed.*)
- No. 22... OTTAWA RIVER, SIXTY MILE LEVEL:—Return to Order, Reports of Engineers respecting the greater rise in the waters of the sixty mile level of the River Ottawa, between Chaudière Falls and the Long Sault Rapids, than the levels below and above those points. (*Not printed.*)

## CONTENTS OF VOLUME No. 11.

- No. 23... LACHINE CANAL, ENLARGEMENT OF:—Return to Order, Correspondence, letters and telegrams between the Government and the proprietors of the lands in the neighbourhood of the proposed enlargement of the Lachine Canal, from the first of March, 1875, up to the 10th March, 1877, &c. (*Not printed for Sessional Papers—for distribution only.*)
- No. 23b. —Return to Address, shewing the amounts of the six lowest tenders for Sections 4, 5, 6, 7, 8, 9 and 11 of the Lachine Canal, with the names of tenderers, and of parties to whom the contracts were awarded.
- No. 24a. VICTORIA BRIDGE:—Return to Address requiring the Grand Trunk Railway Company to furnish the information respecting the freight and passenger traffic over the Victoria Bridge, during the years 1875 and 1876, in tabular form; also the cost of building the Victoria Bridge, and the cost of maintenance for 1876. (*Not printed.*)
- No. 24b. —Return to Address, respecting the tariff of charges for the conveyance of passengers and freight over the Grand Trunk and Intercolonial Railways, &c.
- No. 25... MATANE AND FOX RIVER TELEGRAPH:—Return to Address, Correspondence between the Government and Sir Hugh Allan and the Montreal Telegraph Company, in relation to the construction of a Telegraph Line between Matane and Fox River. (*Not printed.*)
- No. 26... HARBOUR COMMISSIONERS, MONTREAL:—Return to Address, Correspondence between the Government and the Montreal Harbour Commissioners on the subject of the refusal of the said Commissioners to allow cars and locomotive engines for the Quebec, Montreal, Ottawa and Occidental Railway to pass over the wharves in the Harbour of Montreal, &c. (*Not printed.*)
- No. 27... HARBOUR BOARD, MONTREAL:—Return to Address, Correspondence relating to complaints made against the administration of the Harbour Board of Montreal in connection with the town of Sorel and the works for deepening Lake St. Peter; also respecting the bad administration of the aforesaid works, the arbitrary dismissal of Pierre Côté and Pierre Charbonneau and of any other employé, &c. (*Not printed.*)
- No. 28... CANADA CENTRAL EXTENSION:—Return to Address, Orders in Council relating to the route of the Canada Central Extension, and the contract for building that portion of railway.
- No. 29... HARVEY, JOHN:—Return to Order, Correspondence relating to the dismissal of John Harvey from the position of Slidemaster, at the Village of Araprior. (*Not printed.*)
- No. 30... TAYLOR, I. B. AND MOYLAN, J. G.:—Return to Order, Accounts, vouchers and papers connected with the payments for printing as entered in the Public Account; for 1873-4, as made out of the contingencies of the Department of Justice, to I. B. Taylor, The Citizen Printing Company and J. G. Moylan. (*Not printed.*)

- No. 31... MARITIME COURT OF ONTARIO :—General Rules of, under the provisions of the Act 40 Vict., cap. 21, sec. 8; also Tariff of suitors' fees, fixed under the 14th Sec. of the said Act. (*Not printed.*)
- No. 32... FORT FRANCIS LOCKS :—Return to Order, Report of the late Mr. Hazlewood, C.E., on the approximate cost of the Fort Francis Locks.
- No. 33... PRINCE EDWARD ISLAND, PRINTING, &c. :—Return to Order, Shewing amounts paid for printing for all services done in Prince Edward Island, during the years 1874, 1875 and 1876, respectively, the nature of the work done and the names of the persons who performed such work. (*Not printed.*)
- No. 34... EXPENSES OF COMMITTEES :—Return to Order, Object and Expense of each of the Special Committees appointed by the House, during the past four years, with the names of the persons who received payment, whether as witnesses, or otherwise, and the amounts received by each.
- No. 35... BONDS AND SECURITIES :—Statement of all Bonds and Securities registered in the Department of the Secretary of State, dated the 22nd February, 1878. (*Not printed.*)
- No. 36... PIERS, BAIE ST. PAUL, MALBAIE, &c. :—Return to Order, Shewing the quantity of timber supplied by Mr. Adolphe Gagnon for each of the piers at Baie St. Paul, Malbaie and Eboulements, in the County of Charlevoix. (*Not printed.*)
- No. 37... BRITISH COLUMBIA :—Return to Order, Showing the respective sums of money paid to the Government of British Columbia, and at what time paid, in accordance with sec. 2, cap. 17 of the Act 37 Vic. (*Not printed.*)
- No. 38... VETERANS OF 1812-13 :—Return to Order, Names of the Militiamen of 1812 and 1813, who died between the 1st March, 1876, and the 1st January, 1878. (*Not printed.*)
- No. 39... GOVERNOR GENERAL :—Return to Order, Expenses of the trip of His Excellency the Governor General to Manitoba, similar to that contained in the Public Accounts, with respect to His Excellency's trip to British Columbia.
- No. 40... ARICHAT, —MAIL IRREGULARITIES :—Return to Address, Correspondence between the Post Office Inspector for Nova Scotia and any other person or persons, during the months of November, December and January last past, in relation to Mail irregularities between the Post Offices of Arichat, Hawkesbury and Antigonish, in the said Province. (*Not printed.*)
- BREAKWATER :—Return to Address, Surveys and Reports made by any Government Engineer within the last six years, in relation to the breakwater at West Arichat, in the Island of Cape Breton. (*Not printed.*)
- PILOTAGE RULES :—Return to Address, Copy of the Pilotage Rules and Regulations made by the Commissioners of Pilots for the Port of Arichat, in the Island of Cape Breton. (*Not printed.*)
- No. 41... RIMOUSKI, GASPÉ AND BONAVENTURE :—Return to Order, Shewing the rivers under lease, in the Counties of Rimouski, Gaspé and Bonaventure, and also those on the north coast of the St. Lawrence from the River Saguenay down to the Mingan Islands. (*Not printed.*)
- No. 42... BRITISH COLUMBIA, FISHERIES :—Return to Order, Report of the Inspector of Fisheries for British Columbia for 1877, with a statement of the expenditure connected therewith. (*Not printed.*)
- No. 43... AUSTRALIAN COLONIES :—Return to Order, Shewing the nature and value of all manufactures, &c., exchanged between Canada and the Australian Colonies, from the 1st of July, 1876, with copies of the Tariff, of these Colonies.
- No. 44... PUBLIC WORKS :—Return to Order, Showing the sums expended on Public Works chargeable to Income, during the fiscal years 1874-5, 1875-6, 1876-7, for which votes had been obtained in the Estimates of 1873-4; and also on Works chargeable to Capital.
- No. 45... NORTH-WEST TERRITORIES :—Copy of Ordinances made by His Honor the Lieutenant Governor and Council of the North-West Territories, on the 22nd March, 1877.
- No. 46... ST. PETER'S CANAL :—Return to Order, Correspondence in connection with the change of contractors for the enlarging of the St. Peter's Canal; also what funds are still in the hands of the Government belonging to Mr. Tuck, the original contractor, and the time within which the Contract is to be finished. (*Not printed.*)
- Return to Address, Reports, &c., made within the last two years in connection with the enlargement of St. Peter's Canal, in the Island of Cape Breton. (*Not printed.*)

- No. 47... LAKE ERIE HARBOR:—Return to Order, All Reports, &c., in connection with the projected Harbor on Lake Erie, near the Village of Morpeth, in the County of Kent, together with a statement of the expenditure, &c. (*Not printed.*)
- No. 48... NEW CAMPBELLTON POST OFFICE:—Return to Order, Correspondence in connection with the changing of the Post Office at the Port of New Campbellton, to a Way Office, and the reduction of the salary of the Postmaster; also shewing the amount of Postage Stamps disposed of by the several Post and Way offices during the year 1876 and the year 1877, in the County of Victoria, Nova Scotia. (*Not printed.*)
- No. 49a... MILITARY COLLEGE AND SCHOOLS:—Return to Order, Shewing the names of all the Cadets that have been admitted at the Military College, Kingston, from the opening of said College, and giving the names of those that are now following the courses of that institution.
- No. 49b... —Return to Order, Shewing:—1. The amounts spent yearly since 1867 in the maintenance of Military Schools in the Province of New Brunswick; 2. The number of Candidates who have each year received 2nd Class Certificates, and the amount of gratuity paid; 3. The number of passed Cadets who at the time of attending any school held at Fredericton, N. B., were students of the University of New Brunswick, &c.; 4. The number and names of all passed Cadets who have held and now hold Commissions in the Active Militia in New Brunswick, &c. (*Not printed.*)
- No. 50a... MILITARY FORTS, POINT LEVIS:—Return to Order, Copies of all Tenders for the construction of the platform for the gun of No. 1 Fort, at Lévis. (*Not printed.*)
- No. 50b... —Return to Order, Shewing the sums expended for repairs to military forts at Lévis, since last Session; the names and wages of the workmen, and the amount paid to each, &c. (*Not printed.*)
- No. 51... LINGAN HARBOR, C.B.:—Return to Order, Report of the survey of the Harbor of Lingan, Cape Breton, and Correspondence, &c. (*Not printed.*)
- No. 52... CANADA PACIFIC TELEGRAPH:—Return to Address, Specifications on which tenders were invited to construct the Lake Superior and Fort Garry sections of the Canadian Pacific Telegraph.
- No. 53... DOMINION LANDS:—Return to Address, Reports made to the Minister charged with the administration of Dominion Lands, under the Act 38 Vic., cap. 53, by any Commissioners appointed under the said Act; also all lists of lands prepared by the Surveyor General of Dominion Lands, in accordance with the provisions of the eighth section of the said Act. (*Not printed.*)
- No. 54... L'ARDOISE BREAKWATER:—Return to Address, Shewing the amount of money expended during the past year on the L'Ardoise Breakwater in the Island of Cape Breton. (*Not printed.*)
- No. 55... O'DONOGHUE, W. B.:—Return to Address, Orders of Council and correspondence between the Imperial and Canadian Governments relating to any Amnesty to Mr. W. B. O'Donoghue.
- No. 56... RAILWAY RESERVE, WINNIPEG:—Return to Order, Statement of moneys received by the Dominion Land Office at Winnipeg, for payment of Lands in the Railway Reserve, and copy of instructions to Dominion Lands Agent in Manitoba, in regard to Squatters upon the said Railway Reserve.
- No. 57... MATANE, HARBOR OF:—Return to Order, Copies of Mr. Kingsford's Report on the survey of the Harbor of Matane, with the plans and estimates accompanying the said Report. (*Not printed.*)
- No. 58a... WELLAND CANAL:—Return to Address showing the amounts of the six lowest tenders received for Sections 17, 18, 19, 20, 27, 28, 33, 34 and 35 of the new Welland Canal, with the names of the tenderers, &c. (*Not printed.*)
- No. 58b... —Return to Address:—1st. The amounts of the six lowest tenders received in September or October, 1873, for Sections 2, 3, 5, 6, 7, 12, 13 and 14 of the new Welland Canal, with the names of tenderers; 2nd. The amounts of the six lowest tenders for the same Sections, received in 1874, with the names of the tenderers; 3rd. The names of the tenderers to whom these sections were awarded; 4th. Copies of the Orders in Council awarding such Sections; 5th. Copy of all Correspondence relating to such award.
- No. 59... PENSIONS, CULLERS:—Return to Order, Correspondence relative to the pensions paid to the square timber cullers dismissed last year. (*Not printed.*)
- No. 60... MALPEQUE BREAKWATER:—Return to Order, Copy of Specification for construction of Malpeque Breakwater; copies of Tenders, with names of sureties offered for performance of contract, &c. (*Not printed.*)
- No. 61... SASKATCHEWAN RIVER:—Return to Order, Report of Surveys of the Saskatchewan River having in view the removing the obstructions which now exist at the Coals Falls and other points between that place and the Grand Rapids. (*Not printed.*)

- No. 62... PHILADELPHIA EXHIBITION :—Return to Order, Showing total cost to the Government of Canada of the Philadelphia Exhibition ; giving a detailed statement of all moneys expended, &c.
- No. 63... EMPLOYÉS, DEPARTMENT MARINE, QUEBEC :—Return to Order, List of all the Employés of the Department of Marine in the District of Quebec, since 1861, (excluding the men employed in the River Police Force), with their salaries and respective places of residence. (*Not printed.*)
- No. 64... PEMBINA BRANCH RAILWAY :—Return to Address, Tenders received for the construction of that portion of the Pembina Branch Railway between St. Boniface and Selkirk, with copies of all Reports, &c., relating to the letting of this work.
- No. 65... TREMBLAY, P. A., &c. :—Return to Order giving : 1st. A detailed statement of all sums of money received by Pierre Alexis Tremblay, Esquire, Land Surveyor, in connection with the Ordnance Lands in 1876 and 1877 ; 2nd. A statement showing all the sums of money received during the said two years by Dorila Tremblay, as Lighthouse Keeper at Portneuf, &c. (*Not printed.*)
- No. 66... TIGNISH BREAKWATER :—Return to Order, Showing what lights have been built at Tignish Breakwater during the past season ; with Correspondence from the Agent for the Marine and Fishery Department in Prince Edward Island relative thereto. (*Not printed.*)
- No. 67... LAPSED BALANCES 1876-77 :—Return to Address, Orders in Council relating to balances of appropriations of 1876-77 which may have lapsed, and been carried over to the following year. (*Not printed.*)
- No. 68... MINISTERIAL CHANGES, QUEBEC :—An Address from the Legislative Council of the Province of Quebec to the House of Commons,—also an Address from the Legislative Assembly of the Province of Quebec to the House of Commons, on the subject of recent Ministerial changes in that Province.  
 ————Message transmitting Memorandum from His Honor the Lieut. Governor of the Province of Quebec, with accompanying documents, containing explanations in reference to the recent Ministerial changes in that Province.  
 ————Message transmitting letter from the Hon. C. B. De Boucherville, having reference to recent Ministerial changes in the Province of Quebec.
- No. 69... ST. CHARLES RIVER, QUEBEC :—Return to Address, Statement showing the names of the parties who tendered for the works now being constructed under the control of the Quebec Harbour Trust on the River St. Charles at Quebec. (*Not printed.*)
- No. 70... SHIPS, CANADIAN BUILT :—Return to Address, Correspondence, &c., about the admission of Canadian built ships into French ports at the same rate, and on the same conditions as ships from Great Britain and Ireland are admitted in said ports.
- No. 70a... ————Return to Address, Correspondence that the Government may have had respecting the sale of Canadian built ships in France, on the same favourable terms as are enjoyed by vessels of British construction ; also, as to the admission of French products into this country on more favourable terms than at present. (*Not printed.*)
- No. 71... STEAM VESSELS, REMEASUREMENT :—Return to Order, Showing the amount expended for the remeasurement of steam vessels registered under the Act of the late Province of Canada, now repealed ; the names of the steam vessels ; their tonnage ; the amount paid, and to whom the said vessels belonged. (*Not printed.*)
- No. 72... HORSES, &c., IMPORTED :—Return to Order, Statement of the number and value of all Horses, Horned Cattle, Sheep and Swine imported into the Dominion from the first day of February, 1877, to the 1st day of February, 1878 ; also number and value exported during the same period ; with amount of duties collected by Provinces.
- No. 73... MEAT IMPORTED :—Return to Order, Value of meat, green, dried, cured or potted, imported into Canada from the United States, and the duty collected on such, from 1st January, 1877, to 1st January, 1878.
- No. 74... INGONISH HARBOR BREAKWATER :—Return to Order, Papers connected with Ingonish Harbor Breakwater, not already brought down, stating the date of the several payments to the contractors ; the total amount paid for the work, and the Engineer's certificates for the several payments, and also for extras paid to the contractors. (*Not printed for Sessional Papers—for distribution only.*)
- No. 75... CANADA SOUTHERN RAILWAY :—Return to Order, Annual Returns of the capital, traffic and working expenditure, for the two last financial years, of the Canada Southern Railway Company. (*Not printed.*)
- No. 76... PORT COLBORNE HARBOR MASTER :—Return to Address, Orders in Council relating to the creation of the office of Harbor Master at Port Colborne, and to the appointment of Charles H. Carter to such office, with copy of the Regulations for the management and protection of the Canals and Harbors.

- No. 77... CUSTOMS DUTIES, ST. JOHN, N.B.:—Return to Order, Statement of duties collected by Customs and Inland Revenue Departments at St. John, N.B., from 1st July, 1876, to 1st January, 1877, and from 1st July, 1877, to 1st January, 1878. (*Not printed.*)
- No. 78... ACCIDENTS, RAILWAYS:—Return to Order, Shewing the number of accidents and casualties which have occurred on the Railways of the Dominion during the years 1874, 1875, 1876 and 1877.
- No. 79... TIMBER SALES, INDIAN LANDS:—Return to Address, Shewing what sales were made of Timber on Indian Lands on the North Shore of Lake Huron, or on the Islands in the Georgian Bay or elsewhere, since the 1st day of January, 1873. (*Not printed.*)
- No. 80... SUPREME AND EXCHEQUER COURTS:—Copies of General Rules and Orders, as have been made by the Judges of the Supreme and Exchequer Courts since the last Session of Parliament. (*Not printed.*)
- No. 80a... —Return to Address, Return of all Appeals instituted before the Supreme Court of Canada since its creation, shewing the names of parties, the Court from whose judgement each Appeal has been brought, and indicating the cases already disposed of by the said Supreme Court, and the cases yet pending. (*Not printed.*)
- No. 80b... —Return to Address, Return of all cases instituted in the Exchequer Court of Canada since its creation, &c., and indicating separately the cases disposed of by the said Court and those yet pending. (*Not printed.*)
- No. 80c... —Return to Address, Return of all Petitions of Right transmitted to the Secretary of State since the passing of the "Petition of Right Act, 1876"; shewing the names of Suppliants, the amount and nature of each claim, in what cases His Excellency's fiat that right be done to the parties was granted, and in what cases refused. (*Not printed.*)
- No. 80d... ——"The Dominion Controverted Elections Act, 1874"—Jacques Cartier County.—Somerville *et al* vs. Lafamme. Evidence of, &c. (*Not printed.*)
- No. 81... MIRAMICHI, N.B., FISH-BREEDING:—Special Reports on the condition of the Fish-Breeding Establishment at Miramichi, New Brunswick. (*Not re-printed in Sessional Papers.*)
- No. 82... OROMOCTO SHOALS:—Return to Address, Reports and Correspondence connected with the improvement of the navigation of the River St. John at the Oromocto Shoals. (*Not printed.*)
- No. 83... QUARANTINE HOSPITAL, SYDNEY, C.B.:—Return to Address, Correspondence between the Dominion Government and the Imperial Government in reference to a site for building a Quarantine Hospital at Sydney, Cape Breton. (*Not printed.*)
- No. 84... POPLAR POINT, MANITOBA:—Return to Order, Statement shewing the number of Lots South of the Assiniboine River, in the Parish of Poplar Point, in the Province of Manitoba, for which Patents have been issued, &c., under the Manitoba Act or otherwise. (*Not printed.*)
- No. 85... PARIS EXHIBITION:—Return to Order, Statement of all moneys paid or obligations incurred to the 1st of January last, in connection with the Paris Exhibition. (*Not printed.*)
- No. 86... TRAWLS OR BULTOWS:—Return to Order, Correspondence and Petitions in the hands of the Government respecting the use of Trawls or Bultows by Foreigners, off the coasts of Nova Scotia. (*Not printed.*)
- No. 87... ADVERTISING:—Return to Order, Statement of the expenses during the years 1874, 1875 and 1876 in advertising on behalf of the Government or any public service in the public journals of the Dominion.
- No. 88... IRON:—Return and Supplementary Return to Order, of all quantities of Iron purchased by any of the Departments of the Government for other than Railway purposes, by tender or otherwise.
- No. 89... FRAZER RIVER, SALMON FISHING:—Return to Address, Tenders that have been received for the leasing of the exclusive right of Salmon fishing and netting in the Frazer River, British Columbia. (*Not printed.*)
- No. 90... DAWSON ROUTE:—Return to Address, Correspondence relating to amounts claimed by Messrs. Carpenter & Co., on account of their contract for operating the Government Road commonly known as the Dawson Route. (*Not printed.*)
- No. 91... VICTORIA HARBOUR, WOOD ISLAND:—Return to Order, Copy of the Government Engineer's Report on Victoria Harbour and Breakwater at Wood Island. (*Not printed.*)
- No. 92... CASCOMPEC HARBOUR:—Return to Order, Copy of Survey and Report made by Henry F. Perley, Esq., Engineer, in 1874, with the view of improving the navigation of Cascompec Harbour, in Prince Edward Island. (*Not printed.*)

- No. 93... ST. JOHN'S BRIDGE :—Return to Order, Correspondence in relation to the St. John's Bridge, on the River Richelieu. (*Not printed.*)
- No. 94... ROSS, ANGUS :—Return to Order, Correspondence regarding the removal of Mr. Angus Ross, Lighthouse Keeper of Bird Island Light, County of Victoria, Nova Scotia. (*Not printed.*)
- No. 95... GIRBLIN, JOHN :—Return to Address, Correspondence between the Government and John Giblin, of Quebec, in relation to the lease of the house now occupied as the Culler's Office at Quebec. (*Not printed.*)
- No. 96... RAILWAY STATISTICS OF CANADA :—Reports, Railway Statistics of Canada, and Capital, Traffic and Working Expenditure of the Railways of the Dominion, 1876-7.
- No. 97... RED RIVER LOSSES :—Return to Address, Correspondence between the Hudson Bay Company and the Dominion Government, relative to alleged losses at the Red River Settlement, connected with the insurrection in 1869-70.
- No. 98... BOSWELL, J. K. :—Return to Address, Orders in Council relating to the recent seizure of Mr. J. K. Boswell's Brewery, in the City of Quebec; and to the imposition of certain fines and penalties in connection therewith, &c. (*Not printed.*)
- No. 99... CADETS, ROYAL NAVY :—Return to Address, Statement showing: 1st. The number, if any, of Cadets nominated annually to the Royal Navy by the several Colonies of the Empire; 2nd. The names of such Cadets as have been nominated to Her Majesty's Royal Navy by Canada, since the 1st July, 1867. (*Not printed.*)
- No. 100... COLLINGWOOD, HARBOUR MASTER OF :—Return to Address, Order in Council, regulating and determining the rights, powers and duties imposed on the Harbour Master for the Port of Collingwood, and fixing his remuneration; and a Statement shewing the moneys received by the Harbour Master of the said Port. (*Not printed.*)
- No. 101... "NORTHERN LIGHT," STEAMER :—Return to Order, Accounts and Vouchers showing the amount of expenses incurred in the running the steamer *Northern Light*, between Georgetown and Pictou up to date. (*Not printed.*)
- No. 102... MCFARLANE, HON. ALEX. :—Return to Address, Correspondence, &c., connected with a Lease from the Government of Nova Scotia and from the Dominion Government to the Hon. Alex. McFarlane, of certain mud flats and oyster beds in the Counties of Colchester and Cumberland. (*Not printed.*)
- No. 103... AMMUNITION, VOLUNTEER :—Return to Order, Giving in detail the amount of ammunition furnished during the years 1875, 1876 and 1877, to the Active Volunteer. Battalions and Companies of the Dominion.
- No. 104... ST. ATHANASE, PARISH OF :—Return to Address, Correspondence in relation to any application for aid in behalf of certain ratepayers of the Parish of St. Athanase in the County of Iberville, who have suffered loss by floods. (*Not printed.*)
- No. 105... CITY AND DISTRICT SAVINGS BANK, MONTREAL :—Return to Address, A statement shewing the position of the Bank at the period of its re-organization in 1871; Also shewing how the Directors fixed at \$180,000 the surplus or poor fund; Also how the capital stock was taken up, and the names of shareholders, &c. (*Not printed.*)
- No. 106... SOUTH GUT, POST OFFICE :—Return to Order, Correspondence respecting the removal of the Post Office at South Gut of Ste. Ann's, County of Victoria, Nova Scotia. (*Not printed.*)
- No. 107... PORT HASTINGS AND NARROWS, N.S. :—Return to Order, Correspondence regarding the conveyance of the mails between Port Hastings and Grand Narrows in Nova Scotia. (*Not printed.*)
- No. 108... SPIKES, PACIFIC RAILWAY :—Return to Order, Copy of all notices and letters issued by the Department of Public Works calling for tenders for the supply of railway spikes for the Canada Pacific Railway.
- No. 109... WIRE FENCE, P. E. I. RAILWAY :—Return to Order, Correspondence shewing how many miles of wire fence has been taken down and replaced by post and batten fence, and the cost of erecting said post and batten fence. (*Not printed.*)
- No. 110... SURVEYS, LAKES MANITOBA, &c. :—Return to Order, Report of Surveys made of Lakes Manitoba and Winnipegosis, the Waterhen River and Little Saskatchewan River.
- No. 111... McDONALD, D. :—Return to Order, Papers, &c., relating to the dismissal of D. McDonald, Postmaster at Little Glace Bay, Cape Breton. (*Not printed.*)

- No. 112.. POST OFFICES, N.B.:—Return to Address, Petitions from the inhabitants of the Parish of Perth, N.B., praying for the establishment of new Way or Post Offices in that parish, and correspondence between the Government and the Inspector of Post Offices for New Brunswick, bearing upon the same subject. (*Not printed.*)
- No. 113.. CADIGAN, J.:—Return to Order, Correspondence touching the resignation of J. Cadigan, as Postmaster at Little Glace Bay, Cape Breton County. (*Not printed.*)
- No. 114.. CORBETT, JAMES:—Return to Order, Correspondence relating to the dismissal of James Corbett, Postmaster at Lorway Mines, Cape Breton County. (*Not printed.*)
- No. 115.. VICTORIA MINES, C. B.:—Return to Order, Correspondence between the Post Office Department and all persons, touching the Postmaster and Post Office affairs at Victoria Mines, Cape Breton County, for the past three years. (*Not printed.*)
- No. 116.. GAUVREAU, J. P.:—Return to Order, Report, for the year 1877, of J. P. Gauvreau, Collector of Customs for the Port of Rimouski. (*Not printed.*)
- No. 117.. CARRON BROOK VILLAGE:—Return to Order, Correspondence respecting the establishing of Bonded Warehouses at the Village of Carron Brook and Town of Clinton, County of Huron. (*Not printed.*)
- No. 118.. TUBING:—Return to Order, Amount of all tubing imported into Canada during the year immediately preceding the imposition of duty on Tubing by the Tariff of last Session. (*Not printed.*)
- No. 119.. NORTHERN RAILWAY, ROYAL COMMISSION:—Return to Address, Fees paid by the Government of Canada to all Counsel employed in connection with the Royal Commission appointed to enquire into the affairs of the Northern Railway. (*Not printed.*)
- No. 120.. COW BAY, C.B.:—Return to Order, Correspondence relating to the removal of the Postmaster at Cow Bay, Cape Breton. (*Not printed.*)
- No. 121.. MAILS, QUEBEC AND MURRAY BAY:—Return to Order, Correspondence about the carrying of the mails by water from Quebec to Murray Bay, in the County of Charlevoix, for the year 1877; also the cost of carrying the mails to Tadousac, Chicoutimi, Eboulements and Baie St. Paul. (*Not printed.*)
- No. 121a. ———— Return to Address, Tenders received in 1877 for the carrying by land of the mails from Quebec to Eboulements or Murray Bay; also a copy of all Orders in Council or Departmental Orders relating to the same. (*Not printed.*)
- No. 122.. PLASTER OF PARIS:—Return to Address, Statement of the quantities of Plaster of Paris or Gypsum, ground or calcined, imported from the United States during the past fiscal year, shewing quantity received at each Port and valuation of same for duty. (*Not printed.*)
- No. 123.. RAILWAY STOCK IN BOND:—Return to Order, Statement of the names of Railway Companies who entered in bond, since the 1st July, 1867, railway locomotives and other railway rolling stock, and the date of payment of custom duties;—Also the names of such Companies whose rolling stock were ordered to be sold by the Minister of Customs. (*Not printed.*)
- No. 124.. MCNEIL, R.:—Return to Order, Correspondence relating to the dismissal of R. McNeil, Esq., as Shipping Officer at Little Glace Bay, Cape Breton County. (*Not printed.*)
- No. 125.. ALASKA:—Return to Address, Report of the Engineer who was employed last year in determining the probable boundary line between British Columbia and Alaska, and such other papers as relate to the defining of the boundary line between Alaska and British territory.
- No. 126.. GEOLOGICAL SURVEY:—Report of Progress of the Geological Survey of Canada, by Alfred R. C. Selwyn, F.R.S., F.G.S., Director, for the year 1876-77. (*Not re-printed in Sessional Papers.*)
- No. 127.. TERRITORIES, N. A. CONTINENT:—Message, transmitting Correspondence which has passed with Her Majesty's Government respecting the inclusion within the Boundaries of the Dominion of Territories on the North American Continent. (*Not printed.*)
- No. 128.. RAT RIVER SETTLEMENT:—Return to Address, Orders in Council on the subject of the lands at the place known by the name of Rat River Settlement, and on the Red River, in the County of Provencher, as well as in the settlement of La Petite Pointe de Chênes, in the Parish of Loretto, in the County of Selkirk, in the Province of Manitoba. (*Not printed.*)
- No. 129.. VALLÉE, J. S.:—Return to Order, Complaint made in 1875 against J. S. Vallée, Esquire, Postmaster of Montmagny, and copy of the Enquête held in 1875 by Mr. Achille Talbot, Deputy Post Office Inspector, on said Complaint. (*Not printed.*)

- No. 130.. LAND, CANAL PURPOSES:—Return to Order, Shewing the several amounts of money paid out out of the \$39,256.01, deposited in the Bank of Montreal, to pay certain parties for land taken for Canal purposes, and the names of the parties who have been paid. (*Not printed.*)
- No. 131.. PENSIONS, PUBLIC OFFICERS, B.C.:—Return to Address, Correspondence respecting the pensions for Public Officers who were in the service of British Columbia at the date of the Union, 1871. (*Not printed.*)
- No. 132.. MORRIS, HON. A.: Return to Address, Report made to the Government by the Honorable A. Morris, Commissioner under the Act 38 Victoria, Chapter 53, on the putting into execution of that law and its operation in the Province of Manitoba.
- No. 133.. CERTIFICATES, SCHOOLS OF GUNNERY:—Return to Order, Ranks and names of all officers who have attended and taken long or short course certificates at the "A" or "B" Battery Schools of Gunnery. (*Not printed.*)
- No. 134.. THOUSAND ISLANDS:—Return to Order, Statement of all sales or leases of the Islands in the River St. Lawrence, lying between Brockville and Kingston, known as the "Thousand Islands," during the years 1874-5, 1875-6 and 1876-7, &c. (*Not printed.*)
- No. 135.. LA BANQUE NATIONALE:—Return to Address, Correspondence between the Government, or the Minister of Justice, and the creditors of one Olivier Latour, or any of them, or any persons on their behalf, in relation to the alleged forfeiture of its Charter by La Banque Nationale by reason of its illegally trading in Lumber and in the manufacture and sale of Square Timber and Saw Logs, &c. (*Not printed.*)
- No. 136.. TOLLS, UPPER OTTAWA IMPROVEMENT CO.:—Return to Address, Orders in Council fixing the rate of Tolls to be collected by the Upper Ottawa Improvement Company, on saw logs and timber passing through their works. (*Not printed.*)
- No. 137.. DOMINION POLICE:—Return shewing the average number of Dominion Police employed during each month of the year, ended 31st December, 1877; the cost of pay, and of travelling expenses. (*Not printed.*)
- No. 138.. MARINE AND FISHERIES, P.E.I.:—Return to Address, Contracts, Telegrams and agreements relating to the Service of the Marine and Fishery Department at Prince Edward Island, since the entry of said Island into the Dominion, in July, 1873. (*Not printed.*)
- No. 139.. TIMBER AND SAWED LUMBER IMPORTED:—Return to Address, Quantities and value of the Square White Pine, Pine Board Timber, &c.; and value of the Red and White Oak Staves; the total quantities and their value of Sawed Lumber, in White and Red Pine, &c., imported into Canada by water or by rail from the United States of America.
- No. 140.. WINDSOR AND ANNAPOLIS RAILWAY:—Return to Address, Correspondence connected with the Windsor and Annapolis Railway, the Windsor Branch and the Western Counties Railway; in connection with the purchase of an annuity by the Western Counties Company.
- No. 141.. EXCISE, STAMPS AND CUSTOMS:—Return to Address of all duties of excise for this Dominion, for the months of July, August, September, October, November, December, 1877, and the months of January, February and March of 1878. (*Not printed.*)
- No. 141a.. ———— Return to Address, Return of all duties for Stamps for this Dominion for the months of July, August, September, October, November, December, 1877, and the months of January, February and March of 1878, &c. (*Not printed.*)
- No. 141b.. ———— Return to Address, Return of all duties of Customs for this Dominion for the months of July, August, September, October, November, December, 1877, &c. (*Not printed.*)
- No. 141c.. ———— Return to Address, Return of all duties of Customs for the Dominion for the months of July, August, September, October, November, December, 1876, &c. (*Not printed.*)
- No. 141d.. ———— Return to Address, Return of all duties for Stamps for this Dominion for the months of July, August, September, October, November, December, 1876, &c. (*Not printed.*)
- No. 141e.. ———— Return to Address, Return of all duties of Excise for this Dominion for the months of July, August, September, October, November, December, 1876, &c. (*Not printed.*)
- No. 141f.. ———— Return to Address, Return of all duties of Excise for the City of St. John, New Brunswick, for the months of July, August, September, October, November, December, 1877, &c. (*Not printed.*)
- No. 141g.. ———— Return to Address, Return of all duties of Customs for the City of St. John, New Brunswick, for the months of July, August, September, October, November, December, 1877, &c. (*Not printed.*)
- No. 141h.. ———— Return to Address, Return of all duties of Customs for the City of St. John, New Brunswick, for the months of July, August, September, October, November, December, 1876, &c. (*Not printed.*)



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- No. 141i. —Return to Address, Return of all duties of Excise for the City of St. John, New Brunswick, for the months of July, August, September, October, November, December, 1876, &c. (*Not printed.*)
- No. 141j. —Return to Order, Shewing the receipts for Customs and Excise in British Columbia for the six months ending on December 31st last; also, a Return of the Customs and Excise collected on Stickine River for the same period; also, a Return of the Imports and Exports of the said Province for the same period, &c.
- No. 142. EXCISE, STAMPS AND CUSTOMS:—Return to Address, Return of all duties of Excise for this Dominion for the months of July, August, September, October, November, December, 1877, and the months of January, February, and March of 1878, as well as the months of April, May and June of 1877.
- No. 143. HAWK, SUIT OF:—Return to Address, Copies of the Bill of Complaint and the Decree in the suit of Her Majesty's Attorney General for Canada *versus* Hawks, now pending in the Chancery Division of the High Court of Justice in England.
- No. 144. MUIR POST OFFICE:—Return to Order, Correspondence in relation to closing Muir Post Office, &c.; Correspondence in relation to dismissal of Charles Lilley as Postmaster in London East, and the appointment of Mr. Mills as Postmaster in his stead. (*Not printed.*)
- No. 145. GREAT VILLAGE:—Return to Address, Correspondence in reference to the change of Mail route between Great Village and Five Islands, *via* Portapique Mountain, in the County of Colchester. (*Not printed.*)
- No. 146. APPOINTMENTS TO OFFICE:—Return to Order, For a Return of the original papers made and signed by the Deputy Heads of the different Public Departments purporting to be made in obedience to the Order of this House of the fifth day of March, 1877, as follows:—The names of persons appointed to office between the 1st of January and the 7th of November, 1873, &c. (*Not printed.*)

VOLUMES—SPECIAL.

- No. 147. HALIFAX COMMISSION:—Return to Address, Documents and pleadings relating to the questions decided by the award rendered at Halifax, on the subject of the indemnity of five million five hundred thousand dollars, under the Treaty of Washington.
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## STATEMENT

Of Payments charged to Unforeseen Expenses, under Orders in Council, from 1st July, 1877, to date, in accordance with Act 40 Vic., cap. 1, schedule B.

Date of Order in Council.	To whom paid.	Service.	Amount.	
			\$	cts.
1877.				
June 25	J. M. Lemoine .....	For 30 copies of "Quebec, Past and Present," supplied to Library.....		60 00
do 25	A. Côté & Co.....	30 copies of "L'Instruction Publique" in Canada, supplied to Library .....		30 00
July 6	Hon. Receiver-General ..	To pay gratuity to widow of the late David Vaughan, of the Post Office at Quebec .....		200 00
do 20	do .....	Gratuity to widow of the late A. Boucher, Messenger, House of Commons.....		116 66
do 20	do .....	For sundry articles for presentation to Indians by His Excellency the Governor-General during his visit to Manitoba.....	260 37	
do 20	Joseph E. Lemieux ... ..	For portraits of their Excellencies the Governor-General and Countess of Dufferin, for presents to Indians.....	60 00	320 37
do 25	Hon. Receiver-General...	Gratuity to widow of the late J. Brady, of the Customs, Kingston.....		166 67
do 25	Bank of Commerce .....	Gratuity to widow of the late J. S. Clark, Collector of Canal Tolls, Port Dalhousie.....	196 00	
do 25	Hon. Receiver-General...	Balance of do do .....	4 00	200 00
do 17	do .....	The legal representatives of the late H. E. Harvey, Bookkeeper of the Savings Bank Branch, Halifax, for extra expenses of attendance during his illness at Annapolis, N.S.....		173 13
Aug. 27	do .....	Gratuity to widow of the late E. Daughtry, a Messenger of Post Office Dept.....		75 00
do 27	do .....	Gratuity to widow of the late Joseph Levesque, Keeper of Red Island Lightship, Lower St. Lawrence.....		83 34
Sept. 13	do .....	Gratuity to widow of the late O. Fanteux, Deputy Inspector Weights and Measures, Montreal.....		116 66
do 13	do .....	Gratuity to children of the late Judge Sanborn, Superior Court, Quebec.....		833 32
do 13	Joseph Blakely.....	Award of Official Arbitrators to John Elliott, Contractor for Toronto Post Office.....	9,505 00	
do 13	John Elliott.....	Balance of award do .....	8,954 72	18,459 72
Carried forward .....				

STATEMENT of Payments charged to Unforeseen Expenses, under Orders in Council, from 1st July, 1877, to date, &c.—Continued.

Date of Order in Council.	To whom paid.	Service.	Amount.	
			\$ cts.	\$ cts.
1877.		Brought forward.....		
Aug. 27	Hon. Receiver-General...	To pay gratuity to widow of the late D. F. Curry, of the Customs, Ship Harbour, N.S.....		33 34
Oct. 9	do	Gratuity to widow of the late George E. Clarkson, Landing Waiter of Customs.....		166 67
do 8	Bank of Montreal, London	Accountant, Board of Trade, London, for disbursements on account of two destitute Canadians.....		34 37
do 12	Hon. Receiver-General...	Gratuity to mother of the late G. Twomley, Surveyor of Customs, Prescott, Ont., killed while in discharge of his duty.....	158 33	
do 19	do	do do do	600 00	758 33
do 8	do	Gratuity to father of the late C. E. Ketchum, Clerk, Post Office, St. John		86 66
Sept. 13	do	Mr. Pearce, D.L.S., for planting monuments, &c., International Boundary Line, Manitoba.....		89 65
Nov. 3	do	Gratuity to widow of the late Louis Patry, Customs Tide Waiter, Quebec..		91 50
do 17	do	The Pullman Car Co. and St. Lawrence & Ottawa Railway Co., in connection with His Excellency the Governor-General's visit to Manitoba.....	2,534 50	
do 26	do	C. J. Brydges, for error in the Grand Trunk Railway account for baggage car, in connection with Governor-General's visit to Manitoba.....	39 44	2,573 94
Oct. 8	do	Messrs. Schreiber & Burpee, in full settlement of claim in connection with their contract for Prince Edward Island Railway.....		4,551 86
Nov. 17	Bank of Montreal.....	Andrew Robertson, President, Board of Trade, Montreal, towards expenses of publishing a Geographical and Commercial map of Canada.....		500 00
Dec. 7	Hon. Receiver-General...	Gratuity to widow of the late Robert Stewart, Clerk in the P.O. Inspector's Office, Montreal.....		166 67
do 14	do	Gratuity to widow of the late Chief Justice Draper, Court of Appeal, Ont.....		1,000 00
do 14	do	Gratuity to widow of the late Thomas Connell, Lightship Keeper, Manicouagan.....		133 34
do 21	do	Gratuity to widow of the late Alex. Brotherton, Light Keeper at Macquereau Point, Quebec.....		50 00
do 21	do	Gratuity to widow of the Joseph Marvau, Light Keeper at Burnt Island, Ont.....		41 67
		Carried forward.....		

STATEMENT of Payments charged to Unforeseen Expenses, under Orders in Council,  
from 1st July, 1877, to date, &c.—*Concluded.*

Date of Order in Council.	To whom paid.	Service.	Amount.	
			\$ cts.	\$ cts.
1877.				
		Brought forward.....		
Nov. 17	Hon. Receiver-General...	To pay Rev. H. McMillan, salary and expenses in connection with Halifax Statistical Office .....	331 17	
Dec. 14	do ...	Rev. H. McMillan, a further sum in final settlement.....	90 39	421 56
Nov. 26	do ...	Gratuity to widow of the late P. J. N. Dumaresq, of the Customs, Shippegan, N.B.....		43 74
.....	do ...	Justice Gray, on account expenses con- nected with Enquiry Marine and Fish- eries Department, B.C.....		100 00
		Total .....		31,678 17

JOHN LANGTON,  
*Auditor-General.*

FINANCE DEPARTMENT,  
OTTAWA, 8th February, 1878.

## STATEMENT

Of Special Warrants of His Excellency the Governor General issued in accordance with Act 31 Vic., cap. 5, sec. 35, from 1st July, 1877 to 9th February, 1878, inclusive.

Certified copies of the Warrants and of Orders in Council recommending the same are hereto annexed.

- (1.) Authorizing expenditure on Public Buildings, St. John, N.B. \$50,000.

### *Capital Expenditure.*

- (2.) Authorizing expenditure on account of the following services, being balances of previous appropriations which had lapsed, viz:—

Ottawa Buildings: The Tower.....	\$	8,950	00
do Western Block extension.....		142,325	80
Intercolonial Railway-freight cars.....		76,736	72
do expenses before Supreme Court .....		8,575	14
			\$236,587 66

### *Consolidated Fund Expenditure.*

- (3.) Authorizing expenditure on account of the following services, being balances of previous appropriations which had lapsed, viz:—

British Columbia Penitentiary.....	\$	19,106	89
Public Buildings, North-West.....		803	05
Lieut. Governor's Residence, Battleford.....		3,784	83
Removal of Beacon Rock, B.C.....		9,800	00
Guelph Custom House.....		6,378	26
Shippegan Harbour.....		9,630	37
Grasshopper Relief.....		380	10
Criminal Statistics.....		4,558	75
Australian Exhibition.....		6,959	20
Cow Bay, Cape Breton .....		1,343	84
Ammunition and military stores.....		71,973	34
			\$134,718 63

- (4.) Authorizing expenditure on Mennonite Loan, being balance of a lapsed appropriation \$7,600 00.

- (5.) Authorizing expenditure on Government Buildings, &c., North-West Territories \$30,000 00.

## RECAPITULATION.

*Warrants.*

1. Consolidated Fund Expenditure .....	\$50,000 00	
3. do do .....	134,718 63	
4. do do .....	7,600 00	
5. do do .....	30,000 00	
		\$222,318 63
2. Capital Expenditure .....		236,587 66
Total.....		\$458,906 29

JOHN LANGTON,  
*Auditor-General.*

By His Excellency, the Right Honorable FREDERICK TEMPLE, Earl of DUFFERIN in the Peerage of the United Kingdom of Great Britain and Ireland, P.C., K.P., K.C.B., G.C.M.G., Governor General of Canada, and Vice-Admiral of the same, &c., &c., &c.

*To the Honorable the Receiver-General of Canada—*

(1.) You are hereby authorized and required out of such moneys as are in or shall come to your hands for defraying the expenses of the Civil Government of Canada, to pay in the sum of \$50,000 to a special account to be called "Public Buildings at St. John, N.B.," out of which the expenses necessary to meet certain charges of expenditure in repairing certain buildings and making a commencement in rebuilding others, shall be defrayed by the issue of warrants in the usual course, in accordance with the provisions of the Act 31 Vic., cap. 5, sec. 35;

And for your so doing this warrant shall be to you a sufficient discharge.

Ottawa, this 20th day of October, 1877.

DUFFERIN.

Certified. JOHN LANGTON.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 19th October, 1877.*

On a report dated October, 1877, from the Hon. the Minister of Public Works, stating that a sum of \$50,000 is required to be expended in connection with the reconstruction of the Public Buildings at St. John, N.B., destroyed by the great fire which took place in the month of June last in that city, viz.: in repairing certain buildings and making a commencement in rebuilding others.

That there is no parliamentary appropriation from which such expenditure can be made, and that the necessity for the work in question is urgent and immediate— and recommending that a special warrant do issue conformably with the provisions of the thirty-fifth section of the Act 31 Vic., chap. 5, for the said amount.

The Hon. the Minister of Finance having reported that there is no parliamentary appropriation from which the above amount can be paid, the Committee advise that a special warrant issue as recommended.

Certified.

W. A. HIMSWORTH,  
*Clerk, Privy Council.*

To the Auditor.

By His Excellency the Right Honorable FREDERICK TEMPLE, Earl of DUFFERIN, in the Peerage of the United Kingdom of Great Britain and Ireland, P.C., K.P., K.C.B., G.C.M.G., Governor General of Canada and Vice-Admiral of the same, &c., &c., &c.

*To the Honorable the Receiver-General of Canada—*

(2.) You are hereby authorized and required, out of such moneys as are in or shall come to your hands for defraying the expenses of the Civil Government of Canada to pay in the sum of \$236,587.66 to the credit of sundry appropriations of 1876-77 on capital account, which have lapsed viz. :—

Ottawa Buildings: the Tower.....	\$ 8,950 00
do Western Block.....	142,325 80
Intercolonial Railway freight cars.....	76,736 72
Expenses before Supreme Court .....	8,575 14

out of which the expenses necessary to meet certain charges of expenditure against the above works shall be defrayed by the issue of warrants in the ordinary course in accordance with the provisions of the Act 31 Vic., chap. 5, sec. 35;

And for your so doing this warrant shall be to you a sufficient discharge.

Ottawa, this 20th day of October, 1877.

DUFFERIN.

Certified. JOHN LANGTON.

*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 19th October, 1877.*

On a memorandum dated 15th October, 1877, from the Hon. the Minister of Finance, stating that having had under consideration the reports of the Ministers of Public Works, Militia and Agriculture, respecting certain balances of appropriations of 1876-77 which have lapsed, and it appearing that the continued expenditure for those services, which are not otherwise provided for, is necessary, he concurs in the recommendations that those appropriations be provided for by Governor General's warrant in accordance with the provisions of the Act 31 Vic., chap. 5, sec. 35.

That he recommends, however, that two separate warrants be issued, embracing in the one such items as are chargeable to capital, and in the other those chargeable to income as follows:—

*Capital.*

Ottawa Buildings: the Tower .....	\$ 8,950 00	
do Western Block .....	142,325 80	
Intercolonial Railway freight cars.....	76,736 72	
do expenses before Supreme Court .....	8,575 14	
		<u>236,587 66</u>

*Income.*

British Columbia Penitentiary.....	\$19,106 89	
Public Buildings, North-West.....	803 05	
Lieut.-Governor's Residence, Battleford.....	3,784 83	
Removal of Beaver Rock, British Columbia.....	9,800 00	
Guelph Custom House .....	6,378 26	
Shippagan Harbour .....	9,630 37	
Ammunition and Military Stores.....	71,973 34	
Grasshopper Relief .....	380 10	
Criminal Statistics .....	4,558 75	
Australian Exhibition.....	6,959 20	
Cow Bay, Cape Breton.....	1,343 84	
		134,718 63

The Committee advise that special warrants issue as recommended.

Certified. W. A. HIMSWORTH,  
*Clerk, Privy Council.*

By His Excellency the Right Honorable FREDERICK TEMPLE, Earl of DUFFERIN, in the Peerage of the United Kingdom of Great Britain and Ireland, P.C., K.P., K.C.B., G.C.M.G., Governor General of Canada, and Vice-Admiral of the same, &c., &c., &c.

*To the Honorable the Receiver-General of Canada—*

(3.) You are hereby authorized and required out of such moneys as are in or shall come to your hands for defraying the expenses of the Civil Government of Canada, to pay in the sum of \$134,718.63 to the credit of sundry appropriations of 1876-77, on Income Account which have lapsed, viz. :—

British Columbia Penitentiary.....	\$19,106 89
Public Buildings, North-West.....	803 05
Lieut.-Governor's Residence, Battleford.....	3,784 83
Removal of Beacon Rock, B.C.....	9,800 00
Guelph Custom House .....	6,378 26
Shippagan Harbour.....	9,630 37
Grasshopper Relief.....	380 10
Criminal Statistics.....	4,558 75
Australian Exhibition.....	6,959 20
Cow Bay, Cape Breton.....	1,343 84
Ammunition and Military Stores.....	71,973 34

Out of which the expenses necessary to meet certain charges of expenditure against the above works shall be defrayed by the issue of warrants in the ordinary course in accordance with the provisions of the Act 31 Vic., cap. 5., sec. 35 ;

And for your so doing this warrant shall be to you a sufficient discharge.

Ottawa this 20th day of October, 1877.

DUFFERIN

Certified. JOHN LANGTON.



By His Excellency the Right Honorable FREDERICK TEMPLE, Earl of DUFFERIN, in the Peerage of the United Kingdom of Great Britain and Ireland, P.C., K.P., K.C.B., G.C.M.G., Governor General of Canada, and Vice-Admiral of the same, &c., &c., &c.

*To the Honorable the Receiver-General of Canada—*

(4.) You are hereby authorized and required out of such moneys as are in or shall come to your hands for defraying the expenses of the Civil Government of Canada, to pay into a special account to be called "Menonite Loan," the sum of \$7,600.00, out of which advances shall be made from time to time as required, by the issue of warrants in the usual course in accordance with the provisions of the Act 31 Vic., cap. 5, sec. 35; a pressing necessity existing for such advances, there being no available appropriation;

And for your so doing this warrant shall be to you a sufficient discharge.

Ottawa, this 12th day of November, 1877.

DUFFERIN.

Certified. JOHN LANGTON.

*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 November, 1877.*

On a report, dated 30th October, 1877, from the Honorable the Minister of Finance, stating that on a memorandum of the Honorable the Minister of Agriculture, representing that there was a pressing necessity for an advance to the Menonites for which there was no available appropriation, an Order in Council was passed, 26th October, advising that \$7,600, the balance unexpended of the appropriation for the Menonite Loan, in the years 1875-76, be paid into the hands of the Receiver-General for that purpose; that that balance had been deposited by the Receiver-General, 14th September, and that there is no authority for issuing a warrant for the amount.

He therefore recommends that a special warrant do now issue for the amount in accordance with the provisions of the Act 31 Vic., cap. 5, sec. 35.

The Committee advise that a special warrant issue accordingly.

Certified.

W. A. HIMSWORTH,  
*Clerk, Privy Council.*

To the Auditor.

By His Excellency the Right Honorable FREDERICK TEMPLE, Earl of DUFFERIN, in the Peerage of the United Kingdom of Great Britain and Ireland, P.C., K.P., K.C.B., G.C.M.G., Governor General of Canada, and Vice-Admiral of the same, &c., &c., &c.

*To the Honorable the Receiver-General of Canada—*

(5.) Owing to several unexpected causes, the original estimated cost of the Government Buildings and other works in the North-West Territories has been exceeded therefor.

You are hereby authorized and required out of such moneys as are in, or shall come to your hands for defraying the expenses of the Civil Government of Canada to pay into a special account to be called "Government Buildings, &c., North-West Territories," the sum of \$30,000 to meet the necessary liabilities incurred upon the

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works in question which shall be defrayed by the issue of warrants in the usual course in accordance with the provisions of the Act 31 Vic., chap. 5, sec. 35 ;

And for your so doing, this warrant shall be to you a sufficient discharge.  
Ottawa, this 27th day December, 1877.

DUFFERIN.

Certified. JOHN LANGTON.

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*COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council, on the 24th December, 1877.*

On a memorandum dated 17th December, 1877, from the Hon. the Minister of Public Works, representing that the Superintendent for the construction of the Government Buildings and other works at Battleford and Fort Pelly, North-West Territories, reports under date 20th September last, that owing to several unexpected causes the original estimated cost of these works has been exceeded by about \$30,000, and recommending that in accordance with the provisions of the Act 31 Vic., chap. 5, sub-sec. 2 of sec. 35, a special warrant for \$30,000 be issued to meet the extra liabilities necessarily incurred for the works in question, and that the amount be placed in the Supplementary Estimates to be laid before Parliament at its next Session.

The Committee concur in the foregoing recommendation and submit the same for your Excellency's approval.

Certified.

W. A. HIMSWORTH,  
*Clerk, Privy Council*

## STATEMENTS.

1. STATEMENT of all Allowances and Gratuities granted under the Act 33 Vic., Cap. 4, intituled: "An Act for better ensuring the efficiency of the Civil Service of Canada, by providing for the Superannuation of persons employed therein, in "certain cases."

Dates of Orders in Council.	Names of Grantees.	Offices when Superannuated.	Annual Allowances.	Gratuities.
			\$ cts.	\$ cts.
As per Return to Parliament, dated February 13, 1877 .....			108,110 80	15,102 52
1877.				
March	21. James Low .....	Bridge Tender, Lachine.....	378 00	
do	21. Thos. K. Ferguson.....	Preventive Officer, Toronto.....		400 00
do	21. C. E. Ratchford.....	(In lieu of \$782.08, granted Oct. 10, 1874)	481 32	
April	7. Wm. Bryden.....	Landing Waiter, Liverpool, N.S.....	378 30	
May	7. J. Bouchard.....	do St. Paul's Bay, Quebec.....		50 00
do	11. W. G. Munday.....	do Hamilton, Ont.....	232 80	
June	25. John G. Sippell.....	Superintendent, Lachine Canal.....	1,978 80	
do	25. Thos. Hill.....	Lighthouse-Keeper, Lancaster Pier.....	201 76	
July	17. T. G. Vidal.....	Exciseman, Sarnia.....		335 40
do	17. Henry Lacroix.....	Landing Waiter, Montreal.....	675 12	
do	25. D. Wilson.....	Excise Officer, London.....		600 00
do	30. C. Taylor.....	Preventive Officer, Coaticook.....	42 72	
do	30. C. H. Godby.....	Collector of Customs, Three Rivers.....	401 58	
do	30. C. St. Geo. Yarwood.....	do Chippawa.....	543 24	
do	30. John Hall.....	Surveyor of Customs, Niagara.....	434 52	
do	30. Thos. B. French.....	Clerk, Public Works Dept., Ottawa.....	617 16	
Oct.	12. P. LeSueur.....	Superintendent, Money Order Branch, P.O.D., Ottawa.....	1,024 32	
do	12. J. A. McDougall.....	Clerk, Post Office Department, Ottawa.....	227 85	
do	12. James Purcell.....	Preventive Officer, Guysboro', N.S.....	366 72	
do	12. J. N. Ross.....	Surveyor of Customs, Halifax.....	1,018 50	
do	12. F. H. Haycock.....	Collector of Customs, Paris.....	582 00	
do	12. Benj. Seaton.....	do Sutton.....	490 00	
Nov.	12. B. Burland.....	do St. John, Que.....	840 00	
do	12. Henry Livingstone.....	do Richibucto.....	618 84	
do	12. Joseph Burr.....	Landing Waiter, New Westminster, B.C.....		260 00
do	12. Edward Duggan.....	Clerk, Culler's Office, Quebec.....	271 60	
do	12. Rev. H. McMillan.....	Secretary, Statistical Office, Halifax.....	488 88	
do	12. Rev. Jno. Cameron.....	Clerk do do.....	252 24	
do	12. C. M. Nutting.....	do do do.....	145 56	
do	12. W. A. Ryan.....	Messenger do do.....	75 72	
do	17. W. H. Lowe.....	Sub-Collector Customs, New Westminster, B.C.....	407 40	
do	29. Gilbert McMicken.....	Assistant Receiver-General, Winnipeg.....	1,579 80	
Dec.	14. Joshua Stansfield.....	Assistant Accountant, House of Commons	646 80	
1878.				
Jan.	11. A. Lavoie.....	Grosse Isle Quarantine Station.....	185 28	
do	11. P. J. Fitzsimmons.....	do do.....	286 76	
do	11. M. Jolicœur.....	do do.....	152 88	
do	11. John Gair.....	do do.....	126 96	
Less allowances lapsed by death or otherwise as per Statement 3.			124,214 23	
			7,552 28	
Total.....			116,661 95	18,687 92

2. STATEMENT showing the Names of Officers placed on the Retired List upon the abolition of their offices, and the annual salaries previously paid to such officers.

Name	Offices.	Annual Salaries.
		\$ cts.
Rev. H. McMillan.....	Secretary, Statistical Office, Halifax .....	1,200 00
Rev. John Cameron .....	Clerk do do .....	1,000 00
C. M. Nutting .....	do do do .....	500 00
W. A. Ryan.....	Messenger do do .....	300 00
P. J. Fitzsimmons .....	Policeman, &c., Grosse Isle Quarantine Station .....	366 00
John Gair.....	Constable do do .....	240 00
Moise Jolicœur.....	Carter, &c., do do .....	260 00
Edward Duggan.....	Clerk, Cullers' Office, Quebec.....	700 00
James Purcell.....	Preventive Officer, Guysborough, N.S.....	900 00
C. St. George Yarwood.....	Collector of Customs, Chippawa.....	875 00
John Hall.....	Surveyor of Customs, Niagara.....	700 00
Joshua Stansfield.....	Assistant Accountant, House of Commons. ...	1,500 00
	Total.....	8,541 00

3. STATEMENT showing the Allowances which have Lapsed by Death, or otherwise, since the date of last Return.

Names.	Cause of Lapse.	Allowances.	Names.	Cause of Lapse.	Allowances.
		\$ cts.			\$ cts.
			<i>Brought forward.....</i>		4,851 04
David George.....	Death.....	213 48	James Brewster.....	Death.....	156 24
George Roddick .....	do .....	206 80	Rev. H. Mulkins.....	do .....	570 00
James Phillips.....	do .....	111 36	James Thompson .....	do .....	596 16
James Macnab.....	do .....	228 12	John Harley.....	do .....	218 40
Henry Cotton.....	do .....	1,435 00	C. E. Ratchford.....	Revised allow- ances per State- ment 1, this sum being cancelled	782 08
John Henderson .....	do .....	327 12		not carried out.	223 20
M. Carmen .....	do .....	390 60	Daniel Harvey .....	Superannuation not carried out.	155 16
Bryan Hayes.....	do .....	413 64	L. Blanchard .....	Superannuation not carried out.	
John P. Dunn.....	do .....	504 36			
M. Mullin.....	do .....	98 16			
John Smith.....	do .....	806 40			
Alfred Turgeon.....	do .....	114 00			
	<i>Carried forward .....</i>	4,851 04		Total.....	7,552 28

4. STATEMENT of the cases in which (since last Return) additions have been made to the actual number of years' services of persons employed in the Civil Service, who have been superannuated.

Persons Superannuated.	No of Years added.	Authority.
Thos. B. French .....	10	Order in Council, July 30, 1877.
Henry Livingstone .....	10	do Nov. 12, do
J. N. Ross .....	6	do Oct. 12, do
Rev. H. McMillan .....	10	do Nov. 12, do
Rev. John Cameron .....	10	do Nov. 12, do
C. M. Nutting .....	10	do Nov. 12, do
W. A. Ryan .....	5	do Nov. 12, do
Joshua Stausfield .....	5	do Dec. 14, do
J. G. Sippell .....	10	do June 25, do

5. STATEMENT of Receipts and Payments, Superannuation Fund.

	Receipts.	Payments.
	\$ cts.	\$ cts.
To 30th June, 1876, as per Return, dated 13th February, 1877 .....	287,216 58	348,117 58
During year ended 30th June, 1877 .....	40,890 26	104,826 99
Total .....	308,106 84	452,944 57

JOHN SIMPSON,  
*Assistant Auditor.*

JOHN LANGTON,  
*Auditor-General.*

AUDIT OFFICE,  
OTTAWA, 6th February, 1878.

(18.)

**RETURN**

To an ORDER of the HOUSE OF COMMONS, dated 4th March, 1878 ;—For statement of the reason in each case for the superannuation of the persons in the Civil Service mentioned in the Return laid before this House on the 18th February.

By Command.

R. W. SCOTT,  
*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 22nd March, 1878.

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STATEMENT of the reason, in each case, for the superannuation of persons in the Civil Service mentioned in the Return laid before the House of Commons on the 18th February, 1878.

Name.	Reason.
James Low.....	Mental derangement.
T. R. Ferguson.....	Bodily infirmity, incapacitating him for duty.
William Bryden .....	
J. Bouchard .....	Reduction of staff.
W. G. Mundy.....	Ill health.
J. G. Sippell.....	Failing health.
Thomas Hill .....	Bodily infirmity.
T. G. Vidal.....	Ill health.
Henry Lacroix .....	do unfit for duty.
D. Wilson.....	Reduction of staff.
C. Taylor .....	Age and infirmity.
C. H. Godby.....	do unfit for duty.
C. St. George Yarwood.....	Bodily infirmity and reduction of expenses.
John Hall.....	
Thos. B. French.....	Age and reduction in staff.
P. LeSueur.....	Irregularity in office.
J. A. McDougall.....	Protracted illness.
James Purcell.....	Abolition of office.
J. L. Ross.....	Extreme age.
F. H. Haycock .....	Bodily infirmity; unfit for duty.
Benjamin Seaton.....	do do
B. Burland .....	Reduction of staff.
Henry Livingstone .....	Age and illness.
Joseph Burr.....	Reduction of staff.
Edward Duggan .....	Abolition of office.
Rev. H. McMillan.....	do
Rev. John Cameron .....	do
C. M. Nutting .....	do
W. A. Ryan.....	do
W. H. Lowe .....	Bodily injury.
Gilbert McMicken.....	Impaired health.
Joshua Stansfield.....	Abolition of office.
A. Lavoie.....	Impaired health.
P. J. Fitzsimmons.....	Abolition of office.
M. Jolicœur .....	do
John Gair.....	do

(Signed) JOHN LANGTON,  
*Auditor General.*

AUDIT OFFICE,  
OTTAWA, 7th March, 1878.

(No. 19.)

## OFFICIAL RETURN

OF THE DISTRIBUTION of the Dominion Statutes of Canada, being 40 Victoria,  
Fourth Session of Third Parliament, 1877,—Vols. I and II separately,  
and Vols. I and II together, English and French versions.

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*[In accordance with the recommendation of the Joint Committee on Printing, the above  
Official Return is not printed.]*



(20 A.)

**RETURN**

To an ORDER in the HOUSE OF COMMONS, dated the 4th April, 1877 ;—For copies of the Reports of Engineers and all other correspondence and information in possession of the Government not yet communicated to the House, having reference to any actual surveys, or proposed surveys in connection with the Canadian Pacific Railway from the Red River, westward, south of Lake Manitoba.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 14th February, 1878.

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(20 B.)

**RETURN**

To an ORDER of the HOUSE OF COMMONS, dated 2nd April, 1877 ;—For copies of all papers, Orders and correspondence with the Minister of Public Works, and the Engineer staff of the said Department, in connection with the engagement of employees for the Pacific Railroad survey, and the routes (if any) they were instructed to take ; also correspondence and Orders from the same source to their agents in reference to the carrying of emigrants, Government employees, and freight coming under the direct control of the Government by the Sarnia or Collingwood route since 1874.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 11th February, 1878.

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[In accordance with the recommendation of the Joint Committee on Printing,  
the above Returns are not printed.]

(20 c.)

**R E T U R N**

To an ORDER of the HOUSE OF COMMONS, dated 16th April, 1877 ;—For a Statement of the number of miles surveyed, and the expenditure for such surveys on the Pacific Railway as follows : 1. The total number of miles surveyed, distinguishing between exploratory or track surveys, preliminary surveys, and location surveys. 2. How many miles of preliminary surveys, exploratory or track surveys and location surveys have been made on each of the following sections :—1st. From the valley of the Ottawa to where the main line or lines run, strike that portion of the main line from Thunder Bay to Red River. 2nd. From Prince Arthur's Landing to Red River. 3rd. From Red River to Tête Jaune Cache. 4th. From Tête Jaune Cache to the Pacific Coast. 5th. All surveys made on Vancouver's Island. 3. The cost of each of the above descriptions of surveys between each of the above points.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 14th February, 1878.

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[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 18th February, 1878 ;—  
 For a copy of any Reports in possession of the Government, made in 1877, by Admiral de Horsey, respecting the port or ports most suitable for a terminus of the Canadian Pacific Railway in British Columbia, with a copy of any correspondence respecting the same with the Imperial Government.

By Command.

R. W. SCOTT,  
*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
 OTTAWA, 28th February, 1878.

*The Earl of Dufferin to the Earl of Carnarvon.*

GOVERNMENT HOUSE,

OTTAWA, 19th April, 1877.

No. 115.

MY LORD,—I have the honour to forward herewith to your Lordship a copy of a minute of Council, expressing a desire that the Imperial Government will undertake a survey of certain ports of the coast of British Columbia.

I have, &c.

(Signed) DUFFERIN.

The Right Honorable

The Earl of Carnarvon, &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 17th April, 1877.*

On a Report, dated 16th April, 1877, from the Honorable the Minister of Public Works, stating that special efforts have been made during the past summer and autumn to procure information through the officers of the Admiralty and Royal Navy, respecting the several harbors and roadways on the coast of British Columbia, but that it would appear no surveys have yet been made of the coast adjacent to the mouth of the River Skeena, and that no decided opinion has been obtained regarding the waters in that quarter ;

That, as the Dominion Government have no means of conducting an examination in that direction, he recommends that a request be forwarded to the Imperial Government that they will direct a nautical survey to be made during the coming season, of the channels and approaches at the point indicated, and that surveys should be made of Frederic Arm, and the waters leading thereto, as decided information respecting this point should be obtained before a final decision is arrived at, fixing the seaport terminus of the Canada Pacific Railway.

The Committee concur in the foregoing recommendation, and submit the same for Your Excellency's approval.

Certified.

W. A. HIMSWORTH,  
*Clerk, Privy Council.*

*The Earl of Carnarvon to the Earl of Dufferin.*

No. 159.

DOWNING STREET, 23rd May, 1877.

MY LORD,—I have the honor to acknowledge the receipt of your despatch, No. 115, of the 19th April, enclosing a Minute of the Privy Council of Canada, requesting that Her Majesty's Government will direct a nautical survey to be made, during the coming season, of certain parts of the coast of British Columbia, with the view of obtaining further information before a final decision is arrived at, fixing the sea-port terminus of the Canadian Pacific Railway.

I have been in communication with the Lords Commissioners of the Admiralty upon the subject, and I enclose a copy of their Lordship's reply, which will inform your Government that directions have been given for one of Her Majesty's ships, on the Pacific station to make a general examination of the channels and approaches adjacent to the mouth of the River Skeena, and as regards Frederic Arm, their Lordship's enclose for transmission to your Government a tracing, on a larger scale than is published, which has been made from the original manuscript of the survey of that part of the coast.

I have, &c.,  
(Signed) CARNARVON.

Governor General  
The Right Honorable  
The Earl of Dufferin, K.P., G.C.M.G., K.C.B.

*The Admiralty to the Colonial Office.*

ADMIRALTY, 19th May, 1877.

SIR,—In reply to your letter of the 8th instant, forwarding a dispatch from the Governor General of Canada, together with its enclosures, requesting that a survey may be made of certain parts of the coast of British Columbia, with a view to obtaining further information before a final decision is arrived at, fixing the terminus of the Canadian Pacific Railway, I am commanded by my Lords Commissioners of the Admiralty to acquaint you, for the information of the Earl of Carnarvon, that directions have been given for one of Her Majesty's ships, on the Pacific station, to make a general examination of the channels and approaches adjacent to the mouth of the River Skeena, and when the report is received it will at once be forwarded to you.

With regard to that part of the coast called Frederic Arm, I am to send you herewith for transmission to the Government of Canada, tracings made from the original manuscripts on a larger scale than is published.

I am, &c.,  
(Signed) ROBERT HALL.

The Under Secretary of State,  
Colonial Office.

*Admiral de Horsey to the Earl of Dufferin.*

"SHAH," AT ESQUIMALT,  
9th October, 1877.

MY LORD,—With reference to an examination of the approaches to the Skeena River, which, in pursuance of instructions from the Lords Commissioners of the Admiralty, I caused to be made, I have the honor herewith to transmit a copy of my report covering that of Commander Hanmer, of H. M. S. "Daring," as your Lordship may desire to know the result, without waiting for the reports passing through the Admiralty and Colonial Office.

I have, &c.,  
(Signed) A. M. DE HORSEY,  
*Rear Admiral and Naval Commander-in-Chief.*

His Excellency  
The Right Honorable  
The Earl of Dufferin, K.P., G.C.M.G., K.C.B.  
Governor General

*Enclosure No. 1 in Pacific Letter No. 326, of 1877.*

By Algernon Frederick Rous De Horsey, Esquire, Rear-Admiral in Her Majesty's Fleet, and Commander-in-Chief of Her Majesty's Ships and Vessels employed and to be employed on the Pacific Station.

Her Majesty's ship under your command being in all respects ready, you are, on receiving instructions to part company, to put to sea and proceed to Nanaimo, there to complete with coal to your utmost stowage.

2. From Nanaimo you are to proceed to the vicinity of the River Skeena, and on your arrival you are to make a general examination of that part of the coast of British Columbia; the Governor General of Canada having requested that a survey might be made of the channels and approaches adjacent to that river, with a view to fixing a terminus of the Canadian Pacific Railway.

3. In view of the lateness of the season it will be desirable to lose no time in commencing this examination, and you are to return to Esquimalt before the severity of the winter.

4. Your proceedings are to be reported to me by every opportunity; and, as soon as practicable after your arrival off the Skeena, you are to furnish me with an estimate of the time you consider requisite for the examination ordered, specifying the part you intend to commence first.

5. On completion of the service, your report is to be furnished me in duplicate. Given on board the "Shah," at Esquimalt, this 22nd day of August, 1877.

(Signed)

A. F. R. DE HORSEY.

To JOHN G. H. HANMER, Esq.,

Commander Her Majesty's Ship "Daring."

By command of the Commander-in-Chief.

(Signed)

J. H. CLEVERTON,

*Secretary.**Enclosure No. 2 in Pacific Letter No. 326, of 1877.**Report of the Examination of the River Skeena.*

H.M.S. "DARING" AT DEPARTURE BAY,

4th October, 1877.

SIR,—I have the honor, in accordance with your directions, dated 22nd August, 1877, to report the result of my examination of the channels and approaches to the River Skeena, British Columbia.

1. As regards the channels and approaches of the three named respectively Telegraph, Middle, and North Channels, Telegraph Channel is available at high water for ships drawing 25 feet up to Port Essington, the deepest water being on the mainland side, abreast of Kennedy Island, and on the Island side abreast of De Horsey Island (as will be seen by the plan annexed), heavy tide rips occur at springs. The passage between Kennedy and De Horsey Islands I have designated as the "Middle;" it is between sand banks, which, I should think, are liable to shift at different seasons of the year, and is only fit for small steamers. North Channel (or North Skeena Passage), has a passage for steamers of light draught, and is entered over a flat with about three fathoms low water springs, and has an outlet between De Horsey Island and the mainland of only half a cable in width, at low water the ebb tide setting strongly through it. I do not recommend it for large vessels. Port Essington should therefore be reached from the westward, either by the Browning Entrance, Ogden Channel and Cardina Bay, or by Dixon Entrance, Chatham Sound, Arthur Channel and Cardina Bay.

2. *Anchorage.*—Skeena River has an extensive anchorage ground between Port Essington and the north end of De Horsey Island; holding ground is good, being soft mud; at springs heavy tide rips occur, making boat or lighter work dangerous. Mr.

Cunningham (a trader of many years experience at Port Essington) informed me that the river was never frozen at Port Essington, but great quantities of ice come down in the spring, as well as immense trees. During the winter months heavy gales from the north are frequent, and, I should think, would completely suspend communication between the shore and vessels in the stream, as there is no shelter from their full force. High water approximate 1-0-0, F. & C. rise 24 feet springs.

Woodcock's landing affords a fair anchorage but is limited in extent (plan annexed), it is more sheltered than Port Essington, and is free from tide rips, although the ebb tide runs between four and five knots at springs; holding ground is good, being mud off the village, H. W. F. & C., 12.15, rise springs 24 feet approximate neaps 17 feet (vessels must moor).

Cardena Bay is the best anchorage in the vicinity, being sheltered from N. and S. E.; holding ground is good; tide sets fairly through the anchorage; H. W. F. and C., noon springs rise 24 feet; neaps, 17 feet approximate.

The prevailing winds in the vicinity of the Skeena are said to be westerly during the summer months, and during the remainder of the year S. E. and N. E., with heavy gales occasionally from the north. Fogs are frequent in August and September. Rain is prevalent in spring and autumn, and during the stay of the "Daring," from 1st to 27th September, the prevailing winds were easterly and south-easterly, with almost constant rain and frequent squalls; during the same time the barometer's lowest was 28° 90'; highest, 30° 30'.

The land about the entrance of the Skeena is mountainous and densely wooded (chiefly cedar and hemlock) and shows signs of a remarkably wet climate, and, I should say, is quite unfit for settlement.

I have, &c.,

(Signed) JOHN G. HANMER,  
Commander.

J. H. CLEVERTON,  
Secretary.

*The Earl of Carnarvon to the Earl of Dufferin.*

No. 350.

DOWNING STREET, 17th December, 1877.

MY LORD,—With reference to previous correspondence respecting the selection of a terminus on the Pacific coast for the Canadian Pacific Railway, I have the honor to transmit to you, for communication to your Government, a copy of a despatch received through the Admiralty from Rear Admiral De Horsey, Naval Commander-in-Chief on the Pacific Station, reporting his views upon this subject.

A copy of this despatch has been communicated, by my desire, to Mr. Sanford Fleming, who is in this country.

I have, &c.,

Governor-General  
The Right Honorable  
THE EARL OF DUFFERIN,  
K.P., G.C.M.G., K.C.B.

(Signed) CARNARVON.

*Canadian Pacific Railway Terminus.*

"SHAH" AT ESQUIMALT,  
26th October, 1877.

SIR,—I request you will bring under the consideration of the Lords Commissioners of the Admiralty the following observations, submitting my opinion relative to the best site for the ocean terminus of the Canadian Pacific Railway.

2. With a view to forming an opinion on this subject, I have carefully perused the reports of exploration of 1874 and 1877, made by Mr. Sanford Fleming, the Engineer-in-Chief, and I have had the advantage of personal interviews with Mr.

Marcus Smith, Mr. Cambie and other Engineers of the Survey. An ascent of the Frazer River, as far as Yale, and on to Boston Bar by land, has enabled me to form some idea of the difficulty of penetrating the cascade range of mountains with a line of railway. I have further inspected Burrard Inlet, Haro and Georgia Straits (as well as the inner channels emerging at Active Pass), Discovery Passage and some of the channels in the vicinity of Valdes Island, including Seymour Narrows. An examination has also been made by their Lordships' direction of the approaches to the Skeena River, the result of which has been reported in my letter No. 326 of the 9th instant.

3. The question of site of ocean terminus should, it appears to me, be determined by two main considerations (besides feasibility in an engineering point of view):—

1st. Its suitability for the interests and traffic of the populated parts of British Columbia, that Province having joined the Dominion upon the promise of a railway.

2nd. Its being situated at a convenient port for ocean steamers to take up, direct from wharf accommodation, the through traffic for Australia, China, Japan, and other places across the Pacific at all seasons of the year and in all weathers.

4. Bearing in mind these considerations, it appears desirable to reject all idea of a terminus on the coast between Vancouver and Queen Charlotte Islands. The navigation of that part of the coast, judging from the charts and from the reports of Admiral Richards and other naval officers, is decidedly unfavorable, and I should equally reject the vicinity of the River Skeena owing to the prevalence of fog, ice and other climatic causes incident to a high latitude, as well as to the difficulties of approach from sea.

5. If the above views are correct, the question of site for the terminus is narrowed to a choice between Burrard Inlet and a port in Vancouver's Island.

6. Burrard Inlet does not appear suitable for an ocean terminus on account of difficulties of navigation to seaward. The tortuous channel from Burrard Inlet to sea through Haro Strait will frequently be unsafe on account of the strength of the tide, great prevalence of fog and absence of anchoring depth. Burrard Inlet itself also, although possessing a safe port in Cole Harbour, and a good anchorage in English Bay, has these objections, viz.: that the narrow entrance to Cole Harbour through the First Narrows is hardly safe for large steamers in consequence of the rapidity of the tide; and that English Bay, although affording good anchorage, would not, in my opinion, be smooth enough during north-westerly gales for ships to lie at wharves, there being a drift of forty miles to the north-west.

7. Another grave objection to Burrard Inlet as the final terminus, is the possession of San Juan and Stuart Islands by a foreign power. These islands form the key of the navigation inside Vancouver Island. In case of war with the United States that power might readily stop our trade through Haro Strait. (San Juan was visited last month by General Sherman, I believe with a view to its fortification.)

8. Condemning Burrard Inlet for the above reasons, I conclude that the terminus should be in Vancouver Island, which may be reached in three ways:—

1st. By steam ferry carrying a train from Burrard Inlet to Nanaimo.

2nd. By bridging Seymour Narrows.

3rd. By steam ferry carrying a train from Estero Basin (Frederic Arm) to Otter Cove.

9. The train once landed on Vancouver Island, can, I understand, be carried without much difficulty either to Esquimalt or to Quatsino Sound, or perhaps to Barclay Sound, where Uchucklesit Harbour forms an admirable port.

10. The first method of crossing the trait, that of a steam ferry from Burrard Inlet to Nanaimo has three objections,—1st. The drawbacks above mentioned, to navigating the First Narrows and to going alongside a wharf in English Bay; 2nd. The difficulty and certain frequent detention in mid-channel owing to fog; 3rd. The heavy sea with north-westerly and south-easterly gales which would be at least inconvenient for the conveyance of a train across the Strait of Georgia. Another, and I think a cardinal objection, to the route by the course of the Fraser River and Bur-

rard Inlet is its passing within six or eight miles of United States Territory, and its consequent liability to destruction when most wanted in time of war.

11. The second method that of a line of railway across Valdes Island without water conveyance would require very expensive bridging. Valdes is not one island as shewn on the Admiralty Chart, but consists of three or four islands.

The main difficulty, of course, exists in bridging Seymour Narrows, a distance of 2,575 feet, in two spans of respectively 1,200 and 1,350 feet. To execute this work the middle pier has to be erected on a rock, said to be eighteen feet under water at low tide, with a velocity of tide over it of from five to eight knots. This would be a work of vast magnitude and expense, even if it be practicable, to place a foundation on the rock which, I doubt, as there is hardly any slack tide. Nor must it be forgotten that bridging Seymour Narrows would, as regards large ships, obstruct the only practicable channel between Vancouver Island and the Main. This alone should, in my opinion, preclude its attempt.

12. The third method, and the one I recommend, that of ferrying a train from Estero Basin to Otter Cove, is, in my opinion, not only feasible but perfectly simple. I have carefully examined this route and find—

1st. That Otter Cove is well adapted for a pile dock terminus for the steam ferry.

2nd. That the head of Frederick Arm, at the entrance to Estero Basin, is also well adapted for a pile dock terminus.

3rd. That the channel between the two is easy of navigation, being nearly straight, free from dangers, smooth as glass, sheltered from all winds, and having very little tidal stream.

13. The tide in this, the Nodales Channel, is noted on the chart as running from two to three knots, but I think it is much less.

I spent five hours in this channel during what should have been the strength of the tide, the day before the full moon, and found the tide scarcely perceptible.

The distance for steam ferry between the two ports is thirteen miles of still, clear navigation, and I consider it may, with proper signals, be safely traversed in a fog.

14. In advocating the route by Frederick Arm, it will be observed that I am assuming that the railway can be brought to that point.

This assumption is borne out by Mr. Fleming's report of 1877, in which he states it to be "a feasible scheme, but one exacting a heavy expenditure," which expenditure would, I suppose, be in part compensated by the route No. 6, from Yellow Head Pass to the head of Bute Inlet, being estimated at two million dollars less than that by the Lower Fraser (No. 2) to Burrard Inlet.

15. From conversation with Mr. Marcus Smith (the principal officer of the survey, next to the Engineer-in-Chief) I am given to understand that the Rocky Mountains can be crossed at a comparatively low level, and that the line can be carried through a far less mountainous district by avoiding Yellow Head Pass altogether, and selecting a route by Lesser Slave Lake and Pine River Pass, and thence in a more or less direct line to Bute Inlet. Should this prove correct, it will be an additional reason for ending the main land route at Frederick Arm rather than at Burrard Inlet, omitting, as I do, all consideration of taking water conveyance from the head of Bute Inlet on account of its length and tortuous passages, which would be impracticable in foggy weather.

16. Having thus come to the conclusion that the line should pass by Frederick Arm, and that the train should be conveyed by steam ferry through Nodales Channel, to Otter Cove, the extension to one of the good ports of Vancouver Island remains to be considered.

17. In future years, I imagine that for the sake of more direct through ocean traffic, a line will be extended to Quatsino Sound, by bridging Quatsino Narrows, and thence on to a terminus at Winter Harbour.

18. But for present wants it seems that the line should be continued from Otter Cove past Bayne's Sound and Nanaimo to Esquimalt, there to make the ocean terminus. This port is easy and safe of approach at all times; its dock (to take the



largest ships) has been commenced, and there is reason to think that the line coming from the principal collieries and iron districts on Vancouver Island, ought to pay itself in great part by the conveyance of minerals to Esquimalt for shipment. Not only for trade, but for the supply of coal to Her Majesty's Squadron at Esquimalt, a line of rail from Nanaimo would be advantageous, as the possession of San Juan might enable the United States, in case of war, to cut off our supply from the mines by Sea.

19. Assuming, therefore, that a line of rail between Esquimalt and Nanaimo will be constructed, not only for the reasons above detailed, but because its construction appears to have been virtually promised by the Dominion Government, in accordance with Lord Carnarvon's suggestion (a large portion of the rails are actually lying at Esquimalt), the chief difficulty connected with the Vancouver part of the through line will be overcome, for I understand that the extension of the line from Nanaimo to Otter Cove presents comparatively few difficulties.

20. It will be observed that I have omitted consideration of a terminus in Howe Sound. This is because the same objections in respect to difficulties of navigation to sea through Haro Strait, apply to Howe Sound as to Burrard Inlet, and with greater force. The route to Howe Sound is also, I observe, estimated to cost six million dollars more than that to Bute Inlet.

21. Finally, whilst submitting the foregoing remarks in accordance with their Lordship's instructions to me, of the 23rd August 1876, I beg to express much diffidence in respect to such as are not strictly within the scope of the Naval Service. Viewing the shortness of my stay in British Columbia waters, this Report cannot pretend to deserve much weight; but it has, I submit, one merit, that of coming from an officer who, from his position, must be totally disconnected from all local interests.

I have, &c.,

(Signed) A. De HORSEY,  
*Rear Admiral and Commander-in-Chief.*

The Secretary  
To the Admiralty.

*The Earl of Carnarvon to the Earl of Dufferin.*

DOWNING STREET,  
1st December, 1877.

MY LORD, — With reference to your Lordship's despatch, No. 115, of the 19th of April last, and to my reply, No. 159, of the 23rd of May, I have the honor to transmit to your Lordship, for communication to your Government, a copy of a despatch from Rear-Admiral De Horsey, dated at Esquimalt the 9th of October, and addressed to the Lords Commissioners of the Admiralty, enclosing a Report by Commander Hanmer, of H.M.S. "Daring," of an examination of the channels and approaches of the River Skeena in British Columbia, made by him in reference to the question of the selection of a terminus on the Pacific coast for the Canadian Pacific Railway.

It is unnecessary for me to send you Commander Hanmer's Report, or the plans which accompanied it, as Admiral De Horsey appears already to have forwarded these papers to you direct; but I have sent copies to Mr. Sandford Fleming, who is now in this country, for his information.

I have, &c.,

(Signed) CARNARVON.

Governor General  
The Right Honorable  
The Earl of Dufferin, K.P., G.C.M.G., K.C.B.

*Rear-Admiral de Horsey to the Admiralty.*

"SHAH" AT ESQUIMALT,  
9th October, 1877.

SIR,—With reference to the directions of the Lords Commissioners of the Admiralty, contained in your letter No. 86 of the 19th May last (received 14th August), I have the honor to report that I send the "Daring," Commander Hanmer, to make a general examination of the channels and approaches of the River Skeena.

From Commander Hanmer's report, and from such information as I have been able to obtain, I am of opinion that, whether in view of communication with the inhabited parts of British Columbia, or of through traffic across the Pacific, the vicinity of Skeena is totally unfit for the ocean terminus of the proposed Canadian Pacific Railway. The mere circumstance that the bars of the river are not navigable for ocean steamers except at high water, is of itself condemnatory, in my opinion. Added to this, are the difficulties of tortuous approaches on a very foggy and rainy coast, and that the land in the vicinity is reported to consist of mountains and swamps, offering little inducement to settlers.

I beg to transmit herewith a copy of my orders to Commander Hanmer, and of his report, accompanied by plans of the mouth of the Skeena and of Woodcock Landing.

The lateness of the season and the almost constant rain caused a service of this kind (necessarily performed in open boats) to be somewhat arduous. I submit Commander Hanmer's execution of it for their Lordships' approval.

I have forwarded a copy of this report and enclosures for the information of the Governor General of Canada.

I have, &c.,

(Signed) A. De HORSEY,  
*Rear Admiral and Commander-in-Chief.*

*The Earl of Carnarvon to the Earl of Dufferin.*

DOWNING STREET, 3rd January, 1878.

MY LORD,—With reference to my despatch No. 350 of the 17th December, enclosing a despatch from the naval Commander-in-Chief on the Pacific Station, reporting his views with respect to the question of the site for the terminus of the Pacific Railway, I have the honor to transmit to you a copy of a letter received from Mr. Sandford Fleming relating to this subject.

A copy of Mr. Sandford Fleming's letter has been referred to the Board of Admiralty, who have been requested to furnish a reply to the queries which he has put on certain points.

I have, &c.,

(Signed) CARNARVON.

*Mr. Sandford Fleming to Mr. Herbert*

CANADIAN AGENCY, 31 QUEEN VICTORIA STREET, E.C.,  
LONDON, 26th December, 1877.

SIR,—I beg to acknowledge the receipts of Admiral De Horsey's despatches of dates 9th and 26th October, on the subject of a site for a terminus on the Pacific Coast for the Canadian Pacific Railway, both despatches having by the direction of the Earl of Carnarvon been recently transmitted to me for perusal.

As requested by you, I now return the plans of the mouth of the River Skeena, which accompanied Admiral de Horsey's despatch of the 9th October.

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I have carefully read these important documents, and I find that the River Skeena is objected to on account of difficulties of approach from sea and climatic causes incidental to a high latitude. In considering these objections, I have thought it possible that the Canadian Government, before completely rejecting all idea of a northern terminus, may desire to obtain some further information. I deem it my duty, therefore, in order that delays may be avoided, to suggest that the following enquiries be made :—

1. If the nautical examinations instituted by the Admiralty, have been extended to Metlab Catlab, Port Simpson, or other points on the coast, beyond the immediate mouth of the River Skeena, with the view of ascertaining how far any of them may be eligible for the purposes of a terminus.

2. If the Admiralty is in possession of data respecting the prevalence of rains, winds, fogs, &c., on the coast referred to, which would admit of a comparison being made between it and well-known places in nearly corresponding latitude on the coast of Europe or elsewhere. Take for example the coast of British Columbia, between latitudes 54 and 55, embracing Dixon Entrance, Portland Inlet and River Skeena, as compared with the coast of Great Britain, between latitudes 55 and 56, embracing the north channel and the Forth and River Clyde.

I have, &c.,

(Signed)

SANDFORD FLEMING.

ROBERT G. W. HERBERT, Esq.,  
Colonial Office.

(20 E.)

**RETURN**

To an ORDER of the HOUSE OF COMMONS, dated 4th March, 1878;—  
For a Statement showing the amount of moneys disbursed to  
January 1st, 1878, upon Contracts Nos. 13, 14, 15, 23 and 25  
of the Canada Pacific Railway.

By Command.

R. W. SCOTT,  
*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 22nd March, 1878.

---

(20 F.)

**RETURN**

To an ORDER of the HOUSE OF COMMONS, dated 25th February, 1878;—  
For copy of every Report of the Chief Engineer, Acting Chief Engineer  
or any other Engineer or Engineers of the Canadian Pacific Railway, in  
the possession of the Government, suggesting or recommending a  
survey, in 1876, of the whole or part of the route between  
Burrard's Inlet and Yellow Head Pass; with a copy of any  
order or instructions sent respecting the said survey; also a  
copy of every Report or Reports from each and all of the said  
Engineers, in possession of the Government, suggesting or recom-  
mending a survey, in 1877, of the said route between Burrard's  
Inlet and Yellow Head Pass; with a copy of any order or instruction  
sent respecting such survey.

By Command.

R. W. SCOTT,  
*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 22nd March, 1878.

---

[In accordance with the recommendation of the Joint Committee on Printing, the above  
Returns are not printed.]

(20 G.)

**RETURN**

To an ADDRESS of the HOUSE OF COMMONS, dated 4th March, 1878;—For progress estimates of work done under Contract 15 of the Canada Pacific Railway, and for information as to the mode of making payments therefor.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 22nd March, 1878.

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

## RETURN

(20 A.)

To an ADDRESS of the HOUSE OF COMMONS, dated 4th March 1878;—  
 For Statement of number of miles actually graded and ready for track-  
 laying and ballasting, under Contracts Nos. 13, 14, 15 and 25 of the  
 Canada Pacific Railway; also number of miles of rail actually laid  
 under said Contracts, down to 1st January, 1878.

By Command.

R. W. SCOTT

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
 OTTAWA, 30TH MARCH, 1878.

(Copy.—No. 15,245.)

CANADA PACIFIC RAILWAY,  
 OFFICE OF THE ENGINEER-IN-CHIEF,  
 OTTAWA, 13th March, 1878.

*Memorandum* giving information asked for by Address from Commons dated 4th  
 March, 1878.

13th Contract—32½ miles graded and rails laid.

14th Contract—50 miles graded; 6 miles rails laid.

15th Contract—no grading finished.

25th Contract—48½ miles graded; 8½ miles rails laid.

(Signed)

MARCUS SMITH,

*Acting Engineer-in-Chief.*

## RETURN

(No. 20 i)

To an ORDER of the HOUSE OF COMMONS, dated 28th February, 1873 ;—For copies of all Reports of Engineers, Memorials, &c., relating to the Survey and location of the line of the Pacific Railway between the Red River and Battleford, and not heretofore laid before Parliament; and also all Reports, &c., relating to the proposed line of said Railway between the same points, but south of Lake Manitoba.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 25th April, 1873.

WINNEPEG, 21st October, 1874.

DEAR SIR,—I returned on Sunday after making the inspection of Lakes Manitoba and Winnipegosis, and the river Saskatchewan from its mouth up to Muddy Lake, in accordance with your instructions to me before leaving Ottawa. I was prevented leaving earlier in the season, by the difficulty of procuring transport and matters which required attention here.

I left here on the 3rd September and returned on the 18th instant, having been absent six weeks and two days; out of this time I was detained in camp, by storms of wind, sixteen days, but in other respects the weather was delightful. The first perceptible frost was on the night of the 15th September, when I was encamped on the upper portion of the Waterhen River. On the night of the 10th October we had ice one-quarter of an inch thick on the pails and it froze on the oars in the sunshine until 10 a.m. next day, but with this exception I have hardly required an overcoat the whole time. The prevailing winds at this time of year appear to be north-west and south east, it blows with great regularity on alternate days from one of these quarters. When from the former, the barometer always falls, and, when from the latter it rises. Storms rise with great suddenness, and in half an hour after they begin to blow there is a very heavy sea running.

The total distance travelled must have been over 800 miles.

From here I went to Oak Point, Lake Manitoba, by wagon, thence to the Narrows in canoe, from there to Mossy Portage in a Hudson Bay Company's boat, and from there down and up the Saskatchewan and back to Swampy Creek, Lake Winnipegosis in canoe, thence back to Oak Point in Hudson Bay Company's boat, the weather being too stormy to venture in a canoe.

I now have to report as follows, dividing the subject into two heads, viz :—

- 1st. The country and timber ;
- 2nd. The waters traversed.

From here to Oak Point, a distance of about 65 miles, the road I travelled runs almost in a direct line (north-west) passing close to the south and west sides of Shoal Lake. For the first twenty miles of the above distance, the country is, for the most part, open prairie and the land good; from that point it becomes gradually poorer, being covered in some places by clumps and belts of poplar, of small size. When the neighbourhood of Shoal Lake is reached the land is very poor, being covered in many places by white saline incrustation and a great many boulders of moderate size; the subsoil being a yellowish clay and gravel. This may be said to continue all the way to Oak Point, and probably further north; there are, however, some extensive tracts of excellent hay lands in the neighbourhood of Oak Point. As this name implies, there is a good deal of oak timber in the vicinity, but I did not see any exceeding six inches in diameter and twenty feet high, in fact it looked stunted.

At this time of year, or during a very dry season, there are only two points, at present, where good water can be obtained between this place and Oak Point; namely, at "Boyd's Cattle Farm," where there is a well of excellent water, with a pump, and at a small fresh water lake on the south-west side of Shoal Lake; the water of the latter is very brackish, it is not deep, and is said to have no outlet.

From Oak Point to Swan Creek, a distance of about fifteen miles, along the north shore of Lake Manitoba the country appears to be of the same character, with an extensive belt of reeds and rushes along the shore, extending a considerable distance into the lake. Little or no timber can be seen.

From this point to the Narrows the country seems to improve, although in some places low and swampy; it is covered by a thick growth of timber, principally poplar of good size.

About the Narrows and the numerous islands in the neighbourhood, there are extensive beds of reeds and rushes, and at its upper end limestone rock *in situ* appears for the first time.

I believe there will be no serious difficulty in the way of carrying the Railway, in a direct line from the Narrows to the crossing of the Great Bog, except at two points, Dog Lake near the Narrows and Shoal Lake near this end.

From the Narrows to the crossing of Mossy River the country is generally dry; there is, however, some swamps in the neighbourhood of Ebb and Flow Lake; it is well timbered with poplar, some spruce and a few tamarac; there are excellent grass lands on the west side of Lake Manitoba.

From the Narrows to Waterhen River, at the head of the lake, the shores, as seen from the water, are higher than on the lower portion, and appear throughout to be well timbered.

There is a considerable quantity of spruce, of fair quality and good size, to be found on the lower half of the Waterhen River. On the upper portion of the river from Lake Winnipegosis to Waterhen Lake, and at its mouth in Lake Manitoba, there is a vast area of reeds and rushes.

The country around Lake Winnipegosis is all thickly wooded with poplar, tamarac, elm and oak. The soil seems to be of fair quality, but lighter and more sandy than the prairies. Limestone rock *in situ* is found at various points round the shores of the Lake.

In the neighbourhood of Mossy River the land is good, and limestone rock is visible at the point where, I think, the Railway will cross. When proceeding westward along the line of Railway (as explored) from Mossy River, a portion of the country, in the vicinity of the south-west side of Lake Winnipegosis, is swampy, but not to such an extent as to create any serious difficulty in constructing the line. As you approach and pass round the north-eastern end of the Duck Mountains, the land improves and there is very fine timber. In the valley of the Swan River there is some magnificent land, unsurpassed by any in the Province.

Pieces of lignite of first class quality have been found in it and some of its



tributaries this summer, by members of the Geological Staff; but they did not succeed in finding the place from which they had been carried by the stream. I am informed that the country in the neighbourhood of Dauphine Lake is very fine.

I visited the place on Redden Point, Lake Winnepegoosis, marked "salt works" on the map. It is a most desolate looking spot, there being no vegetation in the neighbourhood of the place where the salt is produced. The neck of land is quite level and but little above the level of the lake. The brine issues with considerable force from some natural holes in the ground like a spring; but, I am informed, that by digging wells in its vicinity brine of greater strength is procured.

The method employed to make the salt is very crude, and the extent to which it is manufactured small; there are a few wrought iron pans of a rectangular form, about four feet long, two feet six inches wide and fifteen inches deep; in these the brine is placed, and a fire being lighted beneath the water is evaporated and the salt remains. As the brine is not kept in motion while being evaporated, the crystals of salt are very coarse, and being evaporated to dryness the salt is not very pure although of a good colour. When made it is packed in baskets of birch bark and sent to Winnipeg. It is now owned and occasionally worked by the Hon. J. McKay, when the prices of salt is high. There is no doubt, however, that when the demand for salt is greater, and as the country gets more settled, the railway passing in the neighborhood, that a good business can be done in it.

The southern end of the Mossy Portage and the country around is heavily timbered with poplar, spruce, tamarac and balsam, of a very good size; for half a mile at the north end the ground is low and swampy, and the cedar, which is seen on the shores of Cedar Lake, is very small. All the south-east and east shore has been completely swept by fire, some time ago, and, as seen from the water, has the appearance of a prairie. The ridge of land which divides Cedar from Winnepegoosis Lake continues almost at a dead level all the way to the Grand Rapids of the Saskatchewan.

The country on both sides of this river from Cedar Lake down to its mouth, seems of indifferent quality. Limestone rock is visible at many points, but there are some tracks of good land; it is all thickly wooded. From Cedar Lake upwards, as far as I went (to Muddy Lake), limestone rock is visible at several points in the south bank; at these places the banks are from 6 to 10 feet above the water and covered with poplar, spruce, &c.; the intervening spaces are extensive swamps. The northern side seems low and swampy and the river is divided into numerous channels by large islands of reeds and rushes.

### 2nd. *The Waters Traversed.*

There is very considerable inaccuracy in the general form and position of Winnepegoosis and Cedar Lakes; and the Saskatchewan River, from Cross Lake to its mouth, is not nearly so straight as is shewn on the maps.

I herewith enclose a sketch map which I have made from notes taken on my trip, which, although not professing to be perfectly accurate, is more like them.

The map of Manitoba Lake, which we purchased of Mr. Waggener last spring, seems generally accurate, although many details of the shore line are wanting, and there are a great number of islands in the lake which are entirely omitted.

Manitoba Lake is generally very shallow, especially that portion of it south of the Narrows. I believe the greatest depth found is about twenty feet, and to obtain four or five feet of water, a considerable distance from the shore must be traversed along all the coast that I have visited.

The northern portion is rather better in this respect, but both in it and the southern there are a great number of reefs of boulders; some parts of these are a few feet above water, others just awash, while others again are a short distance below the surface. A careful survey of the lake would therefore be necessary before it could be safely navigated.

The waters of the lake are subject to considerable fluctuations apart from high or low water; a northern wind will raise the water at the south end one to two feet,

and *vice versa*. There is at such times a very strong current either up or down through "The Narrows."

The Hudson Bay Company's Office, at Manitoba House, informed me that during the time a strong west wind was blowing, the water receded 100 feet from the end of their wharf, where, at ordinary times there is about eighteen inches of water, leaving the bottom dry to that extent.

In the vicinity of "Meadow Portage" the water of the lake is shallow for a considerable distance out from the shore, and this remark applies to even a greater extent to the water of Winnipegosis, at the other end of the portage; so that the construction of locks and a canal in that neighbourhood would be a costly undertaking.

The upper portion of the Waterhen River could be rendered navigable for steamers of the class which navigate Red River or the Saskatchewan, at a moderate expense; but where it flows out, Waterhen Lake, the work would be much more costly. From there down to Lake Manitoba in which portion of the river most of the fall occurs, I do not think could be rendered navigable by the removal of boulders and stones in the existing rapids, as this would only have a tendency to lower the water at other parts. To attempt to render it navigable by dams, locks, &c., would, if practicable, which I much doubt, be a costly undertaking.

The direction of the wind has a great effect on the level of water in the river.

Lake Winnipegosis is considerably deeper than Manitoba; still there are some places where it is shallow for a considerable distance from the shore. This is the case at Mossy Portage. At the southern end, where Mossy River emptys into it, and in that river as far up as the Railway crossing, there is plenty of water.

The remarks which I made in reference to reefs of boulders in Lake Manitoba applies also to this lake; but they are not so numerous. I have already remarked about the storms.

Before passing to the waters of the Saskatchewan, I will report on the possibility of forming a connection between them and Lake Winnipegosis.

Up to the present time it was supposed that the Mossy Portage would prove the best place for the purpose; but, in addition to the disadvantage of the shoal water at its southern end, the amount of excavation would form a most serious item. As you are already in possession of the details in reference to it, I shall only add that I think it very probable rock would be found, in making the excavation, before the requisite depth was reached. In addition to this, both ends of the portage are very much exposed, the southern end to gales from E.S.E. round to S.W., and the northern from N.W. by N. round to N.E.

I found two other points, either of which, I believe, prove better locations for the proposed canal; they are marked respectively A and B on the accompanying sketch map, and are being surveyed by W. Bender.

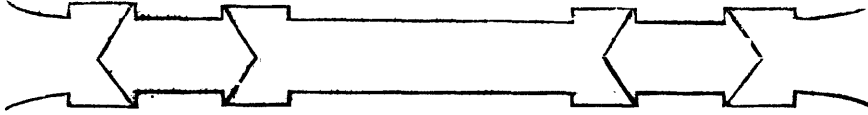
At the line marked A the water is deeper at both ends; then, at Mossy Portage, the height of land to be crossed is some 40 feet less lower, and the length of the cutting will probably prove a mile less; it is much better sheltered at the southern end.

At the line marked B advantage could be taken of a portion of "Swampy Creek," which is about 60 feet wide, and has a depth of water ranging from 7 to 9 feet for a distance of from two to three miles from its mouth, and has little or no current.

This line would be longer than at A, from water to water, but it is believed that the whole intervening space is wet swamps, which might be excavated by means of a steam dredge; and, as its northern end would be in the Saskatchewan River, the storms in Cedar Lake would be avoided, and the line westward would be more direct than in the other case. It is, however, impossible to express a satisfactory opinion on the respective merits of the two routes until the surveys are made.

It has been assumed, up to the present time, that the levels of Winnipegosis and Cedar Lakes are the same. Now, although this may be the case at certain stages of the water in each, yet as the Saskatchewan is subject to considerable fluctuations in level (from three to six feet), between high and low water, and Winnipegosis is also sub

ject to considerable fluctuation, although not to so great an extent, and arising from different causes, it may so happen that at times the water in Cedar Lake will be higher than in Winnepegoosis, and at others that the difference in level will be reversed. This may possibly necessitate the construction of a lock with double gates, which, when the waters are level, could be kept open.



The outlet of Cedar Lake is a short distance north of the point marked C, on the accompanying map. Here the river may be said to commence, and from this point down to its mouth there is no point on the river where the current in the centre flows at a less velocity than from three to four miles an hour.

Leaving the Grand Rapid out of the question altogether, there are six places, three of them heavy rapids, where the current must range from six to nine miles an hour. At two points the steamboat cannot get up without the aid of a strong cable, made fast on shore, which is wound up by steam power on the boat, while, at the same time, her wheel is kept going at full speed. These points are in the Red Rock and Cross Lake Rapids.

I do not think the Company would attempt to run their steamboat on the portion of the river under consideration, were it not for the great cost of transport (by teams) between the points referred to.

It is, of course, true that the thing may be worked, as at present, for some time to come; but as a permanency it would never answer. With this object in view a road or tramway could be built from the steamboat landing below the Grand Rapids to the steamboat landing above, at a moderate expense, as there are no engineering difficulties in the way. But to make the Lake Winnepeg and Saskatchewan now a good route, either a canal or a railway would have to be built round the whole of that part of the river under consideration. The former would cost a great amount of money; the latter would not, I believe, entail great expense.

For the Railway, the south side of the river would prove the best, as I am informed that there is a comparatively level ridge extending the whole distance; while on the north side the country is much broken up, and the northern end of Cross Lake extends much farther north than is shown on existing maps. The probable length of the line on the route proposed, would be between 15 and 20 miles.

I might here mention that I think the fall between Cedar and Winnipeg Lakes has been under-estimated, and probably from five to ten feet.

If, however, the connection between Lake Winnepegoosis and Saskatchewan can be made at anything like a reasonable expense, it appears to me that will be the best route to follow, for several reasons, among which are the following:—

The mouth of the Saskatchewan is blocked by ice in spring to such an extent that its upper portion and Lakes Winnepegoosis and Manitoba open from a fortnight to a month before it.

The Railway passing a navigable point at the southern end of Winnepegoosis, goods would only require one transhipment.

The water portion of the route on this line would be much better sheltered than on the other. The cost of constructing the piece of Railway between the mouth of the Saskatchewan and Cedar Lake would go some way towards making the line to Winnepegoosis.

I remain, dear Sir,  
Yours truly,

JAMES H. ROWAN.

SANDFORD FLEMING, Esq.  
Engineer-in-Chief,  
Canadian Pacific Railway.

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WINNEPEG, 27th March, 1875.

DEAR SIR,—I send in Mr. Rheau's charge, the plans and profiles of the line from Shoal Lake to Mossy River.

It is difficult at this season of the year to estimate the necessary openings for culverts, and we were able to find only a few water courses, except the large streams. I would say that the Narrows at Shoal Lake will require only a beam bridge from —10 to 20 feet opening—from that point to the Narrows. Lake Manitoba beam culverts from 6 to 10 would be suitable, except Dog Lake, where it would be well to bridge the two crossings with short openings, and cribs filled with stone.

There is spruce round the shores of the lake and plenty stone for the purpose.

The result of the borings made at the Narrows of Lake Manitoba is shown on the profile. Rock is found only on the east shore, and it dips rapidly to the west.

From the specimen of the clay brought in and the resistance offered in boring, I should say that timber platforms and concrete would be sufficient for the foundations, and that piles would not be required. The culverts from the Narrows of Lake Manitoba to Mossy River should be generally beams, from 6 to 10 feet, except at the following places. The central opening of the bay, west of the Narrows, should be bridges same as Dog Lake, the other openings should be embanked with protection on the sides of rip-rap or crib work.

Crane River, Muskeag, should have an opening from ten to twenty feet wide. The creek at Station 402, East of Mossy River, should have an opening fifty feet wide to admit back water from Lake Winnipegosis, and for the same reason the creek at Station 338-30 feet wide. For stream at 148, the opening should be twenty feet. The creek at Station 24 should have an opening thirty feet wide, and Mossy River, I should say, ought to have three openings of sixty feet each.

The line generally follows the watershed between Shoal Lake and Lake Manitoba, and that between Lake Manitoba and Ebb and Flow Lake, so that there is not much cross drainage till near Lake Winnipegosis.

The line located throughout is well suited for railway construction. Wherever the bottom appeared to be soft it was examined and generally found to be solid from three to five feet below the surface. The soundings taken are shown on the profile.

Rock is found at the Narrows of Lake Manitoba, also in the ridges south of Lake Winnipegosis, and at Mossy River.

Gravel will probably be found along the sides of those ridges.

The subsoil generally is a mixture of gravel and clay.

The timber is almost entirely poplar of a fine quality, and will make good fuel for engines. Along the shores of the lakes there is a growth of small oak and some fair spruce.

The snow-fall, this winter, did not exceed two feet, but the cold was very great. In the months of January and February the thermometer seldom ranged higher than 20° below zero, generally down to 30°, sometimes to 40°, and once 43°

I am yours truly,

(Signed) HENRY F. MacLEOD.

JAMES H. ROWAN, Esq.,

CANADIAN PACIFIC RAILWAY

*SANDFORD FLEMING, C.M.G.*

ENGINEER-IN-CHIEF.

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REPORTS AND DOCUMENTS

IN REFERENCE TO

THE LOCATION OF THE LINE

AND A

WESTERN TERMINAL HARBOUR.

1878.



OTTAWA:

PRINTED BY MACLEAN, ROGER & CO., WELLINGTON STREET.

1878.



## CONTENTS.

---

	PAGE.
1. GENERAL REPORT by Sandford Fleming, Engineer-in-Chief.....	11
2. APPENDIX A.—Report on surveying operations and on the progress of construction, for the year 1877, by Marcus Smith, Acting Engineer-in-Chief.	17
3. APPENDIX B.—Report on the location survey from Yellowhead Pass to Burrard Inlet, by H. J. Cambie, Engineer in charge of Surveys, British Columbia .....	30
4. APPENDIX C.—Memorandum on an exploration from Port Simpson, by the River Skeena, to Fort George, by H. J. Cambie.....	38
5. APPENDIX D.—Report on the explorations and surveys, with reference to the location of the Western Section of the Line, by Marcus Smith.....	41
6. APPENDIX E.—Report on the location made in 1877, by the Rivers Thompson and Fraser, to Burrard Inlet, and the comparative advantages of that line and the line to Bute Inlet, by H. J. Cambie.....	55
7. APPENDIX F.—Correspondence with the Admiralty on a Nautical Survey at the mouth of the River Skeena, and on the question of a Terminal Harbour.....	62
8. APPENDIX G.—Report on an exploration of the Pine River Pass, by Joseph Hunter.....	72
9. APPENDIX H.—Extracts from a paper on Canada and its vast undeveloped resources, by Sandford Fleming.....	83
10. APPENDIX I.—Explanation of the Map.....	101
11. APPENDIX K.—List of lives lost in connection with the Surveys and Engineering operations.....	104





# CANADIAN PACIFIC RAILWAY

## REPORT

BY

*SANDFORD FLEMING, C.M.G.,*

ENGINEER-IN-CHIEF

ADDRESSED TO

THE HONOURABLE THE MINISTER OF PUBLIC WORKS,

CANADA

:O:

CANADIAN PACIFIC RAILWAY

OFFICE OF THE ENGINEER IN CHIEF,

OTTAWA, April 26th, 1878.

The Honourable A. MACKENZIE,  
Minister of Public Works,  
&c., &c., &c.

SIR,—I have the honour to report on the operations which have been carried on to determine the location of the Canadian Pacific Railway, and to establish the locality on the Pacific Coast best adapted for its terminal point.

In my last General Report, February 8th, 1877, I endeavoured to furnish a concise record of these operations from the commencement of the survey in 1871; I further submitted what other important information had been acquired from various sources. In the following pages I shall have occasionally to refer to that General Report.

During the past season the investigations have been confined to the following surveys and explorations:—

1. A trial location of the line (No. 2), extending from Yellowhead Pass, *via* the Rivers Thompson and Fraser, to Burrard Inlet.
2. An exploration from Port Simpson, on the Pacific Coast, by the valley of the River Skeena, to the Central Plateau, and thence to Fort George.
3. An exploration from Fort George, through the Rocky Mountain Chain, by Pine River Pass.
4. A nautical examination, by the Admiralty, of the mouth of the River Skeena.
5. Surveys, between Selkirk and the south branch of the Saskatchewan, for an alternative line.
6. Surveys between Lake Nipissing and Lake Superior.

7. Explorations to Lac la Biche and other points lying to the north of the main Saskatchewan.

A Report, dated 4th January, 1878,\* on these operations and on the progress of the works under construction, has been made by my Chief Assistant, Mr. Marcus Smith. A Report dated the 23rd inst.† has also been furnished by Mr. H. J. Cambie, Engineer in charge of Surveys in British Columbia, on the results established by the location survey of the line from Yellowhead Pass to Burrard Inlet. These reports, together with a memorandum‡ on explorations from Port Simpson by the River Skeena to Fort George on the Fraser, are appended.

Supplementary Reports have been likewise made by Mr. Smith and by Mr. Cambie: the former submitting the advantages which appear to him to be presented by a line which, diverging from the located line at Northcote, near Lake Winnipegosis, is projected to run through the Pine River Pass to Bute Inlet: the latter furnishing additional information with regard to the line by the Rivers Thompson and Fraser to Burrard Inlet; and showing the comparative advantages claimed in regard of that route. Both Reports, together with a Report on the exploration made of the Pine River Pass, are appended. ||

Some correspondence has taken place on the subject of the Terminal Harbour in connection with the examination made last summer, under instructions of the Admiralty, by Imperial Naval Officers, of the mouth of the River Skeena. This correspondence is appended.§

In reporting on this important subject, the general question presents itself to my mind under two aspects; first, in respect to the influence which the Railway will exercise on colonization; second, as a through line of steam communication between the Atlantic and Pacific Oceans.

1. The early settlement of the Eastern Provinces of Canada followed the coast of the Sea-board, and the margin of the land traversed by the Great Rivers and Lakes. The natural water-ways accordingly were important auxiliaries in directing successive waves of Emigration to points of settlement; and, doubtless, the water communications of the interior of the Dominion, west of Lake Superior, will prove valuable accessories in this respect. They may be largely utilized during the early stages of colonization; and when settlements have been effected, and the various districts become inhabited, the more important will still be valuable as the means of transporting heavy products.

Climatic conditions, however, impose a limit to their use. During four or five months of the year the rivers and lakes are frozen, and navigation is closed; and thus the absolute necessity of a system of Railways is imposed before any extended and permanently prosperous settlement can be attained. More especially is this the case where the water lines are broken or disconnected, and the localities are far removed from open navigation.

In examining into the question of colonizing the vast undeveloped interior of Canada, we are called upon to consider what main lines of communication may, in after years, be regarded as essential. It is desirable to take a comprehensive view of the subject, as we may be regarded as preparing the way for the occupancy of Territory capable of sustaining millions, and as dealing, to no limited extent, with the destinies of half a Continent.

I have elsewhere given my views as to the principles which should govern the establishment of Railways in such circumstances.¶ In the case of the territory under consideration, from information we have gathered, we are justified in assuming that, ultimately, not one Railway, but many Railways, will hereafter be needed. At one time it was thought that the habitable land was confined to a comparatively narrow fertile belt along the immediate valley of the Saskatchewan; now, it is considered that the belt is of immense breadth, and that the habitable territory is of vast extent. It is therefore to be anticipated that one Railway will eventually prove insufficient for the traffic of the country, and that two trunk lines, with numerous branches, may hereafter be required.

\* Appendix A. page 17. † Appendix B. page 30. ‡ Appendix C. page 38. || Appendices D., E. and G. pages 41, 55 and 72. § Appendix F. page 62. ¶ Appendix H. page 83.

We have but to place before us a map of the United States and Canada, to note the lines which run from the seaboard westward, in some sections ramifying in many directions: lines on which the traffic is regular and constant, and which, thirty years ago, not the most sanguine of projectors would have ventured to foretell as indispensable.

In the paper referred to, I have set forth the importance of strictly observing certain principles in the establishment of Railways in a new country, in order to avoid hasty and ill-considered construction; to prevent mis-application and waste of capital by assuring that no unnecessary line be undertaken, that no lines be completed, before they are wanted, and that the highways of the country, of every class, be designed so as to perform their functions in the most satisfactory manner.

2. By the establishment of Railways, on the principles which I have described, steam communication from the valley of the St. Lawrence to British Columbia would be a matter of no speedy attainment. A through line being, however, required for other than colonization reasons, it becomes necessary to consider how that connection can with least difficulty be effected.

The map which I submit with this Report, shows lines of Railway, which, possibly, may in time be required for general service, all of which should be kept prominently in view. The engagements of the Government are to secure without delay one through line, and if it be probable that these lines will all ultimately be required, it is evident that that which is the most easy of construction is the one which, under the present circumstances, should be selected.

In my Report of February 8th, 1877, I described all the routes projected at that date. I submitted approximate estimates of cost as well as naval testimony with respect to the harbours on the coast, and I attempted to narrow down the enquiry by rejecting all projected lines and proposed termini, except the most satisfactory and important.

I pointed out that there is no harbour on the mainland entirely unobjectionable; that on the outer coast of Vancouver Island, there is more than one harbour well suited for the purpose of a terminus; that it was exceedingly desirable to carry the railway to at least one of these harbours; but that they all could be approached from the interior only at an enormous cost.

By this process of elimination I reduced the number of available routes to three, viz:—

Route No. 2, terminating at Burrard Inlet.

Route No. 6, touching tide water of the Pacific first at Bute Inlet.

Route No. 11, terminating near the mouth of the River Skeena.

The examinations made during the past season have not materially changed the circumstances under which these separate lines were considered: and the trial location survey to Burrard Inlet, substantially confirms the general accuracy of the estimates of cost.

The exploration to Pine River Pass is of value in confirming the impression referred to in my report of last year that a low lying available passage exists across the mountains in that latitude; but there is nothing to show that so good a route can be obtained in that locality as by the Peace River Pass. As already stated, it has been suggested to carry the line from the east through Pine River Pass to Bute Inlet. Mr. Smith has given prominence to this line in his Report 29th of March last as a means of reaching the coast. I do not attach the same importance to the Pine River Pass. It is certainly lower than the Yellow Head Pass; but its position is not favourable for reaching a southern terminus. Moreover, although favourably situated for a line to a northern terminus, its importance is not enhanced by the fact that a still lower pass—Peace River—exists, only a few miles further north. I have accordingly projected a northern line of Railway through Peace River Pass, which I consider preferable.

The correspondence respecting the examinations at the mouth of the Skeena River by the Admiralty proves the non-existence of a suitable harbour immediately at that point; but our own explorations show that an excellent harbour exists at

Port Simpson, in the neighbourhood of the Skeena, and that there are no great obstacles to be met in carrying the railway to it.\*

I find also that Commander Pender has a favourable opinion of Port Simpson. At page 295 of my last General Report (February, 1877), he states: "Port Simpson, at the north part of Tsimpsean Peninsula, is the finest harbour north of Beaver Harbour, in Vancouver Island."

It will be seen from the correspondence with the Admiralty that a northern terminus is objected to on account of climatic features incidental to a high latitude. But no data have been furnished to show that the climate is materially different from that on the coast of Great Britain, in similar latitudes such as the North Channel, and the approaches to the River Clyde; and it cannot be overlooked that although the climate on the west coast of Scotland may be considered far from good, Glasgow, one of the most enterprising and important cities in the world, has come into existence in the latitude referred to.

Commander-in-Chief, Admiral DeHorsey, on the Pacific Station, objects to Burrard Inlet (*vide* despatch to the Admiralty, 26th October, 1877,) and advocates carrying the Railway to a harbour on Vancouver Island, in the manner set forth in my Report of February 8th, 1877, page 72. The Admiral, equally with most of the other naval authorities, objects to Waddington Harbour as a terminus.

The deductions to be drawn from the naval testimony at our command, and from our own examinations, may be thus summarized:—

1. That there can be no question as to the superiority of certain harbours on the outer coast of Vancouver Island.
2. That Waddington Harbour is not favourably situated for a terminus, and may be viewed as a preliminary and temporary station only, the true terminus of a line by Bute Inlet being Esquimalt, or some other harbour on the outer coast of Vancouver Island.
3. That a terminus at Port Simpson would have the advantage of possibly the best harbour on the mainland; and that of all the terminal points projected on the mainland and on Vancouver Island, Port Simpson is most conveniently situated for Asiatic trade. But Port Simpson is open to climatic objections, which are not experienced to the same extent at points farther south.
4. That of all the other points on the mainland, Burrard Inlet, an arm of the Strait of Georgia, is the least difficult of approach from the ocean, and is generally preferred by the naval authorities.
5. That Burrard Inlet, equally with Waddington Harbour, is open to the geographical objections mentioned in my last General Report (page 71).†

With these deductions, the comparison may be said to be confined to the three lines terminating respectively at Port Simpson, Esquimalt and Burrard Inlet.

The route terminating at Port Simpson has not been surveyed. On reference to the map, it will be seen that it is projected to follow the River Skeena, and thence, eastwards to Peace River; thence by Lesser Slave Lake, and Lac la Biche, keeping about 140 miles to the north of the line located by the Valley of the Saskatchewan. Being unsurveyed, and but little being definitely known concerning it, it is not possible to compare it with the other two lines, which have been located throughout the greater part of their length. If, therefore, this northern line is to be seriously considered, it is indispensable that a thorough survey be made of it. With our present knowledge, it will be unwise to adopt it as the route for the Railway, and to determine on proceeding with construction, without obtaining full and complete information regarding it. My own opinion is in favour of gaining information, and if the Govern-

\* Appendix A, page 23, and Appendix C, page 38.

†The Strait of Georgia is separated from the ocean by two archipelagoes, one to the north, the other to the south of Vancouver Island.

The approach by the north of Vancouver Island to the Strait of Georgia is hazardous and objectionable.

The approach by the south of Vancouver Island, is through passages more or less intricate, between or at no great distance from, islands known as the San Juan group.

The most important islands of the San Juan group are in the territory of a foreign power, and from their position they hold the power of assuming a threatening attitude towards passing commerce.

ment entertain this view, I beg leave to suggest that during the present year a continuous exploration be made from Port Simpson eastwards to a point of junction with the located line in the neighbourhood of Lake Winnipegosis.

If, however, the Government deem it essential to arrive at an immediate decision, the northern route, being insufficiently known, cannot be entertained, and thus two lines only remain for consideration, one terminating at Esquimalt, the other at Burrard Inlet.

The respective engineering merits of the two lines are sufficiently described in my last General Report and in the Reports of Messrs. Smith and Cambie, appended.

It only remains for me to submit some additional general remarks.

Manitoba is as nearly as possible about midway across the continent. From the crossing of Lake Manitoba to Burrard Inlet, the distance is more than 1,100 miles; and to Esquimalt more than 1,400 miles. In the whole of the territory throughout these distances, there are few civilized inhabitants, probably not more than 12,000. I do not speak of the Indian population; they can hardly be considered as influencing, to any considerable extent, the project of the Railway.

It is thus evident that, whatever may be needed hereafter for connecting prosperous and populous communities, there is not, at this moment, any pressing necessity for the Railway, for ordinary purposes. For special reasons, however, the construction of the Railway to the Pacific Coast is demanded, and, in the absence of traffic to sustain it, it becomes more than ordinarily important to adopt that route which will least involve the sinking of unproductive capital, and by which the loss to be borne in working and maintenance will be least heavy.

I have expressed my conviction that, ultimately, the country will require a comprehensive Railway system; and that, besides branches in many directions, probably two leading trunk lines will eventually be demanded. These requirements, however, only lie in the future, and, possibly, may be somewhat remote. But it is of vital importance to burden the future as little as possible with accumulated losses resulting from operating the line. The selection of a line the least expensive to construct and to maintain is an essential point to be kept in prominence. It is even still more important to adopt the route which will not create the largest debt, through rapidly accumulating losses, resulting from the expense of working being in excess of receipts.

I have submitted that, if the line by Peace River to Port Simpson be thrown out for the present, there remain to be considered the two lines terminating at Burrard Inlet and Esquimalt.

Burrard Inlet is not so eligible a terminal point as Esquimalt. It cannot be approached from the ocean, except by a navigation more or less intricate. Nor can it be reached by large sea-going ships without passing at no great distance from a group of islands in the possession of a foreign power, which may at any time assume a hostile attitude and interfere with the passage of vessels.

To the first objection it may be said that there are other harbours in the world, with an enormous extent of commerce, with entrances where shipping is not entirely free from delays and risks. New York, Liverpool, Glasgow and Montreal may be instanced. The second objection would appear to a non-combatant like myself a forcible one; but those who are held responsible for maintaining communication by land and sea in times of war appear to make light of it. It is impossible, however, to deny that, other things being equal, Esquimalt as a harbour and terminal point is superior to Burrard Inlet.

Regarding the question simply from a commercial standpoint, let us assume, for the sake of the argument, that a Railway is completed and in operation to both points, and a person at Esquimalt desires to travel to Ottawa. He has the option of crossing by steamer, 90 miles, to Burrard Inlet and then using the Railway; or of taking the train at Esquimalt, and proceeding on his journey from that point. In the latter case, taking the most favourable view, he would have to travel some 150 miles farther, or if the line were carried through by Pine River Pass, fully 200 miles farther, than by way of Burrard Inlet.

It is evident that, even were the wide channels at the Valdes Islands bridged, the Railway carried to Esquimalt would present no advantage in time or cost to an

ordinary traveller. If passengers from Esquimalt could secure no benefit from the extension of the Railway to that place, it is certain that a loss would be sustained in carrying freight by the longer route.

The cost of extending the Railway to Esquimalt would greatly exceed that of taking it to Burrard Inlet; there are no sufficient data for forming a proper estimate of the cost. But even by leaving a gap near the Valdes Islands of 15 miles, and substituting a ferry for the enormously costly bridging at that locality, the excess would probably reach \$15,000,000 or \$20,000,000. The cost of maintenance would be great in proportion, and the annual losses on working the extra mileage would, under the peculiar circumstances, be serious.

It is difficult to recognize any commercial advantage in carrying the line to Esquimalt, at this period in the history of Canada, to compensate for these grave objections. I have assumed Esquimalt as the Vancouver Island Terminus. If the other Harbours, Alberni or Quatsino, were substituted, the argument remains unchanged, the conclusions differing only in degree. If we abandon the idea of extending the Railway to Vancouver Island, and fall back on Waddington Harbour, we should have for a Terminus a point not favoured by the principal naval authorities, and partaking of the geographical objections to Burrard Inlet, while some of the advantages possessed by the latter place would be wanting.

Upon carefully viewing the engineering features of each route, and weighing every commercial consideration, I am forced to the conclusion that, if these alone are to govern a selection, if a decision cannot be postponed until further examinations be made, if the construction of the Railway must be at once proceeded with, the line to Vancouver Island should, for the present, be rejected, and that the Government should select the route by the Rivers Thompson and Fraser to Burrard Inlet.

I have great faith in the future of a country favoured with a bountiful supply of the natural elements of prosperity. The capabilities of the territory of the Dominion on the Pacific Coast, are great: Vancouver Island alone is capable of supporting, by the industries which may be established, a large population; but this result may not be attained for many years. When the Island becomes fully inhabited, an independent Railway system, which by that time may be created within its limits, may then, with comparative financial ease, be connected with the main land, by way of Bute Inlet, as necessity may dictate.

If the mining industries of Cariboo become permanently profitable, a branch to that district could be constructed from some point between Lytton and Tête Jaune Cache. This branch would shorten the link to be filled up between the separate railway systems to be created on Vancouver Island and on the mainland, and render the connection less difficult of attainment hereafter.

In former reports, I have directed special attention to the paramount importance of securing a line through the country with easy gradients.\* In the case of Branch Railways, such as those projected on the accompanying plan, there is not the same necessity for light gradients. These branches will be local lines, with limited traffic. Their functions will simply be to serve productive districts to the right and left, and to collect traffic for the main thoroughfare. The branches may therefore be of a cheaper and less perfect character; but in order to secure the means of the cheapest possible transportation over long distances, the trunk line should have the lightest gradients obtainable.

The line located from Lake Superior to Burrard Inlet commands generally more than ordinarily favourable gradients. If the railway be constructed on this route in the manner which I have recommended cheapness of transportation will be assured, and advantages will accrue in the future of the most important kind.

It is my sad duty to add to the record of lives lost, the names of those members of the Engineering Staff who have passed away during the past year.†

I have the honour to be, Sir,

Your obedient servant,

SANDFORD FLEMING,

*Engineer-in-Chief*

## APPENDIX A.

REPORT ON SURVEYING OPERATIONS AND CONSTRUCTION FOR THE YEAR 1877, BY  
MR. MARCUS SMITH, ACTING ENGINEER-IN-CHIEF.

CANADIAN PACIFIC RAILWAY,  
OFFICE OF THE ENGINEER-IN-CHIEF,  
OTTAWA, 4th January, 1878.

SIR,—I have the honor to report on the progress made in surveying operations and construction to the 31st December, 1877.

### SURVEYS IN THE EASTERN OR WOODLAND REGION.

In the season of 1876, a trial location survey was made from the proposed Eastern terminus, near Lac Amable du Fond, about 23 miles south-east of Lake Nipissing, to Cantin's Bay on French River, and, from this line, explorations were made of the country extending north-westward, on a course as direct as practicable, to a point on the north shore of Lake Superior, near the mouth of the River Pic.

These explorations were not completed; and portions of the trial location above referred to were not satisfactory, as the low gradients that had been expected were not obtained.

During the past season, four surveying parties were employed in completing these exploratory surveys, and improving the location of the line of the previous year. The plans and profiles are in progress, and the following is an outline of the results of the season's work.

#### *Location of the line from South River to Cantin's Bay on French River.*

This line commences at a point on South River about 3 miles from its mouth on Lake Nipissing, and 22 miles north-west of Lac Amable du Fond, where the survey of the previous year commenced. It follows down the left bank of the river to the shore of Lake Nipissing: thence it takes a course nearly west to the 20th mile, from which its course is south-west to the 35th mile, where it joins the survey of the previous year, and then follows that line on a course nearly west to the head of Cantin's Bay, 49½ miles from the point of beginning. If extended to the foot of the bay its length will be 55½ miles.

This bay—a sheet of water about 5 miles in length, and averaging nearly a quarter of a mile in breadth—lies at the confluence of the Pickerel and south branch of French River, about 20 miles from the mouth of the latter on the Georgian Bay. Its altitude varies from 4 to 6 feet higher than that of the latter; so that to extend the navigation of the Georgian Bay to Cantin's Bay, a lock would be required to surmount the rapids near the mouth of the river, the rest of the distance being still water; it is, in fact, a long narrow lake.

The country traversed is generally rocky, and broken up with numerous lakes and small streams running in narrow valleys or ravines.

The altitude at the starting point on South River is estimated 678 feet above sea level, being 530 feet lower than that of Lac Amable du Fond, and the highest point on the line is 813 feet, being 407 feet lower than the summit altitude of the line of the previous year. But still the proposed maximum gradient of 1 in 200, or 26.40 feet per mile, has not been obtained. The gradients can, however, be kept down to a maximum of 1 in 150, or 35.20 feet per mile, rising eastward, without involving very heavy works. Of this gradient of 1 in 150, there are ten separate lengths, making a total of about 8 miles. In descending to Cantin's Bay, however, the gradient

is 1 in 133, or 39.60 feet per mile; but it is expected that this can be reduced by a slight deviation, and lengthening of the line. Of the maximum of 1 in 100, rising westward, there are seven short lengths, making an aggregate of  $5\frac{1}{4}$  miles.

The works will be generally lighter than on the corresponding length of the line surveyed in 1876. The heaviest will be in rock cutting, running from 5 to 25 feet of maximum depth, and 300 to 800 feet in length, with embankments of somewhat larger dimensions. There will be about 12 miles on which work of this character will occur, and 14 miles on which there will be rock cuttings varying from 6 to 15 feet of maximum depth, and averaging about 500 feet in length. The balance will be moderately light work.

The principal bridging will be as follows:—

*Beatty's Creek*.—Ravine 250 feet wide, with a maximum depth of 40 feet.

*Commanda Creek*.—Breadth of valley 620 feet, maximum depth 62 feet, breadth of stream 120 feet.

*Outlet of Lake Mahmasagamising*.—One span of 100 feet.

*Pickereel River*.—One span of 150 feet.

*Pickereel River Branch*.—Breadth of ravine 220 feet, maximum depth 35 feet, breadth of stream 40 feet.

In addition to these, there will probably be some bridging required in ravines where material for embankments cannot be obtained in the vicinity.

#### *Surveys and Explorations from French River to Lake Superior.*

Exploratory surveys have been made of two lines extending westward from different points on the line last described, and meeting at a common point in the valley of the Wahnapitæpee.

The northern, and most direct, line diverges at the 19th mile of the located line, and takes a general course a little to the north of west. Continuing the mileage from South River (*Lake Nipissing*) it crosses the main branch of French River near the 26th mile, at the Chaudiere Falls, where the trough of the River is contracted to 200 feet, and the breadth of the stream to 50 feet. Near the 29th mile, it strikes the north branch of this river, and follows down its left bank to the 34th mile, where the line crosses the river, which at this point is 200 feet wide, and 10 feet deep.

At the 39th mile, it crosses another arm of French River, 200 feet wide; thence it follows a chain of narrow valleys which are separated by low rocky ridges. Near the 61st mile, it crosses Lake Maskinonge, 1,700 feet wide and 18 feet deep, which can, however, be reduced by drainage. The line reaches the Wahnapitæpee Valley at the 72nd mile.

There is very little variation in the altitude of the country throughout this section, and the gradients are generally easy. The works would be variable, as the line alternately runs in the valleys or across intervening ridges. There will be an aggregate of about 11 miles on which rock cuttings, varying from 5 to 15 feet of maximum depth, but in short lengths, would occur. On the rest of the line the works would be medium or moderate.

The southern line leaves the located line at the 48th mile near the head of Cantin's Bay, and within half a mile it crosses the Pickereel River, which is here 250 feet wide and 5 feet deep. It then follows the north shore of Cantin's Bay, and crosses the main Branch of French River at the Horse Rapids, where the channel is 200 feet wide. Near the 55th mile, it crosses another branch of this river, 40 feet wide, and at the 57th mile it crosses the north branch, where the channel is 250 feet wide.

Thence, the line takes a generally north-westward course, following a chain of narrow valleys and lakes. It crosses the south end of Lac de L'Isle at the 74th mile, and following another chain of valleys and flats, separated by rocky ridges, it joins the line last described near the 81st mile.

This is  $9\frac{1}{2}$  miles longer than the northern line, but the whole of it would be part of the main line, while the northern would have a branch of 30 miles to Cantin's Bay, making  $20\frac{3}{4}$  miles more line to be constructed. The gradients on this line are very



easy, and the works would be very similar to those on the northern line first described.

On both lines there are detached tracts of land fit for cultivation, with spruce, tamarac, cedar, birch and poplar, which would furnish railway ties. There is a small quantity of hemlock and pine, but most of the latter has been burnt off by bush fires. On Cantin's Bay and near the Chaudière Rapids, there are large patches of sugar maple.

#### *Explorations with Barometer and Compass.*

The altitudes and distances from this forward must be taken as approximate. The distances hereafter referred to are estimated from the starting point on South River by the northern or direct route.

The River Wahnapiatpee is 200 feet wide where the line crosses it, and the altitude is 632 feet above sea level. Thence the line of survey takes a general north-west course, ascending diagonally the slope or water shed of Lake Huron over a rough and rocky country, intersected with numerous, narrow, trough-like valleys, and indented with lakes and swamps, rocky ridges intervening. Still, a feasible line has been found without very high gradients or exceptionally heavy work up to the Vermillion River, at the 106th mile. At the 85th mile it crosses the long valley running in a south-west direction, in which lies the chain of narrow lakes known as Long Lake. The altitude at this point is 810 feet. The rocks up to the 97th mile are generally gneissoid, but westward of this, slate is the characteristic of the country. The highest point on this section is at the 97th mile, where the altitude is 1010 feet: at the crossing of Vermillion River—106th mile—near the foot of Vermillion Lake, it is 936 feet.

The line follows the north shore of Vermillion Lake 4 miles, then crosses a hilly and rocky tract to Spanish River, which is reached at the 135th mile, altitude 1070 feet. Between this and the River Aux Sables, the country is very rough, and the course of the line tortuous.

The ascent is by terraces, and in some places is very abrupt, more especially from the 147th mile to Rocky River at the 160th mile, where the altitude is 1411 feet. There will be some high gradients, and a large proportion of heavy works throughout the section from Vermillion River to the River Aux Sables. At the 175th mile, the line crosses this river near the foot of Lake Aux Sables, altitude 1512 feet. This is near the watershed between Lake Huron and Hudson's Bay. Thence its course is more uniform, and there is very little variation in the altitude for the next 100 miles, so that the gradients are very easy, and the works will be generally light or medium.

The line strikes the River Epinette at the 204th mile, about a mile above its confluence with the Mississagua. Thence it follows up this stream, and its affluent the Cypress, to the source of the latter in Lake Wagong at the 220th mile, where the altitude is 1440 feet. It crosses the River D'Embarras at the 222nd mile, and passes the south end of Lake Winnibegon at the 235th mile. The River Montreal, Lake Superior, is crossed at the 274th mile, altitude 1410 feet, and the Shequamkah at the 286th mile, where the altitude is 1345 feet.

On the last 12 miles the plateau is broken by numerous detached hills rising to a height of 300 or 400 feet. To avoid these, the curvature of the line would be increased, and the works would be heavier than on the rest of the plateau.

From the Shequamkah to Lake Superior a new line was explored during the last season, keeping more to the north than that of 1876, passing by the head of Dog Lake and the valley of White River, and thereby avoiding the high ground east of Sandbeach River.

The line, however, is still open to objection in many parts. The country is intersected at intervals by deep valleys and high rocky ridges, often at nearly right angles to the general course of the line, causing great variations of altitude and a large amount of curvature, with occasional high gradients, involving a considerable proportion of heavy works.

At the 306th mile, the line reaches the valley of the Michipicoten near the foot of Whitefish Lake, an expansion of the river, altitude 900 feet.

The River Magpie is crossed at the 335th mile, where the altitude is 963 feet. The highest intermediate point is 1,230 feet at the 318th mile.

From the Magpie to the head of White River at the 370th mile, the course of the line is tolerably direct, with generally easy gradients, and the works would not be heavy. The altitude at this point is 1,380 feet. Thence the line follows down the valley of White River to the 417th mile, where the altitude is 1060 feet. There is a large amount of curvature in this section, but with easy gradients, and the works would be moderately light.

From White River to the River Pic, at the 440th mile, the country is rough and full of hills, the line tortuous, with high gradients, and the works generally would be rather heavy.

The last point is on the same level as Lake Superior, 600 feet. Thence the line passes through a valley to Heron Bay, and follows the shore of Lake Superior to Peninsular Harbour, where it joins the survey of 1874, at the 452nd mile. The shore of Lake Superior from Peninsular Harbour to the River Nepigon is deeply indented with numerous bays, coves and bights surrounded by high rocky bluffs, involving a large amount of curvature on the line with occasional high gradients, and, in construction, a large quantity of rock excavation with a number of short tunnels. (*Vide* Report of 8th February, 1877, pages 206 to 210.)

The line crosses the River Nepigon near the foot of Lake Ellen, to which the length from South River is 569 miles; and if it were extended to a common point near the south-east angle of Lake Nipissing, it would be 26 miles longer than the line No. 2, explored in 1873. (*Vide* Report of 26th January, 1874, page 205.)

Following the exploratory survey of 1874 from the River Nepigon *via* Dog Lake to a point on the line under construction from Fort William westward, the total length would be, approximately, 661 miles.

These exploratory surveys show that a feasible line, with fair gradients and only a moderate proportion of rather heavy works, can be obtained from South River to Vermillion Lake, 106 miles. But between that point and the high plateau reached at Lake Aux Sables at the 175th mile, the country is not so favourable. The course of the line is tortuous, the rise occasionally abrupt, requiring high gradients, and a considerable proportion of the works would be heavy.

The almost uniform altitude of this plateau or watershed for a long distance on the line explored, and at different points where it has been crossed by previous surveys, suggests the course of avoiding the heavy works on the shore of Lake Superior, by diverging from the present line at some point in the vicinity of Lake Winnibegon, and following the watershed which trends more to the northward, to Long Lake, and there joining the line No. 2 of the survey of 1873. Thence, it follows that line to the crossing of River Nepigon near its outlet from Lake Ellen.

If this were found favourable, we should then have the choice of two feasible lines between the south-east angle of Lake Nipissing and the River Nepigon; one passing the south of Lake Nipissing and the watershed between Lakes Huron and Superior and Hudson's Bay; the other running to the north of Lake Nipissing, and generally north of the watershed.

#### SURVEYS IN THE CENTRAL OR PRAIRIE REGION.

During the past season, surveys have been made with the view of improving the crossings of some of the rivers and deep ravines in this region, with the following results:—

*South Branch of the Saskatchewan; at the 878th mile, from Fort William, Lake Superior*

The eastern approach to this river can be improved from a gradient of 0.75 per 100 to one of 0.50 per 100, or 26.40 feet per mile; but the line will be lengthened about a mile and one-third, and the formation level above the bottom of the valley, raised from 88 to 95 feet.

*Grizzly Bear Coule at the 1078th mile.*

By former surveys, the breadth of the Coulé or trough was 2,200 feet at the top, 1,000 feet at the bottom, and 155 feet deep. By the last survey it is 2,400 feet wide at the top, 1,200 feet at the bottom, and 125 feet deep. Neither the rate of the gradients nor the quantity of excavations in the approaches has been increased.

The summit altitude, west of the Coulé at the 1087th mile, has been reduced 54 feet, and the gradients have been improved.

*Buffalo Coule at the 1101st mile.*

The breadth of this, by former surveys, was 1,600 feet at the top, 700 feet at the bottom, and 100 feet deep, which is reduced by the last survey to 1,200 feet at the top, 600 feet at the bottom, and 90 feet in depth.

*Suggested deviation of the line from Selkirk westwards, passing south of Lake Manitoba.*

In accordance with the verbal instructions of the Minister, an examination has been made of this line, with instrumental surveys of some of the deep valleys traversed by the line, and at other places where deemed necessary.

The deviation from the located line commences at the crossing of the Red River, and takes a south-westerly course till it reaches the centre of the range of townships lying north of the fourth base line; thence it follows due west on or alongside a road allowance through the centre of this range nearly up to the valley of the Little Saskatchewan. Thence, continuing westward, it crosses the Assiniboine at a point above the junction of Qu'Appelle River and through the Touchwood hills to the Elbow of the North Saskatchewan at Caerlaverock.

The line throughout the Province of Manitoba, nearly 100 miles, is very favourable for railway construction, and the land is generally fertile. West of the Province Line the country is more broken, and the land becomes poorer.

The first serious difficulty is the crossing of the valley of the Little Saskatchewan, which is nearly a mile wide at the top, sloping gradually down to the river, where the valley is 225 feet deep. As it is obviously impracticable to cross this at right angles without enormously heavy works, the course of the surveyed line was deflected so as to follow obliquely down one side of the valley and up the other, by which the maximum gradient on the east side was reduced to 0.75 per 100, or 39.60 feet per mile for five miles in length, and on the west side to 1 per 100, or 52.80 feet per mile for a little over four miles in length. Thus it requires over nine miles to cross this valley, carrying the line out of the direct course, which, together with the unavoidable curvature, will increase its length considerably.

The valley of Birdtail Creek, at the point crossed by this route is three-quarters of a mile wide, and 190 feet deep in the centre.

The valley of the Assiniboine is over a mile wide, sloping abruptly down to the bottom flat, which is over 200 feet below the level of the plain. The river is 300 feet wide at flood, where it is crossed by a bridge near Fort Ellice.

No instrumental survey was made of these valleys, but they could probably be crossed in the same manner as the little Saskatchewan.

The valley of Cut Arm Creek is over 100 feet deep where the trail crosses it.

The Touchwood Hills could be crossed without exceptionally high gradients, but with some rather heavy excavations; and the line would be sinuous, and consequently longer, than if a direct course were practicable.

Thence, to the bend of the North Saskatchewan at Caerlaverock, the country is similar to that traversed by the located line. A large proportion of the land on this line is only fit for pasture, and much of it is sandy or light soil, producing short grass. Among the Touchwood Hills, and in their vicinity, there are some tracts of good land fit for cultivation.

*Deviation to Quill Lake.*

An alternative line in the same general direction, may be thus described:— Following the course of the last line up to the Little Saskatchewan, it there deflects

to the north-westward, crossing the Assiniboine near the mouth of Shell River; thence, passing to the north of the Touchwood Hills it joins the located line near Quill Lake.

The valley of Bird Tail Creek, where this line crosses, is nearly a mile wide at the level of the plain, and slopes gradually down to the river, where it is 175 feet deep. This could be approached on the east side by a narrow lateral valley, but there is no corresponding valley on the west side.

The valley of Shell River where the line strikes it, is 250 feet deep, over a mile wide at the top, and 1,000 feet on the bottom flat. It is possible to descend by the slope of this valley to the bottom flat of the Assiniboine Valley, and after crossing that, to ascend by a lateral valley to the table land on the west side; this, however, can only be done by using high gradients, and with a large amount of curvature, by which the length of the line would be considerably increased. Some of the gradients used on the survey were 70 feet to the mile; these, however, can probably be reduced to 1 per 100 or 52.80 feet per mile, but only with very heavy excavations.

The rest of the line to Quill Lake is favourable; a considerable proportion of the land is fit for cultivation; of the balance, some is good pasture land, the rest very poor.

It should be observed that the Engineer-in-Chief fixed the maximum gradient at 0.5 per 100 = 26.40 feet per mile rising eastward, and 1 per 100 = 52.80 feet per mile rising westward, and on the located line these gradients have been maintained to a point west of Battleford. They could not, however, be maintained on the line suggested; even with very heavy works a gradient of 1 per 100, each way, is the best that can be had for many miles.

This, together with the increased length caused by curvature and deflections from the general course, would render the line suggested much inferior to the located line for the economic working of the traffic, and would add considerably to the cost of moving to the seaboard the produce of the large and rich agricultural tracts lying farther to the north-west.

There are no data for estimating the difference of the cost of construction in the two lines, but this is a point of less importance than economic working after construction.

Comparing the extent of good lands that would be crossed by the located line and the suggested deviations, the latter have probably the advantage for the first 100 miles, viz., to the western boundary of Manitoba, as the lands of the Province are generally fertile, and in the portion that would be traversed by the lines proposed, they are comparatively dry and free from timber, and are, therefore, eligible for rapid settlement; a good system of drainage, however, is required throughout the Province.

The located line also crosses large tracts of good land; and it should be borne in mind that even the *muskegs* or swamps, which are found on both lines, will make good meadow land when drained, as they are not deep: the side ditches of the railway alone will effect a great improvement in this respect, as they have done elsewhere. There is a considerable quantity of wood lands on the located line, chiefly poplar, which may possibly oppose certain difficulties to settlement, but which undoubtedly offers compensating advantages.

Beyond the first 100 miles from Selkirk there is a long stretch of land, of inferior and variable quality on both lines. But at the valley of Swan River the located line enters on a very extensive fertile tract. On the suggested deviations, after passing the Province boundary, the quality of the land becomes inferior, and only a small proportion is fit for cultivation westward up to the bend of the North Saskatchewan.

On the deviation from the Little Saskatchewan, north-westward to Quill Lake, there are considerable tracts of good land fit for cultivation.

This seemed to indicate that the fertile belt trends to the north-west, and a more extended examination of the country was accordingly made, by which this view was confirmed.

A line drawn from Winnipeg to Fort à la Corne near the confluence of the two

branches of the Saskatchewan, would cut off the south-west angle of Lake Manitoba, skirt the north-eastern base of Riding Mountain, cross the north end of Duck Mountain, and pass 15 to 20 miles north of Fort Pelly and across the Basquia Hills. If this line were extended through the Beaver Valley to Lac la Biche, thence by the Lesser Slave Lake, so as to intersect the Peace River near the mouth of Smoky River, it would show the general course of the great fertile belt of agricultural lands in the North-West Territory. It is not to be expected that in a stretch of over 1,000 miles the soil will be uniformly good. The fertile belt is accordingly very irregular, often intersected and contracted by *muskegs* and lakes, and low ranges of hills on which the soil is of variable quality; there are, however, vast tracts of extraordinary fertility. Both the quality of the soil and the salubrity of the climate improve towards the North-West; whilst investigations have shown that even beyond Peace River, the productive powers of the land are astonishingly great.

It is evident that no single line of railway can traverse all the fertile portions of a region so extensive, and that even before the trunk line is complete, branches will be required in various directions.

A branch line could be constructed, at a comparatively small cost, to meet the requirements of the Province of Manitoba equally well as a diversion of the main line, which, if carried out as suggested, could not fail to be injurious to the wider interests of the Dominion.

From all the information obtained up to this time, it does not appear advisable that any alteration should be made in the line as located in this district. There, however, appears to be a feasible line, which, after passing the south end of Lake Manitoba, takes a north-westerly course, skirting the eastern base of Riding Mountain and the north end of Duck Mountain, and joining the located line in the valley of Swan River.

The country is described as level and thickly wooded with spruce, poplar and some maple. (*Vide* Report of April 10th, 1872 : Page 56.) Small lakes surrounded by extensive marshes are, however, found throughout this district.

The line suggested would be from 20 to 30 miles longer than the located line, but the gradients would probably be good, and the works moderately light, and it would, therefore, be somewhat less open to objection than the other deviations proposed.

#### SURVEYS IN THE WESTERN OR MOUNTAIN REGION.

During the season of 1877, the writer travelled over the route from the Saskatchewan, *via* the Yellowhead Pass, and the valleys of the Thompson and the Fraser to the Pacific coast, and closely examined the line at most of the difficult points of the survey. A complete location survey was made of that portion of the line from Tête Jaune Cache to Burrard Inlet, by which some of the difficulties and heavy work met with in former surveys have been avoided or reduced, and the line generally much improved. When the plans and profiles are completed, and the quantities of the several classes of work got out, they will furnish better *data* for making an estimate of the cost of construction than have hitherto been obtained. A description of this survey by Mr. H. J. Cambie is appended.

#### EXPLORATION OF THE SKEENA ROUTE.

At the outset, it became evident that there is no harbour at the mouth of the Skeena suitable for a railway terminus. A fair anchorage is to be had in Cardena Bay, at the southern end of Kennedy Island, but it would be extremely difficult, if not impracticable, to reach that neighbourhood with a railway line.

Attention was therefore directed to Port Simpson, at the northern end of the Tsimpsean Peninsula, a well known and excellent harbour, and on examination it was found that there are no great obstacles to carrying a line along the north side of the Peninsula to that point.

The distance is probably 10 miles longer than to Cardena Bay, but, of the two, this harbour is far better adapted for commercial purposes, and the cost of constructing the railway would probably be much less.

*Engineering Features.*

From Port Simpson, for about 35 miles along the north side of the Tsimpsean Peninsula, and across the dividing ridge, 250 feet high, to the banks of the Skeena, the works would be heavy.

In ascending the Skeena through the Cascade Mountains the works would generally be heavy, but less so than by either the Fraser or Homathco valleys, through the same chain of mountains.

For the first 35 miles the hills descend in steep inclination to the water's edge, and there are indications of snow slides at several points. The valley averages a mile in breadth, but the river is thickly studded with islands, and has channels washing the base of the mountains on either side.

Above this, for a distance of about 80 miles till the eastern face of the Cascade range is reached, the valley narrows a little, but the side hills are not so steep. The valley then opens out somewhat, and the works would be moderate for about 40 miles, which distance would bring the line to the Forks of the Skeena, near which there is an Indian Village named Kitma on the map.

The elevation at this point is about 700 feet above sea level, and the gradients would be very easy throughout the whole distance from the seaboard.

The general course of the line up to this point has been north-east, but here it leaves the Skeena and takes a south-east course at right angles to the former, ascending the valley of the Watsonquah, which for the first 27 miles is principally a canyon, and would require stiff gradients and heavy works in places.

The remainder of the distance, *via* Lake Fraser to the valley of the Nechaco, would have easy gradients with moderately light works. The summit altitude between the Skeena and Nechaco, is only 2,400 feet above sea level. In this valley a junction is made with the previously surveyed line from Yellowhead Pass. (*Vide* Report, February 8th, 1877, pages 274-276.)

Several attempts were made to find a pass leading directly from the Skeena to Lake Francois, so as to avoid the angle between the former and the Watsonquah, and so greatly reduce the length of the line, but without success, as the space contained within the angle is a compact mass of high mountains.

The distances from a common point at the mouth of the Chilacoh, near Fort George, are as follows:—

To Port Simpson, approximately.....	Miles.
To Bute Inlet, by measurement.....	430
To Dean Inlet, by measurement.....	289
	231

Port Simpson is, however, much nearer to the Asiatic coast, the distances to Yokohama being as follows:—

	Statute Miles.
From Port Simpson.....	4,450
From Kamsquot Harbour, Dean Inlet.....	4,720
From Waddington Harbour, Bute Inlet.....	4,836

*Character of the soil, &c.*

There is a small area of land in the neighbourhood of Port Simpson fit for cultivation. In the lower part of the Skeena, many of the islands with which it is studded, consist of rich alluvial soil, but they are subject to overflow at high water. For 15 or 20 miles below the Forks of the Skeena, and for some distance above that point, the hills do not approach the river within two or three miles on either side. The land is of fair quality, and covered with a light growth of poplar, birch and spruce. There are some settlements at the Forks of the Skeena, where there was a fine crop of oats, almost ripe, on the 31st July, and also abundant crops of potatoes, carrots, cabbage, &c.

The slopes of the Watsonquah Valley throughout its length are, in part, prairie and sustain a magnificent growth of grass fit for pasture. The roots of the grass

intertwine and form a sod, so that it would not be killed off by allowing cattle or sheep to crop it closely, as bunch grass is.

This part of the country is, however, subject to summer frosts, which would render it unfit, or at least unreliable, for purposes of agriculture.

#### *Timber.*

A tree commonly called "yellow cypress" is found on the Lower Skeena, which has great strength and density of fibre, and is said to be extremely durable, but the quantity is so limited that it may be said to have little commercial value. The same remark would apply to hemlock, though it was seen in some places of great size. On most of the islands subject to overflow, very fine cottonwood trees are to be found, which may be utilized at some future time for the same purpose to which basswood and whitewood are applied in the Province of Ontario.

#### *Snow Fall.*

Through the Cascade Mountains, the snow in places lies to a depth of seven or eight feet on the level. From the Forks of the Skeena to the River Fraser it is said not to exceed three feet in depth, except on very rare occasions.

#### *Minerals.*

Marble was seen in beds of great thickness, varying in color from purple to white. Some ores of copper and lead were also observed, but not in veins of any great thickness.

#### EXPLORATION OF PINE RIVER PASS.

The highly favorable reports received respecting the character of the Peace River District, and the prospects held out of a satisfactory route being obtainable through the Pine River Pass, made it expedient to obtain further information in that direction. Accordingly, the exploration was extended from a point in the neighbourhood of Lake Fraser, *viâ* the east end of Lake Stewart, to Fort McLeod on the Parsnip or south branch of the Peace River.

This route proved very unfavourable for railway construction; subsequently, however, a good connecting line, though more circuitous, was found by following down the Nechaco and the Stewart Valleys nearly to Fort George; thence in a northerly direction up the valleys of the Fraser and Salmon Rivers, and across the low water shed to Summit Lake, one of the sources of the Parsnip, which river was then followed down to Fort McLeod.

Beyond the existence of an Indian trail across the Rocky Mountains from Fort McLeod to Fort St. John, very little was known; nor was any information obtainable in the neighbourhood respecting the Pine River Pass, except through an old Indian woman, who drew a sketch on the sand and explained it to the best of her ability.

With the scant information thus obtained, the exploration was continued from Fort McLeod eastward: following up the valley of the River Misinchinca, an affluent of the Parsnip, till an altitude of 5,500 feet was reached without any appearance of a Pass. On descending the river, a stream was discovered running into it from the north, about 35 miles above its confluence with the Parsnip. Following this up four miles, it was found to issue from a small lake named Azuzetta. This proved to be near the summit of the Pine River Pass, its altitude being estimated at 2,430 feet above the level of the sea.

A little beyond this the head waters of the Pine River were struck, and the river followed down eastward to the Forks, a point reached by Mr. Selwyn with a canoe from the Peace River in 1875. (*Vide Geological Survey of Canada, Report of Progress for 1875-76, pages 52 to 54.*)

The exploration was continued 30 miles eastward of the Forks on to the Beaver Plains, which lie between the Rocky Mountains and Peace River.

Thus the question of the feasibility of the Pine River Pass is at last solved.

The full Report has not yet been received, but the distance between Fort McLeod on the west side of the mountains, and the Forks of Pine River on the east side, is roughly estimated at 90 miles.

The gradients are stated to be generally easy, with the exception of about four miles near the summit of the Pass, where they will probably be about 60 feet to the mile, and the works in the construction of a railway would be moderately light, except for a length of about eight miles near the summit of the Pass, and a short length at the Forks of Pine River where they would be heavy.

The land in the Pine River Valley, for 50 miles above the Forks, is described as of excellent quality and well suited for agricultural and grazing purposes.

It should be observed that this fertile strip of land, lying nearly in the heart of the Rocky Mountains, is an extension of the Beaver Plains which connect with the great fertile belt stretching from Manitoba to and beyond the Peace River.

Should the engineering character of a line by this route prove, on closer survey, as favourable as reported, the results from this exploration will be amongst the most important that have been obtained since the commencement of the surveys. Some of the serious difficulties in crossing the Rocky Mountains will have disappeared, and this formidable chain, once held to be insurmountable, and even now felt to be a grave obstacle to railway enterprise, can then be passed with very favourable gradients, and with works not exceeding in magnitude those generally required on other portions of the line.

In addition to the manifest advantages offered by this route, there is, further, the important consideration that in the place of a bleak, sterile country, wherein settlement is an impossibility for hundreds of miles, the line would traverse an area of remarkable fertility with but a few short intervals of country unfit for settlement. This route also passes between the vast mineral districts of Omineca and Cariboo. The extraordinary results of recent mining operations in the latter give promise, when their resources are more fully developed—as they can only be with the assistance of direct railway communication—of rivalling, if not surpassing, the far-famed gold and silver regions of the neighbouring States, which lie in the same mountain zone.

Port Simpson may possibly be considered, at present, too far north for the terminus of the Canadian Pacific Railway, but it is important that the fact should be borne in mind that, by virtue of low altitudes and consequent easy gradients, together with the comparatively moderate character of the works required to reach it, this terminal point offers advantages which would enable a Canadian line to defy competition for the trade with China and Japan, Port Simpson being fully 500 miles nearer to Yokohama than Holme's Harbour, at the mouth of Puget Sound, the proposed ultimate terminus of the Northern Pacific Railway, while the advantage it possesses over San Francisco is correspondingly greater.

But the Pine River Pass is not merely the key to Port Simpson; it affords comparatively easy communication with Bute Inlet, and all the intermediate inlets between that point and Port Simpson, the valleys of the rivers leading to these inlets radiating from the Stewart Valley, south-west of the Pass, with exceptional directness. Thus many of the difficulties in the way of reaching Bute Inlet and the inlets to the north of it, *viâ* the Yellowhead Pass, can be avoided, and this probably without increasing the length of the line.

The distance from Livingstone on the located line, over the Yellowhead Pass to the confluence of the Chilacoh and Stewart Rivers, near Fort George, is 1,029 miles. The distance between the same points *viâ* the Pine River Pass, measures on the map so nearly the same as the above, that a survey alone can determine the precise difference between the two routes.



## WORKS OF CONSTRUCTION.

## TELEGRAPH LINE.

Commencing at Fort William, the line is erected to a point named "Falcon," a distance of 137 miles, and is in operation to English River, 113 miles. Between Falcon and Keewatin, 160 miles, considerable clearing has been done, and a line erected for a distance of 30 miles eastward from Keewatin. Between Keewatin and Selkirk, 112 miles, the line is erected and in operation. It is expected that the connection between Fort William and Selkirk will be completed during the winter.

The line is erected and in operation between Selkirk and Livingstone, 271 miles, but where it crosses certain lakes, ponds and marshes, a number of the poles require to be more permanently secured. The branch line between Selkirk and Winnipeg, a distance of 22 miles, is completed and in operation.

The line is erected, and has been operated from Livingstone to a point in the longitude of Fort Edmonton. There is still, however, a considerable amount of clearing to be done, some inferior poles to be replaced, and some portions to be altered. At present, it is only in operation as far as Battleford.

On the western Section, between Edmonton and the existing line in British Columbia, no portion of the line is completed, but a quantity of material has been delivered at points along the route.

## GRADING, TRACK-LAYING, &amp;C.

*Fort William to English River 113 miles.*

From Fort William, westward, the roadbed of the railway is graded continuously, and the bridges erected to the 77th mile; beyond this point there is an aggregate of four miles more graded in detached portions. The rails are laid for a distance of 41 miles, and of this about 36 miles are partially ballasted, and in fair running order.

*English River to Keewatin (Rat Portage,) 184 miles,*

The line has been located for construction between these points, but is not under contract.

*Keewatin to Cross Lake, 36 miles.*

From Keewatin, westward, for a distance of 25 miles, a considerable quantity of excavation has been done, consisting chiefly of rock. From the 25th to the 36th mile supplies are being delivered, but grading has not been commenced.

*Cross Lake to Selkirk, 76 miles.*

From Cross Lake, westward, for a distance of 11 miles, there has been no grading done. From the 11th to the 43rd mile the grading is in various stages of progress, 17 miles of the distance, in detached portions, being ready for tracklaying. From the 43rd to the 76th mile the grading and bridging are completed, and the roadbed is in good condition for tracklaying. The rails are laid, but not ballasted, for a distance of 6 miles eastward from Selkirk.

*Pembina Branch.*

The length of this branch is 84½ miles, extending southward from the main line at Selkirk to the International Boundary at Emerson. Between Selkirk and St. Boniface, opposite Winnipeg, a distance of 22 miles has been graded during the past summer, and the rails laid over the same, but it is not ballasted. From the 22nd to the 29th mile, no grading has been done. From the 29th mile to Emerson, the grading was completed in 1875, with the exception of the spaces left for bridges and approaches.

## ENGINE HOUSE.

A ten stall engine house has been completed at Fort William.

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**ENGINEERS' HOUSES.**

At Fort William a good house has been built for the District Engineer, and between that point and Selkirk, 18 smaller houses have been erected for the use of the Assistants on the line during construction, which, after the line is opened for traffic, will come into use in connection with the stations.

**FORT FRANCES LOCK.**

The rock excavation is nearly completed. The timber for the gates will be procured during the winter. For description of this work, *vide* Report of 1876. Appendix, p. 205-208.

**CONTRACTS.**

A schedule of contracts, with statement of expenditure upon the same during the fiscal year ended 30th June, 1877, is appended.

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

MARCUS SMITH,  
*Acting Engineer in Chief.*

CANADIAN PACIFIC RAILWAY.

SCHEDULE OF CONTRACTS with Statement of Expenditure upon the same, during the Fiscal Year ended 30th June, 1877.

Contract No.	Character of works.	Date of Contract.	Name of Contractors.	Amount expended during Fiscal Year ended 30th June, 1877.
				\$ cts.
1	Construction of Telegraph Line, Fort Garry to Livingstone.....	1874.	Sifton, Glass & Co .....	35,780 80
2	do do Livingstone to Edmonton.....	do 30.....	R. Fuller.....	32,414 95
	do do Edmonton to British Columbia.....	Nov. 10 .....	F. J. Barnard.....	8,900 00
	do do Lake Superior to Fort Garry.....	1875.	Oliver, Davidson & Co.....	40,027 66
		1874.		
5	Pembina Branch { Grading .....	Aug. 31.....	Joseph Whitehead .....	{ 13,298 00
	{ Extension St. Boniface to Selkirk, Grading, Bridging } and Tracklaying.....			{ 990 00
13	Fort William to Sunshine Creek, Grading and Bridging.....	1875.	Sifton & Ward.....	114,100 00
14	Red River to Cross Lake, Grading and Bridging .....	April 3.....	Sifton & Ward .....	130,470 00
		do 3.....	Sifton & Ward .....	
15	{ Cross Lake to Rat Portage, Grading and Bridging..... } { Red River, to Rat Portage, Tracklaying and Ballasting..... }	1877.	Sutton, Thompson & Whitehead.....	54,300 00
23	Railway Sleepers, No. 56,339.....	1875.	Sifton & Ward.....	3,669 79
		Oct. 4.....	Sifton & Ward.....	
25	{ Sunshine Creek to English River, Grading and Bridging..... } { Fort William to English River, Tracklaying and Ballasting..... }	1876.	Purcell & Ryan.....	335,800 00
26	Ten Stall Engine House, at Fort William.....	June 6.....	James Isbester.....	16,600 00
29	Railway Spikes, 150 Tons, delivered at Fort William.....	July 17 .....	Cooper, Fairman & Co.....	8,532 90
		do 28 .....		
32	Railway Spikes.. { 200 tons delivered at Duluth..... } { 50 do Fort William..... }	1877.	Cooper, Fairman & Co .....	13,647 50
		May 12.....		

## APPENDIX B.

REPORT ON THE LOCATION SURVEY FROM YELLOWHEAD PASS TO BURRARD INLET, BY  
H. J. CAMBIE, ENGINEER IN CHARGE OF SURVEYS, BRITISH COLUMBIA.

OTTAWA, 23rd April, 1878.

SIR,—On the 19th December last, I prepared a report giving a description of the trial location survey of the line from Yellowhead Pass to Burrard Inlet, made during the summer of 1877.

The plans and profiles having since been completed, I am thereby enabled to revise that report as follows:—

From the summit of the Yellowhead Pass to the 38th mile, westward, the line descends the valley of the Fraser River, and, so far, it is common to all the routes through British Columbia.

*Point of divergence to Cranberry Lake, 38 to 58 miles.*

The line continues to follow the valley of the Fraser, in a westerly direction, to about the 46th mile, near Tête Jaune Cache, when it turns sharply to the south, up the Cranberry Valley, to the lake of the same name. As laid out, it is nearly level, till it enters the Cranberry Valley, and then falls gradually to the lake, by which the descent is distributed over a long distance. For the first eight miles it is high up on the mountain side, which is very steep; much curvature is required, and the works are in rock, and very heavy.

For the remainder of the distance the curvature is easy, and the excavations are in gravel, two miles being heavy and about ten light.

McLennan's Creek, 100 feet wide, is the only large stream to be crossed.

*Cranberry Lake to North Thompson, 58 to 85 miles.*

At the 58th mile, the line crosses Cranberry Lake, which is 4,000 feet wide, and from 5 to 7 feet deep,—thence continuing in a southerly direction, it crosses the Canoe River, a tributary of the Columbia, at the 61st mile, and ascending the valley of the Camp River, to the 71st mile, there passes over a summit 2,880 feet above sea level, and enters the valley of the Albreda Lake and River, whose waters flow, *viâ* the Thompson and Fraser Rivers, into the Strait of Georgia, about ten miles south of Burrard Inlet, and the line follows the valleys of those rivers all the way to the last mentioned place. Surveys were made around both ends of Cranberry Lake, but rejected for economical reasons. The work thence to Canoe River, 3 miles, is heavy.

Between the 80th and 82nd miles the Albreda falls rapidly, and then flowing gently, joins the Thompson at the 85th mile. In order to keep the gradient within a maximum of 1 per 100, the line is located on steep side hill for about 4 miles, with numerous curves of 1,146 feet and 1,433 feet radius and heavy works.

If it were permitted to introduce a steeper gradient for a short distance, and so keep the line in the bottom of the valley, it is probable that the curvature could be eased and the works much reduced without lowering the efficiency of the line materially.

Of the works on the remaining twenty miles, four may be classified as heavy and sixteen ranging from medium to light. The material is principally sand, gravel and boulders.

*North Thompson Valley, 85 to 102 miles.*

Near the eighty-fifth mile the line crosses the North Thompson River, 300 feet wide, and then follows its right bank. Being to a large extent on the hillside many

curves were required, and four of 820 feet radius were used ; but at such places the gradients are trifling, and are throughout undulating and easy.

The work varies from medium to heavy, with the exception of one point near the eighty-sixth mile, where the main mountain abuts on the river, causing it to be excessively heavy.

Crib wharfing will be required at several places for protection against the Thompson River.

*North Thompson Valley, 102 to 120 miles.*

For the first four miles the line is on benches requiring heavy work. From that point forward it is on flats, and the work is light except at a few places where the base of the hill is washed by the river, causing some rock spurs to be cut through. The principal streams to be bridged are—Green River, 75 feet, and Blue River, 100 feet wide. The grades are light and undulating, and curvature easy.

*North Thompson Valley, 120 to 130 miles.*

This section is all on side hills and embraces the canyon of the North Thompson four miles in length. The works are generally in rock, and for six miles are very heavy, with two tunnels—one of 350 feet and one of 150 feet long. Although the descent through the canyon is rapid, only  $1\frac{1}{2}$  miles of 1 per 100 grade will be necessary. The sharpest curves are 1,146 feet radius. No large streams are met.

*North Thompson Valley, 130 to 143 miles.*

This section is on the flats adjoining the stretch of river known as Stillwater, which is subject to overflow when the river rises in June or July, and will require some protection. Two rock spurs and one of gravel have to be cut through ; the rest of the work is almost exclusively embankment, and not heavy. No large structures are required. The grades and curves are light.

*North Thompson Valley, 143 to 164 miles.*

Six miles of this are on side hills and require heavy work, one-third of which is in rock ; the remaining 15 miles are on benches and flats, with medium work principally in gravel and boulders. Several places have to be protected against encroachment of the river, and two points between the 160th and 162nd miles against earth sliding from above in the Spring.

The grades are undulating with four stretches of one per 100, the longest of which is  $1\frac{1}{2}$  miles. To avoid tunneling a curve of 716 feet radius was used, on a grade of 26 feet per mile. Mad River, 60 feet wide, is the only stream of consequence to be crossed.

*North Thompson Valley continued to Clearwater, 164 to 182 miles.*

Of this distance there are about four miles on steep side hill close to the river and require protection in many of the bays. There are about six miles of heavy work, principally in sand, gravel and loose rock ; the rest is light. Near the 171st mile the line crosses the North Thompson to its eastern bank, which is then followed to Kamloops. This crossing is 350 feet wide ; and no other river of importance is met with on this section. The grades are undulating and easy, and the curvature is not serious. By crossing to the left bank of the Thompson, near the 155th mile, the sliding clay near the 160th and 162nd miles, and some of the river protection would be avoided ; but without a survey it is difficult to form an opinion as to which line would be best.

From the summit of the Yellow Head Pass to Clearwater the valleys through which the line is located are either in the Rocky Mountains proper or among some of the outlying spurs of that range, which induces a large rainfall, and the country is therefore covered with a dense growth of timber, principally hemlock, cedar, fir and spruce, with much underbrush. To the westward of the Clearwater, however, there is a marked change in the climate and vegetation. The rainfall decreases very much ; the timber becomes scattered ; bunch grass, sage and cactus appear on the hill sides.

*Clearwater to Indian Reserve, 182 to 206 miles.*

Assiniboine Bluff and some other side hills abut on this part of the river, and cause about eight miles of heavy work, a large proportion of which is in rock. The other 16 miles may be classified as medium work. Curves and grades are easy. No large streams have to be crossed.

*Indian Reserve to Head of Rapids, 206 to 220 miles.*

Most of this distance is on the flats next the river, where work is light;  $2\frac{1}{2}$  miles of heavy work occur in clay, sand and gravel. Some river protection is required. The only large stream to be bridged is the Barrière, 350 feet wide. The curves are easy and grades light.

*Head of Rapids to Kamloops, 220 to 255 miles.*

This section includes two side hills, one five miles and the other  $3\frac{1}{2}$  miles long, on which the work is heavy. The rest varies from medium to light. Near the 254th mile the South Thompson, 500 feet wide, is crossed close to its confluence with the North Thompson. The grades and curves are light.

*Kamloops to Savona's Ferry, 255 to 280 miles.*

From Kamloops the line follows the Thompson River for seven miles, with easy work and gradients, to Kamloops Lake.

In following down the south shore of the lake, Cherry Creek Bluff and some others of bold irregular outline have to be passed, entailing ten tunnels of a total length of 4,475 feet, principally in rock, all of it heavy—and eight miles of it excessively so. In passing the bluffs it was found necessary to use curves of 955 feet radius, and gradients of 1 per 100 are of frequent occurrence. No large streams have to be crossed.

Before the survey was commenced, the Thompson River was examined from the Clearwater to Kamloops, with a view to deciding whether it would be better to have the line located on substantially the same line surveyed in 1872, which crossed the Thompson River a little above Clearwater, and continued on its left bank to Kamloops, or to follow down its right bank and cross the main Thompson River between Kamloops and Kamloops Lake.

The latter line would be the shorter of the two, but that advantage was considered to be more than counterbalanced by the increased length of bridging, and the line was therefore located down the left or eastern bank.

It is still, however, possible that a better line could be had by continuing down the right bank, keeping on the north side of Kamloops Lake and crossing the Thompson River a short distance below Savona's Ferry; for, by adopting that line, or a modification of it, the distance would be shortened about three miles. Battle Bluff, on the north side of Kamloops Lake, would have to be encountered, which is a formidable obstacle, but might, on a closer examination, prove to be even less so than Cherry Creek Bluff, on the south side of the lake. The relative merits of the two lines can only be decided by a survey.

*Savona's Ferry to foot of Black Canyon, 208 to 308 miles.*

Of this distance six miles may be classified as light work. All the rest is on the face of benches adjacent to the River Thompson, causing heavy work which requires protection from wash at many points. The proportion of rock work, however, is not large. Near the 307th mile a ridge of rock forming a sharp bend in the river necessitates a tunnel 550 feet in length. No large streams have to be crossed. Curves of 1,146 feet radius were frequently used. The grades are undulating and short, requiring in several instances 1 per 100.

*Foot of Black Canyon to Spence's Bridge, 308 to 327 miles.*

This section is partially similar in character to that last described. Through nearly half of it the work is of a light character and the balance heavy, requiring river protection at many places. There is but little rock excavation.

The curves are numerous, 955 feet radius being the sharpest. The grades undulate.

Near the 326th mile the River Nicola, 300 feet wide, has to be bridged. The Thompson River, throughout its entire length, is subject to freshets, which usually occur between May and July, when it exceeds its winter level by 10 or 12 feet. But as the ice breaks up and passes off in March or April, when the water is still at a low stage, no danger need be anticipated from this source.

*Spence's Bridge to Lytton, 337 to 350 miles.*

The valley of the Thompson River for most of the distance is narrow, and the line is located along the face of the steep side hills, advantage being taken of benches at a few points where available. The work may be classified as heavy, with a large proportion in sand gravel and boulders. The River Nicomen, 150 feet wide, and a few rocky ravines, are the only places requiring structures of importance. Several curves of 1,146 feet radius and two of 955 feet radius represent the heaviest curvature. The grades are undulating and easy, there being but one mile of 1 per 100. The worst feature on this section occurs near the 333rd mile, and is known as the *Mud Slide*. It commences at a height of 1,900 feet above the line and about two miles distant, and extends down the mountain side to the Thompson River where it terminates abruptly in a bank about 1,000 feet in length and 40 feet in height. At the point where crossed by the line, it is 1,000 feet wide, and the average forward movement per annum is about eight feet at the centre, decreasing gradually towards the sides. It is apparently caused by springs near its source, which disappear into the ground, reappearing, at intervals, causing the earth, which is strongly impregnated with alkali, to dissolve to the consistency of soap, thus forming a lubricator between the bed-rock and the mass of earth above. By careful drainage of these springs near their source, and diverting them elsewhere, the slide can doubtless be so far stopped as to cause but little inconvenience.

*Lytton to crossing of the River Fraser, 350 to 356 miles.*

The line descends gently on sand and gravel benches, with heavy work and much curvature for  $5\frac{3}{4}$  miles. It then crosses over to the right bank of the River Fraser and continues down that side all the way to Burrard Inlet. The crossing of the Fraser is 500 feet wide at formation level and about 120 feet above low water mark, and can be bridged by one span of 275 feet, the abutments of which can be founded on rock ledges several feet above the river at its low-water level.

Immediately after passing the river, and on the same straight line, there is a tunnel 600 feet long through a rock bluff.

The dry country referred to as commencing near the 182nd mile continues to this point in a greater or less degree. It is especially marked between Kamloops and Spence's Bridge, where the country is sparsely timbered; and with the exception of bunch grass (which is peculiar to dry climates) nothing can be produced without irrigation.

*Crossing of River Fraser to Boston Bar, 356 to 379 miles.*

The work is heavy throughout this section, being in rock for upwards of one-third of the distance. The Na-ah-latch River, 120 feet wide, and about twelve large ravines have to be crossed. The curves are numerous, but none shorter than 1,146 feet radius. The grades undulate, and the maximum 1 per 100 has often to be used.

*Boston Bar to Yale, 379 to 403 miles.*

At Boston Bar the line enters the Canyons of the River Fraser, which extend to Yale. Five miles of the distance is over benches with medium work, and the rest on a broken rocky side hill or along the face of almost perpendicular bluffs, entailing heavy rock excavation; and 13 tunnels, the united length of which is about 5,650 feet ( $\approx 1.07$  miles), the longest being 1,550 feet. The largest streams on this section are the Skuzzy, 80 feet, and the Spozzum, about 100 feet wide, and three other

smaller streams. There is one curve near Yale of 820 feet radius on a level; with this exception, 1,146 feet is the shortest radius used. The grades undulate, and there are about seven miles of one per 100. Near the 384th mile is a ravine down which snow sometimes slides, but as the grade is high, and provision has been made for a bridge at this point, the snow can pass underneath without danger to the superstructure.

*Yale to Sister of Rocks, 403 to 413 miles.*

The work is moderate, being chiefly on gravel benches, with easy undulating gradients, and a small percentage of curvature, five creeks have to be bridged which vary in width from 40 to 100 feet.

*Sister Rocks to Flat below Hope, 413 to 419 miles.*

From Sister Rocks for a distance of six miles to a flat three miles below Hope, the work is heavy, with a considerable number of sharp curves on undulating gradients principally 1 per 100. There are three short tunnels, amounting in the aggregate to 1,275 feet.

*Flat below Hope to Harrison River, 419 to 444 miles.*

The work on this section is moderate, four-fifths being on benches and flats, and the remainder along bluff and broken side hill, with one tunnel 230 feet in length; one creek 100 feet wide has to be crossed. At the time of high water the toe of embankments will be subject to flood at several points, but no apprehension need be felt as to stability of line, as these banks will be of rock, and in no case subject to wash.

*Harrison River to St. Mary's Mission 444 to 462 miles.*

Eleven miles of this work varies from medium to heavy, with a small proportion of rock; the other seven miles are on a low flat, liable to an overflow at extreme flood of from three to twelve feet, entailing heavy works. The principal streams to be bridged are the Harrison with a waterway of 900 feet, and an extreme depth of 27 feet, the Hatzic 1,400 feet wide varying from 6 to 14 feet in depth, and one other stream 100 feet wide. The grades are undulating and curves easy.

*St. Mary's Mission to Pitt Meadows, 462 to 482 miles.*

This section of the line is generally close to the northern bank of the Fraser River, five miles of it may be classified as medium, the remaining distance heavy with little rock. Stave River, 1,000 feet wide and 20 feet deep at the centre with Kanaka Creek, 400 feet wide, are the largest rivers to be crossed. The alignment and grades are easy.

The country was explored for some distance back to ascertain the practicability of carrying the line in rear of some partially detached hills which abut on the river, by which the line would be shortened considerably, and some extensive works of bridging and protection avoided. It was found, however, that the hills above referred to were connected with the range of mountains in their rear by high ridges which rendered it impossible to locate a line there with moderate grades.

*Pitt Meadows to Port Moody, 482 to 493 miles.*

This section includes the Pitt Meadows, which are four miles wide, and subject to an overflow at extreme flood of about 7 feet in depth, requiring expensive works of construction. The remainder of the work varies from medium to light, without rock excavation, so far as known. Where the line crosses the River Pitt it is 1,000 feet wide, and varies from 5 to 45 feet in depth. The Coquitlam, 200 feet wide, is the only other stream of importance. The curves are easy and the grades light.

The head of Port Moody is reached at 491½ miles, but that place being unsuited for wharves owing to large mud flats which are left dry at low water for a considerable distance from the shore, the line was continued to the 493rd mile, where such objections do not exist.



To extend the line from Port Moody along the southern shore of Burrard Inlet to Coal Harbour, which is just inside the entrance, the distance is 12 miles, and to English Bay, three miles additional. On this section some rock spurs extend to the waters edge, entailing some heavy cuttings.

The grades are easy and curves light. From the foregoing it will be observed that 1 per 100 is the maximum gradient used, and that some of the heaviest works met with in the exploratory surveys have been considerably reduced, the aggregate length of tunnelling being now  $2\frac{1}{2}$  miles. A considerable portion of these reductions, however, have been effected by introducing more curvature and sharper curves at a few points than had heretofore been employed, one of these being 716 feet radius, and several 820 feet radius, but they were used only in localities, where the line is level or the gradients of trifling ascent. It is probable that a revised location in many places would show an improved line with a considerable reduction of the works.

In passing the Cascade Mountains on this route the ravine near the 384th mile, already referred to, is the only place where snow is now known to slide from any considerable height across the proposed line of railway, heavy drifts occur at various points where the configuration of the ground favours their formation, and will entail the construction of snow sheds. The hill sides were carefully examined for traces of avalanches, but none were found, and this result was corroborated by the testimony of people residing in the neighbourhood, who travel the road continually. No damage, therefore, need be anticipated from this source. On that portion of the line, however, in the Fraser Valley, above Tête Jaune Cache, the mountain sides are very steep and are grooved at places by avalanches of snow, timber and loose rock.

#### *Grades.*

Annexed is a table of gradients from the summit of Yellow Head Pass to Port Moody, from which it will appear that 185 miles are practically level, a portion being on grades of 5 feet per mile or less. Ascending eastward there are 66 miles of gradients ranging from 43 to 52.80 feet per mile,  $9\frac{1}{2}$  miles of which are included in the first 38 miles, and are, therefore, common to all routes through British Columbia.

Between the 38th mile and Port Moody the longest stretch of 1 per 100 or 52.80 feet per mile ascending eastward, is  $3\frac{1}{2}$  miles, and the longest ascending westward is  $2\frac{3}{4}$  miles.

Lest the large number of grades ascending westwards should convey a wrong impression, a diagram has been prepared on a scale of 10 miles to the inch, horizontal, and 500 feet vertical, by which it will be seen that these undulations are in many cases so short that the impetus acquired before reaching the foot of the grade will carry a train most of the way up it.

#### *Bill of Works.*

The accompanying bill of works includes everything considered necessary to complete the railway to formation level, with iron bridges and durable structures similar to those on the Intercolonial line.

Through that portion of the interior plateau before described as subject to a very limited rainfall, the gravel cuttings have, in many instances, been estimated with slopes of 1 to 1, which is considered sufficient to render them safe in the arid district where they occur; the natural slopes of the same material in this district being much steeper.

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

H. J. CAMBIE,  
*Engineer in charge of Surveys in British Columbia.*

SANDFORD FLEMING, Esq., C.M.G.,  
Engineer-in-Chief Canadian Pacific Railway.

CANADIAN PACIFIC RAILWAY.

BRITISH COLUMBIA—ROUTE No. 2.

TABLE of gradients between the "Summit" Yellow Head Pass and Port Moody (Burrard Inlet.)

Stations West of Lake Superior.	Level and up to 10 per 100.	Rise per 100, Ascending Easterly.								Rise per 100, Ascending Westerly.							
		Over 0.10 to 0.20.	Over 0.20 to 0.30.	Over 0.30 to 0.40.	Over 0.40 to 0.50.	Over 0.50 to 0.60.	Over 0.60 to 0.70.	Over 0.70 to 0.80.	Over 0.80 to 1.00.	Over 0.10 to 0.20.	Over 0.20 to 0.30.	Over 0.30 to 0.40.	Over 0.40 to 0.50.	Over 0.50 to 0.60.	Over 0.60 to 0.70.	Over 0.70 to 0.80.	Over 0.80 to 1.00.
From "Summit," or 1452.38 mile from Lake Superior, to end of 15th 100 Mile Section, 47.62 miles.....	16.64																
16th 100 Mile Section.....	31.21																
17th 100 do .....	42.93																
18th 100 do .....	34.82																
19th 100 do .....	41.66																
From 1,900th mile to Port Moody, or 1944.95 mile from Lake Superior, 44.95 miles.....	17.96																
Total mileage from "Summit" to Port Moody, or from 1452.38 mile to 1944.95 mile; total distance, 492.57 miles.....	185.22																

## CANADIAN PACIFIC RAILWAY.

## BRITISH COLUMBIA DISTRICT.

ROUTE NO. 2.—492 $\frac{6}{10}$  miles.*Bill of Works, Permanent Structures.*

Description.	Approximate quantities.
Clearing .....	Acres ..... 5,500
Close cutting .....	" ..... 240
Grubbing .....	" ..... 170
Fencing .....	Rods ..... 56,600
Cattle guards .....	Pairs ..... 38
Solid rock excavation.....	Cubic yards... 3,294,000
Loose " .....	" ..... 1,687,000
Earth excavation .....	" ..... 23,159,000
" in stream diversions.....	" ..... 142,000
" in foundations .....	" ..... 59,000
Under drains.....	Lineal feet... 22,000
Masonry, first class.....	Cubic yards... 104,450
" second class.....	" ..... 119,300
Paving.....	" ..... 26,000
Masonry in retaining walls .....	" ..... 154,000
Bridge spans, 275 feet clear.....	Number ..... 1
" 200 " .....	" ..... 15
" 150 " .....	" ..... 5
" 100 " .....	" ..... 108
" 80 " .....	" ..... 3
" 60 " .....	" ..... 9
" 50 " .....	" ..... 18
" 40 " .....	" ..... 15
Line tunnels, in rock.....	Lineal feet... 13,855
Stream tunnels, 12 feet diameter.....	" ..... 500
" 8 " .....	" ..... 500
" 6 " .....	" ..... 812
Crib wharfing, 12 to 15 feet high.....	" ..... 22,000
" 6 to 10 " .....	" ..... 15,400
Rip-rap .....	Cubic yards... 114,000
Timber in culverts, 16×12.....	Lineal feet... 10,000
" 16× 8.....	" ..... 7,400
" 16× 6.....	" ..... 5,000
" 14×12.....	" ..... 2,000
" 12× 8.....	" ..... 1,400
Timber flattened to 12 inches .....	" ..... 1,000
" 6 inches .....	" ..... 4,000
Plank.....	B'd Measure . 100,000
Wrought iron in beam culverts.....	Lbs ..... 10,000
" in trestles .....	" ..... 136,800
Cast iron in culverts and trestles.....	" ..... 4,000
Deviations of waggon road.....	Miles ..... 7
Bridge for .....	Number ..... 1
Under crossings.....	" ..... 4

## APPENDIX C.

EXPLORATION FROM PORT SIMPSON VIA THE RIVER SKEENA TO FORT GEORGE  
BY H. J. CAMBIE, IN THE YEAR 1877.

(*Memorandum.*)

OTTAWA, April 23rd, 1878.

No harbour was found at the mouth of the River Skeena suitable for a railway terminus.

Fort Essington, which is situated about 14 miles up the river, has been used by small coasting steamers, but is liable to the following objections:—

About seven miles below that place the Skeena is divided by McGrath and Kennedy Islands into three channels.

The northernmost is tortuous, and contains reefs of rock which unfit it for navigation; the central is very shallow, while the southern has only about two fathoms of water when tide is out. Were it even practicable to reach Port Essington with large vessels, it was ascertained from three traders who have each resided at the mouth of the River Skeena for upwards of six years that that port is unsafe as a harbour during the months of December, January and February, and sometimes even longer, owing to the heavy masses of ice which drift up and down with the tide.

This ice is principally from an inlet named the Eckstall which branches from the Skeena about half a mile above Port Essington and extends S.S.E. for about 40 miles into the mountains. It has numerous flats when the tide is out; the water is almost fresh, with very little current, and a rise and fall of tide exceeding 20 feet. Heavy snow storms during cold weather in such a locality cause blocks of ice to increase rapidly in thickness and attain such a size and weight as to endanger shiping and stop navigation.

There is fair anchorage in Cardena Bay at southern end of Kennedy Island, near the mouth of the Skeena, but it would be impracticable to cross to that island with a railway line and extremely difficult to reach a point on the mainland opposite the bay.

Port Simpson, at the northern end of the Tsimpsean Peninsula, is well known, and seems to answer all the requirements for a terminal harbour.

The distance to Port Simpson is probably eight miles greater than to a point on the mainland opposite Cardena Bay, but the obstacles to the construction of a railway line are not so great, and the cost of building it would probably be less.

About 100 miles above Port Essington the Skeena Valley bends to the northward, and about 60 miles further up the Watsonquah, a large tributary, which rises near Lake François, enters it from the south. By following this valley a line can be found to the sources of the Nechaco with easy gradients and a low summit. The distance would be shortened about 70 miles if a pass could be found leading directly east, from the bend before mentioned, 100 miles above Port Essington, instead of following round the vallies of the Skeena and Watsonquah Rivers.

An exploration was made with that object, and several valleys were examined, but without success. The southernmost and only direct pass has a summit more than 6,000 feet above sea level. The more northern ones are not so high, but are still impracticable.

The only available line, therefore, from Port Simpson towards Fort George must follow the northern side of the Tsimpsean Peninsula till the valley of the Skeena is reached, ascend that valley 150 miles to the Forks, and continue up the valley of its tributary, the Watsonquah, 120 miles to the summit. Thence it should descend the

valleys of the Intaquah, Nechaco and Stewart Rivers to the line already surveyed near Fort George. The distance by this route to the summit of Yellow Head Pass, would be about 690 miles.

#### *Engineering Features.*

From Port Simpson along the southern shore of Works Canal, and across the dividing ridge—275 feet high—to the banks of the Skeena, a distance of 35 miles, the work would be expensive, being principally in rock.

For the next 40 miles the line would follow up the right or northern bank of the Skeena. The valley varies from one and a half to two miles in width, but is intersected by a net work of channels which extend to the base of the hills on either side, forming islands almost without number, and leaving no continuous flat between the base of the hills and the river. The work would be very heavy, as the mountains are lofty with steep rocky sides, which are swept by avalanches at about twelve different places. It is probable, however, that there would be little tunnelling required, the water being shallow so that rock embankments could be built round the face of bluffs where such about on the river.

Up to the Kitsilas Canon some 40 miles farther, the valley for perhaps half the distance, continues to be of the same character cut up by channels from one side to the other, and the works would still be heavy and in rock, though the hill sides are less steep. For the remainder, there are either low flats or benches between the hills and the river where the works would be moderate.

There yet remain 30 miles before the loftier ranges of the Cascade Mountains are passed, and the works on a part of that distance would be heavy, as the rocky side hills descend to the river's bank. The larger part would be on benches, ranging from 10 to 60 feet above the river, on which the works would be moderate.

Above this point the mountains recede from the river, and for the next 35 miles the valley attains a considerable width. The benches next the river vary from 10 to 100 feet in height. The works would be moderate and in many places light.

The description has now been carried to the forks of the Skeena, about 180 miles from Port Simpson, and about 700 feet above sea level. The ascent is gradual for all that distance, and the grades would be easy, but require many undulations in order to take advantage of the most favourable ground.

The river Watsonquah, from its mouth at the Forks up to the Indian Village of Kyaghwilgate, a distance of 27 miles, is rapid, and runs most of the way through a deep ravine, which at some places assumes the character of a canon. The works would be generally heavy, but some exceedingly so with stiff gradients and sharp curves would be required occasionally.

From Kyaghwilgate upwards the valley is favourable for railway construction, and the works would be moderate with easy gradients for about 90 miles, where the line passes over the summit between the waters of the rivers Watsonquah and Intaquah, tributaries respectively of the rivers Skeena and Fraser, which is distant from Port Simpson about 300 miles, and at an estimated elevation above sea level of 2,400 feet. Thence by the valleys of the Intaquah River and Fraser Lake to the junction with the line previously surveyed from the Yellow Head Pass, in the valley of the Nechaco, the works would be moderate and grades easy.

#### *Character of the Soil.*

Round Port Simpson there is a limited area of land fit for cultivation, where the Indians have numerous potato gardens. Many of the Islands in the lower part of the Skeena are composed of rich alluvial soil, but they are usually overflowed at time of freshet. For 15 or 20 miles below the Forks and some distance above that place, the valley of the Skeena is several miles in width. The land is of fair quality and covered with a light growth of poplar, birch and spruce.

Mr. Hankin, a trader at the Forks, had a very fine crop of oats which was almost ripe on July 31st. He and others had at the same time some fine potatoes, turnips, carrots and cabbage. They had each purchased a short time previously a

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small herd of cattle as an experiment, and proposed cutting hay in some of the natural meadows for their sustenance during the winter.

The slopes of the Watsonquah throughout its entire length are in part prairie, and sustain a magnificent growth of grass suitable for pasture. The roots intertwine and form a sod, which would prevent its being killed off like bunch-grass in case cattle or sheep were allowed to crop it closely.

This valley, however, is subject to frequent frosts during summer which render it unfit for agriculture.

*Timber.*

A tree commonly called Yellow Cypress, is found on the lower Skeena which has great strength and density of fibre and is said to be extremely durable, but the quantity is limited. The same remark would apply to hemlock and cedar, though they were seen in some places of great size.

On most of the islands subject to overflow in the lower Skeena, there is a fine growth of cottonwood which may be utilized at some future time for the same purposes to which basswood and whitewood are applied in the Province of Ontario.

*Snow Fall.*

The Cascade Mountains, where the Skeena breaks through them, consists of two principal ranges, which are separated by a valley extending from the Kitamat arm of Gardner's inlet in a northerly direction to the River Naas. The snow fall in the westernmost of these ranges sometimes reaches a depth of 10 feet or upwards, and the avalanches before alluded to occur there. The other range commences a little below the Kitsilas canon and extends about 30 miles above it; here the snow fall would average 6 or 7 feet. From the Forks to Fraser Lake the snow rarely exceeds 3 feet in depth.

*Minerals.*

Marble was seen in beds of great thickness near the mouth of the Skeena, and again about 85 miles from the coast. Some ores of copper and lead were also observed, but not in veins of any great thickness.

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## APPENDIX D.

REPORT BY MR. MARCUS SMITH, ACTING ENGINEER-IN-CHIEF, ON THE SURVEYS AND EXPLORATIONS WITH REFERENCE TO THE LOCATION OF THE WESTERN SECTION OF THE LINE.

## CANADIAN PACIFIC RAILWAY.

OFFICE OF THE ENGINEER-IN-CHIEF,  
OTTAWA, 29th March, 1878.

SIR,—I have the honour to submit a report on the results of the Surveys and Explorations made in the Central and Western regions since the date of Mr. Fleming's last report, January, 1877.

In that report, comparative estimates are given of the cost of construction of several lines, branching out of a common route, from Yellowhead Pass, in the Rocky Mountains, westward, and terminating at different points on the Pacific coast.

Of these several lines, only three are now under consideration; and in the report above referred to, they are estimated as follows, *vide* pages 62 and 63:—

*Route No. 2.*

Following the North Thompson, *via* Kamloops, to Lytton, and by the Lower Fraser to Port Moody, Burrard Inlet, 493 miles. Estimated cost of construction, \$35,000,000.

*Route No. 6.*

Following the Upper Fraser to Fort George, and by the Rivers Chilacoh, Nazco, and East Homathco to Waddington Harbour, Bute Inlet, 546 miles. Estimated cost, \$33,000,000.

*Route No. 8.*

*Via* the Upper Fraser, Fort George, Rivers Chilacoh, Blackwater and Salmon to Kamsquot Bay, Dean Inlet, 488 miles. Estimated cost, \$29,000,000.

These estimates, as stated in the Report, "include everything deemed necessary to complete the grading of the Railway, with solid embankments, iron bridges, and, generally, with durable structures equal in point of character to those on the Intercolonial line.

Also the cost of ballasting, permanent way, rolling stock, stations, shops, snow sheds and fences, indeed all the supplemental expenses indispensable to the construction and completion of a line similarly equipped and equal in efficiency and permanency to the Intercolonial Railway, and basing the calculations of cost on precisely the same data, the same value of material and the same average value of skilled and unskilled labour, as obtained on that work."

There is great probability that these estimates will prove to be too low for the class of work referred to, as the price of labour of all kinds runs much higher on the Pacific slope than on the route of the Intercolonial Railway. The cost, however, can be kept down by using stone and iron only for the larger structures, and culverts under high embankments. There is plenty of timber to be had alongside the line for constructing and renewing the lighter structures when necessary. But, as the increase of cost, if any, would be proportionate on each route, these estimates were believed to present as fair a comparison of the several routes as could be arrived at with the data then obtained.

These data, however, being imperfect, owing to the loss of plans and profiles of a portion of the route No. 2, in the fire of 1874, which destroyed the Engineers' Offices at Ottawa, it was deemed advisable to have a re-survey made, and during the past season seven parties have been engaged in that work.

A very close location survey has been made, and every effort has been employed in the endeavour to reduce the cost of construction to a minimum. By the introduction of a large number of exceptionally sharp curves a considerable quantity of tunnelling and rock excavation has been avoided; further, the line has been carried at points so close to the rivers as to require protection works against floods, while the inclination of the slopes, instead of being  $1\frac{1}{2}$  to 1, as on the other routes, has been frequently increased to 1 to 1, in order to reduce the amount of excavation.

From the quantities thus obtained, an estimate of the cost of construction has been made out at the same rates for labour and materials as on the other routes. According to this estimate the comparative cost of the three lines would stand as follows:—

#### *Route No. 2.*

From Yellowhead Pass *viâ* the Rivers Thompson and Fraser to Port Moody, Burrard Inlet, 493 $\frac{1}{2}$  miles; estimated cost, \$36,500,000. If carried to English Bay, 508 miles, \$37,100,000.

#### *Route No. 6*

From Yellowhead Pass by the Upper Fraser and the Rivers Chilacoh, Nazco and East Homathco, to Waddington Harbour, Bute Inlet, 546 miles, \$34,000,000.

#### *Route No. 8.*

From Yellowhead Pass by the Upper Frazer, and Rivers Chilacoh, Blackwater, and Salmon, to Kamsquot Bay, Dean Inlet, 488 miles, \$30,000,000.

In Mr. Fleming's estimates, an allowance was made for possible reductions in locating for construction. On information since obtained, however, a revision has been made, and the present estimates are believed to represent very fairly the comparative cost of construction on the several routes.

But, besides the cost of construction, other points bearing on the selection of the route have to be considered. The chief of these are:—

1st. The extent and quality of the lands fit for cultivation traversed or brought within easy communication with the seaboard.

2nd. Access to the mineral districts, where mining is now in successful operation.

3rd. The character and geographical position of the harbour at the terminus, and its fitness for commerce, both foreign and domestic.

These matters were discussed in a previous Report, but the enquiry was then limited to the country lying between the Yellowhead Pass and certain points on the Pacific Coast; during the past season, however, additional information has been gained, and a new route has been explored by another pass through the Rocky Mountains which diverges from the existing line at a point a little to the west of Lake Winnipegosis. Accompanying the present Report is a map shewing the several lines referred to, and coloured to shew the general character of the soil in different regions, as explained in the margin. The mileage, in former Reports, is carried on from Fort William (Lake Superior) to Yellowhead Pass, and for convenience of reference, the same arrangement is adopted here.



*Southern Route (No. 2 of former Reports) via Yellowhead Pass to Port Moody, Burrard Inlet.*

The line located for construction crosses the Red River at Selkirk, 410 miles from the starting point at Fort William, thence it takes a north-west course and continues in an almost direct line to Northcote—629th mile—at the north end of Duck Mountain. This is the point at which the line by the Pine River Pass would diverge. Thence the located line takes a westerly course up the valley of Swan River, to Livingstone, a few miles north of Fort Pelly.

Up to Doyle Station at the 673rd mile, the line has passed through what has been termed the fertile or wheat growing belt, shewn by buff colour on the map, stretching away to the north-west, beyond the Peace River. It now crosses a tract of soil lighter and poorer, but yet, in parts, suitable for settlement up to the 815th mile.

Between Humboldt and Battleford—815th to 961st mile—the line touches the northern limit of the Great Plains (coloured mauve) which stretch away southward to the International Boundary, and are principally prairie. The soil in parts is alkaline and saline, in others fit for the plough and for pasture, but owing to the want of wood and good water, settlement would be practicable only at intervals. Indeed, throughout the whole of this region, the surface water is bad and scarce, except in the early spring.

Between these plains and the fertile lands to the north of the Saskatchewan, there is a region of prairie, (coloured green on the map), interspersed with poplar copse, on a loamy and sandy soil, producing good crops of grass and wild pea-vine; the surface water being generally abundant. A fair proportion of this is suitable for agriculture and settlement.

The line enters this district a little to the west of Battleford, and reaches its western boundary about the 1130th mile. In this distance of 165 miles there is probably about an equal division of poor and sandy soil and of land fit for settlement. From the 1130th mile to the crossing of the River Pembina at the 1267th mile the soil is a heavy, rich loam, suitable for wheat growing, with very luxuriant vegetation, nearly identical with that of Ontario, abounding with streams and fresh water lakes, and clothed with a continuous forest of poplar and spruce. In places, the country is swampy, but it can be drained without difficulty.

At the River Pembina, rock is first seen on the surface—it is a sandstone, with coal seams underlying. Between this point and the Yellowhead Pass—1267th to 1453rd mile—the altitude is generally over 3,000 feet above sea level; the soil is cold and wet, with numerous muskegs; it is densely covered with poplar, occasional belts of spruce being interspersed with strips of Banksian pine on the gravelly ridges. This tract is unfit for settlement.

The summit of the Yellowhead Pass—altitude 3,720 feet—is the eastern boundary of British Columbia; and as this Province has formed a separate division of the surveys, a new mileage is commenced from that point to the Pacific coast.

From Yellowhead Pass to a point within a few miles of the confluence of the two branches of the Thompson at Kamloops—about 235 miles—the country is unfit for settlement. The Upper Fraser, Albreda, and Thompson Rivers flow through narrow, deep, and rock-bound valleys, with scarcely an acre of land fit for cultivation; though in some parts they are well wooded with spruce and cedar of large size. The Cariboo gold mines lie at no very great distance to the north-west of this part of the route; but a high and impassable mountain range intervenes.

At Kamloops, the line is fairly on the elevated, undulating, plateau between the Rocky and Cascade Mountains;—a belt, varying from 80 to 160 miles in breadth, and stretching from the International Boundary line, on the south, across the Province in a north-westerly direction to the watershed of the continent, between the 54th and 55th parallel of north latitude.

This belt is generally on a volcanic formation, and varies from 3,000 to 4,000 feet above the level of the sea; it has been deeply furrowed by water courses; and

the altitudes of the main valleys range from 1,000 to 2,000 feet above the sea. On the south-east portion there is little rainfall, but the soil, though dry, is rich, and produces luxuriant crops of bunch-grass, which is very nutritious, and ripens, as it stands, into natural hay. The snow in this region rarely reaches over two feet in depth, and cattle thrive on the bunch-grass during the winter, very seldom requiring any other feed.

The bunch-grass extends up to about the 53rd parallel of latitude, beyond which the rainfall increases, and blue-joint and other kindred grasses take the place of the bunch-grass.

In the bottom lands of the valleys and on the benches adjoining, the soil is very rich, producing excellent wheat and other cereals, as well as vegetables. These lands, however, are scattered throughout the plateau in isolated patches, and bear a very small proportion to the whole area. They generally require irrigation, which can only be obtained to a limited extent.

The Central, or Bute Inlet route, branches out of the one under consideration near Tête Jaune Cache; and a line drawn from this point, so as to make an equal division of territory between them, would cross the Cariboo road near the east end of Lac La Hache and the River Fraser, near the mouth of Canoe Creek.

This would give a breadth of fully sixty miles on the north side of the Southern line, and about one hundred miles on the south of it, embracing an area of about 15,000 square miles.

Notwithstanding the advantages of its position, as being on the route to the gold mines, both from the coast and from the United States, the population of this district is but small, although most of the lands available have been taken up.

By the construction of a railway to the coast a considerable impetus would, no doubt, be given to the cultivation of cereals, which, at present find a limited market at the centres of the mining industries. This is however, pre-eminently a grazing country, so that it seems probable that horses, cattle and sheep would practically continue to be, as now, the chief or only exports of the district. These, in a free grass country, transport themselves at a cheaper rate than is possible by railway.

The district is already fairly supplied with roads and good cattle trails, and in Appendix F, page 117 of the Engineer-in-Chief's Report of 1877, it is shown how the water communication can, at small cost, be rendered available, from Lake Kamloops to Okanagan.

From Savonas' Ferry, at the foot of Lake Kamloops, to Yale, the distance by the line surveyed for the railway is one hundred and twenty-three miles.

It is a few miles more by the waggon road, and it is evident that if this road were improved and developed, when required, into some inexpensive kind of railway, it would serve this district nearly as well as a line brought across the Rocky Mountains at great cost.

Spence's Bridge, on the River Thompson, is, by the located line, three hundred and twenty-seven miles from the summit of Yellowhead Pass; thence down the Rivers Thompson and Fraser, nearly to Fort Hope, a distance little short of one hundred miles, the valley is a mere gorge in the mountains, with no land, save a few garden patches, fit for cultivation, and only scant pasturage on the hill sides; the few houses on the road are only way-stations on the road to Cariboo.

Below Hope the valley begins to open up, and it becomes several miles wide, in places, before New Westminster is reached. The bottom flats are generally low and partly prairie land; the river meandering through them is occasionally divided into channels or sloughs, forming numerous islands; these are thickly clothed with cotton-wood, vine, maple, willow and other woods. There is good land on the higher benches, though but little wheat is grown in the district. The reasons for this, as given by the farmers, are:—The uncertainty of the weather during the harvest season, the alternate rains and hot sunshine causing the grain to grow in the ear before it can be housed; and, further, that they find it more profitable to raise stock, coarse grains, hay, and fruit, and import their flour than to spend money in producing wheat, which, at best, would prove to be but an inferior article. The cattle are

reared for the markets of New Westminster and Victoria; the hay and oats are sent to the logging camps, and the fruit to the upper country.

The total area of land in the valley is estimated at a little over 500,000 acres: \* of this but a very small part is under cultivation, and it will require much labour and expense before any extensive increase can be obtained. The great bulk of the land that could be most easily brought under cultivation, lies on the estuary of the river below the point where the line leaves the valley for Burrard Inlet; and most of the balance is on the opposite side of the river to that on which the line is located. Much of this land is subject to overflow from the floods of the river and from high tides in the Strait.

Taken altogether, this is a very fine district, and in course of time will have a considerable population; but it is obvious that the reclamation of the low lying lands is not to be brought about by a railway, but by means of dykes, embankments, pumping machinery and such other works and appliances as have been successfully used on lands in a similar condition.

Steamboats already ply between New Westminster and Yale (90 miles) twice a week each way, and would do so daily if there were sufficient traffic. These steamers stop at any point on the river where desired for the collection of passengers or freight, however limited in number or quantity; a degree of accommodation greater than could be afforded by any railway. The amount of traffic which the valley would supply to a railway would be but limited, as its main products go seawards, and four-fifths of the traffic, both of passengers and freight, which passes up into the interior is in connection with the Cariboo Gold Mines, for the necessities of whose development there must, and will ultimately, be found a shorter and better route from some point on the coast further north. On the whole it does not appear that the prospects of a railway on this route are encouraging.

The distance from Fort William (Lake Superior) to Port Moody, at the head of the south arm of Burrard Inlet is 1,946 miles, and, if carried to English Bay, 1,961 miles.

Up to Northcote, 629 miles, the line is common to all the proposed routes westward. Between this and the Pembina River—1,267 miles—the soil is variable, and, as above described, only in part fit for settlement.

From the Pembina River across the Rocky Mountains, to a point near Kamloops—420 miles—is totally unfit for settlement. There is another length of 100 miles in the canyons of the Thompson and Fraser in a similar condition. So that from the River Pembina, on the east side of the Rocky Mountains, to the proposed terminus at Port Moody, a distance of 679 miles, there are 529 miles on which there is no land fit for settlement, and on the balance most of the land of any value is taken up; in all this distance, therefore, there will scarcely be an acre within 60 to 100 miles of the line at the disposal of the Government for railway purposes. The works, moreover, will be generally heavy and costly.

*Central Line, via Yellowhead Pass, to Waddington Harbour, Bute Inlet.*

This line diverges from that last described at a point thirty-eight miles west of the summit of Yellowhead Pass, and follows the Valley of the Fraser down to Grand Rapids, 181 miles from the Pass. Here the line leaves the Fraser and turns across the north end of the Cariboo Mountain Range, crossing Bear River at the 206th mile. This river rises near Barkerville, the chief town of the Gold Mining District, about eighty to eighty-five miles from the point of crossing: the valley affording facilities for the construction of a road. The line descends to the Fraser Valley on the west side of the Cariboo Range, by the Willow River, and crosses the Fraser at the 228th mile. The lower part of the Willow River Valley, for a length of fourteen

\* Calculated from the map issued by the Chief Commissioner of Lands and Works.

miles, is about three-quarters of a mile wide, the soil being good both for agriculture and pasture; the elevation is 2,000 feet above the level of the sea. This is the first land of any extent fit for cultivation met with since leaving Yellowhead Pass.

The line then crosses some rough ground on the right bank of the Fraser, and reaches the Valley of the Stewart River at the 246th mile, about nine miles west of Fort George. At this point it is fairly on the elevated plateau, between the Rocky and Cascade Mountains, already described on the other route; in this district the plateau is of low altitude, ranging from 2,000 to 2,500 feet above the level of the sea. The line crosses it in a south-westerly direction by a series of valleys, rising gradually in altitude to the foot hills of the Cascade Mountains, passing through the latter by the Valley of the Homatheo, to the head of Bute Inlet; the length from Yellowhead Pass being 546 miles.

The portion of the grass region thus crossed is fully as extensive as that on the southern route, and is in part similar in character. Towards the north, however, the rain-fall is sufficient, without irrigation, and there is more woodland and soil fit for the plough.

Still, in proportion to the whole, the quantity of arable land is but small, though whatever there is, is available for railway purposes and settlement with the exception of the immediate neighbourhood of the Cariboo Mines and the approaches to them, where a population, about equal to that which would be served by the other route, is already located. It should be explained that the waggon road and the accompanying settlements, followed the course of gold discovery up the Valleys of the Rivers Fraser and Thompson to Cariboo; and as the supply of farm and other produce was obtainable in sufficient quantity from the settlements on the existing road, no farther extension has as yet been made of road or settlements northward of that district. The distance of the mines from the coast by the present road was long ago felt to be so serious an inconvenience that a waggon road from Bute Inlet to the mouth of Quesnelle was projected by the late Mr. Waddington, and 40 miles of a horse trail were actually constructed when a stop was put to the work through the massacre, by the Indians, of the men engaged in its construction. The proposed railway line follows this route generally, passing within 48 miles of Quesnelle.

On the whole, this route appears much more favourable than the other. As a colonization line it would bring a large quantity of land into cultivation, and afford much better accommodation to the gold mining district of Cariboo, where the recent developments in quartz mining give promise of a future of extraordinary prosperity.

*The Northern Route, via Yellow Head Pass, to Kamsquot Bay, Dean Inlet.*

This line is identical with the last, to a point in the Chilacoh Valley, 280 miles from Yellow Head Pass, where it diverges to a more westerly course, striking the Salmon River at the entrance to the Cascade Mountains, and following the same through the Mountains to Kamsquot Bay.

The length from Yellow Head Pass is 488 miles, being 58 miles shorter than the last line. This is undoubtedly the shortest practicable line across the Continent from Red River to the Pacific, and can be constructed at the least cost; it is also on the direct route to the coast of China. Both of these last two routes have, however, the same serious drawback as the southern line—the great length of sterile country in crossing the Rocky Mountains, and the considerable stretches of indifferent land which lie to the east of them. This objection was felt so strongly, that the permission of the Minister was obtained last summer to extend the projected exploration from the Skeena to Fort George, eastward, through the Pine River Pass, as far as might be possible during the season. An examination was also made of a portion of that route east of the mountains. The following are the results obtained.

*Route by the Pine River Pass to Bute and Dean Inlets.*

This route diverges from the located line near Northcote, at the north end of Duck Mountains, 629 miles from Fort William, Lake Superior, from which point,

following up the Valley of the Swan River about 30 miles, it would take a course as direct as might be practicable, to a selected crossing of the River Saskatchewan, near Fort à la Corne, passing on the way the head waters of Red Deer River, and the Porcupine Hills.

The land in the Valley of Swan River is reported by the Surveyors to be very rich and of considerable extent; the soil on the Basquia Hills is also reported good; while the belt between these hills and the Saskatchewan, extending from the Prince Albert settlement, above the Grand Forks, down to the Old Fort, a distance of over 90 miles, is exceedingly rich land.

From the Saskatchewan, the line would be nearly direct to the foot of the Lesser Slave Lake, skirting the north side of the Moose Hills, on the water shed of the Beaver River and passing the south end of Lac La Biche or Red Deer Lake. Low ranges of hills skirt the north bank of the Saskatchewan from a point a few miles above Fort Carleton nearly to Victoria; these are partially covered with groves of aspen and willow; the soil is generally light, but is well supplied with streams of clear water; the pasturage is good, especially in the neighbourhood of Fort Pitt.

Between these hills and the river the soil is generally sandy, and there are numerous salt or alkaline lakes; but immediately north of the hills, the soil is stated by the officers of the Hudson's Bay Company, to be very good.

There are numerous fresh water lakes, abounding in white fish; but also numerous muskegs or swamps that will require draining.

The writer drove out 16 miles north-west of Carleton, and found the character of the country gradually improving, as he had been led to expect from the description of it given by Mr. Clarke, the Chief Factor at the Fort, who has spent many years in this district. An excursion was also made from Fort Pitt to Lac la Biche. The south slope of the Moose Hills, where the trail runs, is covered with a dense grove of aspen; but in crossing the west end of these hills, a magnificent prospect opened out. Stretching away to the east, north and west, as far as the eye could reach, there appeared a vast, undulating, grassy plain, rising in places into softly rounded hills, dotted and intersected with groves and belts of aspen mixed with spruce and tamarac and clumps of willows. This appears to have been formerly forest, which has probably been destroyed by fire, decayed trunks of large trees being found on the hill sides. In the hollows, however, there is sufficient timber left for railway and domestic purposes. The altitude, taken at several points, averages about 1,700 feet above the sea level.

During three days, whenever the trail was left, great difficulty was found in forcing a way through thick masses of grass and pea-vine, three to four feet in height, and sometimes reaching nearly to the horses' backs. As Lac la Biche was neared, the country became more wooded, and the track lay through long glades between belts of poplar and willows, passing a number of small fresh water lakes.

There is a Roman Catholic Mission at Lac la Biche, where they produce excellent wheat, barley, oats and all kinds of vegetables; there are about 40 families settled round the Lake, chiefly half-breeds, engaged in the fur trade, and only cultivating enough of cereals and vegetables for their own use.

Between this point and the Lesser Slave Lake, the line crosses the River Athabaska. This country has not been explored for the railway, but from information gathered at the Hudson's Bay Post and the Mission, it appears to be rather rough and broken, with low hills and muskegs, but possessing intervals of good land.

The line would follow either the south or north shore of Lesser Slave Lake, as might be determined by the Surveys. After passing that lake, it enters on a vast region of great fertility, extending far northward on both sides of the Peace River, and westward to Pine River, which falls into the Peace near Fort St. John.

By this route, what is termed the fertile belt, or wheat-producing country, extends nearly three hundred miles farther to the west before the Rocky Mountains are reached than by the route over the Yellowhead Pass; a corresponding reduction being made in the breadth of sterile country to be crossed in the Rocky Mountain district.

In crossing the Peace River country, the line is two degrees farther north than on the parallel district traversed by the line to the Yellowhead Pass; but the climate is much milder, horses wintering out on the natural pastures.

This may be due to several causes, the chief being the difference of altitude, which is here only about one-half that on the approach to the Rocky Mountains by the other line; probably, also, the warm currents of air from the Pacific ocean produce a favourable effect. Our surveys show that the Northern Passes in the Cascade and Rocky Mountains are less than 2,500 feet above the level of the sea.

The valley of Pine River, from the Lower Forks, for 50 miles up, is one to two miles wide; the soil is good and suitable for agriculture and pasture.

This point is within 25 miles of Lake Azuzetta, near the summit, which is estimated at 2,440 feet above the sea level.

Here the valley is narrowed to half a mile, and is rather rough for about four miles on the east side. On the west side the line would follow the narrow, rocky valley of the Atunachi, about four miles, to where it joins the valley of the Misinchinca. The latter is a fine flat valley, one to two miles in breadth, thickly wooded and containing a considerable quantity of land fit for agriculture and pasture.

The line would follow down this to its confluence with the Parsnip, or south branch of Peace River, which at this point is about 800 feet wide, and 5 to 8 feet deep, with a current of  $3\frac{1}{2}$  miles per hour. Crossing this and a tongue or high bench, in about eight miles the line would strike Lake Tutia, the lowest in a chain of Lakes, in the valley of the Chu-ca-ca or Crooked River, running nearly due north into the Parsnip. At Lake McLeod the line is within 50 miles of Germansen Creek, in the Ominica Gold District.

The line would follow up this valley, nearly south, for about 70 miles, to the head of Summit Lake, near the divide or watershed of the continent, which, at this point, is a swampy flat only 2,160 feet above the level of the sea; the distance being about three miles across to the Salmon River, which the line follows to a point near the Fraser, there joining the located line from the Yellow Head Pass.

The distance from the point where the two routes diverge at Northcote, by the Yellow Head Pass, to where they re-unite, is 1,081 miles.

By the Pine River route it measures a little more on the map, but there will, probably, be less curvature, and the apparent distance may possibly be reduced.

#### *Cost of Construction.*

It is difficult to form even an approximate estimate of the cost of construction without surveys, but the explorations across the Rocky Mountains show that a very great reduction can be made on the rock and earth excavations by the line through Pine River Pass as compared with the line by the Yellow Head Pass. On the Summit there will be about eight miles of heavy work; and also on the east side, in crossing valleys of various mountain streams some heavy bridging will be required; but it is not expected that any rock cuttings or tunnelling will be necessary. On the west side of the pass to the point of junction of the two lines the works will be very light, and the cost probably not more than half that on the other line, mile, for mile.

The bridging on both lines will be rather heavy in the central or prairie region and on the eastern slope of the Rocky Mountains, but the number of very large structures will be much greater on the southern than on the northern route.

We have sections of all the large rivers and valleys on the northern route, except Smoky River, which runs in a deep valley, near where it joins the Peace River, here 700 feet below the level of the surrounding country.

The valleys of the streams falling into the Peace River, however, decrease in depth towards the Rocky Mountains, and it has been ascertained that by following a valley on the east side, with an easy gradient, the Smoky River can be crossed at a low level, whilst a similar means of rising to the level of the plain, on the west side will probably be found.

On the whole, the cost of the works of construction on this route may be safely estimated, so far as our examination extends, as very considerably below that on the other route.

#### *Gradients.*

The gradients on all the three routes may be considered favourable for a mountainous country, the maximum being 1 per 100 or 52.80 feet per mile, with the exception of a portion of the Bute and Dean Inlet routes, in passing through the Cascade Mountains, where the gradients vary from 60 to 110 feet per mile. But as these stiff gradients are all concentrated within a space of 30 miles on each route, the extra tractive power required for heavy loads would not be very costly, and would be compensated for in the easier gradients after the high plateau is reached; the gradients, moreover, are falling in the direction of the heavy traffic.

It is unnecessary here to analyse the gradients on each line; but on the whole it is not considered that there would be any appreciable increase in the cost of working the traffic on these two latter routes on account of the gradients. In connection with this point, it may be here stated that the Central Pacific Railroad has a continuous stretch of about 90 miles, with gradients rising 66 feet to 105 feet per mile. The Baltimore and Ohio has gradients of 115 feet per mile, which are worked without difficulty.

#### *Harbours at the different Termini.*

The selection of a harbour for the terminus of the Railway engaged much of the writer's attention during the four years he had special charge of the surveys on the Pacific Coast. Every harbour was examined with the assistance of the Admiralty charts; and from conversations on the subject with officers of the Navy and of the Hudson's Bay Company, who have navigated these waters for years, much information was gained and communicated to the Engineer-in-Chief from time to time.

From the information thus obtained, it is the strong opinion of the writer that by reason of the difficulty of access from the ocean, there is really no harbour on the coast of the mainland of British Columbia, with the exception of Port Simpson, eligibly situated for purposes of foreign commerce, and that in this respect, at any rate, they are all inferior to the American Port, known as Holmes' Harbour, at the entrance to Puget Sound, to which it is probable that more than one American railway will be extended within a few years.

On the coast of Vancouver Island, however, there are several harbours better situated for commerce with Asia than any of the American harbours.

Of the mainland harbours, Port Simpson is easily approached from the ocean, and is the nearest to the coast of Asia of any harbour in British Columbia, whilst it is fully 500 miles nearer to Yokohama than Holmes' Harbour in Puget Sound. It has also been shown that the Railway could be extended to it without much difficulty from a point in the surveyed line, west of the Rocky Mountains, to Bute Inlet; the line, however, would be 140 miles longer.—(Vide Report of the Minister of Public Works for 1877, Appendix, page 186.)

It should, however, be taken into consideration that the Japan current flows south-eastward, parallel with the coast; consequently, on the voyage from China, eastward, the current would be favourable, but on the outward voyage it would be the reverse. The steamers from San Francisco take the southern route out, following the bend of the current, though the distance is thereby greatly lengthened, but they return by the northern route.

Port Simpson is also too remote from the present industrial centres of the Province, and can only be looked upon as a station to which the Railway may ultimately be extended if ever the competition for the trade with China and Japan should demand it.

Kamsquot Bay, Dean Inlet, is the next harbour for consideration. It has been shewn that the line to this point is the shortest that has been found across the continent, and its construction is estimated to cost \$4,000,000 less than any other that we have surveyed; it also lies very nearly on the direct route to the coast of Japan and China. It is situated about 7 miles from the head of Dean Inlet, on the south-east side, being a bay formed by a projecting point of the shore on one side, and a spit of land, well wooded, formed by the detritus brought down by the Kamsquot or Salmon River, on the other.

It is well sheltered from every wind, and has nearly two miles of frontage convenient for the construction of wharves and slips.

At a short distance from the beach, however, the bottom slopes rapidly down into deep water, leaving but a narrow belt for anchorage. Artificial moorings would therefore, have to be provided to meet the requirements of a large fleet.

The inlet and channels leading to Millbank Sound, by which vessels would approach from the ocean, are from one to two miles wide, very deep and free from sunken rocks, affording good navigation for steamers. The distance to Millbank Sound is about 100 miles, over which sailing vessels would have to be towed. It is, however, a serious objection that there are no large bays or harbours near where sailing vessels could anchor if necessary. Several of the naval officers object to all these long inlets, on account of fogs. Our own experience has been that rain and mist drifting along the mountain sides are more prevalent in the northern inlets, and that the southern inlets, where the Straits are wider, are more subject to dead fogs. In severe winters ice sometimes forms from the head of Dean Inlet down to Kamsquot Bay, but not below it.

There is another serious objection to Kamsquot Bay as a present terminus. It cannot be reached from the settled portions of the Province, either on the mainland or Vancouver Island, without crossing Queen Charlotte Sound, which involves an exposure for a distance of 30 to 40 miles to the full swell of the Pacific Ocean, off a coast which, in a western gale, is well known as exceptionally dangerous.

This terminus, however, would be very convenient for the Queen Charlotte Islands, which are known to contain a large amount of mineral wealth, with some tracts well suited for agriculture.

Should the objections against this point as a terminus prevail, then the choice on the mainland will be limited to Waddington Harbour, Bute Inlet and Port Moody, or some other point on Burrard Inlet.

Waddington Harbour is formed by the silt and detritus brought down from the mountains by the River Homathco on the north, and the Southgate on the east. It stretches across the head of the Inlet about two miles. The anchorage is 4 to 18 fathoms, varies from 200 yards to half a mile in breadth; outside of this the bank slopes rapidly down into very deep water. The best anchorage is at the north-east angle, where it is widest and best sheltered.

It is obvious that this is not a suitable harbour for a large fleet; it could, however, be made a good port by the construction of a pier, together with slips and wharves; there is abundance of timber and other requisite materials for such work close at hand.

Bute Inlet is about 45 miles long and two miles wide, it is completely shut in by high mountains on each side and by islands lying across its entrance, and is not exposed to gales; the channel by which it is entered is designated "Calm Channel" on the Admiralty chart.

Port Moody, at the head of the south arm of Burrard Inlet, is a snug, well sheltered harbour  $2\frac{1}{2}$  miles long, and from a third to half a mile wide, with good anchorage; the hills enclosing it rise steeply from the water's edge to a height of 200 to 500 feet. There is no site for a town except a flat at the upper end, partly covered at high tide.

At Coal Harbour, just inside the first narrows, there is fair anchorage, but very limited in extent. There is a considerable area of flat land adjoining, suitable for a town site.



This arm of Burrard Inlet is about 15 miles long; the channel at the entrance is not over 200 yards wide, and the ordinary tidal current is four to eight knots an hour. In spring tides it is more rapid.

About half way up the Inlet are the second narrows, where the current is three to seven knots an hour.

English Bay, at the entrance to the Inlet is free from these inconveniences, it has a considerable extent of good anchorage, and flat land adjoining, suitable for the site of a large commercial city. This Bay, however, is exposed to gales from the west, across a stretch of at least 40 miles of open water, being only partially protected by a spit of land called Spanish Bank which is covered at high water; it would consequently require extensive works to make it a safe harbour. There are also other difficulties more or less serious. Sand-banks lie near its approach, and the neighbourhood is notoriously subject to fogs.

But the most serious difficulty of all, is one that affects alike both Bute and Burrard Inlets. The passage to the ocean by the north and south end of Vancouver Island is obstructed by a group of Islands, stretching right across the strait between Vancouver Island and the mainland.

The channels between these Islands are in places narrow and crooked, and subject to strong tidal currents, difficult of navigation, even for steamboats, and often dangerous.

A list is before me of over 60 marine disasters that have occurred in these straits within a few years.

The group of Islands commanding the channels in the southern passage are in possession of a foreign power, and the naval testimony shows that in the event of any difficulty with that power, commerce by this passage would be liable to serious interruption.

In order to conduct the railway traffic from Burrard Inlet to Esquimaux, or to any port on Vancouver Island, it will be necessary to have two transshipments, as there are 30 or 40 miles of open water to be crossed, subject to heavy gales, which would render the adoption of a steam ferry carrying a railway train impracticable.

The railway could, however, be extended nearly due south, from a point near Lake Sumas, in the valley of the Fraser, about 35 miles above New Westminster, in an almost direct line to Holmes' Harbour, which lies between Whitby and Camano Islands, at the entrance of Puget Sound. The distance is a little over 60 miles. The country is generally flat, and the railway could be constructed at less cost than from the same point to Burrard Inlet.

This is a large and excellent harbour, and it is proposed by the Americans to cut a canal from the Admiralty Inlet through a neck of land a mile and a quarter across and rising 20 feet above the level of the water, so that sailing vessels may enter from the ocean without towage, except in the short length of the canal.

The Americans are thoroughly alive to the importance of this advantage, and the adjoining lands are held at a high value. The Northern Pacific Railway will doubtless be extended to this point, as well as other projected railways.

By referring to the map and Admiralty Chart accompanying this Report, it will be seen that near Lake Sumas the line to Port Moody takes a bend north-westwards, carrying the line farther away from the passage to the ocean, by the Strait of San Juan de Fuca, while the line to Holmes' Harbour leads directly to it. There can be no possible doubt that if the line comes down by the Fraser Valley route, this must inevitably be the ocean terminus. It is impossible to force commerce out of its natural channel for any length of time; it will find the most convenient route despite national boundaries.

The Canadian Pacific Railway would thus be placed in competition with the American Northern Pacific Railroad, for the commerce centring in Puget Sound; but the American citizens would be chiefly benefited. A large city would be built up by the aid of Canadian enterprise, while the main industries of British Columbia would receive no stimulus from the construction of the railway.

*Extension to Vancouver Island.*

The traffic of the railway could be extended from Waddington Harbour to Vancouver Island by a ferry, and ultimately by bridging, should the commerce ever become so great as to warrant the enormous expenditure. The main points in reference to this extension are so clearly stated in Mr. Fleming's Report of 1877, pages 72 and 73, that no apology is necessary for repeating his statements here.

"The connection may now be made by steam ferry, possibly accompanied by some inconvenience, and subject to occasional delays. The course of the ferry boats would be along Bute Inlet, to the south of Stuart Island, thence through the Valdez Islands to Elk Bay on Vancouver Island. The whole of this course is land, locked and smooth water. The distance is 64 miles. The chief difficulty is said to be a strong current for about two hours a day at one point: with this exception, if the railway for the present terminated at Waddington Harbour, the water to Elk Bay could be as easily navigated as an ordinary canal.

"By extending the railway along the western side of Bute Inlet, and thence across to Frederick Arm—a feasible scheme, but one exacting a heavy expenditure—Nodales Channel, a completely sheltered and an easily navigated sheet of water, is reached. This channel is reported to be free from strong currents, shoals or other difficulties, and could be used by a railway ferry at all seasons of the year. The ferry navigation between Frederick Arm on the main shore and Otter Cove on Vancouver, is about 15 miles. The length of railway line from Waddington Harbour to Frederick Arm is about 51 miles. The accompanying chart (sheet No. 2) shows the relative position of Nodales Channel, Vancouver Island and Bute Inlet."

"From Elk Bay, or Otter Cove, a railway could be carried to Esquimaux, or to a much nearer point—Alberni—at the head of the Alberni Canal; possibly to Nootka, or, perhaps, with still greater ease, to Quatsino Sound. Compared with Esquimaux the latter has the advantage of being fully 200 miles nearer the Asiatic coast. At Quatsino coal beds are reported to crop out at the water's edge."

It should be explained that the currents referred to are in the following channels, and run very strong for two or three hours each day at a certain state of the tide.

1. The Cardero channel between the mainland and the Valdez and Stewart Islands. This is in the northern passage from Bute Inlet to the ocean.

2. A cross channel, not shown on the chart, which separates the Valdez Islands. This is in a line with Bute Inlet, and would be the channel taken for the ferry from Waddington Harbour to Elk Bay on Vancouver Island.

3. The Seymour Narrows, between Valdez Islands and Vancouver Island. This does not interfere with the ferry to Elk Bay or Otter Cove, but prevents its extension southward to the better harbour of Menzies Bay.

By constructing the line down the side of Bute Inlet and across by the Estero Basin to Frederick Arm, the rapids No. 1 are avoided, and there is a clear passage thence northward to the Ocean.

The Nodales channel between Frederick Arm and Otter Cove, Vancouver Island, is about 15 miles in length, a mile wide, with deep water, and no strong currents or sunken rocks; it is well sheltered, almost straight, and could be navigated at all seasons and in all weather by a steamboat carrying a railway train. A report on the subject of this ferry has recently been made by Admiral DeHorsey.

From Otter Cove the railway could be extended to several harbours on Vancouver Island, either north or south; of these the nearest is Stamp Harbour, at the head of Alberni Canal, Barclay Sound, the distance to which is about 100 miles.

On the first 15 miles along the shore of Discovery Passage, to Menzies Bay, the country is rocky; thence down the coast to the River Qualicum—70 miles—it is flat and very favourable for railway construction. From this point the line would bend away westward, across Vancouver Island to Alberni Canal, about 15 miles, and would require some stiff gradients, but not very heavy works, except for a short distance. The line could be ultimately extended from the River Qualicum to Nanaimo and Esquimaux, the distance to the latter being about 110 miles.

The district lying between Otter Cove and Esquimault is one of the richest tracts of country in British Columbia. It comprises a considerable extent of excellent agricultural lands, overlying and adjoining vast beds of coal and iron ore. No less than five coal mines are now being successfully worked, the product ranking at San Francisco as superior to any on that coast. The iron ores from the main island and the Island of Texada have been pronounced, after assay, as of exceptionally good character, while the close neighbourhood of the coal beds offers opportunity for the establishment of iron works on an extensive scale. These advantages, added to its agricultural capabilities, sufficient for the maintenance of a considerable population, the general beauty of the country, and the salubrity of the climate of Vancouver Island, give promise of a future of great prosperity.

Esquimault and Alberni (Barclay Sound) are well known and excellent harbours, and have been already described in the Report of the Engineer in Chief for 1877, pages 308 to 311.

The Harbour of Esquimault, at the south-east end of the Island, about 60 miles from Cape Flattery, at the entrance from the ocean, is one of the finest and most convenient harbours on the coast; and with the aid of easy soundings, and the present lighting can be entered at all times. It affords excellent anchorage for ships of any size, and in no wind is the swell sufficient to create inconvenience. The Strait of San Juan de Fuca is 10 miles wide, and the Royal Roads outside the harbour afford excellent anchorage for vessels awaiting towage for ports in the Strait of Georgia.

Stamp Harbour, at the head of the Alberni Canal, is about 36 miles from Cape Beale at the entrance to Barclay Sound, on the west coast. It affords ample accommodation for vessels of any tonnage, being about two miles in length and one in width, and having a depth of from 5 to 20 fathoms.

The channel from the entrance to the Sound, is from a mile to a mile and a half wide, up to Uchucklisit Harbour, about 16 miles distant on the west side of the channel. This harbour affords good anchorage for vessels awaiting towage up the Alberni Canal, which varies from a half to three quarters of a mile in width. Sailing vessels sometimes go in with the tide, without towage, but it may be considered that, practically, the employment of tugs is necessary.

In conclusion, the writer is desirous of expressing his strong conviction, as the result of detailed investigation of the subject in all its bearings, that the line by the Pine River Pass to Bute Inlet, with extension by steam ferry to Vancouver Island, will prove the true route, whether regarded in its national or economic aspect. It traverses a far greater extent of good agricultural lands, and affords better communication with the chief gold and coal mining districts than any other route.

The fertile portion of the Peace River country, east of the Rocky Mountains, is about 400 miles in length and 300 miles in breadth.

From the reports of Professors Selwyn and Macoun, Mr. Horetzky, Hudson's Bay officials, residents at the Mission Station and others, there is no doubt but that the prospects of this rich district lie in the development of its exceptional capacity for the production of cereals. Mr. Macoun says: "As to the capability of the country for producing grain, the barley and wheat raised at 59° north latitude, took the bronze medal at the Centennial, and the size and quality of all vegetable products is astonishing." This can, undoubtedly, become the great wheat producing Province of the Dominion. In aid of its development, it possesses a noble and navigable river, which runs through its centre, affording easy means of collecting its produce, and bringing it cheaply to some convenient point, where it could be received by the railway and carried to the seaboard. The distance from a point on Peace River, near the mouth of Smoky River, to Fort William, Lake Superior, is about 1,500 miles, thence by lake and river navigation to Quebec, 1,350 miles, giving a total of 2,850 miles to the Atlantic tide water. This route, however, it must be remembered, is open only six months in the year.

Westwards, to the Pacific coast, from Fort St. John on the Peace River by way of the Pine River Valley and Pass, the distances are as follows:—

To Dean Inlet, 480 miles	}	On the mainland.
To Bute Inlet, 540 miles		
To Alberni, Barclay Sound, 700 miles,	}	On Vancouver Island.
To Esquimault, 810 miles,		

These ports are open throughout the entire year.

The question then arises, does not the Pacific seaboard, notwithstanding the greater length of ocean transit entailed, offer the best outlet for the products of the Peace River District towards the markets of Europe and Asia? In California and Oregon, immense quantities of wheat are grown yearly and exported even to England at a good profit—of wheat alone last year, San Francisco exported 4,929,690 quintals, valued at \$11,017,353.

There is no reason to doubt that the Peace River District could compete, though at some slight disadvantage in point of distance, with the wheat-growing lands of California and Oregon in trade with England, while it would be in a better position as regards the Asiatic trade.

For a distance of 300 miles from the coast, to the point where the Pine River route diverges, the line would be identical with that surveyed for the Yellow Head route. The remainder has only been explored in part; but from the information thus obtained, it may be safely assumed that though the line would probably be somewhat longer, the cost of construction would be considerably less than on the parallel portion of the route by the Yellow Head Pass.

But even were the cost of construction greater, the difference would be of minor importance in comparison with the advantages to be derived from a line of railway that would utilize the wonderfully productive powers which now lie dormant in this vast region.

Should this route meet with the favourable consideration of the Government surveys will be required from Northcote *via* the Pine River Pass to the point of junction near Fort George, but an examination of the larger river crossings and other difficult points on this route, together with the data obtained from previous surveys, would afford sufficient information to enable companies to tender for the construction and working of the whole line from Lake Superior to the Pacific, as provided for by Act of Parliament.

Meanwhile, if desirable, construction could be commenced on that Division of the line between the Pacific coast and Fort George which will not be affected by these surveys.

I have the honour to be, Sir,

Your obedient servant,

MARCUS SMITH,

*Acting Engineer-in-Chief.*

F. BRAUN, Esq., Secretary,  
Department of Public Works,  
Ottawa.

## PPENDIX E.

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REPORT BY MR. J. CAMBIE, ENGINEER IN CHARGE OF SURVEYS IN BRITISH COLUMBIA, ON THE ROUTE BY THE RIVERS THOMPSON AND FRASER, WITH REFERENCE TO THE COMPARATIVE ADVANTAGES OF THAT ROUTE AND THE LINE TO BUTE INLET.

SANDFORD FLEMING ESQ., C.M.G.,  
 Engineer-in-Chief,  
 Canadian Pacific Railway.

OTTAWA, April 18th, 1878.

SIR,—I have been instructed by letter of date 15th inst., from the Secretary of the Public Works Department, to report to you, on your arrival from England, my views relative to the Routes No. 2 and 6 for the Canadian Pacific Railway, leading respectively to Burrard Inlet and Bute Inlet in British Columbia.

In order that the comparison of these routes in the matters of length and cost may be more complete, I shall follow them to the Ports where they first touch the navigable tide water of the Pacific Ocean; and as those points are inadequate for the accommodation of the shipping likely to frequent them when the line has been completed, and a large through traffic developed, I have thought it well to consider to what other harbour either line may be extended hereafter in order to obtain the requisite facilities.

### *Route No. 2 with extension.*

At the 493rd mile from Yellow Head Summit, Route No. 2 reaches tide water at Port Moody, Burrard Inlet, which is a good harbour, though small, and when traffic increases the line can, at a moderate outlay, be carried 12 miles further to Coal Harbour, which is just inside the entrance to the Inlet, or 15 miles to English Bay.

On reference to replies of naval officers to questions submitted by you for their consideration, it will be seen that Admiral Cochrane, Admiral Richards and Commander Pender recommend Burrard Inlet, with the adjacent anchorage in English Bay, as being suitable for a terminal harbour.

### *Route No. 6, with extensions.*

At the 546th mile from Yellow Head Summit, Route No. 6 reaches tide water at Waddington Harbour, Bute Inlet.

From the statements of the naval authorities above cited, it would appear that this harbour affords an extremely limited anchorage, owing to the great depth of water; and the tortuous character of its approaches, together with the absence of anchorage along their bold rocky shores, renders the navigation of sailing vessels unsafe without the assistance of a tug. It cannot therefore be adopted as a final terminus while other harbours offering greater facilities are available, and must be used only as a temporary one, with the object of extending the line hereafter to some harbour on the outer coast of Vancouver Island; and its capability of such extension to one of those harbours is the strongest argument which can be urged in its favour.

From Waddington Harbour the line can be continued either to Stamp Harbour at the head of Alberni Canal on the west coast of Vancouver Island, a distance of

159 miles, or to Esquimalt at the southern end of the Island a distance of 249 miles, in both of which distances, a ferry of 15 miles from Frederick Arm to Otter Cove is included.

To exemplify the comparative cost of lines to the above mentioned places the following estimates are submitted ;

*Estimates to temporary Terminus.*

On both routes, the works as far as tide water have been estimated from trial location surveys and moneyed out at rates suitable for the district.

After making allowance for possible improvements in location and for permanent way and equipment, Route No. 2 from Yellow Head Summit to Port Moody, 493 miles, will amount to \$34,000,000; and precisely similar calculations applied to Route No. 6 from Yellow Head Summit to Waddington Harbour, 546 miles, will amount to \$33,000,000.

*Facilities for carrying on works.*

On Route No. 2 there is good water communication in immediate proximity to the line for 100 miles from the coast, and then a waggon road for 125 miles, followed by another navigable stretch of 100 miles, thus affording easy access to it for two-thirds of its length; it may, therefore, safely be assumed that the works on this portion of the line can be carried out at a much lower rate than on the other route, which is at present devoid of any natural or artificial means of access thereto.

To bring the cost to a suitable basis for comparison, a deduction of at least 12 per cent should be made on the cost of all the works of this route, below formation level, thus reducing the total amount to \$31,000,000.

*Extension to permanent Terminus.*

To compare the cost of extending these routes to a final terminus, is a matter which cannot be attempted with any hope of approaching to accuracy, owing to the want of sufficient data,—no continuous surveys having been made,—but it is hoped that the sums named in the following estimates, will represent the difficulties to be encountered in each case, with sufficient accuracy for comparison.

In the case of Route No. 2 it will be necessary to add the cost of continuing the line to Coal Harbour, in Burrard Inlet, a distance of twelve miles say, \$700,000, or to English Bay, fifteen miles, at a cost of \$900,000.

In regard to Route No. 6, the cost of extending the line to Alberni or Esquimalt Harbours, on Vancouver Island, may be summed up as follows:—

Waddington Harbour to Alberni:—There are 51 miles of railway to be constructed along the western shore of Bute Inlet to Frederick Arm, which is known from actual survey to be excessively heavy, a ferry from Frederick Arm to Otter Cove 15 miles, requiring at least three boats with slip docks, and 93 miles of railway from Otter Cove to Alberni, thirty of which require very heavy works,—amounting in the aggregate to not less than \$14,000,000.

Waddington Harbour to Esquimalt:—The railway to Frederick Arm and ferry to Otter Cove, same as above, with 133 miles of railway from Otter Cove to Esquimalt, fifty of which are very heavy, amounting in the aggregate to about \$19,000,000.

From the foregoing it will appear that the total comparative cost of each route to a permanent terminus, is as follows:—

Route No. 2 to Coal Harbour or English Bay, say.....	\$32,000,000
“ “ 6 to Alberni, with the inconvenience of a 15 mile ferry.....	47,000,000
Route No. 6 to Esquimalt, with the inconvenience of a 15 miles ferry .....	52,000,000

The results will be brought out more forcibly, when stated in tabular form as follows:

Route No.	Distance from Summit of Yellow Head Pass to Temporary Terminus.		Comparative cost.	Distance from Summit of Yellow Head Pass to Permanent Terminus.		Comparative cost.
	At	Miles.		At	Miles.	
Route No. 2...	Port Moody.....	493	\$ 31,000,000	English Bay....	508	\$ 32,000,000
Route No. 6...	Waddington Hr.	546	\$ 33,000,000	Alberni *.....	705	\$ 47,000,000
" " "...	"	"	"	Esquimalt*.....	795	\$ 52,000,000

\* With the inconvenience and delay of a 15 mile ferry.

*Objections to Burrard Inlet as a Terminus.*

Burrard Inlet is open to a serious objection, which I have not yet touched upon, viz, that in approaching it from the sea, by the channel to the South of Vancouver Island, vessels have to pass so near to some of the Islands of the San Juan group as to "be exposed to the guns of the United States, in the event of hostilities, and that the navigation of the channel would greatly depend on the force of the United States in the locality" (See C. P. R. report of 1877, page 70) the same report then continues, "with regard to the possibility of large sea going vessels passing round the north side of Vancouver Island and reaching Burrard Inlet, all the naval authorities, with one exception, express an unfavourable opinion."

The channel at present used by vessels when passing through the Haro Strait to reach the Strait of Georgia is at several points only about two miles distant from San Juan and other Islands belonging to the United States. But in the event of war with that country, a very fair succession of channels from Active pass, across Swanson channel through Moresby passage, Sydney and Baynes Channels to the Strait of Fuca, can be had by the erection of a few beacons, and buoying out the channel where intricate and narrow; a vessel then using those channels, need not at any time approach within five statute miles of foreign territory, as will be seen in statements by Admiral Cochrane, Capt. Graham and Commander Pender.

The channel by the North of Vancouver Island could also be used by special care, and in substantiation of this fact I may state, that the steamers California 673 tons, and Otter 400 tons, have plied for a number of years, day and night, at all seasons through this passage without accident, although it is neither buoyed nor lighted. In September and October of last year H. M. S. Daring used this passage both up and down when on her exploring trip to Port Essington. In using either of the above channels to reach the Strait of Georgia, some detention would no doubt be experienced by very large vessels, owing to strong currents at certain points, which it would be advisable to pass at the most favourable stages of the tide.

*Extra cost attendant upon the adoption of Route, No. 6.*

By the adoption of the Bute Inlet route, merely to avoid the risks of delay just alluded to, and which moreover would only occur during a war with the United

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States, \$15,000,000 or \$20,000,000 must be spent in the construction of 197 or 287 miles of extra railway line,—including ferry—which would cause through freight to be carried by land, an additional distance of nearly 200 miles from Alberni, in order to save 150 miles of water carriage, or in the case of Esquimalt, 300 miles by railway to save 90 miles by water.

*Frederick Arm.*

The possibility of Frederick Arm being found suitable for a terminal harbour, does not seem to require an extended notice. It has not been recommended by any Naval Authority, and an inspection of the chart leads to the conclusion that the anchorage is very small; that there is no roadstead within many miles of it; and that it is only suitable for slip docks for a ferry.

*Gradients.*

Annexed is a table of gradients from which the following conclusions may be drawn:

Of line practically level there are on Route No. 6, 48 miles less than on Route No. 2.

Of grade between .10 and .50 per 100 there are on Route No. 6, 38 miles more than on Route No. 2.

Of grade between .50 and 1 per 100 there are on Route No. 6, 42 miles more than on Route No. 2.

Of grade between 1 and 2 per 100 there are on Route No. 6,  $21\frac{1}{2}$  miles, a large proportion of which is 2 per 100, and there are no corresponding gradients on Route No. 2.

It may be stated also that the grades on the Burrard Inlet route are generally short and undulating, which is not the case in regard to the other. This will be more clearly understood by reference to a diagram which has been prepared on a scale of 10 miles to the inch horizontal and 500 feet to the inch vertical.



COMPARATIVE STATEMENT of grades from summit of Yellow Head Pass to Port Moody, Route No. 2 and Waddington Harbour, Route No. 6.

Inclination.	ROUTE No. 2.		ROUTE No. 6.		Route 2 exceeds Route 6.	Route 6 exceeds Route 2.
	Miles.	Per cent of whole route.	Miles.	Per cent of whole route.		
					No. of Miles.	
Level to .10 per 100	185.65	37 60	137.17	25 10	47.92	.....
Over .10 to .20 "	11.34	2 30	16.17	3	.....	4.83
.20 to .30 "	15.48	3 22	21.09	3 85	.....	5.61
.30 to .40 "	17.25	3 50	16.41	3	.....	.84
.40 to .50 "	30.26	6 14	23.62	4 33	.....	6.64
.50 to .60 "	12.95	2 63	11.77	2 15	.....	1.18
.60 to .70 "	12.43	2 53	14.81	2 70	.....	2.38
.70 to .80 "	33.20	6 74	25.49	4 70	.....	7.71
.80 to 1.00 "	66.06	13 42	80.32	14 70	.....	14.26
1.00 to 1.25 "	.....	.....	5.30	99	.....	5.30
1.25 to 1.75 "	.....	.....	3.84	70	.....	3.84
1.75 to 2.00 "	.....	.....	12.37	2 27	.....	12.37
Rising East.						
.10 to .20 "	9.62	1 83	23.46	4 31	.....	14.44
.20 to .30 "	14.47	2 87	29.35	5 37	.....	14.88
.30 to .40 "	9.68	1 96	12.75	2 33	.....	3.07
.40 to .50 "	21.18	4 30	23.77	4 35	.....	2.59
.50 to .60 "	6.73	1 36	9.14	1 68	.....	2.31
.60 to .70 "	11.01	2 24	11.06	2 02	.....	.05
.70 to .80 "	8.55	1 73	15.92	2 91	.....	7.37
.80 to 1.00 "	27.74	5 63	52.19	9 54	.....	24.35
Rising West.						
	493	100 <sup>00</sup>	546	100 <sup>00</sup>		

COMPARATIVE STATEMENT of Alignment on Routes 2 and 6, shewing lengths of different degrees of Curvature and Tangent, also the percentage each bears to entire length of line.

Alignment.	ROUTE No. 2.		ROUTE No. 6.		Route No. 2 exceeds No. 6.	Route No. 6 exceeds No. 2.
	Length, in miles.	Percentage of entire length.	Length, in miles.	Percentage of entire length.		
					Miles.	Miles.
Straight line.....	285.58	57.90	328.97	60.24	.....	43.28
Curves up to 1°, radius 5,730 ft.	28.83	5.85	31.94	5.85	.....	3.11
Over 1° to 2°, 5,730 to 2,865 ft.	51.92	10.53	64.36	11.79	.....	12.44
Over 2° to 3°, 2,865 to 1,910 ft.	43.82	8.89	52.69	9.66	.....	8.87
Over 3° to 4°, 1,910 to 1,433 ft.	41.92	8.50	41.17	7.54	.75	.....
Over 4° to 5°, 1,433 to 1,146 ft.	36.75	7.45	22.33	4.09	14.42	.....
Over 5° to 6°, 1,146 to 955 ft.	3.11	.63	4.54	0.83	.....	1.43
Over 6° to 7°, 955 to 819 ft.	1.25	.25	.....	.....	1.25	.....
Over 7° to 8°, 819 to 716 ft.	0.16	.....	.....	.....	0.16	.....
Total length.....	493.00	.....	546.00	.....	.....	.....
Percentage of curved line to length of respective lines...	42.10	.....	39.76	.....	.....	.....

#### Curvature.

From the above statement of curvature, it will be seen that there are  $9\frac{1}{2}$  miles more of curved line on Route No. 6 than on Route No. 2; but of the sharper curves there is a greater length on the latter, and nearly  $1\frac{1}{2}$  miles of curvature sharper than anything on Route No. 6. These, however, occur on portions of the line where the grades are easy, and so compensate for the extra resistance due to curvature; while the sharpest curves on the Bute Inlet Route occur in conjunction with the steepest gradients.

#### Maintenance.

The characteristics which most materially affect the cost of maintenance are length of line, grades, ferriage (if any) snow fall, and length of bridging.

Assuming the traffic to be equal to that on the Intercolonial line during the fiscal year ending June 30th, 1877, and the ordinary working expenses and renewals to be also similar to that railway, viz.: \$2,327 per mile per annum, that would cause an expenditure of \$123,000 per annum, if the line terminated at Waddington Harbour in excess of that required to Port Moody, and if the line should be extended to Alberni an expenditure including ferry of \$483,000, and if to Esquimaux \$693,000 per annum in excess of that required in maintaining a line to Coal Harbour or English Bay, and which would increase in proportion to the amount of business done, while the rates for carrying through traffic would be governed by competing lines and not by mileage carried.

TABLE showing the comparative cost of maintaining lines to certain points in accordance with the above calculations.

Distance from Yellow Head Summit.				Route No. 6 exceeds No. 2.	
Route No. 2.		Route No. 6.		In Miles.	In annual expenditure for maintenance while traffic only equals that on Intercolonial in 1877.
To	Miles.	To.	Miles.		
Port Moody.....	493	Waddington .....	546	53	\$123,000
English Bay.....	508	Alberni.....	705	197	483,000*
“ “ .....	508	Esquimaunt.....	795	287	693,000*

\* Including an allowance for a 15 mile ferry.

It has been shown that there are some grades on Route No. 6 much steeper than any of those on Route No. 2, and also that there is a greater length of the heavier gradients generally, which reduce the capacity of the route and add largely to the cost of transport, thus affecting the maintenance, which would be still further increased by the extra wear and tear to the rolling stock from the same cause, but it would be extremely difficult to reduce this to a monetary value.

On the Bute Inlet route provision must be made for diverting avalanches at several points in the Cascade mountains, which would be costly, otherwise no great difficulties are likely to be encountered in regard to snow on either line, westward of Tete Jaune Cache, and eastward of that point the line is common to both routes.

The total length of bridging as estimated is  $2\frac{3}{4}$  miles on route No. 6, and  $3\frac{1}{4}$  miles on route No. 2, being half a mile less on the Bute Inlet route, but as the estimates have been made out for permanent structures this item need not be considered.

#### Local Traffic.

The resources of British Columbia are not sufficiently developed at present to furnish any considerable local traffic, though the various industries give promise of considerable extension before long.

The southern portion of the Province, which is most suited for agriculture and stock raising, would be best served by the Burrard Inlet route, while the Cariboo mining district, though about equi-distant from either line, can probably be more easily reached by the Bute Inlet route.

The former route, with a branch to Cariboo, whenever there may be trade to justify its construction, would seem to serve the interests of both sections.

I think I have in the foregoing referred to all matters specially requiring attention.

I have the honour to be, Sir,

Your obedient servant,

H. J. CAMBIE,

Engineer-in-Charge of Surveys in British Columbia.

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**APPENDIX F.**

**CORRESPONDENCE WITH THE IMPERIAL GOVERNMENT AND OFFICERS OF THE ROYAL NAVY  
RESPECTING CERTAIN NAUTICAL SURVEYS AND A TERMINAL HARBOUR  
FOR THE CANADIAN PACIFIC RAILWAY.**

*The Earl of Dufferin to the Earl of Carnarvon.*

GOVERNMENT HOUSE,

No. 115.

OTTAWA, 19th April, 1877.

MY LORD,—I have the honor to forward herewith to your Lordship a copy of a minute of Council, expressing a desire that the Imperial Government will undertake a survey of certain ports of the coast of British Columbia.

I have, &c.

(Signed) DUFFERIN.

The Right Honorable

The Earl of Carnarvon, &c., &c.

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*Copy of a Report of a Committee of the Honorable the Privy Council, approved by His  
Excellency the Governor General in Council on the 17th April, 1877.*

On a Report, dated 16th April, 1877, from the Honorable the Minister of Public Works, stating that special efforts have been made during the past summer and autumn to procure information through the officers of the Admiralty and Royal Navy, respecting the several harbors and roadways on the coast of British Columbia, but that it would appear no surveys have yet been made of the coast adjacent to the mouth of the River Skeena, and that no decided opinion has been obtained regarding the waters in that quarter;

That, as the Dominion Government have no means of conducting an examination in that direction, he recommends that a request be forwarded to the Imperial Government that they will direct a nautical survey to be made during the coming season, of the channels and approaches at the point indicated, and that surveys should be made of Frederic Arm, and the waters leading thereto, as decided information respecting this point should be obtained before a final decision is arrived at, fixing the seaport terminus of the Canada Pacific Railway.

The Committee concur in the foregoing recommendation, and submit the same for Your Excellency's approval.

Certified.

W. A. HIMSWORTH,

*Clerk, Privy Council.*

*The Colonial Office to Mr. Sandford Fleming.*

COLONIAL OFFICE,

DOWNING STREET; 3rd December, 1877.

SIR,—I am directed by the Earl of Carnarvon to transmit to you, for your information, a copy of a despatch received through the Admiralty, from the Commander-in-Chief on the Pacific station, together with a copy of a Report from the Commander of Her Majesty's ship "Daring" forwarding plans of the channel and approaches adjacent to the mouth of the River Skeena, prepared by him in connection with the question of the selection of a terminus for the Canadian Pacific Railway.

I am to request that the plans which are forwarded in original, may be returned to this Department.

Admiral DeHorsey's despatch has been communicated to the Governor General of Canada.

I am, Sir,

Your obedient servant,

(Signed) ROBERT G. W. HERBERT.

SANDFORD FLEMING, Esq., C.M.G.

&c., &c., &c.

(Copy)

*Admiral DeHorsey to Secretary of the Admiralty.*

"SHAH" AT ESQUIMALT, 9th October, 1877.

SIR,—With reference to the directions of the Lords Commissioners of the Admiralty, contained in your letter, No. 86, of the 19th May last, (received 14th August), I have the honor to report that I sent the "Daring," Commander Hanmer, to make a general examination of the channels and approaches of the River Skeena.

From Commander Hanmer's report, and from such information as I have been able to obtain, I am of opinion that, whether in view of communication with the inhabited parts of British Columbia, or of through traffic across the Pacific, the vicinity of Skeena is totally unfit for the ocean terminus of the proposed Canadian Pacific Railway. The mere circumstance that the bars of the river are not navigable for ocean steamers, except at high water, is of itself condemnatory, in my opinion. Added to this are the difficulties of tortuous approaches on a very foggy and rainy coast, and that the land in the vicinity is reported to consist of mountains and swamps, offering little inducement to settlers.

I beg to transmit herewith a copy of my orders to Commander Hanmer, and of his report, accompanied by plans of the mouth of the Skeena and of Woodcock's Landing.

The lateness of the season and the almost constant rain, caused a service of this kind (necessarily performed in open boats) to be somewhat arduous. I submit Commander Hanmer's execution of it for their Lordships' approval.

I have forwarded a copy of this report and enclosures for the information of the Governor General of Canada.

I have, &c.

(Signed) A. DEHORSEY,

*Rear Admiral and Commander-in-Chief.*

The Secretary of the Admiralty.

*Admiral DeHorsey's orders to Commander Hanmer.*

By Algernon Frederick Rous DeHorsey, Esquire, Rear-Admiral in Her Majesty's Fleet, and Commander-in-Chief of Her Majesty's Ships and Vessels employed and to be employed on the Pacific Station.

Her Majesty's ship under your command being in all respects ready, you are, on receiving instructions to part company, to put to sea and proceed to Nanaimo, there to complete with coal to your utmost stowage.

2. From Nanaimo you are to proceed to the vicinity of the River Skeena, and on your arrival you are to make a general examination of that part of the coast of British Columbia; the Governor General of Canada having requested that a survey might be made of the channels and approaches adjacent to that river, with a view to fixing a terminus of the Canadian Pacific Railway.

3. In view of the lateness of the season it will be desirable to lose no time in commencing this examination, and you are to return to Esquimalt before the severity of the winter.

4. Your proceedings are to be reported to me by every opportunity; and, as soon as practicable after your arrival off the Skeena, you are to furnish me with an estimate of the time you consider requisite for the examination ordered, specifying the part you intend to commence first.

5. On completion of the service, your report is to be furnished me in duplicate. Given on board the "Shah," at Esquimalt, this 22nd day of August, 1877.

(Signed) A. F. R. DEHORSEY.

To JOHN G. H. HANMER, Esq.,

Commander Her Majesty's Ship "Daring,"

By command of the Commander-in-Chief.

(Signed) J. H. CLEVERTON,  
*Secretary.*

*Enclosure No. 2 in Pacific Letter No. 326, of 1877.*

*Report of the Examination of the River Skeena by Commander Hanmer.*

H.M.S. "DARING" AT DEPARTURE BAY,

4th October, 1877.

SIR,—I have the honor, in accordance with your directions, dated 22nd August, 1877, to report the result of my examination of the channels and approaches to the River Skeena, British Columbia.

1. As regards the channels and approaches of the three named respectively, Telegraph, Middle and North Channels, Telegraph Channel is available at high water for ships drawing 25 feet up to Port Essington, the deepest water being on the mainland side, abreast of Kennedy Island, and on the Island side abreast of De Horsey Island (as will be seen by the plan annexed), heavy tide rips occur at springs. The passage between Kennedy and DeHorsey Islands I have designated as the "Middle;" it is between sand banks, which, I should think are liable to shift at different seasons of the year, and is only fit for small steamers. North Channel (or North Skeena Passage), has a passage for steamers of light draught, and is entered over a flat with about three fathoms low water springs, and has an outlet between De Horsey Island and the mainland of only half a cable in width, at low water the ebb tide setting strongly through it. I do not recommend it for large vessels. Port Essington should therefore be reached from the westward, either by the Browning Entrance, Ogden Channel and Cardena Bay, or by Dixon Entrance, Chatham Sound, Arthur Channel and Cardena Bay.

2. *Anchorage*.—Skeena River has an extensive anchorage ground between Port Essington and the north end of DeHorsey Island; holding ground is good, being soft mud; at springs heavy tide rips occur, making boat or lighter work dangerous. Mr. Cunningham (a trader of many years' experience at Port Essington), informed me that the river was never frozen at Port Essington, but great quantities of ice come down in the spring, as well as immense trees. During the winter months heavy gales from the north are frequent, and, I should think, would completely suspend communication between the shore and vessels in the stream, as there is no shelter from their full force. High water approximate 1-0-0, F. & C. rise 24 feet springs.

Woodcock's Landing affords a fair anchorage, but is limited in extent (plan annexed), it is more sheltered than Port Essington, and is free from tide rips, although the ebb tide runs between four and five knots at springs; holding ground is good, being mud off the village, H. W. F. & C., 12 " 15, rise springs 24 feet approximate, neaps 17 feet (vessels must moor).

Cardena Bay is the best anchorage in the vicinity, being sheltered from N. and S.E.; holding ground is good; tide sets fairly through the anchorage; H. W. F. & C., noon springs rise 24 feet; neaps, 17 feet approximate.

The prevailing winds in the vicinity of the Skeena are said to be westerly during the summer months, and during the remainder of the year S.E. and N.E., with heavy gales occasionally from the north. Fogs are frequent in August and September. Rain is prevalent in spring and autumn, and during the stay of the "Daring," from 1st to 27th September, the prevailing winds were easterly and south-easterly, with almost constant rain and frequent squalls; during the same time the barometer's lowest was 28° 90'; highest, 30° 30'.

The land about the entrance of the Skeena is mountainous and densely wooded (chiefly cedar and hemlock) and shows signs of a remarkably wet climate, and, I should say, is quite unfit for settlement.

I have, &c.,

(Signed) JOHN G. HAMMER,

*Commander.*

J. H. CLEVERTON,

*Secretary.*

(Copy.)

*The Colonial Office to Mr. Sandford Fleming.*

COLONIAL OFFICE, DOWNING STREET,

21st December, 1877.

SIR,—With reference to the question of the selection of a site for a terminus on the Pacific coast, for the Canadian Pacific Railway, I am directed by the Earl of Carnarvon to transmit to you for your perusal and information, a copy of a despatch received through the Admiralty from Rear-Admiral DeHorsey, Naval Commander-in-Chief on the Pacific Station, reporting his views upon this subject.

I am to state that a copy of this despatch has been communicated to the Governor General of Canada for the information of the Dominion Government.

I am, Sir,

Your obedient servant,

(Signed)

R. H. MEADE.

SANDFORD FLEMING, Esq., C.M.G.

*Report of Admiral DeHorsey respecting Canadian Pacific Railway Terminus.*

"SHAH" AT ESQUIMALT,  
26th October, 1877.

SIR,—I request you will bring under the consideration of the Lords Commissioners of the Admiralty the following observations, submitting my opinion relative to the best site for the ocean terminus of the Canadian Pacific Railway.

2. With a view to forming an opinion on this subject I have carefully perused the reports of exploration of 1874 and 1877, made by Mr. Sandford Fleming, the Engineer-in-Chief, and I have had the advantage of personal interviews with Mr. Marcus Smith, Mr. Cambie, and other Engineers of the Survey. An ascent of the Fraser River, as far as Yale, and on to Boston Bar by land, has enabled me to form some idea of the difficulty of penetrating the Cascade range of mountains with a line of railway. I have further inspected Burrard Inlet, Haro and Georgia Straits (as well as the inner channels emerging at Active Pass), Discovery Passage and some of the channels in the vicinity of Valdes Island, including Seymour Narrows. An examination has also been made by their Lordships' direction of the approaches to the Skeena River, the result of which has been reported in my letter, No. 326, of the 9th instant.

3. The question of site of ocean terminus should, it appears to me, be determined by two main considerations (besides feasibility in an engineering point of view):—

1st. Its suitability for the interests and traffic of the populated parts of British Columbia, that Province having joined the Dominion upon the promise of a railway.

2nd. Its being situated at a convenient port for ocean steamers to take up, direct from wharf accommodation, the through traffic for Australia, China, Japan, and other places across the Pacific at all seasons of the year and in all weathers.

4. Bearing in mind these considerations, it appears desirable to reject all idea of a terminus on the coast between Vancouver and Queen Charlotte Islands. The navigation of that part of the coast, judging from the charts and from the reports of Admiral Richards and other naval officers, is decidedly unfavorable, and I should equally reject the vicinity of the River Skeena owing to the prevalence of fog, ice and other climatic causes incident to a high latitude, as well as to the difficulties of approach from sea.

5. If the above views are correct, the question of site for the terminus is narrowed to a choice between Burrard Inlet and a port in Vancouver Island.

6. Burrard Inlet does not appear suitable for an ocean terminus on account of difficulties of navigation to seaward. The tortuous channel from Burrard Inlet to sea through Haro Strait will frequently be unsafe on account of the strength of the tide, great prevalence of fog and absence of anchoring depth. Burrard Inlet itself also, although possessing a safe port in Coal Harbour, and a good anchorage in English Bay, has these objections, viz.: that the narrow entrance to Coal Harbour through the First Narrows is hardly safe for large steamers in consequence of the rapidity of the tide; and that English Bay, although affording good anchorage, would not, in my opinion, be smooth enough during north-westerly gales for ships to lie at wharves, there being a drift of forty miles to the north-west.

7. Another grave objection to Burrard Inlet as the final terminus, is the possession of San Juan and Stuart Islands by a foreign power. These islands form the key of the navigation inside Vancouver Island. In case of war with the United States that power might readily stop our trade through Haro Strait. (San Juan was visited last month by General Sherman, I believe with a view to its fortification.)

8. Condemning Burrard Inlet for the above reasons, I conclude that the terminus should be in Vancouver Island, which may be reached in three ways:—

1st. By steam ferry carrying a train from Burrard Inlet to Nanaimo.

2nd. By bridging Seymour Narrows.

3rd. By steam ferry, carrying a train from Estero Basin (Frederick Arm) to Otter Cove.



9. The train once landed on Vancouver Island, can, I understand, be carried without much difficulty either to Esquimalt or to Quatsino Sound, or perhaps to Barclay Sound, where Uchucklesit Harbour forms an admirable port.

10. The first method of crossing the Strait, that of a steam ferry from Burrard Inlet to Nanaimo, has three objections,—1st. The drawbacks above mentioned to navigating the First Narrows, and to going alongside a wharf in English Bay; 2nd. The difficulty and certain frequent detention in mid-channel, owing to fog; 3rd. The heavy sea with north-westerly and south-easterly gales, which would be at least inconvenient for the conveyance of a train across the Strait of Georgia. Another, and I think a cardinal objection, to the route by the course of the Fraser River and Burrard Inlet, is its passing within six or eight miles of United States territory, and its consequent liability to destruction when most wanted in time of war.

11. The second method that, of a line of railway across Valdes Island without water conveyance would require very expensive bridging. Valdes is not one island as shown on the Admiralty Chart, but consists of three or four islands.

The main difficulty, of course, exists in bridging Seymour Narrows, a distance of 2,575 feet, in two spans of respectively 1,200 and 1,350 feet. To execute this work the middle pier has to be erected on a rock, said to be eighteen feet under water at low tide, with a velocity of tide over it of from five to eight knots. This would be a work of vast magnitude and expense, even if it be practicable to place a foundation on the rock, which I doubt, as there is hardly any slack tide. Nor must it be forgotten that bridging Seymour Narrows would, as regards large ships, obstruct the only practicable channel between Vancouver Island and the Main. This alone should, in my opinion, preclude its attempt.

12. The third method, and the one I recommend, that of ferrying a train from Estero Basin to Otter Cove, is, in my opinion, not only feasible, but perfectly simple. I have carefully examined this route, and find:—

1st. That Otter Cove is well adapted for a pile dock terminus for the steam ferry.

2nd. That the head of Frederick Arm, at the entrance to Estero Basin, is also well adapted for a pile dock terminus.

3rd. That the channel between the two is easy of navigation, being nearly straight, free from dangers, smooth as glass, sheltered from all winds, and having very little tidal stream.

13. The tide in this, the Nodales Channel, is noted on the chart as running from two to three knots, but I think it is much less.

I spent five hours in this channel during what should have been the strength of the tide, the day before the full moon, and found the tide scarcely perceptible.

The distance for steam ferry between the two ports is thirteen miles of still, clear navigation, and I consider it may, with proper signals, be safely traversed in a fog.

14. In advocating the route by Frederick Arm, it will be observed that I am assuming that the railway can be brought to that point.

This assumption is borne out by Mr. Fleming's report of 1877, in which he states it to be "a feasible scheme," but one exacting a heavy expenditure, which expenditure would, I suppose, be in part compensated by the route No. 6, from Yellow Head Pass to the head of Bute Inlet, being estimated at two million dollars less than that by the Lower Fraser (No. 2) to Burrard Inlet.

15. From conversation with Mr. Marcus Smith (the principal officer of the survey, next to the Engineer-in-Chief) I am given to understand that the Rocky Mountains can be crossed at a comparatively low level, and that the line can be carried through a far less mountainous district by avoiding Yellow Head Pass altogether, and selecting a route by Lesser Slave Lake and Pine River Pass, and thence in a more or less direct line to Bute Inlet. Should this prove correct, it will be an additional reason for ending the main land route at Frederick Arm rather than at Burrard Inlet, omitting, as I do, all consideration of taking water conveyance from the head of Bute Inlet on account of its length and tortuous passages, which would be impracticable in foggy weather.

16. Having thus come to the conclusion that the line should pass by Frederick Arm, and that the train should be conveyed by steam ferry through Nodales Channel, to Otter Cove, the extension to one of the good ports of Vancouver Island remains to be considered.

17. In future years, I imagine that for the sake of more direct through ocean traffic, a line will be extended to Quatsino Sound, by bridging Quatsino Narrows, and thence on to a terminus at Winter Harbour.

18. But for present wants, it seems that the line should be continued from Otter Cove past Bayne's Sound and Nanaimo to Esquimalt, there to make the ocean terminus. This port is easy and safe of approach at all times; its dock (to take the largest ships) has been commenced, and there is reason to think that the line coming from the principal collieries and iron districts on Vancouver Island, ought to pay itself in great part by the conveyance of minerals to Esquimalt for shipment. Not only for trade, but for the supply of coal to Her Majesty's Squadron at Esquimalt, a line of rail from Nanaimo would be advantageous, as the possession of San Juan might enable the United States, in case of war, to cut off our supply from the mines by sea.<sup>1</sup>

19. Assuming, therefore, that a line of rail between Esquimalt and Nanaimo will be constructed, not only for the reasons above detailed, but because its construction appears to have been virtually promised by the Dominion Government in accordance with Lord Carnarvon's suggestion (a large portion of the rails are actually lying at Esquimalt), the chief difficulty connected with the Vancouver part of the through line will be overcome, for I understand that the extension of the line from Nanaimo to Otter Cove presents comparatively few difficulties.

20. It will be observed that I have omitted consideration of a terminus in Howe Sound. This is because the same objections in respect to difficulties of navigation to sea through Haro Strait, apply to Howe Sound as to Burrard Inlet, and with greater force. The route to Howe Sound is also, I observe, estimated to cost six million dollars more than that to Bute Inlet.

21. Finally, whilst submitting the foregoing remarks in accordance with their Lordship's instructions to me, of the 23rd August, 1876, I beg to express much diffidence in respect to such as are not strictly within the scope of the Naval Service. Viewing the shortness of my stay in British Columbia waters, this Report cannot pretend to deserve much weight; but it has, I submit, one merit, that of coming from an officer who, from his position, must be totally disconnected from all local interests.

I have, &c.,

(Signed) A. DE HORSEY

*Rear Admiral and Commander-in-Chief.*

The Secretary

To the Admiralty.

(Copy)

*Mr. Sandford Fleming to the Hon. A. Mackenzie.*

CANADA BUILDINGS, 31 QUEEN VICTORIA STREET,

LONDON, E.C., 26th December, 1877.

DEAR SIR,—I have received copies of Admiral DeHorsey's despatches of the 9th and 26th October, respecting a terminus for the railway in British Columbia, the originals of which have been forwarded to Ottawa.

Admiral DeHorsey gives expression to very decided views: amongst other things he recommends the rejection of all idea of a Northern terminus. In acting on this recommendation, the Government should, I think, have something more, if possible, than an opinion, however strongly expressed. I think it should be in possession of all the information which exists; indeed it would be desirable to have on record data sufficient to enable any one to judge of the propriety of completely rejecting a northern terminus from consideration, before that course is finally adopted.

I have considered it my duty, therefore, to address a communication to the Colonial office (of this date) a copy of which I herewith enclose.

I am, dear Sir,

Yours very truly,

(Signed) SANDFORD FLEMING.

The Hon. A. MACKENZIE,  
Minister of Public Works,  
Ottawa.

*Mr. Sandford Fleming to the Colonial Office.*

CANADIAN AGENCY, 31 QUEEN VICTORIA STREET, E.C.

LONDON, 26th December, 1877.

SIR,—I beg to acknowledge the receipts of Admiral De Horsey's despatches of dates 9th and 26th October, on the subject of a site for a terminus on the Pacific Coast for the Canadian Pacific Railway, both despatches having by the direction of the Earl of Carnarvon been recently transmitted to me for perusal.

As requested by you, I now return the plans of the mouth of the River Skeena, which accompanied Admiral De Horsey's despatch of the 9th October.

I have carefully read these important documents, and I find that the River Skeena is objected to on account of difficulties of approach from sea and climatic causes incidental to a high latitude. In considering these objections, I have thought it possible that the Canadian Government, before completely rejecting all idea of a northern terminus, may desire to obtain some further information. I deem it my duty, therefore, in order that delays may be avoided, to suggest that the following enquiries be made:—

1. If the nautical examination instituted by the Admiralty, have been extended to Metlah Catlah, Port Simpson, or other points on the coast, beyond the immediate mouth of the River Skeena, with the view of ascertaining how far any of them may be eligible for the purpose of a terminus.

2. If the Admiralty is in possession of data respecting the prevalence of rains, winds, fogs, &c. on the coast referred to, which would admit of a comparison being made between it and well-known places in nearly corresponding latitude on the coast of Europe or elsewhere. Take for example the coast of British Columbia, between latitudes 54 and 55, embracing Dixon Entrance, Portland Inlet and River Skeena, as compared with the coast of Great Britain, between latitudes 55 and 56, embracing the north channel and the Frith and River Clyde.

I have, &c.,

(Signed) SANDFORD FLEMING.

ROBERT G. W. HERBERT, Esq.,  
Colonial Office.

(Copy.)

*The Colonial Office to Mr. Sandford Fleming.*

COLONIAL OFFICE, DOWNING STREET,

3rd January, 1878.

SIR,—I am directed by the Earl of Carnarvon to acknowledge the receipt of your letter of the 26th December, making certain enquiries in connection with a report recently furnished by Rear Admiral de Horsey, respecting a site for the terminus of the Canadian Pacific Railway.

Lord Carnarvon desires me to inform you that he has forwarded a copy of your letter to the Board of Admiralty, with a request to be supplied with an answer on the points which you have raised.

I am, Sir,

Your obedient servant,

(Signed) R. H. MEADE.

SANDFORD FLEMING, Esq., C.M.G.

(Copy.)

*The Colonial Office to Mr. Sandford Fleming.*

COLONIAL OFFICE,

DOWNING STREET, 9th February, 1878.

SIR,—With reference to your letter of the 26th of December last, asking that certain information may be obtained from the Board of Admiralty, in regard to the coast of British Columbia, beyond the immediate neighborhood of the mouth of the Skeena River. I am directed by the Secretary of State for the Colonies to transmit to you, for your information, a copy of a letter from the Board of the Admiralty, with the charts which accompanied it.

Should you wish the Hudson Bay Company to be consulted in regard to the climate on the portion of the coast referred to, as suggested by the Admiralty, Sir Michael Hicks Beach will be happy to give the necessary directions for this purpose, although the Company would no doubt give you any information in their power on a direct application from yourself.

I am, Sir

Your obedient servant,

(Signed) ROBT. G. W. HERBERT.

SANDFORD FLEMING, Esq., C.M.G.

(Copy.)

*The Board of Admiralty to the Colonial Office.*

ADMIRALTY, 10th January, 1878.

SIR,—With reference to your letter of the 3rd inst., forwarding copy of communication from Mr. Fleming, the Chief Engineer of the Pacific Railway, in which he requests to be supplied with any information which this Department may have in its possession, relative to the nature of the coast of British Columbia, beyond the immediate mouth of the River Skeena, and as to the meteorology of those parts, I am

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commanded by my Lord's Commissioners of the Admiralty to acquaint you, for the information of the Earl of Carnarvon, that the coast and inlets from the Skeena River, northward to the boundary of British Columbia, were charted by Admiralty surveyors in the years 1867-8 and 9, to meet the requirements of navigation; but these surveys took place before the question of a railway terminus had arisen, and their results are published in the accompanying charts Nos. 1,923 a, 364, 2,426, 2,431 and 2,190.

2. In this extent of coast there is not, in the judgment of Staff Commander Pender, who was in charge of these surveys, a suitable site for a terminus.

3. A meteorological journal was kept during the progress of the Admiralty survey (1867-8-9) which is in manuscript at the Hydrographical Department of this office, and may be consulted or copies taken by Mr. Fleming.

4. I am further to inform you that the Hudsons' Bay Company could probably give some statistics of weather, etc. from their long established trading post at Fort Simpson. The mission stations at Metlah Catlah and Kincolith could also possibly supply information on these points.

I am, etc.,

(Signed) ROBT. HALL.

The Under Secretary of State,  
Colonial Office.

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## APPENDIX G.

REPORT ON AN EXPLORATION OF PINE RIVER PASS BY MR. JOSEPH HUNTER.

CANADIAN PACIFIC RAILWAY OFFICE,

VICTORIA, B.C., 19th January, 1878.

SIR,—I beg to submit the following report on my explorations in British Columbia during the past season in connection with the survey of the Canadian Pacific Railway.

My duties, as set forth in your instructions of May last, were to obtain a general knowledge of the country north of the great bend of the Fraser River and east of the Telegraph Trail, in continuation of previous northern explorations, and in connection with a proposed examination of the route by the River Skeena; to seek for a pass through the Rocky Mountains by way of Pine River; and, if such existed, to determine its position and character, as well as examine its approaches from east and west. It was suggested that I should travel by the Telegraph Trail from Quesnelle to Stony Creek, thence to McLeod's Lake by way of Fort St. James, and then eastward to the Rocky Mountains, returning to Gismo Portage by a route as far south as practicable, and along the Fraser to Quesnelle.

This programme, although apparently simple enough, was sufficient to occupy me during nearly the whole of the open season.

Business relating to another Department detained me in Victoria till the 22nd of June, on which day I left for the Upper Country, arriving at Quesnelle on the 29th. I here found a pack-train waiting, numbering thirty animals, with the necessary equipment and supplies for the season. Ten of these with their loads were to be sent to the Forks of Skeena for service in connection with the proposed exploration of that river; the remaining twenty to be used by myself and party as circumstances might direct.

The pack-train left Quesnelle by the Telegraph Trail on the morning of the 30th June. On Monday, July 2nd, I followed, and the same day overtook the train at Blackwater River, 43 miles from Quesnelle.

Sinkut Lake was reached on the forenoon of the 6th July, and as the trail by which we intended to travel eastward diverged from the main trail near this point, we camped here, and occupied the remainder of the day in selecting the animals and stores which were to be sent to Skeena Forks. These were despatched to their destination on the morning of the 7th, and the same day our train made the Nechaco River Ferry.

In the meantime, I rode round by the upper crossing of Stony Creek to where the line of Division "S," 1876, crosses the Telegraph Trail at Station 3220-50, Lat. 53° 55' N., Lon. 124° 8' W. Altitude above the sea, 2,403 feet. This I took as the initial point of the season's operations, and commenced a track survey along the trail towards Fort St. James.

From the starting point the trail runs along the left or north bank of Stony Creek for  $2\frac{3}{4}$  miles, when it crosses at a fishing weir to the right bank, and follows a north-easterly course for two miles, leaving the Creek to the left. It then turns north-westerly, and re-crossing Stony Creek at a swampy ford, reaches the Nechaco Ferry at  $7\frac{1}{4}$  miles.

The Nechaco River is here about 525 feet wide, maximum depth of water ten feet; current running five miles an hour over a sound gravel bottom. A small island lies in mid-channel a little below the ferry, and for some distance along the right bank above and below this point the land is of good quality and pasture abundant.

The stores, rigging and animals were crossed on the evening of the 7th, and we started forward early next morning.

The trail, on leaving the river, ascends at once about 150 feet to a fine grassy plateau of rich soil, suitable for profitable cultivation. At  $4\frac{1}{4}$  miles from the river, the northern edge of this plateau is reached, and the trail begins to ascend in a northerly direction, the dividing ridge between the Rivers Nechaco and Stewart. The summit is crossed at an altitude of 720 feet above the Nechaco, distant therefrom about  $10\frac{1}{2}$  miles. The descent to the Stewart River of 840 feet is made in  $5\frac{1}{4}$  miles. On the last mile the fall is 470 feet, but the trail in this locality seems to have been carried over ground considerably above the average level of the surrounding country.

Stewart River runs on a soft muddy bed with a sluggish current, and at the ferry is about 600 feet wide. The river valley at this point is a little over half a mile in width.

From the ferry, the trail turns up stream and winds along the left bank 10 to 25 feet above water-level for three miles, when it begins to diverge from the river to the right, and, ascending by three benches, gains at the fourth mile from the crossing a sandy plateau, 240 feet above the level of the river. After following this plateau, at nearly the same altitude, for three miles, the trail descends 70 feet into the valley of Nine Mile Creek, which it crosses. It follows down the right bank of this creek, through some rich grass and good land, for seven and a half miles, when it leaves the creek and ascends to the east, passing the base of a rocky slide from which Stewart's Lake can be seen. The trail then runs along a hard rocky ridge for a short distance, when, descending into the low plain, nearly on the level of Stewart's Lake, it runs N.  $53^{\circ}$  W. till reaching that lake at Fort St. James, a trading post of the Hudson Bay Company,  $46\frac{3}{4}$  miles from the starting-point at Stony Creek. We arrived here on the evening of 10th July.

Leaving Fort St. James on the 11th, our route lay for five miles N.  $70^{\circ}$  E. through a narrow belt of fine grassy country, 170 feet above the level of Stewart's Lake, or 2,400 feet above the level of the sea.

At the 57th mile a small stream about three feet wide is crossed. Here Sir Geo. Simpson, Governor of the Hudson's Bay Company, camped in 1828, when travelling from Fort McLeod to Fort St. James. The stream, from this circumstance, has been dignified by the name of "Governor's River."

Carrier Lake is reached at the 64th mile from Stony Creek. The trail skirts the south shore of this lake for two and a quarter miles, and passes to the north of Round Lake and Deadman's Lake, over some high gravelly knolls and ridges, reaching Salmon or Canoe River at  $73\frac{1}{2}$  miles, but the trail turns to the left and crosses this river by a shallow ford two and a half miles further up stream. We camped here on the 13th, on a bench 110 feet above the level of the river.

On the 14th July our march was from Salmon River to Swamp River, a distance of  $10\frac{1}{2}$  miles N.  $20^{\circ}$  E., over a poor, sandy, burnt country. The trail between these points crosses White Mud River three times. This is a small, sluggish stream, 10 to 30 feet wide, bordered in many places by grass and spruce swamps, and running in a narrow valley 150 to 200 feet below the general level of the plateau.

Swamp River is an insignificant-sluggish stream, twenty feet wide. Its valley, a quarter of a mile wide is soft and swampy. The ground on each side rises by gravelly benches to the plateau which is here about 100 feet above the river.

From Swamp River to Carp Lake crossing a distance of eight and three-quarter miles, the trail runs on a general bearing of N  $56^{\circ}$  E. The soil for this distance is of a sandy nature, and the surface of the country comparatively level. The watershed between the Pacific and Arctic Oceans, occurs at the 90th mile, or four and a half miles to the east of Swamp River, altitude 2,620 feet above the sea. Carp Lake crossing is about 120 feet wide, and for 60 feet of this distance, mules have to swim. The ground on each side is hard and firm. This crossing saves a long detour round the west arm of the lake. The lake itself is about six miles long north-east and south-west, and from two to three miles wide. Its shore line along the east and

south sides is very irregular, and, with the exception of narrow flats along the shore, the surrounding country is broken up into gravelly and rocky ridges.

Carp Lake drains into Long Lake by a crooked river forty to sixty feet wide. This river is crossed at the 106th mile at a shallow ford near the outlet of Long Lake. One mile below this crossing occurs a nearly perpendicular fall on the river of 130 feet.

From the crossing of Long Lake River to within seven miles of Fort McLeod, the trail passes through a high rough broken country, in many places much encumbered by fallen timber. Iroquois Creek, running in a deep narrow valley, is crossed at 108½ miles. From the 112th to the 114th mile, the country falls 340 feet, to a sandy plateau 75 feet above the level of McLeod's Lake. Along this plateau, the trail runs on a bearing of N 28' E for five and a half miles, when it descends from the plateau, and crosses Long Lake River near its outlet, into McLeod's Lake, and a quarter of a mile from Fort McLeod, which is reached at 119½ miles from the initial point. The party arrived here on the 16th of July, 17 days from Quesnelle.

The general character of the country through which the trail passes from Stony Creek to Fort McLeod, is identical with that of the country for a considerable distance to the southward. It is intersected by the three main rivers, Nechaco, Stewart or Nacosla, and Salmon or Canoë, running in a south-easterly direction. These rivers derive their chief, and almost only sources of supply from the great lake area, stretching easterly from the eastern base of the coast range to the Arctic watershed, and southerly from Lake Tatla in latitude 55° 30' N. to Lake Gatcho, a distance of 175 miles.

The country in the neighbourhood of the route traversed, contributes but little to swell the volume of the rivers above named. There are no lateral streams of any importance, and consequently no lateral valleys sufficiently well marked to guide the course or regulate the grades of a railway, and, although the land does not rise to any great altitude, the location of a line would not be free from difficulty.

Throughout nearly the whole extent, but more particularly from Fort St. James to McLeod's Lake, the country is broken up by narrow sandy and gravelly ridges, and rounded hills rising from 200 to 500 feet above the general level, low boggy flats and depressions containing stagnant pools, and small lakes, and small sluggish streams running in all directions.

Between the Nechaco River and the valley of McLeod's Lake, three watersheds or summits are crossed, the particulars of which are shown in the following table:—

From	Altitude above Sea.	Eastward to	Altitude above Sea.	Distance.	Rise or Fall.	Per Mile.
	Feet.		Feet.	Miles.		Feet.
Nechaco River.....	2,270	Summit.....	2,990	18	Rise, 720 feet..	40
Summit.....	2,990	Stewart River .....	2,150	5½	Fall, 840 do .....	168
Stewart River .....	2,150	Summit.....	2,790	4½	Rise, 640 do .....	14¼
Summit.....	2,790	Salmon River.....	2,530	7	Fall, 260 do .....	37-1
Salmon River.....	2,530	Summit .....	2,800	6¾	Rise, 270 do .....	40
Summit.....	2,800	McLeod's Lake.....	1,890	38¼	Fall, 910 do .....	23-8

No difficulties of a more than ordinary character would be met with in crossing the above rivers.

In projecting a line of railway through the country above referred to (that is from Stony Creek to Fort McLeod), detailed and careful explorations would, no doubt, obviate some of the difficulties now apparent. It may, however, be stated with safety, that the alignment and grades would in any case be objectionable and the quantities excessive.



The timber on this tract of country is generally of an inferior quality. The higher portions of the land are covered with the common black pine. Occasional patches of good spruce are met with, and a few Douglas firs were noticed on the shore of Round Lake, near the 67th mile. The lake shores are generally bordered by alder and birch. Balsam seems to flourish, and attains to considerable size in the neighborhood of Fort McLeod. A large area of the country has been desolated by fire.

The journey from Quesnelle to McLeod's Lake was over a route long established and well known, and we found few obstacles in the way of rapid travel. Eastward of McLeod's Lake, however, the country was known only as an Indian hunting ground, and the information regarding it was both scanty and unreliable.

On the way out I made every endeavor to obtain some information in respect to the locality of the northern passes through the Rocky Mountains, and more particularly in regard to the pass by way of Pine River. In this I was not very successful. Nearly all the Indians had left for the mountains on their annual hunting expeditions two weeks before my arrival, and I could find no one with anything like a reliable knowledge of the Pine River Pass, nor could I get any positive assurance that such a pass existed at all.

At Fort McLeod was an old Klootchman who, in her young days, had been acquainted with the country in the neighborhood of the Rocky Mountains. This lady, with a sharpened stick, drew a rough map on the sand, and explained it to the best of her ability. By the aid of broken English, Patois and Chinook, I was given to understand that there were two streams, the Misinchinca and the Mischinsinlica, tributaries of the Parsnip River, by either of which I could reach a pass through the Rocky Mountains. The former was the stream visited by the geological party in the summer of 1875.

By following the Misinchinca it was said I would find at its source a lake shedding its waters east and west, and which formed the source of a river falling into the "Great River," near a "Hudson Bay House."

The route by the Mischinsinlica, the smaller stream, seemed the less satisfactory, and all my efforts failed to elicit from my informant any idea of the comparative altitudes at the sources of the rivers above named.

Having resolved to try the pass by the Misinchinca, arrangements were made for the trip, and we left Fort McLeod on the 18th of July, the party now consisting of eight persons in all, including three Indians, whom I hired with great difficulty by the way.

The stores were sent by water down Pack River and up the Parsnip, to meet the train at the mouth of the Misinchinca, about ten miles north easterly from Fort McLeod. This enabled the pack train to move more rapidly over the rough and swampy country bordering Pack River.

We travelled down the left bank of this river for three miles, then crossed to the right or east bank, reaching Tutia Lake in four miles, on the shore of which we camped. On the 19th we cut our way through the timber on the ridge between the Pack and Parsnip Rivers.

This ridge, where crossed by the trail at the summit, is about 250 feet above Tutia Lake. The ground rises rapidly from the lake, and after attaining the above altitude runs out nearly level to the Parsnip River. A steep gravel bank fronts the river on the west side, where the trail approaches it. Half a mile lower down the banks on each side are about the same altitude, or 30 feet above the river.

A good crossing of the Parsnip could be effected here. The width would be about 800 feet; height of piers, 35 feet; depth of water, 5 to 8 feet; bottom, gravel; current,  $3\frac{1}{2}$  miles per hour. To reach this crossing the line would have to bend northward by an arm of Tutia Lake, which opens up the ridge or plateau and affords the means of crossing it at a lower level.

On the morning of the 20th we left the Parsnip River and journeyed up the Misinchinca, keeping the left or south bank where the travelling was good, and where could be seen faint traces of an Indian trail, which, however, soon ended at an old trapping camp, and we saw no more of it.

Our first camp on the Misinchinca (No. 20) was on a fine wide bench about 200 feet above the level of the river. This bench extends about six miles up the valley, and lies mostly on the left or east bank.

From camp No. 20 the general upward course of the valley for eleven miles is N. 25° E. The rise on this distance is very small, the current on the river being hardly perceptible.

The valley at its entrance, and for some distance upwards, is enclosed by hills, rising gently on each side, and in some instances green to their tops. Farther in, however, the mountains assume a more bold and rugged character, with steep and rough rocky slopes. The open sandy benches give place to low swampy flats, and the river is hemmed in by dense thickets of alder and willow.

The difficulties of travel had now materially increased, several unsuccessful attempts were made to carry the trail high up on the mountains, and for six days we cut our way foot by foot through the dense jungle with which the valley at some points is covered throughout its entire width.

Although presenting many obstacles to travel, the whole of this low land is susceptible of reclamation by drainage, and seems generally well suited for agriculture.

On the 1st August we had reached a point thirty-one miles from Fort McLeod, where the Misinchinca valley begins to rise rapidly, and the river shows innumerable bars of sand and pebbles with many shallow rapids and drift piles.

Following up the valley from camp No. 29, we came in three-quarters of a mile to the "Atunatche," a stream fifteen feet wide, falling into the river from the northward. Beyond this a short distance the Misinchinca issues from a narrow gorge or canyon, walled in by bluffs of rock and gravel.

In front and running in a north-west and south-east direction is a range of high bare, rounded, limestone mountains. This range forms a barrier on the east side of the Misinchinca valley, which turns sharply to the southward, near the mouth of the Atunatche.

For five miles after passing this tributary, travelling at a low level being impossible, the trail was carried along the west side, 500 feet above the level of the river, on a well timbered bench, from which we found the descent to our camp, No. 30, of 2nd August, extremely difficult. This camp is 2,630 feet above sea level, the rise in the last five miles being 380 feet.

From the elevated points on our route, during the next four days, we looked anxiously for some lateral opening by which, at a practicable altitude, we might cross the range on our left. The upward bearing of the valley was now a little West of South, it was rapidly rising, and the distant mountains, wherever a glimpse could be caught of them through the thick woods, seemed high and rough and well patched with snow.

On the 7th August we had reached an altitude of 3,000 feet above the sea. The valley had expanded into a wide swampy flat, while the volume of the river had materially decreased, and it was evident we were rapidly approaching its source.

Selecting one of the mountains on the left as being about the average altitude of the range, I commenced its ascent at noon of the 7th, and had climbed but a few hundred feet, when I saw that, as far the Misinchinca was concerned, our exploration was at an end; for we were within a few miles of where the valley branched out on every side into rocky ravines, raising abruptly into the mountains.

The last 500 feet of the ascent was made over loose limestone slide, on which travelling was both difficult and precarious; and at an altitude of 5,550 feet above the sea I reached the summit. The view on all sides was uninterrupted.

North-easterly from where I stood, and about 500 feet lower, was a small round lake, one-quarter mile in diameter, shedding its waters eastward down a dark, crooked, rock-bound valley. Looking farther to the eastward, the view was over a rugged, rocky, mountainous country; S. 40' E., in the direction of the Fraser River, very high mountains, all tipped with snow, stretched away to the limits of the horizon. With the exception of the rough peaks enclosing the valley of the Misinchinca, a low wooden country lay to the westward. To the north the country

generally seemed falling; and I could clearly trace the valley of the Atunatche along the base of the main range from the southern bend of the Misinchinca, and nearly in a line with the valley of that river. Yet the prospect in this direction was not encouraging; for the view through what afterwards proved a feasible pass, was obstructed by the overlapping profile of the opposite mountains.

We seemed to be in the heart of the Rockies, and it was evident that no pass need be looked for to the southward; so I resolved to turn northward, and, retracing our march to the mouth of the Atunatche, follow up the valley of that stream, in the hope of being able to pass eastward round the northern limit of the higher mountains.

Having, with the point of my bowie-knife, inscribed my name and purpose on a smooth block of limestone, I descended the mountain, and came up with the party a short distance ahead of where I left them. On observing the peculiar character of the surroundings, and being hemmed in on every side by wind-fall, they had camped early to wait for further orders. The barometer at this camp (No. 34) indicated an altitude of 3,010 feet above sea, the distance from the Atunatche being 26 miles.

On the morning of the 8th August we turned back, and reached the mouth of the Atunatche (altitude 2,150 feet) on the 10th; and the next day we pushed on up the valley of that stream on a bearing of N. 12° E. The travelling was difficult; the stream runs in a narrow gorge, and the ground on either side is much broken up into rocky and gravelly ridges, the general surface rising slowly to the mountains on either side.

At three and three-quarter miles we reached the south end of Azuzetta Lake. The rise in this distance is 270 feet; the altitude of the lake, which drains into the Misinchinca, being 2,430 feet, and along its shore is some excellent grass.

We followed the east shore of Azuzetta Lake to its north end, one mile and three-quarters, and then kept along the valley in a north-west direction. After passing a few beaver dams we crossed an open, sloping, grassy prairie, at the base of the right-hand mountain, and noticed, 100 yards to the left, a stream ten feet wide, running northward. On further examination I found that this stream issued from the mountains on the west, and received the drainage of the last small lake or beaver dam we had passed; this proved to be the origin of the west or main branch of Pine River, or Satchaca. The altitude of the summit, near the beaver dam above referred to, is 2,440 feet above sea level.

A mile from the summit brought us to a precipice, or drop, over 100 feet high, stretching across the valley from side to side, down the face of which the pack train scrambled with great difficulty.

The stream finds its way gradually to this lower level through a rugged rocky canon. The valley at this point is about a quarter of a mile wide, with high rocky bluffs on both sides.

For six miles from the summit the general course of Pine River Valley is north-west, and it seemed at one time almost certain that we should be pushed westward by the main range into the valley of the Parsnip, by an opening lying nearly on our course; but this proved to be the valley of a tributary from the north, upon receiving which, the main river turns to the eastward.

About a mile below camp No. 42, or 14½ miles from the summit, in about Lat. 55°, 25' N., and Long. 122°, 32' W, the sandstone structure makes its appearance, and Pine River may be said to be fairly beyond the Rocky Mountain range.

From the precipice up to this point the fall is about uniform, and the river runs on a bed of thin slaty slabs. Short low bluffs of shale and slate appear occasionally on the banks.

The valley is thickly timbered with spruce and balsam of good quality, and is sufficiently wide to admit of easy curvature. The flats bordering the river are in places soft and swampy.

Since leaving Fort McLeod, on the 18th July, we had been travelling through a country almost entirely devoid of trails, and presenting every conceivable obstacle to the passage of a pack train. Day by day our small party toiled from morning till

night in making a passable trail for the animals through fallen timber and over swamps, and sometimes after a hard day's work in chopping, brushing, bridging, etc., we had the indifferent satisfaction of looking back only a mile or two to the curling smoke of the previous camp fire. With incessant labor both men and animals were becoming exhausted. The season was far advanced, and our position was by no means determined with certainty. We were glad, therefore, to adopt the expedient which now was presented of travelling in the river bed and on its numerous shingly bars, taking to the woods only where the river was obstructed by drift piles or too deep for travel.

All the saddle animals were pressed into the packer's service. Yet we cheerfully exchanged the hard and continuous toil of hacking our way slowly through the bush, for the discomfort of the more rapid mode of travelling, involving as it did, wading sometimes for a considerable distance in the deep cold water.

One hundred and thirty seven crossings of the river were made altogether.

In this manner we made good progress till the 21st August, when the river channel had to be abandoned, as the water had become waist deep, and fording the river dangerous.

At 55½ miles from the summit Pine River receives a tributary about its equal in volume from the south. The general upward bearing of the valley of this branch for six or seven miles, at which point it seems to fork, is S. 20° E., and its width averages one and a half miles. Some grassy slopes are seen on the west bank, but the valley generally seems thickly wooded.

Nineteen miles below the middle branch the lower or east branch of Pine River is reached. The east branch is slightly larger than the main river and more glacial in appearance. Below the Forks the river is from 500 to 750 feet wide. The altitude at the Lower Forks is 1,430 feet above the sea.

Between the middle and lower forks is a canon two and one-quarter miles in length, of shelving sandstone, but its course is comparatively straight. A loaded dug-out canoe, managed by one of our Indians, passed through the canon in safety, and no difficulty was experienced in travelling on the grassy slopes above.

From the summit of Pine River Pass to the lower forks the distance is seventy-four and one-half miles, and the fall 1,010 feet. With the exception of a few miles at the summit, the valley between these points is generally favorable for railway construction. In the upper part of the valley there would be some short rock cuttings, where spurs from the low, sharp, wooded mountains project into the river, but on the lower portion there are long stretches of level flats, where the work would be very light.

On the 18th of August, about two miles above camp No. 44, and twenty-two miles from the summit, an open alluvial flat was reached on the left bank of the river, and a change in the character of the valley became apparent. Up to this point, which is probably the extreme western limit of the "Fertile Belt," no land suitable for cultivation or settlement was seen east of the mountains.

From camp No. 44 to the canyon, a distance of forty-three miles, Pine River Valley is from one to two miles in width. A very large proportion of the low land in this distance is fit for settlement, and the pasturage in the valley and in the north hill slopes is of the richest description. Grass and pea-vine in profuse luxuriance, with clumps of poplar and pine, cover thousands of acres, rendering this part of the country peculiarly attractive. From the canon to the lower forks the cultivable land is less extensive, but the pasture equally abundant and rich. The country abounds in large game, such as bear, cariboo and moose.

The hill slopes are, in many places, very distinctly marked by unbroken terraces, rising in some instances 1,000 feet above the level of the river. Opposite camp No. 47, and for some distance above and below it these terraces are most noticeable. They are truly parallel, and expose at their outer edges short bluffs of sandstone.

We arrived at the Lower Forks on the 28th August, and the following day made preparations to strike eastward, as Pine River here suddenly turns to the north.

On the 30th we started up the east branch in the hope of finding some lateral valley

from the eastward, by which the summit to the Smoky River might be reached. We ascended the valley for ten miles, when it became evident that it was useless to proceed any further, as the upward course of the valley was west of south, and we had evidently reached the southern edge of the plateau. Beyond could be seen pretty high hills rising roughly from the east bank of the river.

For eleven miles above the Forks the east branch has dug out for itself a narrow valley through the plateau. Rough, broken slopes of clay, sandstone and shale face the river, with shelving slabs of sandstone near the water's edge. The river margin is strewn with lumps of coal, numerous thin seams of which are seen in the face of the bluffs. The average height of the plateau above the river is 500 feet.

At noon on the 31st August we left the east branch and kept a course nearly due east. After passing the north end of a ridge running north and south, we reached a large stream coming from an easterly direction. Following up this stream to its source, through a wide valley, a summit 3,050 feet above the sea was crossed, and a little farther on we came to a small stream running eastward, which was followed for seven and one-half miles to camp No. 59, where the stream turns northward. The last five miles we travelled on a good Indian trail, on which were marks of horses, and by the side of the stream we noticed numerous wigwams. At camp No. 59 was found the entire skull of a buffalo.

From this camp we kept on, as nearly as possible, an easterly course, travelling occasionally on an Indian trail. After crossing a low ridge and several tamarac swamps, we reached, at four miles from Camp 59, a sluggish muddy river, 100 feet broad, running north, and no doubt falling into Pine River. Two miles east from this river we made Camp 61, at the foot of a pretty high ridge lying directly across our course. The altitude of this camp is 2,300 feet above the sea, and its distance easterly from the lower forks of Pine River, thirty miles.

From the time we left the east branch we had evidently been travelling along the southern limit of the plateau; for near at hand, on our right, rose hills and ridges from 700 to 1,000 feet above the general level, while the country to the north looked comparatively even. In the vicinity of "Buffalo Creek" the land is good, and the pasturage very rich.

The safety of the muies had now to be taken into consideration. They were 650 long miles from their winter pasturage at Kamloops, and the higher mountains had received, some time ago, their winter coats of snow.

Notwithstanding the never-ceasing attention of the most careful and industrious of cargadores, the animals were very much bruised and fatigued. For fifty-one days, often on scanty fare and with little rest, they had been by turns scrambling along rocky slopes and over fallen logs, breast high, floundering across swamps, or stumbling among the slippery boulders of the Misinchinca and Pine Rivers. Without the train I could do nothing, for the Indians refused to pack, and were besides becoming otherwise troublesome. They were in a strange country, far from home, and for sometime back had been using every means to dissuade me from continuing my journey eastward, at the same time making implied threats of returning home by themselves. I was very anxious to reach the summit to Smoky River; but there was high ground in front of us, and we would have been compelled to deflect still more to the north; besides, the country was much encumbered with fallen timber, and our progress eastward must have been very slow.

It was intended that the pack train should be at Quesnelle not later than the 20th October, as beyond that time it could not be considered safe in the woods. By this arrangement there was now left a margin of only a few days, and, under the circumstances, I judged it best to turn homewards.

We left Camp No. 61, for Quesnelle, on the 7th September, and reached the Lower Forks early on the 10th. On the 11th I examined the river for six miles below the Forks, and next day we started up stream on our homeward march.

In passing, I ascended Table Mountain, from the top of which an extended view was obtained—and the following notes taken respecting the surrounding country:—S. round to S. 80° E, many low hills rising from the plateau 500 to 1,500 feet; S. 80°

E. to N. 60° E., hills gradually flatten ; N. 60° E. to N. 15° W., a comparatively level country ; N. 75° W., very high peaks distant 40 to 50 miles (These are no doubt the southerly peaks of the high range in the great bend of the Peace River.) N. 15° W. to S. 70° W., a flat country for 30 to 40 miles, beyond which rise high rough mountains well patched with snow ; S. 25° W., up the valley of the middle branch towards the source of the Misinchinca, high snowy mountains. All the country to the south rough and irregular.

From the above observations it is evident that no satisfactory line of railway to the eastward need be looked for, independent of the Pine River valley, as far as the Lower Forks, or to the south of a line bearing N. 60° E. for some distance from the latter point.

The height of Table Mountain is about 3,500 feet above the sea.

On the morning of 16th September, the thermometer (Fahr.), stood at 22° above zero, and the weather looked threatening. We therefore pushed on with all speed, and reached the summit on the 20th. The snow line was then within 400 feet of the valley, and the weather boisterous, with occasional showers of hail.

Parsnip River was crossed on the 26th, and the following day, during a heavy snow storm, we arrived at Fort McLeod, 16 days from the Lower Forks of Pine River.

On the 29th, with the thermometer at 8° above zero, the pack train was despatched to Quesnelle, under instructions to proceed as rapidly as possible.

The train arrived at Quesnelle in safety on the 15th October.

After settling some difficulties with our three Indians, who insisted on returning with the pack train to Fort St. James, I proceeded by canoe to the mouth of the Mischinsinlica for the purpose of examining the valley of that stream and ascertaining if a practicable route existed in that direction to the valley of Pine River.

The Mischinsinlica falls into the Parsnip River, about ten miles below the Misinchinica. It is about 15 feet wide at the mouth, and its valley for eight miles up is favorable.

Beyond that distance the valley gradually becomes narrower and steeper, and at sixteen miles from the Parsnip branches out into the high rough mountains which lie on the west side of Pine River. A very indistinct Indian trail was followed up the Mischinsinlica for ten miles, where it ascended the left hand mountain and was seen no more.

Returning to the Parsnip on the 4th October, on the 5th we started up that river with the object of ascertaining the character of its valley and examining the eastern slope of the ridge between McLeod's Lake and the Parsnip.

During the night of the 4th the thermometer fell to 7° above zero, and we were much hindered by float ice in the river. On the 8th we had reached a point thirty-three miles above the Misinchinca. For this distance the valley of the Parsnip River is flat and wide, and in every respect favourable. The ridge on the east, towards McLeod's Lake is from 500 to 1,200 feet above the level of the river, and does not seem to present any serious obstacles to a line across it from East to West, were such desired.

At noon on the 8th we turned down stream and reached Fort McLeod by way of Pack River and Tutia Lake on the 10th.

It now remained for me to examine the route by way of McLeod's Lake and Crooked River or Chucaca to Summit Lake, and thence by way of Salmon River to the located line on the Upper Fraser.

We started from Fort McLeod by canoe on the 11th October, at 10 a.m., and entered Summit Lake on the 14th at 11 a.m. For some distance before reaching the lake we had to break our way through the ice. The navigation on a great portion of this route is excellent. The river in many places forms a natural canal, in others it opens out into lagoons and small deep lakes. There are, however, not a few shallow difficult rapids, affording barely sufficient depth of water to float a canoe, and in some portions of its course the windings of the river are interminable.

The adjacent country is generally flat for some distance on each side, and thickly wooded. On the west shores of McLeod's Lake, which is about fourteen miles in

length, the hills are rough but not high, sloping irregularly to the lake. The slopes on the east shore are more uniform, and less steep and broken. The shores of the various lakes are deeply indented by numerous bays and narrow arms, but the promontories thus formed are generally low, and by undulating grades could be crossed near the foot hills.

Rock appears on the east hill slopes at several points, but, generally, this would not interfere with railway location. On the upper portion of Crooked River the country is of a gravelly character; in some places rising in benches fifty to 100 feet above the river.

The distance from Fort McLeod to the upper end of Summit Lake, omitting the many windings of Crooked River, is about sixty miles, and the rise between those points is 160 feet. On a line this would be pretty evenly distributed throughout the whole distance.

The altitude of Summit Lake is 2,050 feet above the sea. Its length north and south is about five miles by four miles east and west. The waggon road across the Giscome Portage from Fraser River, strikes the lake at the south-east corner.

From the west end of the lake to Salmon River the distance by a good trail is only two and three-quarter miles, and the country is comparatively level. The watershed between the Arctic and Pacific Oceans is crossed one and a-quarter miles from Summit Lake, at an altitude of 2,160 feet above the sea.

We hauled our canoe and packed our baggage across this portage and started down Salmon River on the 16th October, reaching the Fraser early on the 18th; Quesnelle on the 19th, and Victoria on the 27th.

I closed my track survey on Division N, location of 1876, at the crossing of Salmon River bench, mark No. 106; altitude, 1915.46.

The valley of Salmon River, from the east end of the portage to the Fraser, is from one-half to one and a-half miles wide, and about 200 feet below the general level of the surrounding country. It is thickly wooded with fir and cottonwood. The channel of the river is very crooked and much obstructed by drift piles, which render navigation, more especially at a low stage of water, very tedious. There are a number of sliding slopes and bluffs of clay and gravel at the elbows of the river, and many gravel flats on both sides five to thirty feet above high-water mark.

The approximate position of a line along the route explored, from the railway surveys on the Upper Fraser by way of Pine River Pass to the Lower Forks of Pine River, a distance of 187 miles, is shown on the accompanying plan by a red line. This route is well marked out by the natural physical features of the country, and the following brief notes, with respect more especially to the general grades obtainable, may be useful.

	Distance in Miles.	Grades.	
		Ascending Feet per Mile.	Descending Feet per Mile
From Division N, location up Valley of Salmon River to Summit on Portage.....	12	21	.....
From Summit on Portage to West End of Summit Lake.....	3	.....	37
From West End of Summit Lake to Outlet of same.....	4	.....	Level.
Outlet of Summit Lake to North End of McLeod's Lake.....	54	.....	3
From North End of McLeod's Lake to Tutia Lake at the 80th Mile.....	6	.....	5
From the 80th Mile to Summit of Ridge between Pack and Parsnip Rivers.....	6	33	.....
From the Summit of Ridge to the Crossing of Parsnip River....	2	.....	57
From Crossing of Parsnip River to Crossing of Misinchinca, near Mouth of Atunatché.....	19	15	.....
From Crossing of Misinchinca to South End of Azuzetta Lake	4	53	.....
From South End of Azuzetta to Summit of Pine River Pass..	2½	4	.....
From Summit of Pine River Pass to Lower Forks.....	7½	.....	14

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For the first 106 miles the works would be mostly in gravel. From the 106th mile there would be some heavy work along the Atunatché, with considerable rock-cutting and probably some tunnelling near the precipice from which, to the Lower Forks, seventy-three and one-half miles, the works would be generally light, with a few rock cuttings.

The crossing of Pine River below the Lower Forks would be 1,200 feet wide, and seventy feet above the river, and some heavy work might be expected along the river slopes in gaining the plateau to the eastward.

Finally, the following may be noted as the salient facts ascertained from this exploration, viz. :

That a depression occurs in the Rocky Mountain range, extending from  $55^{\circ} 15'$  to  $55^{\circ} 45'$  North latitude.

That a pass exists in this depression which, together with its approaches from east and west, is, with respect to railway construction, of a generally favorable character.

That the summit of this pass is 2,440 feet above the level of the sea, which summit, for the sake of convenient comparison, it may be observed, is 1,293 feet lower than that of the Yellowhead Pass; 1,065 feet lower than the watershed between the Fraser and Homathco Rivers; 660 feet lower than the summit to Dean Channel; and, to carry the comparison a little farther, 5,802 feet lower than the highest point on the Union Pacific Railway.

I am, Sir, your obedient servant,

JOSEPH HUNTER.

MARCUS SMITH, Esq.,

C.P.R. Survey.



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 APPENDIX H.
 

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## CANADA AND ITS VAST UNDEVELOPED INTERIOR,

 BY SANDFORD FLEMING, C. M. G.
 

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*Read before the Royal Colonial Institute, London, England, 16th April, 1878.*


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## (EXTRACTS.)

" Having mentioned some of the events which ushered in the birth of the new Dominion, it will now be my purpose to furnish in a concise form a general account of the great region embraced within its limits, all of which is under the control of the Canadian Government. As a preliminary it seems proper that I should refer to some of those early discoverers and daring travellers who gave to the world the first knowledge of the country.

Last session, Mr. Fraser, when he addressed the Institute, referred to Sebastian Cabot, who touched the east coast of Labrador so long ago as 1496, and to Jacques Cartier who, in command of two or three French vessels, sailed up the St. Lawrence in 1534, and proceeded to establish trading posts which proved to be the beginning of the old province of Canada, now Quebec. Attention being now directed to a more extended field, in fact, to the northern half of North America, our inquiries must necessarily take a wider range, and embrace discoveries on the Pacific, on the Arctic, as well as on the Atlantic coast.

In the fifteenth century, when the Continent of America was first discovered,\* the dimensions of the globe were but imperfectly known. Its circumference was thought to be much less than it has since proved to be, and the newly-discovered land was supposed to be the eastern shores of Asia. Spain and Portugal were then the great maritime powers of the world, and they agreed under a Treaty of Partition founded on a bull issued by Pope Alexander VI, in the year 1494, that the Spaniards should possess exclusive control over the western route to Asia, while the Portuguese should communicate through eastern channels. The question of jurisdiction having thus been settled and stamped with the authority of the highest power in those days, the Portuguese pursued their discoveries to the east by way of the Cape of Good Hope, while the Spaniards endeavoured to find their way, in a westerly direction, through new seas and unknown lands, to India. The Spanish ships cruised along the Atlantic coast of America in the hope of finding their way to the south of Asia. In 1513 the Isthmus of Darien was crossed, and three years afterwards Spanish navigators penetrated the Straits of Magellan; and thus the Pacific Ocean was discovered at two widely separate points.

In 1592, Juan de Fuca is reported to have followed the Mexican and Californian coasts until he reached the broad inlet of the sea which to this day bears his name, and which forms the southern limit of Canada on the western ocean. Eight years after the alleged discovery by Juan de Fuca, Henry Hudson ascertained the existence of a great inland sea accessible from the Atlantic side of the new continent. From Hudson's Bay it was confidently expected that some passage would speedily be found which would enable ships to traverse from the Atlantic to the Pacific and thus shorten the voyage from Europe to Asia.

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\* Columbus landed on S. Salvador or Watling's Island, on the 12th of October, 1492.

In 1669 the whole region surrounding Hudson's Bay was granted by the British Crown to the society of merchants ever since known as the Hudson's Bay Company, who, after thoroughly exploring its shores, failed in discovering an outlet to the west.

The first civilized men who pierced the interior were probably French adventurers and traders from old Canada, while the whole country was yet in possession of France. A record of the exploits of these men, who, without the slightest previous knowledge of the territory, penetrated among numerous savage tribes, would be of thrilling interest. They passed from the St. Lawrence through the great lakes Huron and Superior, and by the innumerable intricacies of streams, lakes, and portagesto Lake Winnipeg. Thence, they passed up the River Saskatchewan to about the 103rd meridian, where they planted their most distant trading post some 2,000 miles from the then colonized parts of Canada.

In 1679, almost two centuries ago, Robert Chevalier de la Sale entertained the idea of finding a way to China through the lakes and rivers of Canada. His expedition set out in the frail canoes of the natives, his point of departure above the rapids on the St. Lawrence, near Montreal, being named, as it is still named, "La Chine," in allusion to the daring project to reach from that point the land of the Chinaman. Half a century later the attempt was renewed. In 1731, Pierre Gauthier de Varennes, under the auspices of Charles, Marquis de Beauharnois, Governor of New France, commanded the expedition, and although he failed to reach the Pacific Ocean, he was the first to reach the Rocky Mountains.

In 1762, Fort La Rouge, close to the site of the present Fort Garry, was an established trading post. Soon after this, the conquest of Canada extinguished French possession and terminated French exploration in the western wilderness. Even the French missionaries, who were the first to preach the Gospel to the aborigines, abandoned the country, and did not resume the work for nearly sixty years.

A hundred years after the grant to the Hudson's Bay Company, one of their agents, Mr. Samuel Hearne, was commissioned to examine the interior. Between 1769 and 1772, that early explorer made journeys on foot and in canoes 1,000 miles westwards from the place of his departure on Hudson's Bay. He discovered Great Slave Lake and other large lakes, and traced the River Coppermine to its mouth.

Exactly a hundred years ago, and in the year before the sad end of one of the most distinguished of navigators and discoverers, Captain Cook touched at Nootka Sound, on the western coast of Vancouver's Island, claimed its discovery, and after remaining there a few weeks, sailed along the coast to Behring Straits.

After an intermission of eleven years, Alexander Mackenzie, in the service of the North West Fur Trading Company, set out on an important exploration of the interior. Between 1789 and 1793, that intrepid traveller discovered the great river which justly bears his name, and followed it to the Arctic Ocean. He ascended the Peace River to its source, was the first civilized man to penetrate the Rocky Mountains, and passed through to the Pacific Coast. This traveller inscribed in large characters on a rock by the side of Dean Inlet, the words—"Alexander Mackenzie, from Canada by land 22nd July, 1793." On the same day that Mackenzie painted that memorable inscription by the side of the Pacific, Captain Vancouver was pursuing his examination of the coast about two degrees further north. A short time before Mackenzie emerged from the interior, Vancouver had visited the spot where Mackenzie slept but one night within sound of the sea. Thus these two distinguished travellers, from opposite directions, and engaged in totally different pursuits, discovered precisely the same place, and by a remarkable coincidence all but met each other.

In 1806, Simon Fraser crossed the Rocky Mountains from Canada, and descended the great river of British Columbia which, in his honour, was named after him. It was my good fortune many years ago to read Fraser's original manuscript journal, then in the hands of his son. I have since witnessed the foaming rapids and boiling whirlpools of that wildest of all large rivers, and I cannot be surprised that not many have attempted, and that still fewer have succeeded, in following in the wake of Simon Fraser from the source to the mouth of the mighty stream. Twenty-two years after-

wards, however, Governor Sir George Simpson made the daring attempt. In 1828 he stepped into a canoe at York Factory on Hudson's Bay, and stepped out of the frail craft some time afterwards at the mouth of the River Fraser, having in the interim traversed the interior, and carried the canoe, as Mackenzie did before him, from the source of Peace River to the great northern bend of the Fraser.

This celebrated traveller, in his journey round the world in 1841, again crossed the northern half of America. His course was by the St. Lawrence, the Ottawa, Lakes Nipissing, Huron, Superior, and by the canoe route to Lake Winnipeg. Then across the prairie *via* the Saskatchewan to the Rocky Mountains and by Kootenais to the Columbia River.

In June 1843, Captain (now General Sir Henry) Lefroy arrived at Red River, passed through to Lake Athabasca, and there remained from the middle of October to the end of February following, engaged in meteorological and magnetical observations. In March 1844 he started for Fort Simpson on Mackenzie River, where for several months his time was occupied in similar pursuits.

The north-west passage, a problem which had already baffled the energy and skill of navigators, remained unsolved at the beginning of the present century, and a series of attempts was made to throw light on the gloom which surrounded it. Some of these efforts assumed the forms of expeditions by land, traversing the region which now constitutes part of Central Canada, and therefore call for further notice here. The reference to them must be brief, but the indomitable perseverance and heroic endurance which they developed and displayed, demands a passing tribute to names which will ever be familiar in Canadian and Arctic story.

In 1819, an Arctic land expedition was organized under the command of Captain Franklin. That officer travelled, *via* Red River, to Cumberland House on the Saskatchewan, and thence by Fort Chipewyan, Fort Enterprise, and the River Coppermine, to the Arctic Coast. This expedition was marked by frightful suffering and loss of life.

In 1825, Franklin started on a second expedition. Having reached Ontario, he passed, *via* Lakes Huron and Superior, to Red River, and thence traversed the country to Great Bear Lake, where he wintered. The following year he pursued his journey to the Arctic coast, *via* Mackenzie River.

In 1833, Captain Back, on an expedition in search of Sir John Ross, passed from Montreal to Lake Winnipeg and thence to Fort Reliance, where he wintered; after which he followed the Great Fish River to the Arctic coast.

In 1836, Messrs. P. W. Dean and Thomas Simpson, at the instance of the Hudson Bay Company, started overland from Red River on a joint expedition. They spent the years 1837, 1838, and 1839 in explorations on the northern coast. They joined the surveys of Franklin and Beechey at Point Barrow in Behring Strait, and those of Franklin and Back between the Coppermine and Great Fish Rivers, making the longest boat voyage in the Arctic seas on record.

In 1845, Dr. Rae took his departure from Lake Superior on the breaking up of the winter, passed by the common route to Red River, by Lake Winnipeg to Norway House and thence to York Factory, where he wintered. A year afterwards he wintered at Repulse Bay without fuel, and subsisted with his party for twelve months on food obtained with the gun and spear. He united the surveys of Ross and Parry, a distance of about 700 miles, and made the first long sledge journey performed in that part of the world, the total distance being nearly 1,300 miles.

In 1848, Sir John Richardson, who had already made two overland journeys with Sir John Franklin, made a third in search of that lamented traveller. On the last occasion he was accompanied by Dr. Rae. The two volumes published by Richardson on his return afford evidence of the minute scientific observations made in that part of Canada traversed by these celebrated explorers, and supply ample proof of the value of their labours.

In 1849, Dr. Rae, alone, passed down the River Coppermine, pursuing the object of discovering Franklin with unabated vigour.

In the following year, Dr. Rae renewed the search. He wintered at Fort Confi-

dence, Great Bear Lake; descended the Coppermine River; travelled over ice nearly 1,100 miles, at an average rate of from twenty-five to twenty-six miles a day; and made the fastest long Arctic journey which has ever been known. Subsequently, on the same expedition, he made a boat voyage almost rivalling that previously made by Dean and Simpson.

In 1853 and 1854 this indefatigable and justly celebrated traveller, Dr. Rae, was again in the field. Again we find him wintering at Repulse Bay, living nearly altogether on the produce of the gun, the hook, or the spear. He made another sledge journey of over a thousand miles, and joined the surveys of Dean and Simpson with those of Ross west of Boothia. On this occasion Dr. Rae was so far successful as to set at rest all doubts as to the sad fate of the Franklin expedition. For this the promised reward, £10,000 sterling, was presented to him and his men.

With the exception of a final exploration made in 1855 by Messrs. Anderson and Stewart, who passed down the Great Fish River, this ends the record of overland Arctic expeditions. It cannot be denied that, notwithstanding all the toils, perils, and privations inseparable from them, these expeditions have resulted in failure and disappointment in regard to the main object for which they were undertaken, viz., a north-west passage for ships. They have incidentally, however, given valuable additions to our knowledge of the country, and made important contributions to science.

These various overland Arctic expeditions, of which I have presented but an outline, extended over a period of thirty-six years. But for them the northern regions of Canada would not have been so thoroughly explored. We have now a fair knowledge of the northern coasts, with all their silent and peaceful grandeur, far away from the feverish bustle of busy men. The more Arctic portions of the Dominion are probably destined to remain for ever undisturbed by the hum of industry, and to continue, as Providence has hitherto kept them, with all the characteristics of snow and solitude which mark the landscape in high latitudes.

While investigations were being proceeded with during a series of years in the northern parts of British North America, in connection with the all but futile attempts to find a north-west passage between the Atlantic and Pacific oceans, it was not until a comparatively recent period that special attention was directed to the southern and far more valuable portions of the country.

Between the years 1819 and 1855 the northern districts were traversed in many directions. It was only subsequent to the latter date that regularly organized efforts were made to gain information respecting the country nearer home.

In 1857, on the recommendation of the Royal Geographical Society, Her Majesty's Government sent out an expedition to explore the country between Lake Superior and the Rocky Mountains. It was placed under the command of Captain Palliser, who, with a staff of scientific men, remained pursuing his investigations until 1859. Reports of the highest value were published on the return of the Expedition.

The Government of the late province of Canada likewise sent out an expedition in 1857. Its object was to survey the canoe route between Lake Superior, and the Red River settlement. Messrs. Dawson and Hind, who were in charge of distinct branches of this expedition, pursued their investigations during 1857 and 1858, extending them as far west as the south branch of the River Saskatchewan.

In the same years, 1857 and 1858, Captain Blackiston, at the instance of the Royal Society, was engaged in meteorological and other scientific observations. He began at York Factory, on Hudson's Bay, passed inland to Lake Winnipeg, and thence by the Saskatchewan to the Rocky Mountains.

Other travellers, who were not directly commissioned by the Imperial or Colonial Governments, passed through the country, and on their return added valuable contributions to the general stock of information. In 1859 and 1860 the Earl of Southesk followed the Assiniboine and Saskatchewan valleys to the Rocky Mountains, and some years afterwards gave the public the benefit of his observations. In 1862 and 1863, Lord Milton and Dr. Cheadle crossed from the Atlantic to the Pacific

by the Yellow Head Pass and Thompson River, performing a journey in which they were exposed to perils and narrowly escaped disaster. The volume, "The North-West Passage by Land," published on their return to England, is one of the most charming among modern books of travel. In 1864 we again find Dr. Rae at work. On this occasion he had abandoned the Arctic regions in favour of a more southern journey. He crossed, as Milton and Cheadle did in the previous years, *via* the Saskatchewan to Tête Jaune Cache, but, unlike them, he turned at this point to follow the Fraser, in place of the River Thompson; finally reaching the Pacific coast.

I ought not to omit to mention Messrs. Douglas and Drummond, both botanists who spent some time in the country, and David Thompson, after whom the River Thompson is named. He was for many years in the service of the Hudson's Bay Company as astronomical surveyor. To his labours we are indebted, to no small extent, for our geographical knowledge of much of the interior.

I should do injustice to the missionaries who have gone forth at different times to Christianize and civilize the native tribes, did I overlook the part they have taken in throwing light on the physical features of the several regions they have visited. Ministers of the Anglican, Wesleyan, Presbyterian, and Roman Churches have each and all done their part. To French clergymen of the last-named Church we are perhaps chiefly indebted. Nearly a hundred and fifty years ago Pierre Arnaud, on his first intercourse with the Indians, fell a victim, together with one of the brothers Verandrye and party on their way between Lake Superior and Red River. Canada owes much also to the learned Archbishop Taché, whose travels during a sojourn of over thirty years have been extensive, and the results of whose observations in many parts of the far interior have been given to the world.

This brings the list of the principal explorers, as far as I have been able to learn their names, and the record of the various independent discoveries which have been made, up to the period when the whole territory formerly known as British North America came under the name and jurisdiction of Canada. As I before mentioned, the Imperial Act by which British Columbia and the Hudson's Bay Territory entered the Dominion, came into force in July, 1871. On that day, strong engineering parties were sent out by the Government of Canada to explore the whole region intervening between the seat of Government at Ottawa in the eastern provinces and the Pacific coast at the west. The object was to obtain more complete information respecting the country, and find a line to be followed by a trans-continental railway. The engineering force engaged in this work has been about a thousand men of all grades. The surveys have been continued from 1871 up to the present time. I have been myself intimately connected with it, and therefore it behoves me to refrain from saying much with respect to the manner in which the work has been done. I may, however, be pardoned for alluding to the earnestness and determination of the Government and people of Canada with respect to the development, as rapidly as possible, of the magnificent country which has come under their control. An instance may be given in connection with the surveys. After three years had been spent by the engineers in exploring every part of a wild, uninhabited, and roadless country, extending a distance of about three thousand miles, a great amount of exact engineering information had been obtained at a heavy cost, when a serious and discouraging disaster occurred. In 1874, in mid-winter, the building in which were deposited the field note-books, the unfinished plans, and nearly all the other information accumulated, was destroyed by fire, and nearly every scrap of paper was consumed; and thus the labour of three years, and results which had been obtained at a cost of about £300,000 sterling were lost. Nothing daunted, the order was given to begin the work of surveying afresh. It has been vigorously prosecuted up to the present time, and I can now point to some of the results as being highly satisfactory.

I shall not attempt to weary you with even an outline of the details of the work which already fills volumes; I will simply allude presently to the general information which has been acquired, showing, perhaps, some of the more important results which have been obtained. It will, however, enable the members of the Institute to form some idea of the labour which has been expended on this survey when I inform them

that the total length of explorations made during the last seven years exceeds 47,000 miles, and that no less than 12,000 miles have been laboriously measured by chain and spirit level, yard by yard, through mountain, prairie, and forest. To mention that the Canadian Government has, on this special examination alone, expended about £700,000 sterling, will not fully convey a correct idea of the energy and determination displayed.

Besides extensive land surveys in Manitoba, the boundary line between Canada and the United States has been defined from end to end. This was done by a joint Commission appointed by both countries; the British section of the Commission being in command of Major D. R. Cameron. The work occupied three years, and the reports furnished on its completion, including scientific papers by Captains Anderson, Featherstonhaugh, and George M. Dawson, have largely extended our knowledge of that portion of the country adjoining the southern boundary line from the Lake of the Woods to the Rocky Mountains. A boundary survey west of the mountains had been previously effected.

The foregoing sketch of the early discoveries of different independent portions of North America which together make up the Dominion of Canada, and the reference to the various explorations and surveys which, from time to time, have been made in different parts, will enable members of the Institute to judge of the value of the information, geographical and physical, which has been acquired respecting much of the country. The several provinces on the Atlantic sea-board, and the valley of the St. Lawrence are well known, and have already been described at a former meeting. The southern margin of the country, extending from these provinces westwards to the mountains, have been examined with the greatest care by the Royal Commission appointed to define the boundary between Canada and the United States. The Canadian coast on the Pacific, with its many deep fiords, flanked in some instances by mountains reaching the limits of perpetual snow, has been the subject of repeated explorations. The northern side of the country, with its long summer day and its equally long winter night, has been visited in nearly every part by brave indefatigable men, who, after perils and privations of no ordinary kind, have mapped it out, and left it again to the silence and desolation which pervade the Arctic circle. The interior is so vast that it cannot be said to have been completely examined. There are still some districts where the foot of civilized men has not yet stepped; but, as I have shown, explorers have forced their way in many directions; adventurous men have penetrated the gloomy recesses of the primeval forest, have peered into the rocky fastnesses of the mountains, and, with unflagging toil and unflinching endurance, have gained for us a general and reasonably correct knowledge of much of the country.

I shall not trouble you with many details, but shall endeavour only to lay before you a very brief and condensed description of the general physical characteristics of the several great divisions of the territory comprised within the limits of the Dominion. In the first place it is important that a perfectly clear and correct conception should be formed of its extent. If we open an ordinary atlas and overlook the parallels of latitude and longitude, for the moment, all countries appear very much about the same size. Scales and projections are adopted to suit the convenience or fancy of the publisher. Large countries are made small, and small countries are made large, to suit the size of the book; and thus strange misconceptions are often formed. If, however, we take a large terrestrial globe upon which all the land and water on the earth's surface are depicted on precisely the same scale, our ideas will be corrected. If on the surface of the globe we draw on one sheet of tracing paper the outlines of Canada, and on another the outlines of Europe, and then proceed to lay the one over the other, so as to cover so much of the land in each case as possible, and if we go on to measure and make allowance for portions left uncovered, we shall find that Europe somewhat exceeds the area of Canada, but that the excess is not great. Lest it be imagined that Canada has an undue share of the region of ice and snow, we may exclude from the comparison all the land within the Arctic circle in both cases, and still we find that Canada covers fully more of the

earth's surface than the comprised areas of European Russia, Lapland, Norway, Sweden, Denmark, Holland, Belgium, the British Islands, France, Switzerland, Germany, Austria, Turkey, and all the principalities between the Adriatic and Black Seas; in fact, if we leave out Spain and Italy, Canada appears to equal in area the remainder of Europe.

Of course, this is a comparison simply of extent; it has no reference to soil, or mineral resources, or to climate. These features will be briefly considered presently.

It has been found convenient in describing the general characteristics of Canada to divide it into three great regions. Its leading botanical, geological, and topographical features suggest this division. One region, except where cleared of its timber by artificial means, is densely wooded, another is wooded and mountainous, the third is a vast lowland plain of a prairie character. The Mountain Region is on the western side; the Prairie Region is in the middle; the remainder, which embraces the settled provinces on the St. Lawrence, originally covered with a growth of timber, may, for the sake of simplicity of description, be considered the Woodland Region.

I shall first consider the Prairie Region. If we place before us an orographical map of North America, it will be noticed that a great continental plain stretches north and south between the Gulf of Mexico and the Arctic Ocean. It is bounded on the western side throughout its whole extent by the Rocky Mountain zone, and on the eastern side in part by a less elevated region, the Appalachian zone. This great plain occupies the whole of the continent of North America between the western and eastern mountain ranges. It is divided by its river systems into three perfectly distant drainage basins. One drains to the south into the Gulf of Mexico, another north into sub-Arctic waters, and the third east into the Atlantic by the channel of the great river St. Lawrence.

Of these three basins, that of the St. Lawrence is by far the smallest, and the northern is fully as large as the other two together. The St. Lawrence basin, on the boundary between the United States and Canada, occupies part of both countries; the southern basin is almost wholly in the United States; the northern basin is almost wholly in Canada; and the line of contact between the two latter basins is in part approximately coincident with the 49th parallel of latitude—the southern limit of the interior of Canada. It will thus be seen that the great continental plain of North America is divided naturally, as well as artificially, through the centre. It is divided politically into two adjacent countries, under distinct governments, and naturally into three vast drainage basins, the smallest of which occupies a comparatively narrow strip along the eastern portion of the International Boundary line, while the other two discharge their waters in diametrically opposite directions.

The Prairie Region of Canada, lies in the northern drainage basin: it may be considered to extend from south to north more than a thousand miles, and nearly the same distance from east to west. It is not all a treeless prairie; a considerable portion is thinly wooded; yet the whole is considered as more or less partaking of a prairie character.

The Prairie Region, so called, is somewhat triangular in form. One side coincides with the International Boundary line, and extends from the 95th to the 113th meridian; another side follows the eastern slope of the Rocky Mountains from the 49th to about the 64th parallel of latitude. The third side, about 1,500 miles in length, skirts a remarkable series of lakes, rivalling in size Lakes Erie and Ontario. These great water-filled depressions lie in a generally straight north-westerly and south-easterly direction. They embrace Great Slave Lake, Lake Athabasca, Lake Wollaston, Deer Lake, and Lake of the Woods, and they appear to occur geologically on the separating line between a broad band of Laurentian or metamorphic rocks and the softer Silurian formations. This great triangular-shaped region is estimated to measure about 300,000,000 acres. Its base, running along the series of lakes mentioned, will probably average less than 1,000 feet above the sea; and its apex, near where the International Boundary line enters the Rocky Mountains, will probably be about 4,000 feet above sea level. This region may generally be described as a great plane sloping from its apex in a north-easterly direction downwards to its base, but

the inclination is not uniform and unbroken. Several terraces and well-defined escarpments stretching across the country are met with at intervals. A great proportion of the surface is gently rolling, and hills of no great height occur here and there. The rivers of this division of the country flow for a great part of their course in deeply eroded channels, frequently of considerable width, and as the superficial formations are for the most part drift or soft rock, the channels which have been furrowed out are but little obstructed by falls or steep rapids. They generally present a uniform descent, and the long stretches of some of the rivers, although the current be swift, are capable of being navigated. A wide expanse of the region to the south of the main Saskatchewan is a prairie, without trees or shrubs of any kind; the treeless prairie passes by easy gradations into copse woodland with prairie intervening. To the north of the Saskatchewan, woodland appears in various localities. On Peace River there are extensive prairies; there is, also, an agreeable mixture of woodland and prairie; and this character of country appears to prevail for a considerable distance still further north.

It is scarcely to be supposed that a region so extensive would be found all fertile land. The great American desert, which covers a wide area in the centre of the United States, was at one time thought to extend north for a considerable distance into Canada. The Boundary Commission reports, however, appear to show that the arid and unproductive tract is more limited on the Canadian side than was previously supposed; and that a great breadth of the country previously considered valueless may be used for pastoral purposes, and some of it ultimately brought under cultivation. There are other places within the territory described as the Prairie Region which are unfavourable for farming pursuits; and although certain drawbacks claim recognition, there can no longer be any doubt respecting the salubrity of the climate and the existence of vast plains of rare fertility. Information on this head has been obtained year by year. Professor Macoun, a well-known botanist, has recently been commissioned specially to investigate this subject. He estimates that there are no less than 160,000,000 acres of land available in this region alone for farming and grazing purposes, of which one-half, or 80,000,000 acres, may be considered fit for cultivation.

The mineral riches of this great division of Canada are but imperfectly known. It has, however, been established that immense deposits of coal exist in many parts, chiefly along the western side. The examinations of Mr. Selwyn, director of the Geological Survey, carry the impression that the coal-bearing rocks pass with their associated coal seams and iron ores beneath the clays farther east, and it may be that shafts would reveal workable seams of coal at such limited depths beneath the surface as would render them available for fuel and for industrial purposes in the heart of the prairies. Should these views of Mr. Selwyn prove correct, their realization will be of the greatest possible importance to the country. Besides coal and iron ore, petroleum, salt and gold have also been found.

The nucleus of a population has for many years existed on the Red River; it was originally formed by the Earl of Selkirk near the beginning of the present century. In the autumn of 1812 he reached the chosen locality, Kildonan, *via* Hudson's Bay and River Nelson, with a small party of Highland Scotchmen. Subsequently, the numbers were increased, and a number of French Canadians also settled down to cultivate the soil at St. Boniface, on the opposite bank of the Red River. The Red River settlers, exposed to many vicissitudes during a space of half a century, did not greatly prosper. But since the incorporation with Canada of the whole country formerly under the sway of the Hudson's Bay Company, marvellous progress has been made. The province of Manitoba has been created around the place which was once the Selkirk settlement; its population has increased from a mere handful to many thousands, and it has to all appearance entered on a career of unexampled progress.

Manitoba, although a province with prospects so brilliant, occupies but a small corner of the fertile lands in the interior of Canada. The Prairie Region, as set forth in the foregoing, is alone ten times the area of England, reckoning every description of land; such being the case, it may be no vain dream to imagine that in due time



many Provinces will be carved out of it, and that many millions of the human family may find happy and prosperous homes on these rich alluvial plains of Canada.

I shall now pass to that other great division of the country which has been designated the Mountain Region.

This is part of the great elevated mountain zone of North America, which begins in the Cordilleras and elevated plateau of Mexico, and extends to the Arctic Ocean. If we examine the orographic map, it will be observed that the Rocky Mountain zone, although it has many subsidiary mountain ranges, is characterized for the greater part of its length by two prominent and perfectly distinct Alpine chains, each with many spurs or branches. One of those main chains is directly along the Pacific coast: in Canada it is known as the Cascade Mountains, and farther south as the Sierra Nevadas. The other range is the Rocky Mountains proper: it observes a general, although not perfect, parallelism with the coast. The distance between the crests of these two lofty chains varies from 1,000 miles in the United States to 300 miles in Canada, and to this circumstance may be attributed the remarkable widening of the alluvial plains in the Canadian half of North America.

I shall now confine my remarks to that portion of the Rocky Mountain zone within the limits of Canada.

The Cascade Chain rises abruptly from the sea level, presenting from the water an extremely bold and defiant aspect. The average height of the many serrated summits will probably range from 5,000 to 8,000 feet above sea level, and some of its central crests and loftiest peaks rival in elevation the main Rocky Mountain Chain. The main Rocky Mountain Chain is in Canada from 300 to 400 miles distant from the Pacific coast. This chain rises like a colossal wall above the continental plain on its eastern side. Its flanks are, however, deeply gashed, and great countefort-like spurs jut out, between which the rivers which water the Prairie Region take their rise. Much of this great mountain barrier rises over 8,000 feet above sea level. The loftiest central peaks enter the region of perpetual snow; some of them, indeed, reach an elevation estimated at 15,000 feet above the ocean. On the western flank of the chain are several independent groups of mountains, known by local names. They are separated from each other by narrow valleys and deep chasms, some of which are prolonged in the direction of the Prairie Region, forming passes through the mountains. Some of these passes are from 6,000 to 7,000 feet above the sea, and they range down to less than 2,000 feet. These transverse openings through the lofty chain afford comparatively easy passages from one side to the other. The lowest and most remarkable is in about latitude 56 degrees. Here the Peace River rises on the western side of the Rocky Mountains, and flows through them at a low altitude, ultimately passing into the River Mackenzie.

Between the Cascade and Rocky Mountain Chains there extends an elevated plateau, averaging from 3,000 to 4,000 feet above sea-level. This plateau is grooved out by deep river channels, broken by rocky ridges and inferior mountain masses. It has many lakes, occupying deep depressions in the surface, and is intersected in many directions by numerous broad, sheltered, undulating valleys. The surface of this plateau in some quarters is thickly, in others scantily, timbered, and in certain districts open prairies present themselves.

Off the shore of the mainland there are several large islands, the most important of which is Vancouver Island; the others are the Queen Charlotte group. The former is half as large as Scotland, the latter is in area more like Wales. The climate of these islands is moist and temperate, and in this respect they are not dissimilar to the British Islands. Vancouver, the most southerly, has an elevated interior with mountains rivalling in height those of the mother-country. Some of the central peaks, such as the Alexandra, the Albert Edward, and the Victoria, rise from 6,400 to 7,500 feet above the sea. The last, the Victoria Peak, is double the height of Snowdon, and one-third higher than Ben Nevis.

Besides Vancouver and the Queen Charlotte group, there exists along the shore of the mainland clusters of smaller islands, between which are deep, and in many places intricate passages. Great arms of the sea pierce the mainland in many

places. They resemble the deep-water, rock-bound fiords of Norway, and they penetrate so far that the largest iron-clads afloat could steam, in some cases, into the very heart of the Cascade Mountains.

The Mountain Region has some good lands, but the fertile tracts are limited in extent; when developed they will be advantageously situated for raising agricultural products and stock to supply the mining industries which in time will undoubtedly be established.

This region is exceedingly rich in minerals, containing coal and iron in profusion. In quality, the Vancouver coals are found superior for steam engines to any worked on the Pacific coast. They find their way to California, and are used on the railways leading out of San Francisco, in spite of a high duty imposed by the United States. The precious metals are also found. The yield of the gold washings is already about 40,000,000 dollars, and within the past year quartz mining has been inaugurated. Mr. Dawson, of the Geological Survey, reports: "I think it may be said without exaggeration that there is scarcely a stream of any importance in the province of British Columbia in which the 'colour' of gold is not found." Silver is met in several localities. Copper, mercury, lead, platinum, and nickel are also mentioned in the reports of the Geological Survey.

Very much still requires to be learned respecting the rock formation of the Mountain Region. Data have, however, been collected in a rapid and necessarily imperfect geological exploration sufficient to establish the existence of great mineral wealth. There can be no doubt that here we have a wide and promising field, and the future will witness industries of various kinds working and developing the riches which lie buried under the surface. The forests, of enormous growth, which exist in many places, and the fisheries of the rivers and coasts, will give employment to a very considerable population.

I must now turn to the Woodland Region; but to describe it, even in outline, would far exceed the limit of this paper; I must therefore content myself with a few passing remarks. I have already defined the Woodland Region to be the whole of Canada not within the Mountain Region in the west and the Prairie Region in the middle; it therefore embraces all the settled portions of the Eastern Provinces which were wooded at one time, but which have, within a brief period, been in part cleared by the hand of man. This region is of immense extent; it embraces 84 degrees of longitude; its most southerly point is on Lake Erie, in the 42nd parallel, and it stretches from the latitude of Rome away far north to a point at least 200 miles within the Arctic circle. Compared with the country on the Pacific coast, no part of this region can be considered mountainous. Although elevated ranges, like the Laurentides, are met, only a small proportion of the country exceeds 2,000 feet above sea-level. An area of fully 200,000 square miles is estimated to be under 500 feet above the level of the sea.

So great an extent of territory presents many varieties. In the north it assumes an Arctic character, and resembles portions of Siberia. The nearest portion of Canada to Europe is that which is least known and believed to be the least valuable. It is bounded on the west by Hudson's Bay, and on the east by the Atlantic Ocean. Its extreme length from north to south is about 1,000 miles, and it is about the same length from east to west. This section of Canada is somewhat greater in area than Norway and Sweden, Denmark and Lapland, and a great extent of it is considered to have no better climate than the northern parts of these European countries. To the north-west of Hudson's Bay about an equal area may be similarly described. Its surface is varied, and its vegetation affords sustenance for the great herds of reindeer and musk ox which find a home in this otherwise inhospitable section. It presents no prospect for the agriculturist; the only hope is in the fisheries along the coast, in the fur trade, and possibly in minerals which may lie hidden under the surface.

These are the worst sections of the country; as we advance southward its character gradually changes and improves. True, there is a broad band, the agricultural resources of which are not promising; but the forests which cover the surface will every year become more and more valuable, and its geological structure affords indi-

cations of mineral wealth. The investigations of the Geological Survey here point to the existence of rich deposits extending over wide areas. The more important minerals are gold, silver, coal, iron, copper, lead, phosphates, and plumbago. Crossing the metalliferous band, we reach considerable tracts of land which by cultivation will produce all the ordinary crops; and continuing southwards we finally reach Ontario, one of the finest wheat-producing countries in the world.

I must say a word about the climate. It should be borne in mind that Canada, like Europe, extends over so many degrees of latitude that it must have many gradations of climate. In some parts of Canada, fruits ripen in the open air that cannot successfully be grown in England in any quantity except under glass. In one locality every farmer enjoys the luxury of a large peach orchard; while far to the north the flora and fauna are those of Lapland, and still farther north icebergs are the perennial crop. The alpine region bordering the Pacific, as in Southern Europe, presents lofty peaks reaching the permanent snow-line, while at lower levels in the vicinity of the ocean a climate soft and mild as Ireland prevails.

In the greater part of Canada, however, the thermometer has a wide range. In summer the temperature runs high; in winter it occasionally goes very low. It is difficult for a resident of this country to understand how one can live and enjoy life in a temperature sometimes many degrees below zero; but owing to the extreme dryness of the atmosphere the cold is not really felt so much as might be imagined. Ordinary work is carried on in the open air without inconvenience in what would seem to a resident in England very great degrees of cold.

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Generally speaking, the climate of habitable Canada may not unfairly be compared with that of Russia, Germany, Austria, and other countries in Europe. It cannot be denied that the winters are perhaps longer and colder than is desirable. The climate is certainly continental, but notwithstanding the wide range of temperature, there cannot be a doubt that it is not only endurable, but that it is healthy and bracing.

Viewing Canada as one consolidated country, extending across the widest and not the least valuable portion of the continent of America, embracing a marvellous breadth of fertile and unoccupied land; with a healthy, invigorating climate; with unlimited mineral resources; with supplies of timber in her forests second to those of no country in the world; with inexhaustible fisheries in its great lakes and rivers, and around its coast on three oceans; with deposits of coal and iron of unmeasured extent in the interior of the country, and on the Atlantic as well as on the Pacific sea-boards; taking all these natural elements of future wealth and greatness into consideration, the problem which presents itself is the development of a country which has been provided with natural resources so lavishly. The question is, how to colonize the northern half of North America, and render it the home of a happy and vigorous people. It is true that Canada already has a population of some four millions, but as yet the mere outer fringe of the country is occupied. We are only beginning to realize the fact that the interior has space for many times the present population. It is just beginning to dawn upon Canadians themselves that in the territories which have been described, there is room, and to spare, and there exist the elements of support, for a greater population than that of the mother-country. No wonder, then, that the problem to be solved appears one of weighty importance.

The waterways of a country present the natural means of colonization. In bygone times, rivers and lakes, the shores of bays and estuaries, have been followed by adventurous races, and these natural channels have thus in all ages furnished the means of spreading the human family. Canada is not wanting in highways of this kind, although many of them are subject to drawbacks which will presently be referred to. On the eastern side she has the Gulf of St. Lawrence, which in many respects resembles the Baltic. To the north she has Hudson's Bay, a sheet almost half as large as the Mediterranean. She has lakes, but they are really seas, and they breed storms and tempests like the Atlantic. I might attempt to describe a dozen of these inland fresh-water seas, but I should fail to convey a correct idea of their character and importance.

Fortunately I can refer to a description of the waterways of Canada by a master-hand. I cannot, I am sure, quote higher authority than that great traveller and distinguished nobleman, the Governor-General. On a recent occasion, Lord Dufferin, standing as near as possible midway between the Atlantic and the Pacific, and addressing some of the subjects of Her Majesty in the province of Manitoba, said:—

“To an Englishman or a Frenchman, the Severn or the Thames, the Seine or the Rhone, would appear considerable streams; but in the Ottawa, a mere affluent of the St. Lawrence, an affluent, moreover, which reaches the parent stream 600 miles from its mouth, we have a river nearly 550 miles long, and three or four times as big as any of them. But, even after having ascended the St. Lawrence itself to Lake Ontario, and pursued it across Lake Huron, the Niagara, the St. Clair, and Lake Superior to Thunder Bay, a distance of 1,500 miles, where are we? In the estimation of the person who has made the journey, at the end of all things, but to us who know better, scarcely at the commencement of the great fluvial systems of the Dominion, for from that spot, that is to say from Thunder Bay, we are enabled at once to ship our astonished traveller on the Kaministiquia, a river of some hundred miles long. Thence, almost in a straight line, we launch him on to Lake Shebandowan, and Rainy Lake and River—the proper name of which, by the by, is ‘Rene,’ after the man who discovered it—a magnificent stream 300 yards broad, and a couple of hundred miles long, down whose tranquil bosom he floats into the Lake of the Woods, where he finds himself on a sheet of water which, though diminutive as compared with the inland seas he has left behind him, will probably be found sufficiently extensive to render him fearfully sea-sick during his passage across it. For the last eighty miles of his voyage, however, he will be consoled by sailing through a succession of land-locked channels, the beauty of whose scenery, while it resembles, certainly excels the far-famed Thousand Inlands of the St. Lawrence. From this lacustrine paradises of sylvan beauty we are able at once to transfer our friend to the Winnipeg, a river, the existence of which in the very heart and centre of the continent, is in itself one of Nature’s most delightful miracles, so beautiful and varied are its rocky banks, its tufted islands; so broad, so deep, so fervid is the volume of its waters, the extent of their lake-like expansions, and the tremendous power of their rapids. At last, let us suppose we have landed our traveller at the town of Winnipeg—the half-way house of the continent, the capital of the Prairie Province, and I trust, the future ‘umbilicus’ of the Dominion. Having had so much of water, having now reached the home of the buffalo, like the extenuated Falstaff, he naturally ‘babbles of green fields,’ and careers in imagination over the prime al grasses of the prairie. Not at all. Escorted by Mr. Mayor and the Town Council, we take him down to your quay, and ask him which he will ascend first, the Red River or the Assiniboine, two streams—the one 500 miles long, the other 480—which so happily mingle their waters within your city limits. After having given him a preliminary canter upon these respective rivers, we take him off to Lake Winnipeg, an inland sea 300 miles long and upwards of sixty broad, during the navigation of which for many a weary hour he will find himself out of sight of land, and probably a good deal more indisposed than ever he was on the Lake of the Woods, or even the Atlantic. At the north west angle of Lake Winnipeg he hits upon the mouth of the Saskatchewan, the gateway and high road to the North-West, and the starting point to another 1,500 miles of navigable water, flowing nearly due east and west between its alluvial banks. Having now reached the foot of the Rocky Mountains, our ‘Ancient Mariner’—for by this time he will be quite entitled to such an appellation—knowing that water cannot run up hill, feels certain his aquatic experiences are concluded. He was never more mistaken. We immediately launch him upon the Athabaska and Mackenzie Rivers, and start him on a longer trip than he has yet undertaken, the navigation of the Mackenzie River alone exceeding 2,500 miles. If he survives this last experience, we wind up his peregrinations by a concluding voyage of 1,400 miles down the Fraser River, or, if he prefers it, the Thompson River to Victoria, in Vancouver, whence, having previously provided him with a first-class return ticket for that purpose, he will probably prefer getting home *via* the Canadian Pacific. Now, in this enumeration, those who are acquainted with the country are aware that, for the sake

of brevity, I have omitted thousands of miles of other lakes and rivers which water various regions of the North-West—the Qu'Appelle River, Belly River, Lake Manitoba, the Winnipegosis, Shoal Lake, &c. along which I might have dragged and finally exterminated our way-worn guest, but the sketch I have given is more than sufficient for my purpose; and when it is further remembered that the most of these streams flow for their entire length through alluvial plains of the richest description, where year after year wheat can be raised without manure or any sensible diminution in its yield, and where the soil every where presents the appearance of a highly-cultivated suburban kitchen garden in England, enough has been said to display the agricultural riches of the territories I have referred to, and the capabilities they possess of affording happy and prosperous homes to millions of the human race.”

Lord Dufferin did not allude to the artificial waterways of Canada. Compared with some of the lakes and rivers, the canals are, indeed, unimportant; but they will stand comparison with any works of their class. As engineering achievements, I believe I am correct in saying that they are unrivalled. They are certainly as much superior to the canals of the United States, as the latter are in advance of anything I have seen in England. These canals exist only in the province which lie in the valley of the St. Lawrence, still they are of immense value as links in a great chain of navigation, on which during part of the year the products of field and forest are floated to market.

However valuable the natural waterways of Canada may be, they are open to one serious drawback. They are, as may be supposed, exposed to climatic influences, and the low temperature I have referred to, has the effect in the still, brilliant nights of early winter, of sealing them up until the sun again begins to return to the summer solstice.

The early settlement of the provinces was effected by means of the rivers, and bays, and lakes. There were no railways in those days: the hardy pioneers, axe in hand, landed on the forest-clad banks, and cut out homes for themselves and their children. In the four or five winter months they became completely isolated from the outer world, and from all but their nearest neighbours. In consequence, the progress of settlement was but slow, and it was confined mainly to a narrow margin of land along the navigable water channels. It was not until railways were introduced that the progress of the provinces was so marked. These lines of communication, performing their functions independently of climate, connecting all parts of the old settlement, and penetrating wide tracts of land not previously accessible, have given Canada an enormous impulse, and established the conviction that the great interior, to be prosperous, if colonized at all, must eventually be traversed not simply by one railway, but by many railways. The great water-ways will do their part during the open season in assisting to colonize the vast unoccupied regions that are fitted for the homes of men, but they alone would be utterly insufficient. If existing railways have proved so advantageous to sections of the country provided with navigable water channels, and at no great distance from tide water, such as the settled portions of the province of Ontario, railways become indispensable to the western fertile regions not so favourably situated. In the great internal cultivable territory, therefore, it is clear that a system of railways must be considered necessary, in order to provide for its occupation by the many millions it is capable of supporting.

We have already had some experience in railways in Canada, as their construction has been progressing for the past twenty-five or thirty years, and we have found it important to regard with attention the principles which should govern their establishment in new districts. I shall not enter into mistakes which have undoubtedly been committed in the past, by which a great deal of money, public and private, has been sunk and wasted; but in the remarks which follow, it will be observed that due regard is had to the experience gained in those matters, and to the importance of avoiding such fatal mistakes as the building of lines which would injuriously compete with each other, or the sinking of money prematurely in the completion of any lines long before they are wanted.

In carrying railways through unsettled regions, we are called upon to solve a problem differing in essential circumstances from that which has to be considered in laying down lines in old districts already well populated. In the latter case the work is designed practically to diminish distance by the use of high speeds. A heavy expenditure to attain high speed is justifiable, as traffic already exists which will immediately render expenditure productive of revenue. In an unoccupied country, the circumstances are entirely different. Traffic, without which there can be no revenue, has to be created, and the question is complicated by the consideration that the railway itself is indirectly the chief means by which traffic is expected, in process of time, to be developed. There is a marked difference in the necessities of the two cases. In the inhabited country the railway is an after-thought, and high speed is the prime necessity which calls the line into being. In the unoccupied country a certain means of communication is of first importance, and if high speed cannot be obtained without involving an outlay that would prove burdensome, those concerned must, for a time, be contented with a less perfect low speed line until the population becomes sufficiently numerous and wealthy to call for high speed. Such being the case, it seems wise to keep in view from the very first three important considerations:—

1. Certainty of communication at all seasons.
2. The expenditure of no more unproductive capital than may be absolutely necessary.
3. The possible necessity for a high-class railway ultimately, and the importance of securing it without any waste or misapplication of capital in carrying into execution preliminary or intermediate works.

By a high class railway in the third consideration, must be understood a line so perfect that not only high speed may be attained with safety and certainty, but that the actual cost of conveying passengers, as well as products of all kinds, may be reduced to the lowest possible rates. I may say that I have no faith in what are sometimes erroneously called cheap railways. The true cheap railway is the one that can with profit do its work cheaply. I would advocate the utmost economy in expenditure, but at the same time the kind of perfection referred to should be kept prominently in view.

The Pacific Railway has been projected for the double purpose of connecting the Atlantic and Pacific sides of Canada, and the opening up of the interior for settlement. This project has been the subject of much discussion in Canada; it has entered into the realm of politics, and opposite parties, although agreeing with respect to the great desirability of the line, have not agreed as to the means of securing it. As an individual, simply, I may hold views that do not harmonize with those of either party, or of any person, but I shall nevertheless, from an individual and perfectly independent standpoint, endeavour briefly to lay my views before you.

The whole country between the settlement in the Ottawa valley and the coast of British Columbia has as yet very few civilized inhabitants. There are, according to various estimates, probably from 8,000 to 12,000 souls in occupation of portions of British Columbia, and within the past few years settlers have begun to pour into the Prairie region in the province of Manitoba. There are also a few hundreds established on the north shore of Lake Superior. Taken altogether, there are probably not more than 40,000 within a very considerable distance of any part of the 3,000 miles of railway projected. It is perfectly evident, therefore, that the construction of the Canadian Pacific Railway, in the present condition of the country, is a very serious undertaking, and one requiring grave consideration. I have no doubt whatever that it will at no distant day be a work accomplished; that it will form not only a connecting link between the old half-dozen provinces on the Atlantic and the still greater number of provinces which have yet to come into existence in the west, but that it will constitute an important part of a great Imperial highway extending between the heart of the Empire in England and its important outlying portions and dependencies on and beyond the Pacific.

The Pacific Railway being projected for a double purpose, it may not be without profit to consider its objects and to view it firstly as a colonization line, secondly, as a through national line.

Firstly. The experience which we have gained in Canada has tended to establish several sound economical principles in connection with the building of colonization railways in new territories. Some years ago, a scheme based on these principles was projected which commended itself to my judgment, and which, in part at least, has since been sanctioned by the Government. It was termed the Territorial Road Scheme; and as it may possibly be capable of application with advantage to other countries, such as those Colonies where much land yet remains to be occupied, it may not be without interest to members of the Institute. I shall venture, therefore, briefly to notice it.

First of all it is assumed that railways will ultimately be required and built in every district where the natural resources of the country, although for the present dormant, are capable by the application of human industry, of producing traffic which would render steam power as a means of transit necessary and profitable. Supposing we have to colonize a territory fulfilling these conditions, the first step is to discover by thorough surveys the very best position for the future railway system which the prospects or possibilities of the country would seem to demand. The system of lines thus to be projected may consist of a single trunk line with branches at proper intervals, or it may be a number of lines running in the direction which traffic would seek, or in which, in the public interest, it would be desirable to lead it. It is considered important to take this step in advance of settlement, because even a few settlers frequently acquire considerable influence in a new country, and, as is sometimes the case, they may succeed in warping or twisting a trunk line away from the most advantageous position to another and inferior position, in order to suit their adventitious and purely local circumstances. Thus, general interests which, in the future may be of the greatest importance, may suffer through comparatively insignificant local interests unduly magnified for the moment. Having fixed upon the lines upon which the railways, some time or other, are to be built, the next step is to select at proper intervals the most suitable points for the stations, and from these, and these only, to project all the branch roads of every class that are likely to be required.

Thus, the road system of the country to be colonized is proposed to be projected, and the position of the several lines definitively fixed; but as the line of railway may, in some instances, be used for many years as an ordinary road before it is finally converted to the requirements of steam communication, and as it could scarcely be designated a railway until it becomes one, the term "territorial road" was suggested. This term it was proposed to apply to all trunk lines destined ultimately to become railways.

Having established the position of the territorial roads and the points on them for future railway stations, the next step is to lay out at the latter points sites for villages and towns. Along the territorial road lines it is designed to erect a telegraph, and to make, in the first place, a common, cheap road, such as are usually made to meet the first requirements of settlers. It is also proposed as time rolls on to give employment to such of the poorer settlers as may stand in need of it in improving the road, having in view always its ultimate purpose, and thus to form the groundwork of the future railway by a series of progressive stages corresponding indeed with the progress of the settlement. It is designed that the line shall be used as a cart or waggon road in its rudimentary state; the rails to be laid and the railway to be completed only when the demands of traffic or the exigencies of the country require steam communication.

The scheme undoubtedly has much to recommend it. Settlers would know beforehand where the railway and road system of the country would be created, and they would govern themselves accordingly in selecting their locations. The trade of the country would grow up in the proper channels designed for it. There could be no railways built where they are not wanted, and they need not exist as railways until they are actually needed. Thus, ruinous competition would be avoided, and accumulated losses on unproductive capital might be greatly reduced or altogether saved. Traffic would, from the first, centre at the future stations, and, as a conse-

quence, at these points, settlements, merely villages at first, important towns in time, would spring up. A concentration of labour, year by year, on the territorial road would give the pioneer settlers needful employment, and would, in course of time, prepare it for the superstructure of the railway; while the occupation and cultivation of the land, and the development of other natural resources would prepare the country for railway services.

The scheme for the development of the highways of a new country appears peculiarly applicable to the circumstances of the case under consideration, if we shut out from our view all questions except simply the colonization of the interior of Canada. After the position of the lines has been determined on—and this should only be done after exhaustive examinations have been made—the next effort should be to complete telegraphic communication along the precise line of the future railway. The cost of a telegraph is so trifling compared with its advantages that it should be made the precursor of other means of communication. The telegraph erected, a bridle-path from post to post would probably be the first means of transport; then would follow a waggon or post road; finally, a perfect line of railway when the traffic of the country or the interests of the nation required more rapid means of communication.

The territorial road system was suggested 15 years ago at a period anterior to the agreement made with the Province of British Columbia, to build a continuous line of railway from one side of the continent to the other. If, for the moment, we view the transcontinental railway simply as a colonization line, the economical principles of the scheme then advocated appear as applicable to-day as they were formerly.

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Since these views were first advanced, the circumstances upon which they were grounded have materially changed. Apart from the political and special considerations which enter into the discussion, we have acquired more accurate geographical and general information; and it would now appear that the habitable territory claiming attention is considerably more extensive than was at one time supposed. In consequence, a much more comprehensive railway and road system would seem to be required, and ought to be projected. Instead of a single line of railway through the fertile belt, at least two trunk lines, with cross connections and numerous branches, may ultimately be needed to serve the greater breadth of country. This does not, however, render it less important to regard the economical principles which ought to regulate the establishment of all the highways of the territory. The interior of Canada has, without any doubt whatever, a vast area of fertile soil; yet it cannot be denied that there are many drawbacks to contend with. It may be said that the climate, especially in the winter season, is one. The great distance of this fertile area inland is undoubtedly another, and perhaps the most serious; and this circumstance makes it the more imperative that, to afford the fullest opportunity for successful colonization, the lines of communication should be established on sound principles. The principles of the territorial road system, to which I have referred, appear to me of so fundamental a character that they are quite as applicable to-day as when they were first promulgated. The map which I have prepared shows the possible position of the leading railway lines which, based on the information we have recently acquired, may be projected for the future service of the country. In the west, lines are shown to reach the Pacific tide water at Port Simpson, at Burrard Inlet, and at Bute Inlet, with an extension to Vancouver Island, running to Esquimalt, Alberni, Fort Rupert and Quatsino. In the interior, the Bow River, Saskatchewan, Athabasca, Peace River, Lake La Biche, Swan River, Assiniboine, and Red River districts are proposed to be served by main lines or branches; while, to the east, lines are carried to Port Nelson, Moose Factory, Lake Superior, Ottawa, and to Saguenay below Quebec. Of course this is a mere projection, and it is presented to illustrate the comprehensive view which, in my opinion, should be taken of the question. All these lines, or modifications of them, I consider eligible for territorial roads; not that they should be built all at once, or even all, at once surveyed, but simply to complete the scheme of great thorough-



fares which, in course of time, may be established and used. They may at once be designated territorial road lines, and when they come to be surveyed they should be laid out with great care and forecast; a territorial road being understood to mean simply a railway in an incipient stage, capable of being used as a means of intercourse at all stages, its highest condition of development being a means of steam communication.

It may be assumed to be the desire of the Government and people of the Dominion that the great undeveloped interior of Canada should be colonized in the most successful manner possible. It could not be held to be successfully colonized unless peopled by inhabitants like themselves, hardy, self-reliant, vigorous, and determined; nor unless the many thousand miles of railway required were constructed in such a way as to leave them, when finished, in a condition to do their work efficiently and without loss. This certainly would not be the case if, through too hasty and ill-considered construction, or through any other cause, liberal Government grants, as well as private resources, were swallowed up, and the lines left burdened with debt which no future traffic could support or remove.

The system of highways to which I have referred is one of evolution, and would necessarily be of slow growth; it is, nevertheless, in my judgment, one which could not fail to succeed. It is, however, purely, a colonization scheme. I am prepared to admit that there are many weighty reasons why some one of the lines projected across the continent should be pushed to completion more rapidly than colonization purposes actually demand. I have already mentioned that the enterprise known as the Canadian Pacific Railway has been designed for a purpose beyond that of settling the vast interior of the country. One of its objects is to unite the Pacific and Atlantic coasts with a continuous line of railway without passing over foreign sea or soil.

How can I very briefly—for I fear I have exhausted your patience—how can I in fewest words set forth the immense importance to the Empire of having a line through Canada in operation as speedily as possible?

Esquimalt, the naval station on the Pacific, and possibly the great Pacific arsenal of the future, is some four month's steaming distance from England. I venture to state that by the projected Canadian Railways it would be possible to carry despatches from London to this station on the Pacific in thirteen or fourteen days, and that communication with New Zealand could be made in less time than has ever yet, so far as I have learned, been practicable.

In the construction of this railway the great Australian provinces, must surely be interested. It must be of some moment to every British station in the North and South Pacific Oceans. It would open up a new route to India! There would probably be less nervousness felt from day to day, and from month to month, here, in the heart of the Empire, about the Eastern Question if we had an overland route through Canada. And in this view the consideration of a very simple yet important Western Question may in some degree diminish the interest felt in a very complicated Eastern Question.

If it be admitted that the speedy completion of a railway across Canada is of general importance to the Colonial Empire, the question arises—which line could be most speedily constructed, and which, when established, would best subserve Imperial interests? This is the important question for present consideration and decision. As far as the colonization of the vacant parts of Canada is concerned, it is of no great consequence which of the lines ultimately required be first completed.

The resources of Canada are perfectly competent to establish in some such manner as that I have described all the highways wanted for opening up the country, but it would occupy many years to effect this in a satisfactory manner. If other and higher than local interests demand a through line of railway sooner than it is locally required, it seems a reasonable suggestion that those higher interests should in some way or other assist in obtaining it. As a member of the great Colonial family, Canada very largely participates in the higher interest, and as such it cannot be doubted that she is perfectly prepared to bear her full share of the cost of establishing the communications of the Empire."

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My Lord Duke, ladies, and gentlemen,—I must beg your permission, before this passes out of my hands, to offer a personal explanation and apology. When first I was paid the compliment of being asked to read a paper on Canada, I felt I should best serve the Institute by declining, and thus leaving an opening for some one else more competent to do it. Subsequently, the Council was good enough to urge me to undertake the duty. I should have been glad had it fallen into worthier hands, as I feel that I have been unable to do the subject I have endeavoured to bring before you anything like justice. To make matters worse, a day or two ago, when preparing my paper, I received a cable message from the Canadian Government, urgently requiring me to leave by the first steamer. As a consequence I have been much hurried. I am conscious that my paper is ill-prepared; and as I sail in 24 hours, before these lines can be read to you, I shall, all being well, be approaching mid-Atlantic and speeding as fast as steam can take me to that country I have attempted, though imperfectly, to describe. You will probably think this, by cutting short my remarks, a happy interruption. I confess I have found the subject much too large for the limits of one paper. There are many points I should have wished to touch upon. I have not even mentioned that the construction of the Pacific Railway has already made considerable progress; that the locomotive is now to be heard snorting north of Lake Superior; that the steam whistle is screaming on the shores of Lake Winnipeg; and that the telegraph, the Pioneer of the Railway, has advanced so far that you may send a message from almost any street corner in London to Edmonton near the base of the Rocky Mountains. I should especially have desired to make you better acquainted with the four millions of Canadians with whom I have intermingled for nearly a life-time, and to have told you, if you need any assurance on that point, about their devotion to the old flag, their attachment to the Empire and to the Queen. Canadians glory in their connection with the little island across the water; they are proud of the progress they have made; and they may be pardoned for measuring their progress by comparisons. True, they may be considered an agricultural people, yet their outside trade is not trifling. They witness their shipping on the high seas with a tonnage greater than Germany possesses, double that of Spain, and nearly three times that of Russia. If with a small section, a mere corner of Canada, and that but sparsely populated, they have already a shipping trade which makes them almost the third maritime country in the world, what may they not hope for in another half century? It cannot be doubted that Canada possesses the elements of a great future; and that in a comparatively few years she may add incalculable strength to the British Empire. Canadians cannot strictly be called Englishmen, but they are proud to be British subjects; and they are by no means unwilling to join in the trials and struggles of the mother-country. They share in the advantages of British connection; and they would feel themselves unworthy of their name did they shrink from bearing their fair share of the burden and responsibility of consolidating and maintaining the prestige and power of the Empire.

## APPENDIX I.

## EXPLANATION OF MAP AND MEMORANDUM OF DISTANCES.

The full blue lines represent projected main railway routes, (territorial lines) which, possibly, may hereafter be considered necessary for the service of the country. Their purpose and character is alluded to in the General Report and Appendix H.

The large blue letters on the map indicate as follows :—

A indicates Port Simpson, on the Pacific Coast.

B	do	Bute Inlet,	do
C	do	Burrard Inlet,	do
D	do	Quaisino,	do
E	do	Alberni,	do
F	do	Esquimalt,	do
G	do	Port Nelson, on Hudson Bay.	
H	do	Moose Factory, on James Bay.	
I	do	Toronto, on Lake Ontario.	
J	do	Ottawa, the Seat of Government.	
K	do	Montreal, on the Navigation of the St. Lawrence.	
L	do	Three Rivers,	do do
M	do	Quebec,	do do
N	do	Saguenay,	do do
O	do	Fort George, on the River Fraser, British Columbia.	
P	do	The Cariboo Gold District,	do
Q	do	The Omineca Gold District,	do
R	do	The Yellow Head Pass, Rocky Mountains.	
S	do	The Peace River Pass,	do
T	do	Battleford, on the River North Saskatchewan.	
U	do	Junction of projected lines, near Cumberland House.	
V	do	Northcote Station, near Lake Winnipegosis.	
W	do	Selkirk Station, in Manitoba.	
X	do	Fort William, on Lake Superior.	
Y	do	Nipigon, on Lake Superior.	
Z	do	The Pine River Pass, in the Rocky Mountains.	

The blue line from (C) Burrard Inlet, *via* (R) Yellowhead Pass, (T) Battleford, (V) Northcote, (W) Selkirk, to (X) Fort William, on Lake Superior, is the line located. Between (W) Selkirk and (X) Fort William it is in part, under construction. A telegraph is contracted for over this line from the Pacific coast to Lake Superior. It is erected and in operation over more than one-half the whole distance.

The dotted blue lines running to the right and left of the adopted route between (R) Yellowhead Pass and (W) Selkirk, represent branches projected for colonization purposes. With regard to which see the General Report and Appendix H. All the branch and main lines are intended to have the uniform gauge of the country (4 feet 8½ inches). The trunk lines are designed ultimately to be perfect in essential points in order to secure cheap transportation over long distances; the branches, however, being for local and light traffic may be more superficial in character.

The following will show the advantages and possibilities of some of the projected routes.

Taking a common point on the Asiatic coast,—Yokohama, in Japan,—the distances to points on the western shore of North America are :—

	Nautical Miles.
Yokohama to San Francisco.....	4,470
do Esquimalt (F).....	4,265
do Burrard Inlet (C).....	4,374
do Port Simpson (A).....	3,865

The estimated distance from these points to Atlantic tide water and various places is as follows:—

	Statute Miles.
San Francisco to New York .....	3,390
do Boston .....	3,448
Burrard Inlet (C) to New York, <i>via</i> Canadian Pacific, R. V. X., J. and Montreal (K).....	3,241
do Boston, <i>via</i> Canadian Pacific, R.V.X.J., and Montreal (K).....	3,197
do Montreal (K), <i>via</i> R. V. X.....	2,862
do Quebec (M), <i>via</i> R. T. U. H. L.....	2,880
do Saguenay (N), <i>via</i> R. T. U. H.....	2,774
do Port Nelson (G), <i>via</i> R. T. U.....	1,744
Port Simpson (A) to Montreal (K), <i>via</i> Peace River, U. W. Y. & J.....	2,966
do Montreal (K), <i>via</i> Peace River, U.H.&J.....	3,044
do Quebec (M), <i>via</i> Peace River, U. H. & L.....	3,088
do Saguenay (N), <i>via</i> Peace River, U. & H.....	2,782
do Port Nelson (G), <i>via</i> Peace River, & U.....	1,752

The distances across the Atlantic may thus be stated:—

	Nautical Miles.
New York to Liverpool.....	3,040
Montreal to Liverpool, <i>via</i> St. Paul.....	2,990
do <i>via</i> Belle Isle.....	2,790
Quebec to Liverpool, <i>via</i> St. Paul.....	2,845
do <i>via</i> Belle Isle.....	2,645
Saguenay to Liverpool, <i>via</i> St. Paul.....	2,810
do <i>via</i> Belle Isle.....	2,610
Port Nelson to Liverpool.....	2,960

From the above the following table is compiled, distances by land being in statute miles, by water in nautical miles; and the total distances in statute miles:—

Yokohama to Liverpool.	Pacific Ocean. — Nautical Miles.	Railway. — Statute Miles.	Atlantic Ocean. — Nautical Miles.	Total Statute Miles.
<i>Via</i> San Francisco and New York.....	4,470	3,390	3,040	12,038
<i>Via</i> Burrard Inlet (C), R. X. J. and Montreal (K):				
<i>by</i> St. Paul.....	4,374	2,862	2,990	11,341
<i>by</i> Belle Isle.....	4,374	2,862	2,790	11,111
<i>Via</i> Burrard Inlet (C), R. U. H. L. and Quebec (M):				
<i>by</i> St. Paul.....	4,374	2,880	2,845	11,193
<i>by</i> Belle Isle.....	4,374	2,880	2,645	10,963
<i>Via</i> Esquimalt (F), B. O. X. J. and Montreal (K):				
<i>by</i> St. Paul.....	4,265	3,165	2,990	11,519
<i>by</i> Belle Isle.....	4,265	3,165	2,790	11,289
<i>Via</i> Port Simpson (A), S. U. X. J. and Montreal (K):				
<i>by</i> St. Paul.....	3,865	2,966	2,990	10,860
<i>by</i> Belle Isle.....	3,865	2,966	2,790	10,630
<i>Via</i> Port Simpson (A) U. H. L. and Quebec (M):				
<i>by</i> St. Paul.....	3,865	2,888	2,845	10,615
<i>by</i> Belle Isle.....	3,865	2,888	2,645	10,385
<i>Via</i> Port Simpson (A), U. H. and Saguenay (N):				
<i>by</i> St. Paul.....	3,865	2,782	2,810	10,468
<i>by</i> Belle Isle.....	3,865	2,782	2,610	10,238
Port Simpson (A), U. to Port Nelson (G).....		1,752		
Port Nelson (G) to Liverpool.....			2,960	

The foregoing shows the importance of the projected Canadian system of railways as great through lines of communication, and points to special advantages which possibly may be possessed by Saguenay on the St. Lawrence, below Quebec and Port Nelson, on Hudson Bay. Surveys alone can determine the entire practicability of the portions of these lines through unexplored districts, but it would appear that a railway from Port Simpson to Saguenay, if established as sketched on the map, would, as compared with the line *via* New York and San Francisco, shorten the distance between Europe and Asia, according to the above estimates 1,570 miles. Saguenay would have this advantage during the season of navigation only; in winter, any traffic by this route would find its way *via* Quebec, over the Intercolonial, to Halifax.

Port Nelson could scarcely be considered as a terminal point for transcontinental traffic; but as a shipping port for the products of the interior during some of the summer months, it may hereafter prove of value.\* This is evident from the fact that a point in the heart of the Saskatchewan District, would, by way of Port Nelson, be nearer Liverpool than Chicago is by way of New York. A railway from Battleford, a point on the Saskatchewan, 557 miles west of Red River, to Port Nelson, would be about 770 miles in length, while Chicago is some 950 miles distant from New York, and New York is about 80 miles further from Liverpool than Port Nelson.

It may further be shown how advantageously Port Nelson is situated to the great fertile tract extending from Peace River easterly, and how important a railway such as that projected on the map may hereafter prove, if it be found practicable to carry products *via* Hudson Bay to England during even a limited portion of the year. By this route, Lac La Biche, on the 112th meridian, and in the middle of an extensive district reported to be of rare fertility, would, by the projected line to Port Nelson be relatively nearer Liverpool than Chicago.

\* Port Nelson River, or, as now termed, Nelson River, is the outlet through which drains the whole of the rivers and lakes included within the basin of Lake Winnipeg, extending from the Rocky Mountains on the west to within one hundred miles of the shores of Lake Superior on the east, and covering a drainage area of about 360,000 square miles.

Port Nelson is about eighty miles nearer to Liverpool, *via* Hudson Straits, than is New York. It is at the mouth of a river of the first class, carrying a body of water double that of the north and south branches of the Saskatchewan combined, and it reaches the sea through a narrow depression in the Laurentides, having a descent of about twenty inches in a mile, or, in round numbers, seven hundred feet in a little more than four hundred statute miles from the spot where it debouches from Lake Winnipeg.

Port Nelson, moreover, is about the same distance from the edge of a vast fertile region in the North-West, exceeding two hundred millions of acres in area, as Quebec is from Toronto.

For more than two hundred years from two to five sailing vessels, on an average, frequently with war ships conveying them, have sailed annually from Europe and America to Port Nelson, or other ports in Hudson Bay, and returned with cargoes the same season *via* the only available route, Hudson Straits.

In view of the growing interests of the North-West, from whatever point these may be regarded, the time for enquiry has arrived, whether communication with the Atlantic Ocean, with Port Nelson as a starting point, may not be made safe, speedy and economical. The enquiry has become a natural consequence of the extended knowledge now made public respecting the vast area in the North-West, suitable for grain growing and for pasturage, which the Government surveys have supplied. It is also encouraged by the great changes which have taken place during the last ten years in the prosecution of the sealing industry, which have established the fact that properly constructed vessels of large capacity are, in skilful hands, perfectly adapted to push their way through ice-encumbered seas. It has been pressed forward by the new industry, so rapidly rising into importance, which gives additional wealth to the prairies of the west and south-west in the United States, by the European demand for their live products as well as for their grain.

The establishment of a cheap and speedy means of communication between the North-West and the open Atlantic *via* Hudson Straits, would not only secure the rapid settlement of Manitoba, but open to successful immigration a fertile area twenty times as large as that Province. The proximity of this vast extent of country to its own seaboard would, under such conditions, also secure the carrying trade of its own productions under one and the same flag.—*Evidence of Prof. Hind before a Committee of the Commons of Canada, 1878.*

## APPENDIX K.

LIVES lost in connection with the Survey, during the Years 1871, 1872, 1873, 1874, 1875, 1876, 1877 and 1878.

No.	Name.	Date of Death.	Remarks.
1871.			
1	Alexander Sinclair.....	August 7	Lost in forest fires.
2	William Matheson.....	do 7	do
3	Indian, name unknown.....	do 7	do
4	do do .....	do 7	do
5	do do .....	do 7	do
6	do do .....	do 7	do
7	do do .....	do 7	do
1872.			
8	do do .....	April 7	Drowned in North Thompson.
9	Arthur Hamilton.....	May 20	do Lake Temiscamingue.
10	Edward J. C. Abbott.....	do 20	do do
11	George Knout.....	do 20	do do
12	George Rochette.....	do 20	do do
13	Frederick Chadwick.....	Nov. 26	do Lake Huron.
14	William Caldwell.....	do 26	do do
15	T. D. Taylor.....	do 26	do do
16	Michael Clancy.....	do 13	Broke through ice.
1873.			
17	Joseph Hughes.....	July 24	Drowned in Whitefish Lake.
18	Arthur Torrie.....	do 24	do do
19	Neil Patterson.....	do 24	do do
20	John P. Robson.....	Oct. 2	Died.
21	Nathaniel L. Price.....	Dec. 30	do
1874.			
22	Wm. Tappige.....	Oct. 3	Drowned in Fraser River.
1875.			
23	John Spence.....	Sept. 29	do Dalles River.
24	Joe Paskall.....	do 29	do do
25	*Thomas Robinson.....	Nov. 4	Went down in steamer "Pacific"
26	*Edward Jaynes.....	do 4	do do
27	*Samuel Nicholson.....	do 4	do do
28	*John Tarbut.....	do 4	do do
29	*George Skippen.....	do 4	do do
30	*Richard Corcoran.....	do 4	do do
31	W. P. Scott.....	Dec. 31	Died.
1876.			
32	John Dolan.....	June 25	Drowned in North Thompson.
33	Isaac Howch.....	July 19	do Salmon River.
34	Samuel Londit.....	Oct. 16	do Kettle Falls.
1877.			
35	Robert McMillan.....	June 26	Died.
36	Louis Watters.....	Nov. 19	Broke through ice on Red Pine Lake.
37	F. G. Shibley.....	Dec. 10	Died.
1878.			
38	Samuel Hazlewood.....	Jan. 11	do

\* These men had been paid off a few days previously.

## RETURN

(20 k)

To an ADDRESS of the SENATE, dated 14th March, 1878;—for copies of all Contracts, Specifications, &c., on which tenders were invited for the construction of houses for the Engineers on the Branch of the Canada Pacific Railway from Fort William to Selkirk; giving the names of the papers in which advertisements or notices appeared; the number of insertions given; the cost of each house, and the distance of each from the Eastern Terminus; the names of the Contractors or persons negotiating for such contracts; the number of houses built to the present time, with the amount paid the contractor or contractors on each contract, and the number of those houses destroyed by fire, if any.

By Command.

R. W. SCOTT,  
*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 2nd May, 1878.

KNOW ALL MEN by these presents, that we, D. D. VanNorman, Stipendiary Magistrate, and Moses Street, Merchant, both of the village of Prince Arthur's Landing, are held and firmly bound unto Samuel Hazlewood, District Engineer of the Canada Pacific Railway, in the penal sum of three thousand dollars of lawful money of Canada, to be paid to the said Samuel Hazlewood or to his certain attorney, executors, administrators or assigns, for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators for ever, firmly, by these presents.

Sealed with our seals. Dated this sixth day of September, 1875.

The condition of the above-written bond or obligation is such that if the contractors, Messrs. Oliver, Davidson & Company, carry out the terms of the contract hereto annexed, and fulfil the same pursuant to the contract plans and specification hereto annexed, and in the manner and within the time specified therein, then this obligation to be void; otherwise, to remain in full force and virtue.

(Signed)

D. D. VANNORMAN.  
MOSES STREET.

[L.S.]  
[L.S.]

Signed, sealed and delivered }  
in the presence of }

(Signed) FREDERIC DUGGAN.

BE IT REMEMBERED that on this sixth-day of September, A.D. 1875, it is agreed by and between Adam Oliver, Joseph Davidson and Peter Johnston Brown, trading and doing business under the name, style and firm of "Oliver, Davidson & Co.," Prince Arthur's Landing, and Samuel Hazlewood, District Engineer of the Canada Pacific Railway, as agent of the Public Works Department, in manner and form following, viz. :—

The said Oliver, Davidson & Co., for the considerations hereinafter mentioned, do, for themselves, their executors and administrators, promise and agree to and with the said Samuel Hazlewood as such agent as aforesaid, his heirs, executors, administrators or assigns, that they, the said Oliver, Davidson & Co., shall and will, by the twentieth day of June, 1876, in good and workmanlike manner, well and substantially, erect and build and finish one house or messuage, according to the specification, plans and drawings annexed hereto, pursuant to the conditions and terms therein contained, and to execute said works in the best and most workmanlike manner, and to use materials of the best quality of their several kinds, and to supply everything not specially referred to or described in the specifications and drawings aforesaid, but usually considered requisite in a house of this class. And we further agree to abide by the decision of the said Saml. Hazlewood in all contested points, and to accept his opinion as final.

In consideration whereof, the said Samuel Hazlewood doth for himself, as such agent, promise, covenant, and agree well and truly to pay, or cause to be paid, unto the said Oliver, Davidson & Co. the sum of three thousand dollars of lawful money of Canada, in manner following, that is to say : twenty-five per cent. upon laying the floors and roofing in, twenty-five per cent. when all the plastering is finished, twenty-five per cent. upon rendering up the building, and the remainder within two months therefrom, in penalty of a sum not exceeding fifty dollars per week for every week after the said twentieth day of June they shall remain incomplete; and for the performance of all and every the articles and agreements above mentioned, the said Oliver, Davidson & Co. do hereby bind themselves in the penal sum of one thousand dollars firmly by these presents.

In witness whereof, the parties hereto have hereunto set their hands and seals.

(Signed) SAML. HAZLEWOOD. [L.S.]  
" OLIVER, DAVIDSON & CO. [L.S.]

Signed, sealed and delivered }  
in presence of }

(Signed) FREDERIC DUGGAN.

—————  
CANADIAN PACIFIC RAILWAY,  
OFFICE OF THE ENGINEER IN CHIEF,  
OTTAWA, 8th April, 1878.

*Memorandum.*

Cost of District Engineer's house at Fort William, Lake Superior :—  
Contract sum ..... \$3,000 00  
Stable, outbuildings, fencing, &c. .... 1,207 87  
Total cost..... \$4,207 87

—————



CANADIAN PACIFIC RAILWAY,  
PRINCE ARTHUR'S DISTRICT,  
P. A. LANDING, 3rd June, 1875.

*Contract for the building of a house for the use of Engineers on the above Railway, to be erected at road near Kaministiquia Bridge.*

In consideration of the sum of sixteen hundred dollars (\$1,600) to be paid to me by the Department of Public Works of Canada, and in the manner following, that is to say: Twenty-five per cent. upon laying second floor joists; twenty-five per cent. upon roofing in; twenty per cent. upon rendering up the building, and the remainder within three months therefrom;

I hereby agree to perform all the work described in the foregoing specification, and illustrated in the drawings attached thereto, subject to all the conditions therein contained, and to be finished on or before the first day of August next (1875);

In penalty of a sum not exceeding twenty dollars per week for every week after that period the house shall remain incomplete, and I further agree to execute works in the best and most workmanlike manner, using materials of the best quality of their several kinds, and supplying everything not specially referred to or described in the specification and drawings, but usually considered requisite in a house of this class. And I agree to abide by the decision of the Engineer in all contested points, and to accept his opinion as final.

In witness whereof, I have hereunto set my hand and seal at Prince Arthur's Landing, Lake Superior, this 3rd day of June, in the year of our Lord one thousand eight hundred and seventy-five (1875.)

(Signed) MOSES CHARETTE, [Seal.]  
Surety, " W. STREET, [Seal.]

Signed, sealed and delivered in presence of

CANADIAN PACIFIC RAILWAY,  
OFFICE OF THE ENGINEER IN CHIEF,  
OTTAWA, 21st June, 1877.

SIR,—I beg to annex copy of letter received from Mr. Marcus Smith, dated 11th instant, and written from Prince Arthur's Landing, having reference to Engineer's houses being built on the line of Railway westward of Sunshine Creek.

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

(Signed) W. B. SMELLIE,  
*For and in the absence of the Engineer in Chief.*

F. BRAUN, Esq., Secretary.

PRINCE ARTHUR'S LANDING,  
11th June, 1877.

MY DEAR SIR,—Herewith I enclose a certificate, in duplicate, of Mr. Hazlewood, the Engineer in charge of the District, for \$7,106.75 for work done in the erection of four Engineers' houses on the line of the Canadian Pacific Railway, under the contract with Messrs. Lemay & Blair, dated the 10th day of January, 1877, of which you

will find a copy in my desk, in the pigeon hole, headed "Prince Arthur District," or it may be amongst Mr. Fleming's papers; also a bill of extras for piling foundations and other work not comprised in the contract, amounting to \$616.50. Mr. Hazlewood let this contract on the authority of a letter from Mr. Fleming, dated May 6th, 1875, a copy of which I herewith enclose, with a list of the tenders he received in response to an advertisement by hand-bill or posters, a copy of which you will also find in my desk.

Mr. Hazlewood states that the houses and shanties had previously been erected on the same authority, but on the 15th November, 1876, I wrote to Mr. Hazlewood, enclosing him a copy of the letter of the Secretary, Mr. Braun, to Mr. Bethune, dated 14th November, 1876, a copy of which is herewith enclosed. In December, I received a copy of the hand-bills calling for tenders, and immediately, on the 28th, wrote to Mr. Hazlewood again calling attention to the Secretary's letter of the 14th November, and requested him to send down to the Department of Public Works all the tenders he might receive, with a copy of the plans and specifications for the erection of these houses. He states that these letters having been written after the close of navigation on the lakes; he did not receive any of them till after he had awarded the contract, which he did to the firm who sent in the lowest tender, and that they have, so far, done their work satisfactorily.

The houses embraced in the contract are at the following stations:—

Buda.....	39½	miles from Fort William.
Nordland.....	50½	“ “
Linköping.....	60	“ “
Port Savanne.....	71	“ “
Upsala .....	80½	“ “
Carlstadt.....	89½	“ “
Bridge River.....	98½	“ “
English River .....	112	“ “

It is for work done on the houses at the four first stations that the endorsed certificate is given, and they are so far advanced that I think it best the contractors should complete them without delay.

But the erection of the last four houses west of Port Savanne is not commenced, though there is a large quantity of material delivered on the ground, including a variety of manufactured articles, such as doors, sashes, locks, hinges, nails, &c. These are principally delivered at Carlstadt. That which was delivered at Upsala has been burned by bush fires, and the house that was completed at Buda has been destroyed by the same cause. I am more than doubtful if it would be good policy or economy to erect these houses so long before the line will be opened for public traffic. It was thought by erecting these at once, it would save the expense of building huts for the accommodation of the engineering staff during construction. But we see that they are liable to be destroyed by fire, that they will only be occupied for a year or so during the construction of the line, and will be vacated as the Engineers move on with the work, then comes the expense of some one to take care of them, and it would probably be found, even after the line was opened for traffic, that some of these houses would not be required for years as station houses, for, in the rough country between Savanne and Rat Portage, there is very little land fit for settlement.

I think it would be better to confine the erection of houses during the construction of the railway to a few central points convenient for transportation of supplies, &c., such as Savanne, English River, Rat Portage, &c., and construct huts for the Engineers where required; these should not cost more than \$500 to \$700 at each station, and will be of some use as stables or storehouses after the line is completed. I think this cost would be less than that of maintaining and watching houses after being vacated by the Engineers, and altering them to be suitable as station houses. If the Department approves this view of the case, then I think the erection of the last four houses in the list west of Savanne should be stopped at present and the

contractors paid for material delivered. Except probably that at English River, which will be a main station, and an engine house will be required there. Please bring this subject before the Minister and instruct Mr. Hazlewood.

I am, Sir,  
Yours very truly,  
(Signed) **MARCUS SMITH.**

W. B. SMELLIE, Esq.

CANADIAN PACIFIC RAILWAY

To LeMay & Blair, DR.

*Engineers' Houses.*

1877.

April—To erecting an Engineer's house, &c., at "Buda" Station, complete, contract sum \$2,137, less 25 per cent. retained.....	\$1,602 75	
To platform, contract price \$389, less 25 per cent. retained as per contract.....	291 75	
	\$1,894 50	
To erecting an Engineer's house, &c., at "Nordland" Station, complete, contract sum \$2,205, less 25 per cent. retained as per contract.....	1,653 75	
To platform, contract price \$389, less 25 per cent. retained.....	291 75	
	1,945 50	
May —To erecting an Engineer's house, &c., at "Linkoping" Station, three-fourths done, contract sum \$2,330, allowed.....	1,747 50	
To platform, contract price \$389, less 25 per cent. retained.....	291 75	
	2,039 25	
To erecting an Engineer's house, &c., at Port Savanne Station, half done, contract sum \$2,455 allowed.....	1,227 50	
	\$7,106 75	

Certified.  
(Signed) **SAMUEL HAZLEWOOD.**

Approved.  
(Signed) **W. B. SMELLIE,**  
For, and in the absence of, the Engineer-in-Chief.

CANADIAN PACIFIC RAILWAY.

Of the extra work performed in the erection of the following extra work on Engineers' houses, contract No. 25, as under. LeMay & Blais, contractors.

*Buda Station.*

To One stick of timber, 8 in. x 10 in., 36 feet long, at 25 cts. per foot.....	\$ 9 00
Two doors, 2 ft. 8 in. x 6 ft. 8 in., at \$7.....	14 00
One trap door to attic, 2 ft. 5 in. x 3 ft. 8 in.....	4 00
Cellar windows moved.....	5 00
Shelving containing 50 ft. of lumber.....	4 00
Fixing opening for stove.....	2 00
	\$ 38 00-

*Nordland Station.*

To 41 piles, 25 feet long, at 30 cts. per foot.....	307 50
One stick of timber, 10 in. x 10 in., 36 feet long, at 25 cts. per foot.....	9 00
Two doors, 2 ft. 8 in. x 6 ft. 8 in., at \$7.....	14 00
One door, 2 ft. 5 in. x 3 ft. 8 in. to attic.....	4 00
Fixing opening for stove.....	2 00
	336 50
Less value of posts not used, 215 feet, at 20 cts.....	43 00

293 50

*Länköping Station.*

To One stick of timber, 10 in. x 10 in., 36 feet long, at 25 cts..	9 00
Four days work clearing Station ground.....	8 00
Two doors, 2 ft. 8 in. x 6 ft. 8 in., at \$7.....	14 00
One door, 2 ft. 5 in. x 3 ft. 8 in., to attic.....	4 00
Fixing opening for stove.....	2 00

37 00

*Port Savanne Station.*

To 41 piles, 20 feet long, at 30 cts. per foot.....	246 00
One stick of timber, 10 in. x 10 in. 36 feet long, at 25 cts....	9 00
Eight days work clearing Station ground.....	16 00
Two doors, 2 ft. 8 in. x 6 ft. 8 in., at \$7.....	14 00
One door, 2 ft. 5 in. x 3 ft. 8 in., to attic.....	4 00
Fixing opening for stove.....	3 00
	291 00

Less value of posts, not used, 215 lineal feet, at 20 cts..... 43 00

248 00

Total..... \$616 50

Certified.

(Signed) SAMUEL HAZLEWOOD.

Approved.  
(Signed) W. B. SMELLIE,  
For, and in the absence of, the Engineer-in-Chief.

CANADIAN PACIFIC RAILWAY,  
OFFICE OF THE ENGINEER-IN-CHIEF,  
OTTAWA, 6th May, 1875.

MY DEAR SIR,—With regard to the erection of Engineers' houses on the line of the Canadian Pacific Railway, the Department authorizes the erection of the structures required under a contract, which the Engineer in Charge will make; taking care to have the agreement on the most favourable terms possible to the Government, and to forward a copy of the contract in each case to the head office.

Yours truly,

(Signed) SANDFORD FLEMING

SAMUEL HAZLEWOOD, Esq.,  
Ottawa.

OTTAWA, 28th December, 1876.

DEAR SIR,—I have received by mail a printed hand-bill calling for tenders Monday, January 8th, 1877, for the erection of eight Engineers' houses, woodsheds, platforms, etc., on the line of the Canadian Pacific Railway between Fort William and English River, purporting to be issued by your authority as District Engineer, and dated November 28th, 1876. I am not informed by what authority you have called for these tenders, and the Deputy Minister of Public Works requests me to call your attention to the letter of the Secretary, dated November 14th, 1876, a copy of which was enclosed for you in my letter, dated November 15th, 1876. The Secretary therein distinctly states that "It is desirable that works of construction in connection with the railways be approved by the Department before expenditure is incurred."

In compliance with these instructions, I have to request that you will forward by mail to this office all the tenders you may have received on or before January 8th, for the construction of the works mentioned in the hand-bill, together with copies of the plans, sections, specifications, etc., etc., relating to the same, to be submitted to the Department before any contracts are made.

Yours truly,

(Signed) MARCUS SMITH,  
*Acting Engineer-in-Chief.*

SAML. HAZLEWOOD, Esq.,  
Prince Arthur's Landing.

CANADIAN PACIFIC RAILWAY.

The undersigned will receive tenders up to noon on Monday, January 8, 1877, for the erection of eight Engineer's houses, including woodsheds, platforms, &c., along the line of the above Railway, as follows:—

1st House at	"Buda,"	39½ miles west of Town Plot.
2nd "	"Nordland,"	50½ miles west of Town Plot.
3rd "	"Linkoping,"	60 " "
4th "	"Port Savanne,"	71 " "
5th "	"Upsala,"	80½ " "
6th "	"Carlstadt,"	89 " "
7th "	"Bridge River,"	98½ " "
8th "	"English River,"	112 " "

Plans, specifications and form of contract may be seen at the Engineer's Office, Prince Arthur's Landing, on and after the 8th day of December, 1876.

A cash security of 5 per cent. on the total amount of contract must be deposited in the Ontario Bank here, to the credit of the Minister of Public Works, to secure the due performance of the work.

A sleigh road is now being cut through from Sunshine Creek to English River, along the line of Railway.

(Signed) SAMUEL HAZLEWOOD,  
*District Engineer.*

Canadian Pacific Railway Office,  
Prince Arthur's Landing,  
28th November, 1876.

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OTTAWA, 14th November, 1876.

SIR,—I am directed to inform you that expenditure for works in connection with the construction of the Canadian Pacific Railway on the Prince Arthur District should not be incurred without authority previously obtained from this Department.

In cases, however, where the expenditure is slight, and serious inconvenience ensues by the delay consequent upon reference to the Department, you will be pleased to pay the account upon certificate of the District Engineer.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

F. BRAUN,

*Secretary.*

ANGUS BETHUNE, Esq.,  
Government Purveyor, &c.,  
Prince Arthur's Landing.

Comparison of Tenders for the Engineers' Houses.

Names of Contractors.	Buda.			Nordland.			Linköping.			Port Savanne.			Upsala.			Carlstadt.			Bridge River.			English River.			Gross Value.	
	Log.	Frame.	Platform.	Log.	Frame.	Platform.	Log.	Frame.	Platform.	Log.	Frame.	Platform.	Log.	Frame.	Platform.	Log.	Frame.	Platform.	Log.	Frame.	Platform.	Log.	Frame.	Platform.		
Purcell & Ryan .....	2738	2738	200	2738	2738	200	2738	2738	200	2738	2738	200	2738	2738	200	2738	2738	200	2738	2738	200	2738	2738	200	23,504	
John McLaurin .....	2450	300	2550	350	2625	350	2700	2600	350	2800	350	2800	350	2800	350	2800	350	2800	350	2800	350	2800	350	2800	350	24,875
Cheverette & Belanger .....	2400	2100	250	2700	2600	280	2700	2600	280	2700	2600	280	2700	2600	280	2700	2600	280	2700	2600	280	2700	2600	280	26,880	
W. P. Farrell .....																									25,200	
A. Stevenson .....																										
Oliver Davidson & Co. ....	2500	230	2700	240	3000	250	3300	260	2550	250	3500	240	3000	250	3300	240	3000	250	3300	240	3000	250	3300	240	26,720	
E. F. Lemay & Blais .....	2137	2250	389	220	2300	269	2330	2525	389	2580	2675	389	2705	2800	389	2880	3000	389	3005	3100	389	3005	3100	389	23,409	
Peter McKellar .....	1950		400	2850		400	3100		400	3200		400	3200		400	3250		400	3350		400	3350		400	26,650	
Niel Shaw .....	2800	3000	250	3000		255	3100		280	3300		275	3500		285	3800		285	4000		300	4300		310	29,920	

\* By telegram. Will build Engineers' houses from \$2,600 to \$3,200 each, proportionally; platforms, \$250 each.

## CANADA PACIFIC RAILWAY.

(Accepted.)

*Tenders for Engineers Houses.*

The undersigned hereby offer to furnish all the necessary material, plant, and labor, and to execute and complete, to the entire satisfaction of the Engineer, the following Engineers' houses to be built of logs, as described in the original specification or on the "Baloon Frame," plan, as described in the note to the same, also the platform in front of each house for the sums set opposite each as follows :

Names of Houses.	Price if built of Logs.	Price if built Baloon Frame.	Price of Platform.
	\$ cts.	\$ cts.	\$ cts.
Buda.....	2,137 00	2,250 00	389 00
Nordland.....	2,205 00	2,300 00	389 00
Linkoping.....	2,330 00	2,425 00	389 00
Port Savanne.....	2,455 00	2,550 00	389 00
Upsala.....	2,580 00	2,675 00	389 00
Carlstadt.....	2,705 00	2,800 00	389 00
Bridge River.....	2,880 00	3,000 00	389 00
English River.....	3,005 00	3,100 00	389 00

And in case this tender shall be accepted, the undersigned hold ourselves ready to enter into contract for due execution and completion of the work, or any part thereof, and to comply with the 33rd clause of the specification with regard to the money deposit, and we offer as surety for the carrying out of all the conditions, as well as for the due fulfilment of the contract, the person who has signed his name to this tender for that purpose.

Signature and residence of party tendering.

(Signed) EDWARD F. LEMAY,  
*Faribault, Min.*  
" WM. BLAIS,  
*Minneapolis, Min., U.S.*

Signature and residence of security.

(Signed) ARTHUR CLARKE,  
*Prince Arthur's Landing.*

Dated at Prince Arthur's Landing, 8th day of January, 1877.

CANADIAN PACIFIC RAILWAY,  
OFFICE OF ENGINEER-IN-CHIEF,  
OTTAWA, 10th July, 1877.

SIR,—I am directed to inform you, that the report of Mr. Marcus Smith of the 11th June, recommending the discontinuance of work on the Engineers' houses proposed to be erected on the line of railway west of Port Savanne, is approved by the Department of Public Works, and you will please notify the contractors accordingly.



I have therefore to suggest that you will at your earliest convenience furnish an estimate of the cost of the material delivered for said houses, and instruct that the material be so placed as to be safe from fire.

Yours truly,

(Signed) W. B. SMELLIE,  
For, and in the absence of,  
the Engineer-in-Chief.

SAML. HAZLEWOOD, Esq.,  
Prince Arthur's Landing.

CANADIAN PACIFIC RAILWAY.

*Final Estimate*

Engineers' houses erected, and material delivered for same along line of railway.

LeMay & Blais, Contractors.

At Buda, 39½ miles.

Contract sum.....	\$2,137 00	
Extra work.....	38 00	
Platform.....	389 00	
		<b>\$2,564 00</b>

At Nordland, 50½ miles.

Contract sum.....	2,205 00	
Extra work.....	293 50	
Platform.....	389 00	
		<b>2,887 50</b>

At Linkoping, 60 miles.

Contract sum.....	2,330 00	
Extra work.....	37 00	
Platform.....	389 00	
		<b>2,756 00</b>

At Port Savanne, 70½ miles.

Contract sum.....	2,455 00	
Extra work.....	248 00	
Platform.....	389 00	
		<b>3,092</b>

Labor performed on building at Upsala.....	400 97	
Material delivered at other points.....	5,615 16	
Provisions, camp equipage, &c.,.....	414 82	
		<b>6,430 95</b>

Total..... **\$17,730 45**

OTTAWA, 22nd March, 1878.

(Memorandum.)

With reference to the address of the Senate, dated 14th inst., calling for information respecting the Engineers' houses on the line of the Canadian Pacific Railway, between Fort William and Selkirk;

I beg to state the buildings between Keewatin and Selkirk have been erected under my general supervision. The papers connected therewith are in my office at Winnipeg.

I cannot, therefore, furnish the information called for until I return there.

(Signed) JAMES H. ROWAN,  
District Engineer.

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## RETURN

(No. 20 L.)

To an ADDRESS of the HOUSE OF COMMONS, dated 24th April, 1878; For copy of the Report of Exploration made by Mr. Bell, C.E., on the proposed route of the Canada Pacific Railway, from Nipigon to the Junction with the Thunder Bay or Kaministiquia Branch of the said Railway.

By Command.

R. W. SCOTT.

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 3rd May, 1878.

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CANADIAN PACIFIC RAILWAY,  
OTTAWA, October, 1876.

SIR,—Having been comissionned by the Engineer-in-Chief to make an exploration of the country between Nipigon River, at the head of Lake Superior, and the railway now under construction from Thunder Bay towards Lacs des Mille Lacs, with a view of discovering the shortest favorable route for through traffic, I have now the honor of reporting to you that I have performed this service with, I believe, a good result.

The Engineer-in-Chief expressed his wish that I should try to find this route by the north of Dog Lake, a large lake occupying a width of nearly twenty miles of the country between the railway under construction and Nipigon; as thereby, in comparison with the next shortest available route, a saving in travel of about twenty-five miles would be effected, while only about ten miles more of railway would have to be constructed.

I, therefore, directed my attention to the route by the north of Dog Lake, and the result was, in my opinion, such as to warrant my dropping the search for any other.

Throughout the exploration, I kept a careful record of the speed at which I travelled over the several portions, and also of the magnetic courses which I followed. These records, with a map compiled in the office here showing Dog Lake and Dog River, have enabled me to prepare a tolerably correct map, which I herewith submit. I also kept a record of numerous observations of a barometer which I carried with me, by which, with the aid of observations made with a stationary barometer kept in the Engineer's office at Prince Arthur's Landing, I have been enabled to make a rough profile, showing all the elevations and depressions of any importance on the line walked over.

The strong red lines on the map represent the line actually walked over or followed, and the profile shows the elevations on that line. The dotted lines on the plan show the position, where, I believe, a favorable route both in works and grades can be discovered by an instrumental survey. There is no place where I believe any considerable difficulty will be met with, except between the fifteenth and twentieth miles, where the line will cross the Black Sturgeon River and a tributary stream. The tributary stream falls quickly, so that by crossing it high up on its course, its depth below the levels, available for the railway, would be considerably reduced. Still its depth would be considerable; but the approaches to the crossing can be very much reduced by taking good side hill, which is available. The Black Sturgeon River is low, and rather sluggish; so that by ascending it the depth between the railway level and it would not be very much lessened, though it would be very much lessened by a consequent lengthening of the approach to the crossing, as shown on the plan. At the point of crossing, shown by the dotted line, the deep cutting shown on the profile would be very much reduced. It was ascertained by a hard level that at most the elevation shown by the dotted line on the profile could be obtained.

From the fifty-ninth mile, I directed my course southwards to Dog Lake, for the purpose of getting supplies, which I had ordered to that place; but, before leaving the main route. I ascertained by personal observation that, from a lake a little to the northward from the fifty-ninth mile, a valley tends in the right direction, and traceable for some miles; again, from the head of Dog Lake, near to sixty-seventh mile, a similar valley is traceable for several miles; so that there will be no difficulty in obtaining a westward line similar to the southward, shown on the profile.

There is no difficulty in avoiding altogether the hills shown between the ninetieth and ninety-third miles, as a valley extends from about the eighty-sixth mile to the ninety-third.

Only four large bridges will be required—two with two spans of 100 feet, and two with one span of 100 feet.

These bridges will most likely have to be built on artificial foundations. The other bridges will not require spans of more than 20 feet.

A large proportion of the cuttings on the line will be in rock. Most of the work will be granitic, though in some places it will be more or less of a reddish clay slate.

There appeared to be but little of the country fit for cultivation up to the sixtieth mile; but about Dog Lake, and westward from it, there seemed to me to be considerable tracks of land of fine quality.

Spruce is the prevailing timber on the eastern half of the line, and princess pine and poplar on the western; but all the timber is poor and small. We met with only a very few white pine trees.

I have the honor to be, Sir,

Your obedient servant,

(Signed)

LEONARD G. BELL.

MARCUS SMITH Esq.

(20 M.)

**R E T U R N**

To an ADDRESS of the SENATE, dated 9th March, 1877;—For copies of all instructions to Mr. Fleming, Engineer-in-Chief of the Pacific Railway, on the subject of a series of questions, submitted through the Colonial Office to Naval Officers and others, relating to certain Harbors in British Columbia and a site for the terminus of the line on the Pacific Coast.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 18th February, 1878

(21 A.)

**R E T U R N**

To an ORDER of the HOUSE OF COMMONS, dated 15th February, 1877;—For a Statement shewing the particulars of all amounts in addition to salary paid to any General or Departmental officer of the Intercolonial Railway, during the year 1876.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 12th February, 1878.

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(21 B.)

**R E T U R N**

To an ORDER of the HOUSE OF COMMONS, dated 15th February, 1877;—For a Statement shewing the quantity of work done in enlarging the Railway Water works at Moncton, during the year 1876, with the particulars of all expenditures in connection therewith.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 11th February, 1878.

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(21 c.)

**R E T U R N**

To an ORDER in the HOUSE OF COMMONS, dated 19th March, 1877 ;—For a Statement shewing the sums of money paid C. J. Brydges for the year ending 30th June, 1876, showing salary whilst Intercolonial Railway was under construction, and salary for management ; also expenses of his office at Montreal, Ottawa, and Moncton, and amount of his travelling expenses for the same period.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 14th February, 1878.

(21 D.)

**R E T U R N**

To an ORDER of the HOUSE OF COMMONS, dated 26th March, 1877 ;—For copies of all correspondence between Mr. James Niven, of Newcastle, Miramichi, N.B., and the officers of the Intercolonial Railway and the Government, in reference to the killing, by one of the trains of said road, on the 23rd of February last, of five head of cattle, of the said James Niven ; also a statement from the officers of the road as to the distance to the place of accident from the Miramichi station, from which the said train started, whether the same is, or is not a straight line, where the driver of said train first saw the cattle on said track.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 11th February, 1878.

(21 E)

**R E T U R N**

To an ORDER of the HOUSE OF COMMONS, dated 15th February, 1877 ;—  
For a Statement made up so as to shew for each month of the two years ending 31st December, 1876, the following particulars in relation to the working and management of the Intercolonial Railway.

- 1st. The number of miles run by the engines in each service, as follows :—  
Ordinary passengers trains ; special passenger trains ; freight trains ; mixed trains ; construction trains ; with the mileage made by each description of cars used in each service.
- 2nd. The gross working expenses, without deductions, made up in accordance with the general classification of the Railway accounts.
- 3rd. The particulars of all charges made for the use of the engines and cars as well as for railway freights, debited to the various services and deducted from the working expenses of the Railway. This statement to shew the deductions as made from each subdivision of the expenses and to what service such deductions are charged.
- 4th. The average in detail before and after such deductions have been made.
- 5th. A statement giving full and detailed information in relation to the special trains for the conveyance of passengers or officers of the Railway, which were run from the 1st July, 1875, to the 31st December, 1876. The statement to shew whence and where to each such train was run, and the date ; the distance ; the names of the conductors and engine-driver in charge, the reason for running it, the amount received for each service and the expenses incidental thereto.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 14th February, 1878.

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

(21 F.)

**R E T U R N**

To an ORDER of the HOUSE OF COMMONS, dated 15th February, 1877;—  
For a Statement showing:—

- 1st. The original size and cost, exclusive of heating apparatus, of the brick building at Moncton, known as the General Offices of the Inter-colonial Railway.
- 2nd. The size and cost of the additions to such building.
- 3rd. The original cost of the heating apparatus and of any additions made during the year 1876.
- 4th. A plan of each of the four floors of said building as at present arranged, showing the purpose to which each of the rooms is appropriated.
- 5th. The Parliamentary authority for the various expenditures.
- 6th. The names of all persons who may have been employed as Inspectors, Firemen or Supervisors of such work, the time allowed to each, and the wages paid them. In case any part of the work was done under contract, the statement to show the fact, the date and amount of the contract and the name of the contractor. The statement to show the items or particulars of cost, as well as the total amount expended in each case, and the manner in which the expenditures have been classified.

By Command.

R. W. SCOTT

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 14th February, 1878



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(21 G.)

## RETURN

To an ADDRESS of the HOUSE OF COMMONS, dated February 15th, 1877 ;-

For a Statement showing the following particulars in regard to a main Brick Sewer constructed through the Station yard of the Intercolonial Railway at Moncton during the past year.

- 1st. The Parliamentary authority under which the expenditure was made.
- 2nd. Plan showing the locality, size and extent of the work, and the buildings served thereby.
- 3rd. The cubic yards each, of earth and rock excavation ; the days' labour and amount expended in making such excavations ; the quantity each of stone, bricks, lime and cement used, and the amount paid therefor at the place whence received ; the amount paid or allowed and charged for transportation ; the number of days' labour and amount expended in laying the bricks and work ; the quantity of material<sup>1</sup> used in covering and the days' labour and amount expended in covering the sewer.
- 4th. The particulars of all other amounts charged as for such main sewer.
- 5th. The total cost of the sewer.
- 6th. The names of the persons from whom, and the places whence, each lot of material was procured, and the amount paid to each person therefor, with the date of payment.
- 7th. The Statement to show how the charges in connection with the sewer have been classified and entered in the Public Accounts.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 27th April, 1877.

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

(21 B)

**RETURN**

To an ORDER of the HOUSE OF COMMONS, dated 15th February, 1877 ;—For a Statement showing the expenditure incurred during the last two years ending January 31st, 1877, for carpets, curtains, dining and bedroom furniture, fixings, fittings and utensils, linen, crockery, china, cutlery, and silver ware ; also for desks, tables, chairs, sofas, lounges, pictures and fittings for the General Offices of the Intercolonial Railway at Moncton. The statement to give the name and cost of each item, and to include all articles furnished by any department or branch of the Railway service.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 11th February, 1878.

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

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## RETURN

(21*i*.)

To an ORDER of the HOUSE OF COMMONS, dated 25th February, 1878;—  
For statement of number of miles of the Intercolonial operated on 1st July, 1873, and the cost of operating the same, &c.

By Command.

B. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 14th March, 1878.

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RAILWAY DEPARTMENT,

MONTREAL, 5th March, 1878.

SIR,—I beg to acknowledge the receipt of your letter of the 28th February, enclosing Order of the House of Commons, asking for a statement of the number of miles of the Intercolonial Railway operated on 1st July, 1873, and the cost of operating the same; also a similar statement for the years beginning 1st July, 1874, 1875, 1876 and 1877.

I now beg to return the above Order, and to enclose statement asked for therein, made up to the 1st July, 1877.

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

(Signed) C. J. BRYDGES,

*General Superintendent of Government Railways.*

F. BRAUN, Esq., Secretary,  
Department of Public Works,  
Ottawa.

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STATEMENT of number of Miles of Intercolonial Railway in operation on 1st July, 1873, 1874, 1875, 1876 and 1877, showing the cost of operating the same.

Period.	Name of Railway.	Miles in operation.	Ordinary Expenses.	Renewals.	Total.
			\$ cts.	\$ cts.	\$ cts.
1872-73.					
1st July, 1872, to 9th November, 1872.....	European and North American Railway.....	149	126,145 62		126,145 62
do do do.....	Nova Scotia.....	145	124,676 75	56,781 74	181,458 49
9th November, 1872, to 30th June, 1873.....	Intercolonial.....	371	704,288 49		704,288 49
	Average mileage.....	344	955,110 86	56,781 74	1,011,892 60
					Total for 1873.
1873-74.					
Year ended 30th June, 1874.....	.....	371	1,025,830 83	275,719 25	1,301,550 08
					Total for 1874.
1874-75.					
Year ended 30th June, 1875.....	Northern Division.....	371	850,775 27	292,382 15	1,143,157 42
15th October, 1874, to 30th June, 1875.....	.....	83	47,574 50		47,574 50
	Average mileage.....	429	898,349 77		1,190,731 92
					Total for 1875.
1875-76.					
1st July, 1875, to 8th November, 1875.....	.....	371	877,485 28	215,289 05	1,092,774 33
8th November, 1875, to 30th June, 1876.....	.....	556	66,369 01		66,369 01
Year ended 30th June, 1876.....	Northern Division.....	83			
	Average mileage.....	545	943,854 29		1,159,143 34
					Total for 1876.
1876-77.					
Year ended 30th June, 1877.....	.....	745	1,461,673 55	200,000 00	1,661,673 55
					Total for 1877.

(21 J.)

**RETURN**

To an ADDRESS of the SENATE, dated the 20th February, 1878 ;—For copies of all Orders in Council, Reports, recommendations and correspondence and any other information in the possession of the Government relative to the fixing of the headquarters of the Intercolonial Railway at Moncton.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 15th March, 1878

(21 K.)

**RETURN**

To an ORDER of the HOUSE OF COMMONS, dated the 15th February, 1877 ; For a Statement from the proper Intercolonial Railway official shewing the quantities, kinds and cost of rails, fish-plates, bolts and nuts, spikes and sleepers, as follows :—On hand, but not in use, on 30th June, 1875,—received during the year ending 30th June, 1876,—used and otherwise disposed of during the same period, the balance on hand but not in use at that date,—received during the six months ending 31st December, 1876,—used and otherwise disposed of during the same period,—and the balance on hand but not in use on the 31st December, last. The statement to shew the date when each lot was received, the quantity, the place whence received, parties from whom purchased, name of the vessel, freighting rails, fish-plates, &c., amount of freight paid, and also the names of all persons to whom any such material was sold, the quantities so disposed of and the prices received therefor.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 30th March, 1878.

[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not printed.]

(21 L.)

**RETURN**

To an ORDER of the HOUSE OF COMMONS, dated 15th February, 1877 ;—For a Statement shewing which of the bridges and culverts of the Intercolonial Railway between Pictou and Halifax received extensive repairs and alterations, or were renewed in part or in whole during the seasons of 1875 and 1876 ; also a Statement giving the quantity and cost of each kind of material procured therefor, the persons from whom, and the place whence it was obtained, the cost of transportation, the amount and cost of labour expended, and generally full particulars in regard to the work in each case.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 9th April, 1878.

(21 M.)

**RETURN**

To an ADDRESS of the HOUSE OF COMMONS, dated 13th March, 1878 ;—For statement of all expenditure for repairs and additions incurred by the Intercolonial Railway Department on the Tupper House, Hollis street Halifax, used as a ticket office for that Department.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
30th March, 1878.

[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not printed.]

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## RETURN

(21 N)

To an ORDER of the HOUSE OF COMMONS, dated 15th February, 1877;—  
For a Statement shewing the names, ages, denomination, date of appointment, occupation, and salary of all persons, except ordinary Mechanics and Labourers, who were in the service of the Intercolonial Railway on the 31st March, 1876; Also a separate statement giving similar information in regard to persons who were in the service of the Railway on the 31st December last.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 9th April, 1878.

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RAILWAY DEPARTMENT,  
MONTREAL, 28th March, 1878.

SIR,—I beg to return herewith Order of the House of Commons asking for statement of names of all persons, except ordinary mechanics and labourers, who were in the service of the Intercolonial Railway on the 31st March, 1876; and a similar statement shewing those who were in the service on the 31st December, 1876. I also beg to return the statements therein required with the ages of the different parties filled in, as requested.

I have the honour to be, Sir,  
Your obedient servant,  
(Signed) C. J. BRYDGES,  
*Gen.-Supt. of Government Railways.*

F. BRAUN, Esq., Secretary,  
Department of Public Works,  
Ottawa.

## INTERCOLONIAL RAILWAY.

STATEMENT showing names, occupation and salary of all persons except ordinary mechanics and labourers who were in the service of the Intercolonial Railway, on 31st March, 1876.

Names.	—	Age.	Salary.
GENERAL OFFICERS.			\$ cts.
C. T. Brydges.....	General Superintendent, Government Railways.	50	8,000 00
R. Luttrell.....	Superintendent, Head Traffic Department.....	43	2,600 00
A. Macnab.....	Engineer, Head Engineering Department.....	40	2,600 00
Thomas Foot.....	Accountant, Head Accounting Department.....	38	2,000 00
H. A. Whitney.....	Mechanical Department .....	42	1,800 00
D. Pottinger.....	General Storekeeper, Head Stores .....	32	1,500 00
TRAFFIC DEPARTMENT.			
<i>Superintendent's Office.</i>			
T. Coleman.....	General Baggage Agent, Moncton.....	40	1,500 00
G. H. Pick.....	Assistant Freight Agent do .....	40	1,200 00
T. Bruce.....	Clerk, Moncton .....	28	800 00
H. A. Price.....	Shorthand writer, Moncton .....	19	600 00
O. Cameron.....	Clerk do .....	20	400 00
C. Robertson.....	Operator do .....	18	420 00
F. McCann.....	Clerk do .....	19	360 00
R. Knight.....	Office Boy do .....	16	240 00
<i>Train Dispatchers, Operators, &amp;c.</i>			
L. B. Archibald.....	Train Despatcher, Truro .....	27	1,000 00
A. T. Greelman.....	Assistant Train Despatcher, Truro (left service).....		600 00
T. M. Boggs.....	do do do do .....		600 00
F. McCully.....	Operator, Truro .....	22	360 00
J. Bain.....	Messenger do .....	16	180 00
J. E. Price.....	Train Despatcher, Moncton .....	21	900 00
E. Patten.....	do do .....	28	900 00
G. M. Jarvis.....	do do .....	25	900 00
<i>Station Masters, Operators, &amp;c.</i>			
T. W. Tupper.....	Station Master, Richmond (left service).....		1,003 00
J. Murray.....	Outside Agent do .....	53	720 00
C. W. Rennels.....	Operator do .....	19	420 00
W. A. Sancton.....	do do .....	19	240 00
J. Guynan.....	do do .....	16	156 50
G. M. Connor.....	Ticket Agent do .....	25	800 00
C. J. Carten.....	Clerk do .....	39	680 00
J. M. Lyons.....	do do .....	25	680 00
D. A. Story.....	do do .....	22	400 00
J. Carten.....	do do .....	62	400 00
E. Boak.....	Wharfinger do .....	45	600 00
G. W. Boggs.....	Station Master, Bedford.....	35	400 00
W. Rennels.....	do Windsor Junction.....	24	400 00
A. D. McKay.....	do Wellington.....	21	400 00
Geo. Toasby.....	do Enfield.....	18	400 00
H. McIntosh.....	do Elmsdale.....	58	400 00
John Gunn.....	do Milford.....	22	300 00
R. M. Holesworth.....	do Shubenacadie .....	29	600 00
J. B. Till.....	Operator do .....	19	180 00



STATEMENT showing names, occupation and salary of all persons except ordinary mechanics and labourers who were in the service of the Intercolonial Railway, on 31st March, 1876.—Continued.

Names.	—	Age.	Salary.
<b>TRAFFIC DEPARTMENT—Continued.</b>			
<i>Station Masters, Operators, &amp;c.—Continued.</i>			
			\$ cts.
F. H. Holesworth.....	Station Master, Stewiacke .....	38	500 00
W. S. Hamilton.....	do Brookfield (left service) .....		400 00
M. Hamilton.....	Operator do do .....		120 00
R. McDonald.....	Station Master, Truro.....	39	800 00
J. D. Gladwin.....	Freight Clerk do do .....	23	600 00
J. G. Crowell.....	Ticket do do (left service).....		360 00
G. H. Hamilton.....	Station Master, Valley.....	19	300 00
M. C. Webster.....	do Riversdale.....	23	450 00
Wm. McKenzie.....	do West River.....	22	400 00
R. Sutherland.....	do Glengarry.....	22	400 00
Wm. Fraser.....	do Hopewell.....	30	450 00
J. McDonald.....	do Stellarton.....	41	600 00
H. Logan.....	Operator do .....	21	360 00
J. A. Cameron.....	Station Master, New Glasgow .....	29	700 00
A. C. Stephens.....	Operator do .....	19	300 00
J. V. Cooke.....	Station Master, Pictou Landing .....	27	800 00
C. M. Dawson.....	Clerk do .....	21	400 00
Geo. Ryan.....	Operator do .....	16	300 00
Wm. Jack.....	Station Master, Pictou.....	57	700 00
P. Fulmore.....	do DeBert.....	52	400 00
J. C. Spencer.....	do Londonderry .....	48	500 00
J. E. Spencer.....	Operator and Assist. do .....	19	240 00
W. A. Harris.....	Operator, Folly Lake.....	20	360 00
J. H. Livingston.....	Station Master, Wentworth.....	29	400 00
J. S. Forshner.....	do Greenville.....	45	400 00
J. Jones.....	do Thomson.....	52	400 00
J. H. Patton.....	do Oxford.....	57	400 00
J. W. Snow.....	do River Philip.....	27	400 00
J. E. Flaherty.....	do Spring Hill (left service).....		480 00
B. O. Pitfield.....	Asst. do do .....	34	420 00
H. Mills.....	Station Master, Athol.....	55	400 00
R. D. Roache.....	do Maccan.....	43	400 00
J. S. Moore.....	do Amherst.....	38	600 00
J. Todrey.....	Operator do .....	35	420 00
J. Sutherland.....	Station Master, Aulac.....	42	400 00
H. Hermans.....	do Sackville.....	28	480 00
C. R. Palmer.....	do Dorchester.....	42	450 00
S. C. Charters.....	do Memramcook.....	19	400 00
F. A. Taylor.....	do Painsec Junction.....	22	500 00
G. F. Barberie.....	Operator Point du Chêne (left service).....		360 00
J. E. Smith.....	Station Master, Shediac.....	30	600 00
J. W. Pitfield.....	do Moncton.....	37	1,000 00
D. B. Lindsay.....	Freight Agent, do .....	37	700 00
J. J. W. Henderson.....	Ticket Agent do .....	31	180 00
F. P. Trites.....	Messenger do (left service).....		240 00
J. Taylor.....	Station Master, Salisbury.....	38	500 00
C. F. W. Bell.....	Operator do .....	19	120 00
W. W. Price.....	Station Master, Peticodiac.....	46	600 00
D. A. Blakney.....	Clerk and Operator do .....	19	180 00
H. Palmer.....	Station Master, Anagance.....	27	400 00
T. Gross.....	do Penobscuis.....	26	400 00
A. Robertson.....	do Sussex.....	34	700 00
F. Forge.....	Clerk, Sussex.....	22	360 00
C. F. McCready.....	Station Master, Apohaqui.....	34	500 00
S. Trueman.....	Assistant Station Master, Apohaqui .....	26	180 00
S. McCready.....	Station Master, Norton .....	45	450 00
W. Deniston.....	do Passekeag (left service).....		400 00

STATEMENT showing names, occupation and salary of all persons except ordinary mechanics and labourers who were in the service of the Intercolonial Railway, on 31st March, 1876.—Continued.

Name.	—	Age.	Salary.
<b>TRAFFIC DEPARTMENT—Concluded.</b>			
<i>Station Masters, Operators, &amp;c.—Concluded.</i>			
			\$ cts.
A. M. N. Travis.....	Station Master, Hampton .....	33	500 00
Thomas Tays .....	do Nannigewauk .....	22	400 00
G. W. Sherwood .....	do Rothesay .....	26	400 00
S. E. Davidson.....	Assistant Station Master, Rothesay.....	57	240 00
W. G. Robertson .....	Station Master, St. John .....	30	800 00
C. D. Thomson.....	Ticket Agent do .....	36	800 00
H. B. Fleming.....	Operator do .....	19	360 00
T. Mack.....	Freight Agent do .....	45	900 00
F. Tapley.....	Clerk do .....	29	700 00
W. Small.....	do do .....	31	600 00
R. O. Frost.....	do do .....	68	469 50
A. Brewster.....	do do .....	20	240 00
R. Rettie.....	do do (left service) .....		500 00
T. Busk.....	do do .....	22	500 00
A. Wathen.....	do do (left service).....		540 00
C. Eagles.....	Wharfinger do do .....		391 25
T. B. Humphrey.....	Station Master, Berry's Mills .....	28	400 00
E. B. Buckerfield.....	Operator, Canaan .....	33	365 00
G. P. Brown.....	do Coal Branch.....	25	365 00
J. D. McNeil.....	Station Master, Weldford.....	19	400 00
J. J. McLeod.....	Operator, Ferris .....	29	365 00
James Harnett.....	do Forrest.....	21	365 00
G. Sullivan.....	do Barnaby River (left service).....		240 00
J. S. Fleming.....	Station Master, Miranichi.....	24	600 00
W. F. Fleming.....	Clerk do (left service).....		469 50
Wm. Nelson.....	Operator do .....	15	144 00
A. McDonald.....	do Beaver Brooke (left service) .....		240 00
F. J. Baudreau.....	do Red Pine .....	17	240 00
W. R. Payne.....	Station Master, Bathurst .....	25	400 00
J. Morrison.....	do Jacquet River.....	25	400 00
J. McMillan.....	Operator, New Mills .....	25	365 00
J. Reid.....	do Charlo .....	34	365 00
W. R. Johnston.....	Station Master, Dalhousie.....	25	400 00
O. A. Barberie.....	do Campbelltown.....	42	600 00
<b>ENGINEERING DEPARTMENT.</b>			
<i>Engineer's Office.</i>			
P. S. Archibald.....	Assistant Engineer, Moncton .....	28	1,200 00
W. B. McKenzie.....	Office Assistant do .....	28	1,100 00
J. P. Burnyeat.....	Clerk do .....	20	480 00
George Ackman.....	do do .....	19	480 00
<i>Trackmasters.</i>			
W. W. McLellan.....	Trackmaster, Eastern Division .....	37	1,200 00
J. S. Tritess.....	do Central do .....	56	1,200 00
G. Rainnie.....	do Western do .....	42	1,200 00
W. Hutchinson.....	do Northern do No. 1.....	42	1,020 00
D. D. McDonald.....	do do No. 2 (left service).....		1,020 00

STATEMENT showing names, occupation and salary of all persons except ordinary mechanics and labourers who were in the service of the Intercolonial Railway, on 31st March, 1876.—Continued.

Names.		Age.	Salary.
ACCOUNTING DEPARTMENT.			
<i>Accountant's Office.</i>			
			\$ cts.
W. T. Huggan .....	1st Clerk, Moncton .....	24	900 00
J. J. Walker .....	Clerk, do .....	22	700 00
W. C. Burnyeat .....	do do .....	22	700 00
W. A. Lyons .....	do do .....	20	400 00
<i>Audit Office.</i>			
J. J. Wallace .....	Auditor, Moncton .....	29	1,500 00
J. W. Wallace .....	Assistant Auditor, Moncton .....	28	1,000 00
J. D. Campbell .....	Travelling do do .....	29	800 00
J. W. Wortman .....	Clerk do do .....	22	700 00
J. E. Henderson .....	do do .....	19	600 00
C. J. Duchesnay .....	do do .....	19	400 00
<i>Cashier's Office.</i>			
A. Brush .....	Cashier, Moncton (defaulter—absconded) .....		1,000 00
<i>Paymaster's Office.</i>			
E. J. Trites .....	Paymaster, Moncton .....	32	1,200 00
MECHANICAL DEPARTMENT.			
<i>Mechanical Superintendent's Office.</i>			
John Sutton .....	1st Clerk, Moncton .....	43	1,000 00
W. J. Keswick .....	Clerk do .....	43	700 00
J. J. Mulhall .....	do do .....	25	600 00
J. Belliveau .....	do do .....	46	500 00
W. H. Fillmore .....	do do .....	20	420 00
H. Hamilton .....	do do .....	18	420 00
W. Price .....	Operator do .....	15	240 00
<i>Moncton Shops.</i>			
Wm. Marling .....	Draughtsman Moncton .....	29	720 00
J. McHaffie .....	Locomotive foreman do .....	45	900 00
J. Sayer .....	Machine do do .....	45	900 00
C. C. Davidson .....	Blacksmith do do .....	37	782 50
N. L. Rand .....	Roundhouse do do .....	33	840 00
H. C. Davidson .....	Timekeeper do do .....	39	600 00
W. C. Paver .....	Assistant Timekeeper do .....	21	504 00
H. W. Chapman .....	Foreman Carpenter do (paid by the hour) .....	37	.....
E. Shaffer .....	Master Car Builder do .....	40	1,200 00
<i>Halifax Shop.</i>			
H. Appleton .....	Foreman, Halifax .....	42	1,500 00
G. F. Roone .....	Timekeeper and Clerk .....	36	540 00

STATEMENT showing names, occupation and salary of all persons except ordinary mechanics and labourers who were in the service of the Intercolonial Railway, on 31st March, 1876.—Continued.

Names.	—	Age.	Salary.
<b>MECHANICAL DEPARTMENT—Concluded.</b>			
<i>Truro Shop.</i>			
Wm. Murphy .....	Foreman, Truro (left service) .....		\$    cts.
Wm. Hunt. ....	Storekeeper do .....	23	840 00 360 00
<i>Pictou Landing Shop.</i>			
E. S. Allen. ....	Foreman, Pictou Landing .....	37	782 50
T. E. Oxenham. ....	Storekeeper do (left service) .....		360 00
<i>St. John Shop.</i>			
T. Ferguson.....	Foreman, St. John (dead).....		804 00
H. Crookshanks.....	Clerk do .....	52	432 00
<i>Miramichi Shop.</i>			
D. Lester.....	Foreman, Miramichi .....	49	840 00
<i>Campbellton Shop.</i>			
T. Baird.....	Foreman, Campbellton.....	44	960 00
H. T. Stone.....	Clerk do (left service).....		360 00
<b>STORES DEPARTMENT.</b>			
<i>General Storekeepers' Office.</i>			
D. Leishman .....	Book-keeper, Moncton.....	38	800 00
C. T. Kerr .....	Clerk do .....	30	600 00
T. E. Smith.....	do do .....	20	450 00
E. Babang.....	do do .....	22	450 00
<i>Moncton Store.</i>			
H. M. Williston.....	Storekeeper, Moncton.....	25	700 00
O. Blais .....	Stationary Clerk, Moncton.....	24	700 00
T. L. Hackett .....	Clerk do (left service).....		500 00
M. Hollohan.....	Issuer do .....	57	420 00
<i>Halifax Store.</i>			
J. R. Fraser .....	Storekeeper, Halifax.....	33	700 00
D. Coleman .....	Issuer do .....	42	375 00
<i>St. John Store.</i>			
S. Watson .....	Storekeeper, St. John.....	57	720 00
E. L. Perkins.....	Clerk do .....	37	700 00
<i>Agencies.</i>			
Almon & McIntosh.....	Agents, Halifax (left service) {	33	Paid by commis- sion on ticket sales.
W. H. Olive.....	Agent, St. John.....		

E. &amp; O. E.

(Signed)

THOS. FOOT,

Accountant.

MONCTON, N.B.

## INTERCOLONIAL RAILWAY.

STATEMENT showing names, occupation and salary of all persons, except ordinary mechanics and labourers, who were in the service of the Intercolonial Railway, on 31st December, 1876.

Names.		Age.	Salary.
			\$ cts.
<b>GENERAL OFFICES.</b>			
C. J. Brydges.....	General Superintendent, Government Railways.....		8,000 00
R. Luttrell.....	Superintendent, Head Traffic Department.....	41	3,000 00
A. McNab.....	Engineer, Engineering Department.....	41	4,000 00
Thos. Foot.....	Accountant, Accounting Department.....	39	2,000 00
H. A. Whitney.....	Mechanical Superintendent, Mechanical Department.....	43	3,000 00
D. Pottinger.....	General Storekeeper, Stores' Department.....	33	1,800 00
<i>Traffic Department.</i>			
J. Coleman.....	Passenger Baggage Agent, Moncton.....	41	1,500 00
F. McCann.....	Clerk do.....	20	360 00
Geo. H. Pick.....	Asst. General Freight Agent do.....	41	1,200 00
J. Bruce.....	First Clerk, Superintendent's Office, Moncton.....	29	1,000 00
H. A. Price.....	Shorthand writer, Moncton.....	20	750 00
O. Cameron.....	Clerk do.....	21	600 00
C. Robertson.....	Operator do.....	19	420 00
W. Knight.....	Messenger do.....	17	240 00
<i>Assistant Superintendents, Train Dispatchers, &amp;c.</i>			
L. B. Archibald.....	Assistant Superintendent, Truro.....	28	1,200 00
A. T. Creelman.....	Train Despatcher, Truro (left service).....		780 00
T. M. Boggs.....	do do do.....		780 00
F. McCully.....	Operator do.....	23	360 00
J. W. Pitfield.....	Assistant Superintendent, Moncton.....	38	1,200 00
E. E. Patten.....	Train Despatcher do.....	29	900 00
G. M. Jarvis.....	do do.....	26	900 00
Wm. Nelson.....	Operator do.....	16	300 00
B. Palmer.....	do do.....	16	240 00
J. E. Price.....	Assistant Superintendent, Campbelltown.....	22	1,200 00
Evan Price.....	Train Despatcher do.....	24	780 00
E. C. Harris.....	do do.....	21	600 00
A. Busby.....	Assistant Superintendent, Rimouski.....	38	1,600 00
W. D. McCallum.....	Train Despatcher do.....	24	600 00
J. Goodfellow.....	do do.....	23	660 00
A. Dion.....	Clerk do.....	20	420 00
F. Lynch.....	Messenger do (left service).....		72 00
<i>Station Masters, Operators, &amp;c.</i>			
R. Macdonald.....	Station Master, Halifax.....	40	1,200 00
John Murray.....	Outside Agent do.....	54	800 00
Geo. M. Coaner.....	Ticket do.....	26	800 00
R. Dixon.....	Clerk do (left service).....		600 00
C. S. Carter.....	do do.....	49	660 00
D. A. Story.....	do do.....	23	600 00
C. W. Rennels.....	do do.....	20	420 00
J. Campbell.....	do do.....	41	540 00
J. A. Murray.....	do do (left service).....		420 00
H. M. Bailey.....	Train Despatcher do.....		600 00
Henry Logan.....	Operator do.....	22	420 00
Geo. Ryan.....	do do.....	17	300 00

STATEMENT showing names, occupation and salary of all persons, except ordinary mechanics and labourers, who were in the service of the Intercolonial Railway, on 31st December, 1876.—Continued.

Names.		Age.	Salary.
<i>Station Masters, Operators, &amp;c.—Continued.</i>			\$ cts.
Thos. Guyon.....	Messenger, Halifax.....	17	240 00
D. McDonald.....	do do.....	15	200 00
Jno. Carten.....	Clerk do.....	63	400 00
W. F. Rodgers.....	do do (left service).....		400 00
J. A. Adams.....	do do.....	36	600 00
Edward Book.....	Wharfinger, Richmond.....	46	600 00
W. Rent.....	Night Operator do.....	19	300 00
G. W. Boggs.....	Station Master, Bedford.....	36	400 00
Wm. Rennels.....	do Windsor.....	25	400 00
L. E. Borden.....	Assistant Master do.....	34	240 00
A. D. McKay.....	Station do Wellington.....	22	400 00
Geo. Loasby.....	do do Enfield.....	19	400 00
H. McIntosh.....	do do Chrisdale.....	59	400 00
S. T. McIntosh.....	Operator do.....	15	120 00
John Gunn.....	Station Master, Milford.....	23	300 00
R. M. Holesworth.....	Station Master, Shubenacadie.....	30	600 00
J. C. Till.....	Operator do.....	29	180 00
J. H. Holesworth.....	Station Master Stewiacke.....	39	500 00
F. L. Hamilton.....	do Brookfield (left service).....		400 00
J. G. McIntosh.....	Operator do.....	15	240 00
George Donkin.....	Station Master, Truro.....	46	800 00
J. D. Gladwin.....	Freight Agent do.....	24	600 00
C. M. Dawson.....	Ticket do do.....	22	400 00
George H. Hamilton.....	Station Master, Valley.....	20	300 00
M. C. Webster.....	do Riversdale.....	24	450 00
M. McKenzie.....	do West River.....	23	400 00
R. Sutherland.....	do Glengarry.....	23	400 00
Wm. Fraser.....	do Hopeville.....	31	450 00
James McDonald.....	do Stellarton.....	42	600 00
James Bairn.....	Operator do.....	17	300 00
J. A. Cameron.....	Station Master, New Glasgow.....	30	700 00
A. C. Stephens.....	Operator do.....	20	300 00
J. A. Cooke.....	Station Master, Pictou Landing.....	28	800 00
D. Bain.....	Operator do.....	24	300 00
W. Jack.....	Station Master, Pictou.....	58	900 00
P. Fulmore.....	do DeBert.....	53	400 00
J. C. Spencer.....	do Londonderry.....	49	500 00
J. E. Spencer.....	Assistant Station Master and Operator, London- derry.....	20	300 00
J. C. Davis.....	Operator, Follish Lake (left service).....		240 00
J. H. Livingstone.....	Station Master, Wentworth.....	30	400 00
J. S. Foshner.....	do Grenville.....	46	400 00
Robert Jones.....	do Thomson.....	53	400 00
J. H. Patton.....	do Oxford.....	58	700 00
J. H. Patton.....	Assistant Station Master, Oxford (left service).....		313 00
J. N. Snow.....	Station Master, River Philip.....	28	400 00
J. E. Flaherty.....	do Spring Hill (left service).....		420 00
B. O. Pitfield.....	Assistant Station Master, Spring Hill.....	35	480 00
D. A. Colpits.....	Operator, Thomson.....	20	360 00
H. Mills.....	Station Master, Oxford.....	56	400 00
K. C. Mills.....	Assistant Station Master, Oxford.....	18	180 00
R. D. Roach.....	Station Master, River Philip.....	44	400 00
J. S. Moore.....	do Spring Hill.....	39	600 00
Wm. Fulmore.....	Assistant Station Master, Spring Hill (left service).....		300 00
J. Todrv.....	Operator, Spring Hill.....	36	360 00
J. Sutherland.....	Station Master, Athol.....	43	400 00
H. D. Sutherland.....	Assistant Station Master, Athol.....	33	120 00
H. Palmer.....	do do Maccan.....	28	480 00
E. H. Hoar.....	do do Amherst.....	18	180 00

STATEMENT showing names, occupation and salary of all persons, except ordinary mechanics and labourers, who were in the service of the Intercolonial Railway, on 31st December, 1876.—Continued.

Names.		Age.	Salary.
<i>Station Masters, Operators, &amp;c—Continued.</i>			
			\$ cts.
C. R. Palmer.....	Assistant Station Master, Amherst.....	43	480 00
A. Trenholm.....	do do do.....	20	240 00
J. C. Charters.....	do do Aulac.....	20	400 00
F. A. Taylor.....	Station Master, Aulac.....	23	500 00
J. E. Smith.....	do Sackville.....	31	800 00
J. McLachlin.....	Clerk and Operator, Sackville (left service).....	.....	480 00
H. H. Schaffer.....	Station Master, Dorchester.....	29	600 00
G. H. Trueman.....	do Moncton.....	37	900 00
D. B. Lindsay.....	Freight Agent, Memramcook.....	38	700 00
J. W. T. Henderson.....	Ticket do Painsec Junction.....	32	180 00
J. Taylor.....	Station Master, Port du Chêne.....	39	500 00
G. J. Barbane.....	Operator, Salisbury (left service).....	.....	300 00
W. W. Price.....	Station Master, Salisbury.....	47	600 00
F. Floyd.....	Clerk, Petitcodiac.....	21	180 00
C. T. Lewis.....	Station Master, Anagance.....	27	400 00
J. Gross.....	do Penobscuis.....	37	400 00
A. Robertson.....	Station Agent, Sussex.....	35	700 00
F. Forge.....	Freight Clerk, do.....	23	360 00
N. C. Sears.....	Operator do (left service).....	.....	120 00
C. McCreedy.....	Station Master, Apohaqui.....	35	500 00
L. A. Trueman.....	Assistant Station Master, Apohaqui.....	26	180 00
S. McCreedy.....	do do do.....	46	450 00
D. Carmichael.....	do do Bloomfield.....	26	300 00
W. Deniston.....	Station Master, Morton (left service).....	.....	400 00
A. McN. Travis.....	Station Master, Hampton.....	34	500 00
Thos. Lays.....	do Nauwigewauk.....	23	400 00
G. W. Sherwood.....	do do Rothesay.....	27	400 00
S. E. Davidson.....	Asst. do do.....	58	240 00
Geo. S. Russell.....	do do Colebrook.....	40	360 00
W. G. Robertson.....	do do St. John.....	31	800 00
O. Blais.....	Ticket Master do.....	25	800 00
H. B. Fleming.....	Operator do.....	20	400 00
Thos. Mack.....	Freight Agent do.....	46	900 00
J. H. Bartlette.....	Custom House M. Man., St. John.....	69	720 00
F. Topley.....	Clerk, St. John.....	30	700 00
E. P. Shaw.....	do do.....	44	600 00
C. Eagles.....	Wharfinger, St. John (left service).....	.....	391 00
J. Seeley.....	Clerk do.....	36	600 00
H. H. Burns.....	Custom House Clerk, St. John.....	28	313 00
J. W. Rusk.....	Freight Shipper do.....	23	600 00
R. C. Frost.....	Clerk do.....	69	469 00
R. Kittie.....	Freight Shipper do (left service).....	.....	600 00
N. Small.....	Clerk, St. John.....	32	600 00
A. Brewster.....	do do.....	21	300 00
J. B. Humphrey.....	Station Master, Berry's Mills.....	29	400 00
W. J. Peters.....	Operator Canaan.....	20	313 00
E. Sullivan.....	do do Coal Branch (left service).....	.....	313 00
A. B. Buckerfield.....	Station Agent, Weldford.....	34	400 00
J. McKenzie.....	Operator do.....	19	180 00
J. McLeod.....	do do Ferris.....	30	313 00
Jas. Hornet.....	do do Forrest.....	22	313 00
H. G. Vavassour.....	do do Barnaby River.....	30	300 00
C. P. Brown.....	Station Master, Chatham Junction.....	26	400 00
J. D. McNeil.....	do do Chatham.....	20	500 00
J. S. Fleming.....	do do Miramichi.....	25	600 00
G. A. Dodge.....	Station Agent do.....	21	300 00
W. McCann.....	Operator Beaver Brook.....	22	240 00
C. A. Witter.....	Operator Bartilogue.....	20	300 00
F. G. Bondmen.....	do do Red Pine.....	18	300 00

STATEMENT showing names, occupation and salary of all persons, except ordinary mechanics and labourers, who were in the service of the Intercolonial Railway, on 31st December, 1876.—Continued.

Names.		Age.	Salary.
<i>Station Masters, Operators, &amp;c.—Concluded.</i>			
W. R. Payne .....	Station Master, Bathurst.....	26	500 00
W. A. Harris .....	Acting Master, Petite Roche .....	21	400 00
D. J. Curry .....	Operator, Belledune .....	26	313 00
Jno. Morrison .....	Station Master, Jacquet River .....	26	400 00
Jas. McMillan .....	Operator, New Mills.....	26	313 00
Jas. Reid .....	do, Charlo .....	35	313 00
W. R. Johnston.....	Station Master, Dalhousie .....	26	400 00
O. A. Barbarie .....	do, Campbelltown .....	43	600 00
J. B. Bassette .....	Asst. do, do (left service) .....		240 00
J. L. Hewitt .....	do, Metapediac .....	17	360 00
N. W. Freeze .....	Operator, Millstream .....	17	300 00
J. R. Mercier .....	do, Assametquaquan .....	23	360 00
S. R. Blondin .....	Station Master, Causcapsal .....	23	300 00
C. S. Godbank .....	Operator, Omqui .....	21	300 00
C. L. Desjardins .....	do, Lalybec.....	17	360 00
W. Bernier .....	Station Master, St. Octave.....	24	360 00
W. A. McDonald .....	do, Tortigue (left service) .....		360 00
C. S. Derry .....	do, St. Flavie .....	27	400 00
J. A. Talbot .....	do, Rimouski .....	28	600 00
J. R. Coldouge .....	do, Bic .....	42	300 00
W. Dion .....	do, Ste. Flavie (left service) .....		300 00
L. D. Bouchard .....	do, St. Simon .....	21	300 00
F. X. Brissette .....	do, Three Pistoles .....	33	600 00
F. Rioux .....	do, Isle Verte .....	36	300 00
N. Michaud .....	do, Ste. Arsene .....	29	240 00
J. Laverdière .....	do, Rivière du Loup.....	33	720 00
J. M. Lyons .....	Cashier, do .....	27	660 00
M. Crean .....	Clerk, do .....	27	600 00
J. E. McDougall .....	do, do .....	22	600 00
<b>ENGINEERING DEPARTMENT.</b>			
<i>Engineers' Office.</i>			
P. S. Archibald.....	Assistant Engineer, Moncton.....	29	1,500 00
W. B. McKenzie .....	Office Assistant, do .....	29	1,200 00
J. P. Burnyeat .....	Clerk, do .....	21	480 00
Geo. Ackman.....	do, do .....	20	480 00
<i>Trackmasters.</i>			
W. W. McLellan .....	Trackmaster, Eastern Division .....	38	1,200 00
J. S. Trites .....	do, Central do .....	57	1,200 00
G. Rannie .....	do, Western do .....	43	1,200 00
Geo. Leamons .....	do, Northern Division, No. 1 .....	33	1,200 00
W. Hutchison .....	do, do, No. 2 .....	43	1,200 00
J. M. Ross .....	do, do, No. 3 .....	36	1,200 00
Jas. Yeo .....	do, do, No. 4 .....	46	1,200 00
<b>ACCOUNTING DEPARTMENT.</b>			
<i>Accountant's Office.</i>			
W. C. Huggan.....	1st Clerk.....	25	950 00



STATEMENT showing names, occupation and salary of all persons, except ordinary mechanics and labourers, who were in the service of the Intercolonial Railway, on 31st December, 1876.—Continued.

Names.		Age.	Salary.
ACCOUNTING DEPARTMENT—Concluded.			
<i>Accountant of Contingencies Office.</i>			\$ cts.
J. J. Walker.....	Clerk, Moncton.....	23	750 00
M. C. Burnyeat.....	do .....	23	750 00
W. A. Lyons.....	do .....	21	400 00
S. A. Halls.....	do .....	23	400 00
C. J. Duchesnay.....	do .....	20	400 00
F. H. Story.....	do .....	20	360 00
AUDIT OFFICE.			
<i>Accounting Department.</i>			
J. J. Wallace.....	Auditor and General Superintendent, Moncton..	30	1,800 00
J. W. Wallace.....	Assistant Auditor, Moncton.....	29	1,000 00
J. D. Campbell.....	Travelling Auditor do .....	30	1,000 00
J. W. Wortman.....	Clerk, Moncton.....	23	700 00
J. E. Henderson.....	do .....	20	670 00
A. B. Watham.....	do (left service).....		600 00
D. A. Blackeney.....	do .....	20	500 00
J. W. McKechnie.....	do (left service).....		500 00
N. R. Payne.....	do .....	35	590 00
C. E. Spencer.....	do .....	23	500 00
Jas. Ryan.....	do .....	18	240 00
S. F. Gross.....	do .....	25	400 00
CASHIERS' OFFICE.			
<i>Accounting Department.</i>			
J. McAllister.....	Cashier.....	56	1,200 00
C. D. Thompson.....	.....	37	1,000 00
W. A. Jones.....	.....	47	1,200 00
PAYMASTERS' OFFICE.			
<i>Accounting Department.</i>			
E. J. Trites.....	Paymaster, Moncton.....	33	1,200 00
H. D. Finlay.....	do do .....	27	1,200 00
MECHANICAL DEPARTMENT.			
<i>Mechanical Superintendent's Office.</i>			
John Sutton.....	First Clerk, Moncton.....	44	1,100 00
J. Keswick.....	Clerk Moncton.....	44	800 00
J. J. Mulhail.....	do .....	26	600 00
J. Belledune.....	do .....	47	500 00
W. H. Fillmore.....	do .....	21	500 00
H. Hamilton.....	do .....	19	500 00
W. H. Price.....	Operator.....	16	240 00

STATEMENT showing names, occupation and salary of all persons, except ordinary mechanics and labourers, who were in the service of the Intercolonial Railway, on 31st December, 1876.—Continued.

Names.		Age.	Salary.
<b>MECHANICAL DEPARTMENT—Continued.</b>			
<i>Moncton Shops.</i>			
W. Marling .....	Draughtsman, Moncton .....	30	840 00
E. Shaffer .....	Master Car Builder, Moncton .....	41	1,200 00
J. McHaffie .....	Locomotive Foreman do .....	46	1,029 00
Jas. Sayer .....	Foreman, Machine Shop, Moncton .....	46	900 00
W. L. Rand .....	do Round House do .....	34	960 00
H. C. Davidson .....	Time Keeper do .....	40	600 00
W. C. Paver .....	do do .....	22	504 00
C. C. Davidson .....	Foreman Blacksmith do .....	38	900 00
H. M. Chapman .....	Carpenter do .....	38	720 00
<i>Halifax Shops.</i>			
H. Appleton .....	Foreman, Richmond .....	43	1,200 00
G. F. Roome .....	Time Keeper do .....	37	540 00
<i>Truro Shops.</i>			
W. Murphy .....	Foreman, Truro (left service) .....		840 00
W. Hunt .....	Store Keeper, Truro .....	24	360 00
<i>Pictou Landing Shops.</i>			
E. S. Allen .....	Foreman, Pictou Landing .....	38	782 00
H. Clark .....	Storekeeper do .....	29	420 00
<i>St. John Shops.</i>			
Jas. Ferguson .....	Foreman, St. John (dead) .....		900 00
H. Crookshanks .....	Clerk do .....	53	480 00
<i>Miramichi Shops.</i>			
D. Lester .....	Foreman, Miramichi .....	50	840 00
J. Sitton .....	Clerk do .....	20	360 00
<i>Campbelltown Shops.</i>			
J. Baird .....	Foreman, Campbelltown .....	45	960 00
C. Murray .....	Clerk do .....	29	430 00
<i>Ste. Flavie Shops.</i>			
J. Fail .....	Foreman, Ste. Flavie (dead) .....		840 00
W. R. Brown .....	Clerk do .....	21	360 00
<i>Rivière-du-Loup Shops.</i>			
J. Unsworth .....	Foreman, Rivière-du-Loup .....	39	960 00
W. B. Ferguson .....	Clerk do .....	44	420 00

STATEMENT showing names, occupation and salary of all persons except ordinary mechanics and labourers, who were in the service of the Intercolonial Railway, on 31st December, 1876.—*Continued.*

Names.		Age.	Salary.
<b>STORES DEPARTMENT.</b>			
<i>General Stores, Keepers' Office.</i>			
			\$ cts.
D. Leishman.....	Book-keeper, Moncton.....	39	900 00
C. T. Ren.....	Clerk, Moncton.....	31	700 00
J. E. Smith.....	do .....	21	500 00
E. Bobouy.....	do .....	23	500 00
A. H. Seeley.....	do .....	20	600 00
W. A. Sleitch.....	do .....	15	200 00
<i>Moncton Store.</i>			
H. M. Williston.....	Storekeeper, Moncton .....	26	800 00
C. H. Vail.....	Clerk do .....	27	500 00
M. Hollsham.....	Issuer do .....	58	500 00
<i>Halifax Store.</i>			
J. R. Fraser.....	Storekeeper, Richmond .....	34	700 00
D. Coleman.....	Issuer do .....	43	391 25
<i>St. John Store.</i>			
S. Matson.....	Storekeeper, St. John.....	59	720 00
E. L. Perkins.....	Clerk do .....	38	700 00
<i>Rivière-du-Loup Store.</i>			
J. M. Kenny.....	Storekeeper, Rivière-du-Loup (left service) .....		400 00
<i>Agencies.</i>			
Geo. Robinson.....	Ticket Agent, Montreal.....	37	1,400 00
W. D. Mathews.....	do Toronto.....	55	1,500 00
W. F. Olive.....	do St. John.....	39	1,500 00
J. W. Tupper.....	do Halifax (left service).....		1,000 00
<i>Relieving Agents.</i>			
W. H. Shaw.....	Relieving Agent.....	23	313 00
E. O. Staik.....	do .....	24	540 00
E. Fraser.....	do .....	21	300 00

E. &amp; O. E.

(Signed) THOS. FOOT,  
Accountant.

MONCTON, N.B.

(No. 21 o.)

**RETURN**

To an ADDRESS of the HOUSE OF COMMONS, dated 1st April, 1878;—For all correspondence between the Government and T. M. Boggs, in relation to his dismissal from the office of Train Despatcher at Truro, on the Intercolonial Railway, &c.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE  
OTTAWA, 25th April, 1878.

(No. 21 P.)

**RETURN**

To an ADDRESS of the HOUSE OF COMMONS, dated 1st April, 1878;—For copies of all correspondence, Orders in Council or Reports connected with the removal from office or resignation of George Taylor, from the office of Assistant Railway Superintendant of the Intercolonial Railway.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 25th April, 1878.

[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not printed.]

(21Q)

**RETURN**

To an ADDRESS of the HOUSE OF COMMONS, dated 27th March, 1878;—For copies of all correspondence between Mrs. Edward Murphy, of Barnaby River, Miramichi, N. B., and Officers of the Intercolonial Railway, in relation to the killing of a cow on said railway, &c.

By Command.

R. W. SCOTT,  
*Secretary of State*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 25th April, 1878.

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(21R)

**RETURN**

To an ADDRESS of the SENATE, dated 2nd April, 1878;—For all correspondence between any person or company and the Government, or the Superintendent of Railways, relating to shipment of grain or other articles, by way of the Intercolonial Railway at Halifax, for Europe.

By Command.

R. W. SCOTT,  
*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 25th April, 1878.

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[In accordance with the recommendation of the Joint Committee on Printing, the above Returns are not printed.]

## RETURN

(No. 21R.)

To an ADDRESS of THE SENATE, dated 2nd April, 1878;—For all correspondence between any person or company and the Government, or the Superintendent of Railways, relating to Shipment of Grain or other articles, by way of the Intercolonial Railway, at Halifax for Europe.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 25th April, 1878.

RAILWAY DEPARTMENT,  
MONTREAL, 15th April, 1878.

SIR,—I beg to return herewith Order from the Senate calling for copies of all correspondence between any person or company and the Government or General Superintendent of Railways, relating to shipment of grain or other articles, by way of the Intercolonial Railway, at Halifax for Europe.

In compliance therewith, I beg to forward copies of the correspondence which I have had upon the subject.

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

(Signed) C. J. BRYDGES.  
*Gen. Supt. of Government Railways.*

F. BRAUN, Esq., Secretary,  
Department of Public Works,  
Ottawa.

13th December, 1877.

DEAR SIR,—Referring to your conversation with me respecting the possibility of carrying grain over the Intercolonial Railroad from Rivière du Loup to Halifax, I desire to inform you that the Government have considered the representation made by you on behalf of the Halifax merchants, and will give instruction to the General Superintendent of Government Railways on the subject. I need hardly say that the Government are extremely anxious to do everything to encourage any legitimate business that can be done by the railway. I think it is quite clear, from the data at present available, that the price you suggest, viz., 1s. 3d. sterling per quarter, or about 3½ cents per bushel, over 561 miles of railway cannot possibly pay running expenses. But direction will be given to afford the necessary facilities for taking say two cargoes at that rate, after which both the Halifax merchants and ourselves will be in a position to discuss the matter with realized facts before us.

Yours faithfully,

(Signed) A. MACKENZIE.

GEO. B. BLACK, Esq.,  
71 Dubord Street, Montreal.

MONTREAL, 4th January, 1878.

GENTLEMEN,—Having been deputed by a Joint Committee of the City Council, Chamber of Commerce and Importers Association of Halifax, N.S., to endeavor to arrange for through shipments of grain and other produce from the west to Great Britain, *via* Halifax, at the same rates that said through traffic is carried *via* Portland;

And having been assured, from conversations had with each of you, and from a letter which I hold from the Dominion Government, that the rates will be equalized for two experimental trips—with only one obstacle, that of the cost of bagging of grain;

And having found, from personal enquiry, that the necessary proportion of grain (40 per cent.) can readily be obtained in Ontario, and feeling confident, from telegram in my hands, that the balance of cargoes (60 per cent.) of boxed meats, &c., can be easily obtained in Chicago;

I therefore beg leave to suggest that you will jointly, for these experimental trips, overcome the only obstacle that exists, as above mentioned, the expense of which, if divided between your companies, will be so small for each that I trust you will feel warranted in meeting my views, and thus allow me to return to those whom I represent with the assurance that I have succeeded in opening the route for at least these two cargoes, after which arrangements can be made for future cargoes as ascertained facts will warrant.

Hoping you may be enabled to consult together and give me your reply, which I trust will be favorable, on or before to-morrow evening. Care R. W. Gale, Esq., No. 71 Dubord Street.

I remain, very respectfully,

Your obedient servant,

(Signed) GEO. P. BLACK.

Messrs. JOSEPH HICKSON,

General Manager, Grand Trunk Railway,

C. J. BRYDGES,

General Manager, Government Railway,

H. & J. A. ALLAN,

General Managers, Allan's Steamship Line.

Copy of the above is sent to Messrs. Allan and Hickson.

Mr. Black handed this letter to me personally, and I informed him that the rate of 1s. 3d. a quarter was the rate authorized on the Intercolonial Railway for two experimental cargoes, and that I could not reduce that rate, which would be the effect if I paid any portion of the cost of bagging.

(Signed) C. J. BRYDGES.

MACKASEY & CO.,  
SHIPPING AND COMMISSION MERCHANTS,  
31 LOWER WATER STREET,

HALIFAX, N.S., 16th January, 1878.

SIR,—We are agents and in correspondence with a steamship company of Great Britain, and would wish, for their information, for you to quote us through rates to Liverpool, G.B., for grain and flour *via* Halifax, showing Grand Trunk, Intercolonial Railway and steamer's proportion per quarter and per barrel from Montreal and Port Huron, and intermediate points on the line of Grand Trunk Railway. Please mention rate in sterling.

We remain, very respectfully,

Your obedient servants,

(Signed) MACKASEY & CO.

C. J. BRYDGES, Esq.,

General Manager, Government Railway,  
Montreal.

MONTREAL, 19th January, 1878.

DEAR SIRS,—I have your letter of the 16th inst. It is impossible for me to tell you what the rates will be from different points in Canada to Liverpool, because they are continually varying.

I have no means of telling what amount you propose to allow for the steamer between Halifax and Liverpool. The Grand Trunk are prepared to carry produce of any kind from all their stations to Rivière du Loup at the same proportion of the through rate that they charge to Portland. If you can tell me what rate your steamers will charge from Halifax to Liverpool, it would, no doubt, be possible to arrange a through rate, provided the price from Halifax was sufficiently low.

Yours truly,  
(Signed) C. J. BRYDGES.

MACKASEY & Co.,  
Halifax, N.S.

MACKASEY & Co.,  
HALIFAX, N.S., 31st January, 1878.

DEAR SIR,—We received your several telegrams in answer to ours, also in reference to the impossibility of getting five and sixpence, as there would be nothing left for Intercolonial Railway.

We are extremely obliged and shall for ever remember your very kind consideration and assistance, and will call on you when you next come to our city, to tender you our personal thanks. Those folks on the other side that we are in correspondence with do not understand the favorable geographical position of our city in relation to Europe, compared with many cities on the continent.

We would like very much to see this winter port commenced and to induce our friends abroad to make this commencement, we wired them to say that we would forego and charge no commissions in doing the business of this ship, thinking to help the ship out all we could. We have wrote to owners and enclosed them your last telegram to show them the impossibility of getting their figures.

You might please, if not putting you to inconvenience, to inform us what would be the best possible rate that could be got on grain, per quarter, for steamers from Halifax to Liverpool. We are extremely anxious to try and get some boats on here if possible.

In reference to a telegram of ours, asking for the same assistance as had been promised Mr. Black, we beg to be excused for our mistake. On receiving your answer we carefully read Mr. Black's report, and we found that our idea was altogether unfounded.

Thanking you again for your consideration,

We remain, respectfully, &c.,  
(Signed) MACKASEY & Co.

C. J. BRYDGES, Esq.,  
Montreal.

MONTREAL,

DEAR SIR,—I am in receipt of your letter of the 31st ult., and am sorry nothing has come out of our telegraphic correspondence.

I should myself like very much indeed to see a shipment started through Halifax, and I think it can be done without difficulty.

The present rate of freight on grain from Toronto to Liverpool is 11s. 6d. per quarter. It is being shipped at that rate through Portland, and also through New York. That rate, therefore, could be got, but nothing higher.

The Grand Trunk will take 45 per cent. of that, which is equal to about 5s. 3d. a quarter. Bagging and bags will cost a shilling a quarter. That will leave 5s. 3d. for



the distance from Rivière du Loup to Liverpool. The Government has already agreed to take a couple of cargoes at 1s. 3d., which would leave just 4s. for the steamer.

If the rate were 12s. a quarter it would give from 4s. 3d. to 4s. 6d. a quarter for the steamer from Halifax, which is the outside price that can be got.

I think the rate of 1s. 3d. a quarter from Rivière du Loup to Halifax is not one which can be depended upon for continuance, as it clearly will not pay the cost of transportation.

I shall be very glad, indeed, to give you any further information at any time that is in my power, and shall be happy when I am next in Halifax to have the pleasure of seeing you.

Yours truly,  
(Signed) C. J. BRYDGES.

MACKASEY & Co.,  
Halifax, N.S.

MACKASEY & Co.,  
HALIFAX, N.S., 22nd February, 1878.

DEAR SIR,—We received yours of the 4th inst., and noted contents, and have sent extracts of your letter to our friends in Great Britain, also a miniature chart showing this continent with Intercolonial Railway, Grand Trunk and continuous lines of Railroad to San Francisco, which letter we expect they have received against this time.

We received a letter from them by last English mail, dated the 4th inst., where they advise, when they have a boat disengaged again they will wire us, and they would be pleased to work up a trade between Halifax and Liverpool, but cannot afford to run for ruinous rates.

Their telegram to us was: "*Cannot accept less than 5s. 6d. to Liverpool.*" We understand from that, the ship would have come for that rate, but would like to get a higher rate.

In their letters referred to they enclosed us a memo. from a Glasgow firm, (find copy of memo. enclosed) and went on to say: We find the rates quoted on this side are higher than you quote, and we enclosed you a memo. from a Glasgow firm received to-day.

The reason they sent us this memo. was, we received a letter from Grand Trunk Railroad and telegram, stating that if we gave a firm offer of ship at 6s. 9d. per quarter it would lead to business, which we wired to Great Britain, but in the interval ship was engaged to go to Mediterranean on account of freight from here being not remunerative.

If the rate were 12s. 3d. from Toronto to Liverpool it would leave the steamer 5s. 6d. from Halifax, and out of that, steamer would have to pay hire, bags and bagging.

Grand Trunk proportion 45 per cent.....	5s. 6d.
Intercolonial, per quarter .....	1s. 3d.
Balance for steamer.....	5s. 6d.

12s. 3d.

In the event of their wiring us in regard to freight for steamers again, we are in a better position now as to details than we were a month ago, and can work with greater economy for ship. Bagging can be done for half in Montreal for what the elevator will do it here for.

You might please give us your opinion as to enclosed memo. We think that portion of it relating to Portland not to be depended upon.

We remain,  
Yours respectfully,  
(Signed) MACKASEY & Co.

C. J. BRYDGES, Esq.,  
Manager of Government Railways, Montreal.

MONTREAL, 27th February, 1878.

DEAR SIRS,—I am this morning in receipt of your letter of the 22nd inst., and note what you say.

I hope to be in Halifax before many days, when I will take an opportunity of seeing you upon the subject.

Rates are somewhat fluctuating, but when you are in a position to know precisely when a steamer is ready to be put on to the berth I shall be glad to hear from you upon the subject either by letter or telegraph.

Yours truly,

(Signed) C. J. BRYDGES.

MACKASEY & Co.,  
Halifax.

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GRAND TRUNK RAILWAY OF CANADA,  
MONTREAL, March 25th, 1878.

DEAR SIR,—I am this day in receipt of your favor of the 20th inst., about cargo of grain per Halifax.

I do not think that we could get to-day 9s from Toronto to Liverpool, and I have no idea that a special steamer could accept their division of this rate.

The low rates of 8s. 3d. from Chicago this month prevents us from contracting Canadian grain.

Yours truly,

(Signed) JOHN PORTEOUS.

C. J. BRYDGES, Esq.,  
Intercolonial Railway,  
Montreal.

## RETURN

(21 s)

To an ORDER of the HOUSE OF COMMONS, dated 27th March, 1878;—  
Calling for a Statement shewing all Contracts given since 1867, including those of the Intercolonial Railway; those awarded to the lowest tender, and those given to others; the difference between the price given and that stated in the lowest tender, and the reasons why the contract was not awarded to the lowest tender; and all Orders in Council and correspondence relating to the same.

By Command.

R. W. SCOTT,

*Secretary of State*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 1878

PUBLIC WORKS, CANADA.

Number.	Name of Contractor, and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
1	Daniel Fraser. No. 3,138. July 15, 1867.	\$ 1,044	\$ 1,044	.....	\$ Nil.	Roads and Bridges. Repairs to Metapedia Road, Southern Division.	No tenders. Contract awarded by the Superintendent of the Road, who was authorized by O.C. 86,142, June 22nd, 1867, to expend \$3,000 for repairs. (No. 624, Aug. 14, 1867.)
	J. R. O'Connor. No. 3,136. August 21, 1867.	4,313	.....	6,354	2,011	Build a Bridge at Manotick, Long Island, Rideau River.  <i>Slates and Booms.</i>	Four tenders received, the highest amounting to \$6,665. (See No. 223, July 12, 1867.) Lowest, D. Ross, declined to enter into contract. Second lowest accepted with modifications. (See Nos. 223 and 304, July 19, 1867.)
	John Harvey. No. 3,151. December 28, 1867.	4,000	4,000	.....	Nil.	Construct a Bulkhead, Dam and Slide at Deschênes Rapids, Ottawa River.	Eight tenders received, the highest amounting to \$9,577. (See Schedule No. 84,702, March 5, 1867.) Lowest accepted, \$4,798, by O.C. 2061, December 28, 1867. After Mr. Harvey had reduced the amount of his tender to within the limits of the sum appropriated (\$4,500), on account of having succeeded in making much more favourable arrangements for procuring the timber required than he thought he could have done when he sent in his tender in March, 1867. (See No. 1634, H. Merrill to F. Braun, November 6, 1867.)

*Harbours and Piers.*

4	Murphy & Lawlor. No. 7, N.S. June 20, 1867.	1,230	1,230	.....	Build a Lighthouse and Dwelling at Moser's Island, Lehave River, N.S.	Works let by the Board of Works, Nova Scotia. Frederick Brown, Chairman previous to the proclamation of Union. (No. 478, July 23, 1867.)	
5	Murphy & Lawlor. No. 8, N.S. June 20, 1867.	1,690	1,690	.....	Build a Lighthouse and Dwelling at Peggy's Point, Margaret Bay, N.S.		
6	Dexter & Robichau. No. 12, N.S. June 26, 1867.	2,800	2,800	.....	Build a Lighthouse and Dwelling on Cape St. Mary's, N.S.		
7	Robert Purves. No. 9, N.S. July 20, 1867.	1,750	1,750	.....	Build a Lighthouse and Dwelling on Black Rock Point.		
8	Robert Purves. No. 10, N.S. July 20, 1867.	1,450	1,450	.....	Build a Lighthouse on Cariboo Island.		
9	F. G. Randall. No. 11, N.S. July 20, 1867.	898	898	.....	Build a Lighthouse on Pomket Island.		
10	S. Peters. No. 3,140. October 8, 1867.	8,793	11,990	3,197	Construction of a Lighthouse on Pier, Pointe St. Laurent, Isle D'Orléans.		Eleven tenders received, the highest amounting to \$18,400. (See Schedule 613, August 20, 1867.) Second lowest accepted. (O.C. 1018, October 1, 1867.) Lowest, Germain Michaud, \$8,793, "pronounced" by Mr. Page "to be much below the value of the work." (O.C. 1,048, October 1, 1867.)
11	John Brown. No. 3,167. March 24, 1868.	32,583	.....	Nil.	Complete the Deepening of Canal to the Lake Erie level.		No tenders called for publicly by advertisement. The Chief Engineer of Public Works requested Mr. Brown to submit a tender, and recommended its acceptance, considering "that it does not appear to him (the engineer) that any more economical mode of doing the works in question can be arrived at than by the Department entering into an agreement with Mr. Brown for the execution of the most important of these works." (O.C. 2,761, Jan. 26, 1868.)
12	William Henry. No. 3,180. August 5, 1868.	1,825	.....	Nil.	Build an Office for Collector at Port Robinson.		Only one tender received, which was accepted, as recommended by Chief Engineer of Public Works. (See No. 4,128, July 27, 1868.) Work authorized by O.C. 4,263, Aug. 5, 1868, for \$22,000.
		62,406	18,344	5,208			

*Carried forward.....*

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor, and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
13	<i>Brought forward</i> ..... John Brown, No. 3,179, August 10, 1868.	\$ 62,406	\$ 49,270	\$ 18,344	\$ 5,208	<i>Welland Canal</i> .—Continued. Enlargement of Basin at Port Colborne, and Dredging between piers at Port Dalhousie.	Only one tender received, which was accepted as recommended by Chief Engineer of Public Works. (See No. 4,128, July 27, 1868.) Work authorized by O.C., 4,263, Aug. 5, 1868.
14	Angus McDonald, No. 3,178, August 17, 1868.	15,300	15,300	.....	Nil.	Build Superstructure of the outer part of West Pier, Port Dalhousie.	Six tenders received, the highest amounting to \$19,574. Lowest accepted. (See No. 4,128, July 27, 1868.) Work authorized by O.C., 4,264, Aug. 5, 1868, for \$17,000.
15	David Irwin, No. 3,181, August 21, 1868.	16,615	16,615	.....	Nil.	Build an Office for Collector at Dunnville.	Two tenders received, the highest amounting to \$2,050. Lowest accepted, as recommended by Chief Engineer of Public Works. (See No. 4,128, July 27, 1868.) Work authorized by O.C., 4,263, Aug. 5, 1868.
16	Jas. Goodwin, No. 3,161, February 5, 1868.	1,750	1,750	.....	Nil.	<i>Grenville Canal</i> . Improve and Repair Grenville Canal.	Additional work in connection with contract No. 3,120, dated May 18, 1867. Mr. Goodwin's offer, No. 2,394, Feb. 1, 1868, to execute this work at the rates allowed him in previous contracts, excepting in the case of rock excavation, was accepted on recommendation of the Superintendent Engineer, J. G. Sippell, Esq. (No. 2,402, Feb. 3, 1868.) Work authorized by O.C., No. 2,253, Jan. 16, 1868.

	<i>Cornwall Canal.</i>														
17	Andrew Hodges. No. 3,186. December 28, 1868.	9,253	.....	10,492	1,239	Build Regulating Weir, Sluices, &c, between Locks No. 17 and 18.	Thirteen tenders received, the highest amount- ing to \$16,959. (See Schedule No. 4,180, July 31, 1868.) Second lowest accepted, Lowest, James McOrrop, \$9,253. On enquiry it appears that Mr. McCarron has no experience on work of this character, and that the prices which he offered to perform the work are below its actual value, and further, that Mr. R. H. McGreevy, the prin- cipal surety offered by Mr. McCarron, declines to accept the responsibility." See O. O. 4,425, August 22, 1868.								
18	Andrew Hodges. No. 3,187. December 28, 1868.	17,908	.....	18,374	466	Build a Pier at upper entrance of Canal.	Sixteen tenders received, the highest amount- ing to \$30,736. (See Schedule No. 4,109, January 31, 1868.) Second lowest accepted, Lowest, Almond Hemenway, \$17,908. " After diligent enquiry, it does not appear that Mr. Hemenway or sureties offered by him are either capable or responsible." (See O. O. 4,425, August 22, 1868.)								
19	John McLachlan. No. 6, N.B. April 1, 1868.	3,100	.....	.....	NIL.	Build a temporary Lighthouse on Beacon Block, St. John, N.B.	No tender called for by advertisement, &c. Only one tender received by Mr. Page, which he transmitted in No. 2,614, February 11, 1868. Work having been declared to be urgently required by Chief Engineer of Public Works, (Telegram No. 2,451, February 6, 1868,) he was instructed by Telegram No. 1,946, of March 4, 1868, as follows: "Close con- tract with McLachlan, if you deem it a fair one, at once, tender not having reached De- partment."								
20	Thos. Painter. No. 3,185. August 27, 1868.	678	.....	678	NIL.	Build a Powder Magazine and Wall at Point Nepean, Ottawa city.	Seven tenders received, the highest amount- ing to \$925. (Schedule No. 4,311, August 12, 1868.) Lowest accepted. Work autho- rized by O. O. 3,605, June 1, 1868.								
21	J. Cummings. No. 3,207. December 18, 1868.	1,200	.....	.....	NIL.	Adapt Reynold's House as a Mil- itary Hospital, Ottawa city.	Three tenders received, the highest amount- ing to \$1,677, all enclosed in No. 5,472, December 16, 1868. Lowest accepted.								
	<i>Carried forward</i> .....	138,210	.....	47,210	6,913										

PUBLIC WORKS, CANADA--Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
22	<i>Brought forward</i> ..... Thomas C. Pidgeon. No. 3,183. Aug. 31, 1868.	\$ 136,210	\$ 97,913	\$ 47,210	\$ 6,913	<i>Public Buildings, Ottawa.</i> Build a New Gatehouse at entrance of Rideau Hall.	Seven tenders received, the highest amounting to \$1,825. Lowest accepted. (Schedule 4,302, August 11, 1868.) Work authorized by O.C. 3,948, July 2, 1868, granting \$8,000 for new works at Rideau Hall, &c.
23	John Stewart. No. 3,184. August 31, 1868.	875	875	.....	Nil.	Build an Addition to Old Lodge at entrance of Rideau Hall.	Seven tenders received, the highest amounting to \$1,175. Lowest accepted. (Schedule 4,302, August 11, 1868.) Work authorized by O.C. 3,948, July 2, 1868, granting \$8,000.
24	John Heney. No. 3,193. October 27, 1868.	15,000	.....	16,637	1,637	Supply Firewood to Public Buildings for three years, reckoning from the month of October, 1868.	Eight tenders received, one of which was green wood only, the highest amounting to \$19,000, for the usual annual supply, delivered at the Buildings. (Schedule 4,320, August 12, 1868.) Fifth lowest accepted by O.C. 4,741, Sept. 23, 1868.) Lowest, James Driscoll, \$15,000, for wood delivered at the Buildings; 2nd lowest, William McCaffrey, \$15,687, do.; 3rd lowest, George Bowie, \$15,850, do.; 4th, John O'Reilly, \$15,937, do. The four lowest bidders have notified the Department that they were unable or unwilling to abide by the terms of their tenders. (See O.C. 4,741, Sept. 23, 1868; also No. 4,481, August 31, 1868. No. 4,507, Sept. 1, 1868, No. 4,453, August 28, 1868, from second, third and fourth lowest tenderers.)



25	Jas. Dimwoodie. No. 3,174. June 3, 1868.	1,200	1,200	Nil.	Improve Navigation of River Trent at Brook's Rapids.	No tenders called for. Work let by Superintendent of Trent Works, G. W. Ramsay, Esq. (See No. 3,150, April 20, 1868, from G. Ranney to F. Braun.) Expenditure authorized by O. C. 3,021, April 3, 1868.
26	Daniel Fraser. No. 3,163. May 28, 1868.	5,600	5,600	Nil.	Roads and Bridges. Keep in Repair the Metapedia Road, 82 miles (14th to 96th mile), at \$800 per year. Nova Scotia Railway.	No tenders called for. Mr. Fraser's offer accepted by O. C. No. 3,323, May 4, 1868, as recommended by Superintendent of the Road in his report, No. 3,235, April 29, 1868.
27	Canadian Engine and Machinery Co. No. 13, N.S. October 8, 1868.	26,000	26,000	Nil.	Build two Locomotive Engines...	No tenders called for. Offer of the Canadian Engine and Machinery Co. accepted by O. C. No. 468, July 22, 1868.
28	G. P. Mitchell. No. 14, N.S. August 17, 1868.	21,836	21,836	Nil.	Rock Excavation at Richmond Depot, Halifax.	Contract awarded by Minister of Public Works when in Halifax in August, 1868. (See No. 582, Sept. 18, 1868; A. Longley to Hon. Wm. McDougall.) Expenditure authorized by O. C. 620, October 9, 1868, granting \$10,000.
29	Wm. Stewart. No. 15, N.S. August 17, 1868.	11,025	11,025	Nil.	Rebuild Darmonth Road Bridge and Pile Bridge, Windsor Branch. Welland Canal.	Contract awarded by Minister of Public Works when in Halifax in August, 1868. (See No. 582, Sept. 18, 1868; A. Longley to Hon. Wm. McDougall.) Expenditure authorized by O. C. 620, Oct. 9, 1868, granting \$10,000.
30	St. Catharines and Welland Canal Gas Light Co. No. 3,229. July 15, 1869.	5,512	5,512	Nil.	Light Welland Canal with 52 lamps, \$106 per lamp, per year.	Renewal of contract for the supply of gas, made on recommendation of J. Page, Esq., Chief Engineer of Public Works. (See No. 2,017, Dec. 20, 1867, and No. 6,322, June 5, 1869.)
31	Angus McDonald. No. 3,251. August 23, 1869.	20,519	20,519	Nil.	Rebuild Superstructure of East Pier, Port Dalhousie.	Five tenders received, the highest amounting to \$22,060. Lowest accepted (Schedule 7,723, Aug. 14, 1869). Expenditure authorized by O. C. 7,172, June 25, 1869.
		247,077	191,780	63,847	8,550	Carried forward .....

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanation.
32	<i>Brought forward</i> ..... Calvin and Breck. No. 3,217. February 26, 1869.	\$ 247,077 12,000	\$ 191,780 12,000	\$ 63,847 .....	\$ 8,550 Nil.	<i>Tug Service.</i> Tug service between Machine and Kingston.  <i>Harbours and Piers.</i>	Contract renewed for the seasons 1869 and 1870, by O. C. 5,943, Feb. 22, 1869, for the reasons given in report to Council, No. 4,020, Feb. 19, 1869.
33	R. A. Lyon & Co. No. 3,253. August 16, 1869.	\$ 195	195	.....	Nil.	Build a Lighthouse Tower at Michael's Point, Manitoulin Island, Lake Huron.	Messrs. R. A. Lyons' offer for the erection of this lighthouse was accepted by an O. C., dated June 25, 1869, and the expenditure authorized by an O. C. dated June 30, 1869, both orders being based on a memorandum submitted by the Hon. the Minister of Marine and Fisheries on the 1st and 29th June, 1869, respectively. (See No. 7,352, July 9, 1869, and enclosures).
34	Clark & Stackhouse. No. 24, H.B. September 6, 1869.	\$ 1,850	.....	2,450	600	Build a Lighthouse at Machias, Seal Island, N.B.	Four tenders received, the highest amounting to \$3,040. Third lowest accepted. Lowest Alex. Bayne, \$1,850; 2nd lowest C. E. Raymond, \$1,900. These two parties have had contracts for the execution of works for the Marine and Fisheries Department and have given so little satisfaction that the Minister in charge of that Department recommends that their tenders be laid aside. (See Report to Council, No. 5,157, Aug. 12, 1869. Expenditure authorized by O. C. 7,558, March 9, 1869).

35	John Duffy, No. 28, N.B., October 8, 1869.	2,974	2,974	Nil	(Construct a Lighthouse and Dwelling at Fourmaine Island.	Two tenders received, the highest amounting to \$3,500. Lowest accepted (See No. 5,899, March, 2, 1869, and enclosures). Construction of lighthouse, &c., authorized by O.C. 8,059, Sept. 9, 1869.
36	Thomas C. Pidgeon, No. 3,212. February 16, 1869.	650	650	Nil.	<i>Public Buildings.</i> Built a Guardhouse on Major's Hill, Ottawa city	Work let by Mr. Rubidge (See No. 5,673, January 12, 1869). Expenditure authorized by O.C. No. 5,663, January 11, 1869.
37	Wittorow & Hillock. No. 3,216. January 13, 1869.	800	800	Nil.	Alterations to City Post Office Building, Toronto.	Work let by Mr. Rubidge, under instructions endorsed on No. 5,465, (See No. 5,725, Aug. 21, 1869). Expenditure authorized by O.C., 5,869, Feb. 8, 1869.
38	Jas. Dertin. No. 3,212. February 1, 1869.	550	550	Nil.	Remove Snow and Manure, and Supply Water, Rideau Hall.	Six tenders received for removal of snow, the highest amounting to \$190, and five tenders received for drawing water and carting manure, &c, the highest of which amounts to \$590. Lowest for the united services accepted, as recommended by F. P. Rubidge, Esq. (Schedule 5,798, Feb. 1, 1879.)
39	Pounds Manufacturing Co. No. 27, N.B. November 10, 1869.	7,000	7,000	Nil.	<i>Dredge Vessels.</i> Construct a Dredging Machine, "Otis Patent," for New Brunswick work.	Work authorized by O.C., 8,559, Nov. 9, 1869, granting \$18,500. Contract awarded on recommendation of Mr. W. M. Smith, (No. 8,037, Aug. 3, 1869), whose suggestion was concurred in by the Chief Engineer of Public Works in his report, No. 8,431, Oct. 28, 1869.
40	G. & J. Worthington. Contract No. 2. March 4, 1869.	175,000	189,700	14,700	<i>Intercolonial Railway.</i> Grading and Masonry; length of Section 20 miles, in the Province of Quebec.	Seventy-two tenders received, the highest amounting to \$700,000. The second lowest, Messrs. G. & J. Worthington, accepted, \$189,700. Lowest, H. H. Horsey & Co., \$175,000; they declined to enter into contract, having made an error in their calculations. (See their letter of 13th February, 1869.) In addition to amount of contract, a sum of \$35,000 was paid for extras.
		448,096	215,949	265,997	<i>Forward</i> .....	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
41	<i>Brought forward</i> ..... G. & J. Worthington. Contract No. 1. March 4, 1869.	\$ 448,096 255,600	\$ 215,949 .....	\$ 255,997 299,000	\$ 23,850 43,400	<i>Intercolonial Railway</i> .—Con.  Grading and Masonry; length of Section 20 miles, in the Province of Quebec.	Sixty-nine tenders received, the highest amounting to \$921,000. Second lowest, G. & J. Worthington, accepted, \$299,000. Lowest, George Neilson, \$255,600; he declined entering into a contract, having made an error in his calculations. In addition to amount of contract a sum of \$80,000 was paid, partly on account of the difficulty met in the clay cutting at Trois Pistoles, and partly on account of extras.
42	Elliott, Grant & Whitehead. Contract No. 3. March 4, 1869.	288,000	288,000	.....	Nil.	Grading and Masonry; length of Section 24 miles, in the Province of New Brunswick.	Fifty-one tenders received, the highest amounting to \$936,000. The lowest, Messrs. Elliott, Grant & Whitehead, accepted, \$288,000. This contract was afterwards annulled, as they failed to carry on the work satisfactorily. First letting contract annulled.
43	Elliott, Grant & Whitehead. Contract No. 4. March 4, 1869.	297,000	.....	324,000	27,000	Grading and Masonry; length of Section 27 miles, in the Province of Nova Scotia.	Fifty-five tenders received, the highest amounting to \$918,000. The lowest, G. & J. Worthington, \$297,000, was accepted at first; it was afterwards assigned by Messrs G. & J. Worthington to Messrs. Elliott, Grant & Whitehead, with the consent of the Commissioners. (See their Report to Council, dated 4th March, 1869, and ap-

44	Jacques Jobin. Contract No. 6. April 29, 1869.	237,300	.....	241,500	4,200	Grading and Masonry. Length of Section 21 miles, Province of New Brunswick.	proved by Council.) These contractors, Messrs. Elliott, Grant & White, failed, and their contract was annulled. First letting contract annulled when work to the amount of \$46,200 had been performed, contractors finding their prices too low.
45	H. J. Sutton & Co. Contract No. 7. April 29, 1869.	333,360	.....	413,955	80,595	Grading and Masonry. Length of Section 24½ miles, Province of Nova Scotia.	Eighty-five tenders received, the highest amounting to \$818,843. The second lowest, Jacques Jobin, accepted, \$241,500. Lowest, A. L. Sinclair, \$237,300. Tender withdrawn, as he could not furnish satisfactory security. First letting contract annulled.
46	Ed. Haycock. Contract No. 5. April 29, 1869.	315,997	.....	361,574	15,577	Grading and Masonry. Length of Section 26 miles, in the Province of Quebec.	Eighty-three tenders received, the highest amounting to \$1,008,000. Sixth lowest, H. J. Sutton & Co., accepted, \$413,955. * 4th do C. A. Bailey, \$396,000. * 5th do McDonald & Co., \$408,000. First letting after executing the work to the extent of \$53,731 in 1868, the contractors gave up their contract as their prices were too low.
<i>Carried forward</i> .....		2,205,353	503,949	1,896,026	194,622		Eighty-two tenders received, the highest amounting to \$1,014,000. Fifth lowest accepted, Edward Haycock, \$361,574. Lowest, Berlinguet & Huot, \$345,997, declines contract, not being able to furnish necessary securities. Second lowest, Thomas Foley & Co., \$349,900. The Commissioners being satisfied that the sureties offered were not satisfactory, and that they did not possess the necessary skill, experience and resources to enable them to successfully perform the contract. Third lowest, W. Fournier, \$360,740. No sureties offered. Fourth lowest, H. H. Bailey, \$361,400, withdrawn. First letting. The contractor abandoned the work after a sum of \$48,762 had been paid to him for work performed.

\* The Commissioners, after careful enquiries, were not satisfied with the sureties offered in any of these cases.

PUBLIC WORKS, CANADA ---Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
47	<i>Brought forward</i> ..... Joseph Hamilton. No. 22, N.S. Aug. 16, 1869.	2,205,353	503,949	1,896,026	\$ 194,622	<i>Nova Scotia Railway.</i> Construct a Freight Shed at Richmond, Nova Scotia.	Six tenders received, the highest amounting to \$7,448. Schedule dated 17th August, 1869, enclosed in No. 14,099, 14th July, 1877. Expenditure authorized by O.C., 1,080, 25th June, 1869. Lowest accepted.
48	Thos. Morton. No. 23, N.S. Aug. 16, 1869.	623	623	.....	Nil.	Supply Timber to renew Blackburn Bridge.	Two tenders received, the highest amounting to \$826. See Schedule dated 17th August, 1869, enclosed in No. 14,099, 14th July, 1877. Expenditure authorized by O.C., 1,079, 25th June, 1869, and let by Mr. Carvell. Lowest accepted.
49	W. J. Allison. No. 25, N.S. Aug. 30, 1869.	377	377	.....	Nil.	Scrape and Paint St. Croix and Sull Water Bridges on Main Line, N.S. Railway and Windsor Branch.	Five tenders received, the highest amounting to \$1,060. See Schedule dated 1st September, 1869, enclosed in No. 14,099, 14th July, 1877. Expenditure authorized by O.C., 1,079, 25th June, 1869, and let by Mr. Carvell. Lowest accepted.
50	W. M. Dimock, No. 26, N.S. Aug. 30, 1869.	1,218	1,218	.....	Nil.	Scrape and Paint Bridges at Eufield, Fletchers, Schubenacadie and Steviachic.	Five tenders received, the highest amounting to \$3,600. Schedule dated 1st September, 1869, enclosed in No. 14,099, 14th July, 1877. Expenditure authorized by O.C., 1,079, 25th June, 1869, and let by Mr. Carvell. (See 1,281, 22nd Oct., 1869.) Lowest accepted.

*Intercolonial Railway.*

51	J. B. Bertrand & Co. Contract No. 9. October 26, 1869.	220,632	.....	354,897	134,265	Grading and Masonry; length of Section 21 miles, Province of New Brunswick.	Thirty-five tenders received, the highest amounting to \$633,528. Tenth lowest, J. B. Bertrand & Co., accepted, \$354,897. First lowest, Grey & Lowe, \$220,632, the Commissioners not being satisfied as to their skill, experience and resources. Second lowest, Steeves, Longstaff & Co., \$297,310, Commissioners not being satisfied, as to their skill, experience and resources. Third lowest, J. S. Grant, \$303,770, the Commissioners not being satisfied as to their skill, experience and resources. Fourth lowest, Piton & Dussault, \$311,787, the Commissioners not being satisfied as to their skill, experience and resources. Fifth lowest, Ralph Jones, \$314,287; tender withdrawn, the party having made an error in his calculations. Sixth lowest, C. Touchette, \$315,000, Commissioners not being satisfied as to their skill, experience and resources. Seventh lowest, Berliquet & Huot, \$329,433; having failed on a former occasion to complete a contract which had been awarded them, owing to their proposed sureties declining to execute the necessary bonds, the Commissioners cannot recommend its acceptance. Eighth lowest, Sutton & Angus, \$338,698; these parties having already secured a contract, the Commissioners were of opinion that it would not be desirable to place more work in their hands. Ninth lowest, A. Elliott & Co., \$346,240; parties having already secured a contract, the Commissioners were of opinion that it would not be desirable to place more work in their hands. These Contractors signified their inability to proceed with their work at the time when Messrs. Berliquet & Co., with whom they were connected, failed to carry out their contract. In 1873 the Government assumed the completion of this division.
52	Duncan McDonald. Contract No. 8. November 1, 1869. <i>Carried forward.....</i>	100,000	100,000	.....	Nil.	Grading and Masonry; length of Section 2 $\frac{3}{4}$ miles, in Province of Quebec.	Fifty-three tenders received, the highest amounting to \$300,269. Lowest, Duncan McDonald, \$100,000, accepted.
		2,530,873	608,837	2,250,923	328,887		

PUBLIC WORKS, CANADA —Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
53	<i>Brought forward</i> ..... Davis, Grant & Sutherland. Contract No. 11. Nov. 1, 1869.	\$ 2,530,873 61,713	\$ 608,837 61,713	\$ 2,250,923 .....	\$ 328,887 Nil.	<i>Intercolonial Railway</i> .—Con.  Grading and Masonry; length of Section 4½ miles, in Province of Nova Scotia.	Forty tenders received, the highest amounting to \$167,000. Lowest, Messrs. Davis, Grant & Sutherland, \$61,713, accepted. Cost of construction was increased by \$8,668, owing to changes made in the location and grades.
54	Sumner & Somers. Contract No. 12. November 1, 1869.	539,174	.....	597,600	58,426	Grading and Masonry; length of Section 2¾ miles, in Province of Nova Scotia.	Fifty tenders received, the highest amounting to \$1,341,229. Second lowest, Messrs. Sumner & Somers, \$597,600, accepted. Lowest, Wm. Barker & Co., \$539,174. On examination of their tender it was found to be unsatisfactory, and the Commissioners were not satisfied as to the skill, experience and resources of the parties. On July 1, 1872, the Government undertook the completion of this contract, although a sum of \$551,000 had been paid to the Contractors, and a sum of \$105,000 has been expended in excess of the original contract sum.
55	McBean & Robinson. Contract No. 10. November 5, 1869.	308,395	.....	362,083	53,688	Grading and masonry; length of Section 20 miles, in Province of New Brunswick.	Thirty-nine tenders received, the highest amounting to \$695,050. The seventh lowest, Robinson & McBean, \$362,083, accepted. Lowest, A. Elliott & Co., \$308,395, withdrawn. Second lowest, P. Marier & Co., \$333,000, the Commissioners not being



satisfied as to their skill, experience and resources. Third lowest, G. Touchette, \$330,000, the Commissioners not being satisfied as to their skill, experience and resources. Fourth lowest, Piton & Dus-sault, \$330,340, the Commissioners not being satisfied as to their skill, experience and resources. Fifth lowest, Sutton & Angus, \$319,970; parties having already secured a contract, the Commissioners could not recommend to place more work in their hands at present. Sixth lowest, Berliquet & Huot, \$357,603; parties having failed to complete a con-tract awarded to them on a former occasion, owing to their proposed sureties declining to execute the necessary deeds, the Com-missioners did not think it advisable to re-commend the acceptance of their tender. On the 20th August, 1870, when work to the extent of \$30,850 had been done, the contract was annulled and new tenders called for.

Work authorized by O. C. 1,679, June 25, 1869. Fourth lowest accepted on recommendation of L. Carvell, who telegraphed "Stewart is low and the only known responsible man." (See telegram 1,345, Dec. 1, 1869.) Lowest, Hall, \$415; 2nd lowest, Hollingworth, \$525; 3rd lowest, Fisher, \$550.

Expenditure authorized by O. C. 11,608, July 7, 1870. (Schedule 11,496, June 30, 1870.) Three tenders received, the highest amounting to \$27,705. Lowest accepted.

Schedule 12,213, August, 1870. Thirteen tenders received, the highest amounting to \$55,204. Third lowest accepted. O. C. 12,277, Aug. 27, 1870. Lowest, E. O. Richard & fils, \$23,525, much below actual value of work; second lowest, A. F. Mc-Donald, \$28,802, withdrawn by No. 12,180, Aug. 22, 1870.

*Nova Scotia Railway.*

Construct a Tank-House and Tank at Polly Bog, Nova Scotia Railway.

180

5 5

415

Wm. Stewart. No. 29, N.S., November 20, 1869.

56

*Welland Canal.*

Construct a Waste-Weir at Dunnville.

Nil.

24,170

24,170

David Irwin. No. 3,289, July 19, 1870.

57

*Lachine Canal.*

Construct a Regulating Weir, &c., at Lachine.

9,435

32,900

23,525

John A. Cameron. No. 3,301, September 10, 1870.

58

450,616

3,244,161

695,220

3,488,765

Carried forward .....

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
59	Brought forward..... James Goodwin. No. 3,346. October 25, 1870.	\$ 3,488,765	695,220	\$ 3,244,161	\$ 450,616	Grenville Canal. Enlarge Grenville Canal, and Construct Locks 9, 10, 11.	Twenty-seven tenders received, the highest amounting to \$489,990. (Schedule 12, 769, Oct. 29, 1870.) Third lowest accepted. O.C. 13,108, Oct. 24, 1870. Second lowest, Brophy & Co., \$248,785, withdrawn by No. 13,056, Oct. 22, 1870. Lowest tender from W. Kingsford was first accepted by No. 8,395, Oct. 3, 1870, but the sureties refused to sign the contract, which had to be cancelled. (See No. 13,056, Oct. 21, 1870.)
60	William Davis. No. 3,278. May 2, 1870.	6,633	.....	7,027	394	Rideau Canal. Construct Bulkhead, &c., Manotick, Rideau Canal.	Five tenders received, the highest amounting to \$9,206. (Schedule 10,570, April 21, 1870.) Second lowest accepted. O.C. 10,694, April 29, 1870. Lowest, James Goodwin, \$6,633; withdrawn by No. 10,597, April 23, 1870.
61	F. B. McNamee. No. 3,348. October 31, 1870.	4,984	.....	6,100	1,116	Chambly Canal. Repair Walls of Locks 3 and 6, Chambly Canal.	Six tenders received, the highest amounting to \$16,250. (Schedule 12,941, Oct. 7, 1870.) Third lowest accepted. O.C. 13,107, Oct. 24, 1870. Lowest, John Cliff, \$4,984, "from parties who are unable to do the work." Second lowest, John Berry, \$5,613; withdrawn by No. 12,959, Oct. 14, 1870.

62	Henry Gillespie. No. 3,352. November 29, 1870.	3,496	.....	Nil.	Build four Lockhouses, Cham- bly Canal.	<i>Work authorized by O.C. 12,582, Sept. 17, 1870. Six tenders received, the highest amounting to \$6,280. (Schedule 12,259, April 27, 1870. Lowest accepted.</i>
63	Grant & Yorke. No. 3,272. April 28, 1870.	3,496	6,625	1,650	<i>Public Buildings.</i> Build Emigrant Sheds, Toronto.	Seventeen tenders received, the highest amounting to \$14,800. Schedule 10,115, March 23, 1870. Second lowest accepted. O.C. 10,116, March 25, 1870. Lowest, J Bellingham, \$4,975, much below actual value of work. (O.C. 10,116, March 25, 1870.)
64	Jos. Laplante. No. 3,286. Sept. 15, 1870.	3,496	9,400	520	Alterations to New Custom- House, Montreal. (Royal In- surance Building.)	Seven tenders received, the highest amount- ing to \$14,915. Schedule 11,127, May 30, 1870. Second lowest accepted, O.C. 11,514, June 23, 1870. Lowest, Howley & David, \$8,880, declined to undertake the work.
65	Chas. Dunnett. No. 3,316. Nov. 26, 1870.	3,496	32,500	Nil.	Build a Custom House, & c., Lon- don.	Expenditure authorized by O.C. 12,534, Sept. 17, 1870. Eight tenders received, the high- est amounting to \$43,947. Schedule 12,371, September 5, 1870. Lowest accepted.
66	Breton & Frères. No. 3,351 Dec. 10, 1870.	3,496	43,315	1,655	Construct New Post Office, Que- bec.	Expenditure authorized by O.C. 12,633, Sep- tember 27, 1870. Fifteen tenders received, the highest amounting to \$56,681. Second lowest accepted, O.C. 13,362, November 10, 1870. Lowest, Michel Piton & Co. \$41,660. "Contractors and securities are not of such a standing as to render it ex- pedient to entrust the contract to this firm." (See O.C. 13,326, November 10, 1870.)
67	O. W. Coward & Co. No. 3,294. Aug. 20, 1870.	3,496	1,450	Nil.	<i>Public Buildings, Ottawa.</i> Supply 260 tons Grate Coal, Pub- lic buildings, Ottawa.	Seven tenders received. Schedule 11,804, July 25, 1870. Lowest accepted. O.C., 12,025, August 9, 1870.
68	W. Farquhar & Co. No. 3,293. Nov. 18, 1870.	3,496	96,497	Nil.	Masonry and Brickwork, Library Building, Parliament House, Ottawa.	Expenditure authorized by O.C. 10,816, May 6, 1870. Six tenders received, based on schedules of rates (See Schedule 11,994, August 3, 1870) Lowest accepted. Total cost of work, per final estimate, \$86,497.
			3,587,730	487,266	<i>Carried forward.....</i>	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
	<i>Brought forward.....</i>	\$ 3,929,127	\$ 828,663	\$ 3,587,730	\$ 487,266		
69	Thos. Walters. No. 3,310. Oct. 8, 1870.	3,825	3,525	.....	Nil.	Repairs at Whitlaw's Rapids, River Ottonabee Trent Works.	Expenditure authorized by O. C. 12,170, August 18, 1870. Lowest accepted by Mr. Ranney, as stated in his report No. 12,503, September 17, 1870.
70	William Davis. No. 3,332. Nov. 3, 1870.	5,179	.....	5,778	599	Build a New Slide, Black River, Ottawa Works.	Two tenders received, the highest amounting to \$7,419. (Schedule 12,728, Oct. 3, 1870.) Second lowest accepted, O. C. 13,109, Oct. 24, 1870. Lowest, John Ashfield, \$5,179, failed to procure sureties.
71	John Harvey. No. 3,347. Nov. 15, 1870.	2,215	2,215	.....	Nil.	Reconstruct Nagle Dam and Piers, Madawaska River.	Expenditure authorized by O. C. 11,606, July 7, 1870, granting \$25,000 to repair works on Madawaska River. Three tenders received, the highest amounting to \$2,907. Lowest accepted.
72	Daniel Fraser. No. 3,275. April 8, 1870.	17,126	17,126	.....	Nil.	Roads and Bridges. Make part of Metapedia Road to replace what is taken by Inter-colonial Railway.	Expenditure authorized by O. C. 10,862, May 10, 1870. To avoid delay in the completion of said work, a contract was entered into with Mr. Fraser without calling for tenders. (See Report to Council No. 6,684, and O. C. 10,330, April 6, 1870.)
73	Marcel Leclerc. No. 3,296. July 11, 1870.	588	588	.....	Nil	Clearing and Grubbing 1st to 6th miles of the St. Lawrence Gulf Road.	Instructions No. 7,376, June 8, 1870, sent to Jcs. Rosa to proceed with the construction of the road, and not to exceed an expendi-

74	Marcel Leclerc. No. 3,297. July 18, 1870.	448	448	Nil.	Clearing and Grubbing 7th to 10th miles of the St. Lawrence Gulf Road.	ture of \$10,000. Road put up at auction sale, in sections of about one mile each. Lowest offer accepted.	
75	Marcel Leclerc. No. 3,298. August 2, 1870.	1,610	1,610	Nil.	Clearing and Grubbing 11th to 25th miles of the St. Lawrence Gulf Road.	do	
76	Marcel Leclerc. No. 3,311. August 6, 1870.	72	72	Nil.	Grading 1st, 2nd and part of 3rd miles of Gulf Road, Western Division.	do	
77	Daniel Fraser. No. 3,314. August 10, 1870.	1,000	1,000	Nil.	Rebuild Burnt Bridges and Culverts, Metapedia Road.	Expenditure authorized by O.C. 11,613, July 7, 1870, granting \$2,700. No tender. Contract awarded by Superintendent of the road; work of too pressing a nature to allow calling of tenders.	
78	Riby & others. No. 3,315. August 11, 1870.	1,200	1,200	Nil.	do do	do	
79	Jos. Fournier & others. No. 3,312. September 5, 1870.	868	868	Nil.	Clearing and Grubbing 38th, 39th, 46th, 47th, and 51st to 56th miles on Gulf Road.	Superintendent instructed by No. 7,376 to proceed with the work. Road put up at auction sale, in sections of about one mile. Lowest offer accepted.	
80	Marcel Leclerc. No. 3,313. September 10, 1870.	515	515	Nil.	Clearing and Grubbing 36th, 37th, 45th, 48th, 49th and 50th miles of Gulf Road, Western Division.	do	
81	Marcel Leclerc. No. 3,343. October 3, 1870.	1,980	1,980	Nil.	Clearing and Grubbing 28th to 34th, 57th to 59th, and 40th to 44th miles of Gulf Road, Western Division.	do	
				3,965,753	830,110	3,595,508	487,885
				<i>Carried forward</i> .....			

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$	\$	\$	\$		
	<i>Brought forward</i> .....	3,965,753	860,110	3,593,508	487,885	<i>Roads and Bridges</i> .—Continued.	
82	Marcel Leclerc. No. 3,344. October 4, 1870.	930	930	.....	Nil.	Grading 1st, 2nd and 4th miles of Gulf Road, Western Division.	Road put up at auction sale, in sections of about one mile. Lowest offer accepted.
83	Malory & Gagnon. No. 3,345. October 4, 1870.	968	968	.....	Nil.	Grading 3rd, 5th, 6th, and 7th to 16th miles of Gulf Road, Western Division.	do do
						<i>Improvement of Rivers.</i>	
84	John Brown. No. 3,303. October 24, 1870.	4,800	4,800	.....	Nil.	Dredge a Channel where River Thames empties into Lake St. Clair.	Expenditure authorized by O. C. 10,967, May 18, 1870. Only one tender received in answer to advertisements, viz.: that of John Brown, No. 11,625, June 28, 1870, which was accepted. Tel. No. 7,107, July 18, 1870. The dimensions of this channel to be dredged being diminished as set forth in 11,717, June 18, 1870, so as to bring the amount of the contract within the limits of the sums appropriated for this purpose.
						<i>Dredge Vessels.</i>	
85	Clark & Stackhouse. 30 N.B. February 1, 1870.	5,700	.....	5,931	231	Construct one Dredge Vessel and four Mud Scows, N.B.	Expenditure authorized by O. C. 8,559, October 9, 1869. Five tenders received, the highest amounting to \$11,250. Second lowest accepted, O. C. 9,098, January 7, 1870. Lowest, A. McRay, \$5,700; excessively low in the opinion of the Chief Engineer of the Department. (See O. C. 9,098, January 7, 1870.)



PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$	\$	\$	\$	<i>Harbours and Piers.—Continued</i>	
96	<i>Brought forward</i> ..... P. B. Coutlée, No. 3,317, October 6, 1870.	3,999,063	874,092	3,614,405	489,364	Build a Mooring Pier at Côteau Landing, River St. Lawrence.	Work authorized by O. C. 12,677, Sept. 28, 1870. Eleven tenders received, the highest amounting to \$5,907. Lowest accepted. Schedule 12,611, September 20, 1870.
97	J. Lepage, No. 3,361, October 16, 1870.	927	3,161	.....	Nil.	Repairs to Rimouski Pier, Build Lighthouse and Keeper's Dwelling, &c.	Expenditure authorized by O. C. 9,435, Feb. 4, 1870. Only offer of J. Lepage accepted. No. 14,013, December 31, 1870.
98	Berlinguet & Co. No. 3, May 26, 1870.	438,480	.....	462,444	23,964	<i>Intercolonial Railway.</i> Grading and Masonry; length of Section 24 miles; in Province of New Brunswick.	Thirty-eight tenders received, the highest amounting to \$892,500. The third lowest, Berlinguet & Co., \$462,444, accepted. Lowest, Tracy & Murphy, \$438,480; the Commissioners after making enquiries were not satisfied with the skill, experience and resources of the tenderers. Second lowest, Sutherland, Grant & Co., \$456,000; the Commissioners, after making enquiries, were not satisfied with the skill, experience and resources of the tenderers. Second letting — Contract cancelled in 1873, and works completed by Government in 1874.
99	Smith & Pitblado, No. 4, May 25, 1870.	375,543	.....	438,325	62,782	Grading and Masonry; length of Section 27 miles; in Province of Nova Scotia.	Forty-three tenders received, the highest amounting to \$621,584. Seventh lowest, Messrs. Smith & Pitblado, \$438,325, accept-



ed.; these parties were tender No. 20, but were allowed to amend their lump sum price from \$480,325, to \$438,326, which makes them come in as tender No. 7. Lowest, Tracy & Murphy, \$375,543; the Commissioners, after making careful enquiries, were not satisfied with their skill, experience and resources. Second lowest, Sumner & Somers, \$393,000; have already Contract No. 12, and the Commissioners did not consider it expedient to award to them a second contract. Third lowest, Joseph Townsend, \$398,737; the Commissioners, after making careful enquiries, were not satisfied with their skill, experience and resources. Fourth lowest, Sutherland, Oaks & Co, \$410,601; the Commissioners, after making careful enquiries, were not satisfied with their skill, experience and resources. Fifth lowest, T. McManus & Son, \$431,297; the Commissioners, after making careful enquiries, were not satisfied with their skill, experience and resources. Sixth lowest, R. P. Mitchell & Co, \$434,955; the Commissioners, after making careful enquiries, were not satisfied with their skill, experience and resources.

Thirty-four tenders received, the highest amounting to \$981,558. Sixth lowest, A. McDonnell & Co, \$533,000, accepted. Lowest, J. & T. McGuire, \$454,503; the Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Second lowest, Piton & Co, \$468,000; the Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Third lowest, H. McDonald & Co, \$500,000; were not satisfied with their skill, experience and resources. Fourth lowest, A. LePage & Co, \$510,600; the Commissioners, after enquiries, were not satisfied with their skill, experience and resources. Fifth lowest, D. McMillan & Co, \$530,000; the Commissioners, after careful enquiries, were not satisfied with their skill, experience and resources.

Grading and Masonry; length of Section 26 miles; in Province of Quebec.

A. McDonnell & Co. No. 6. May 25, 1870.

78,497

533,000

.....

454,503

654,607

5,048,194

877,880

5,271,467

Carried forward.....

PUBLIC WORKS, CANADA--Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
101	<p><i>Brought forward</i>.....                      F. X. Berlinguet &amp; Co.                      Contract No. 6. May 25,                      1870.</p>	<p>\$ 5,271,467                      399,917</p>	<p>\$ 877,880                      .....                      .....</p>	<p>\$ 5,048,194                      458,946</p>	<p>\$ 654,607                      57,029</p>	<p><i>Intercolonial Railway.</i>--Con.                      Grading and Masonry; length of Section 21 miles, in Province of New Brunswick.</p>	<p>Thirty-two tenders received, the highest amounting to \$704,613. Fifth lowest, F. X. Berlinguet &amp; Co., \$456,946, accepted. Lowest, J. &amp; T. D. McGuire, \$399,917; the Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Second lowest, John Fowler, \$400,000; the Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Third lowest, Piton &amp; Co., \$415,800; Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Fourth lowest, H. McDonald &amp; Co., \$440,000; Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Second letting--At the beginning of 1873 the Contractors were unable to proceed; their contract was annulled, and the work was completed in 1874 by the Government.</p>

<p>102 Jas. Simpson &amp; Co. Contract No. 7. May 25, 1870.</p>	<p>450,963</p>	<p>.....</p>	<p>106,787</p> <p>557,750</p> <p>Grading and Masonry; length of Section 244 miles, in Province of Nova Scotia.</p> <p>Forty-two tenders received, the highest amounting to \$835,927. Twelfth lowest, Jas. Simpson &amp; Co., \$557,750, accepted. Lowest, John Lowe &amp; Co., \$450,963; the Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Second lowest, P. McGregor &amp; Co., \$481,487; the Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Third lowest, Wm. Kingsford, \$497,520; no sureties have signed the tender. Fourth lowest, Sumner &amp; Somers, \$499,200; the Commissioners were not prepared to recommend an additional contract, tenderers having already the works on Section No. 12. Fifth lowest, Townsend &amp; Sterling, \$510,527; Commissioners, after enquiries, were not satisfied with their skill, experience and resources. Sixth lowest, R. McDonald &amp; Co., \$530,000; the Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Seventh lowest, McDonnell, Evans &amp; Co., \$536,020; Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Eighth lowest, Mitchell &amp; Sutherland, \$542,715; Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Ninth lowest, J. M. Otty &amp; Co., \$547,000; Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Tenth lowest, J. &amp; G. Jackson, \$551,000. The Commissioners having recommended that Section No. 6 be awarded to them, were not prepared to recommend an additional contract. Eleventh lowest, J. B. Guest, \$557,000; no reason assigned.</p>
<p>Carried forward.....</p>	<p>6,122,347</p>	<p>877,880</p>	<p>6,002,890</p> <p>818,423</p>

PUBLIC WORKS, CANADA----Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract	Explanations.
103	<i>Brought forward.....</i> W. E. Macdonald & Co. Contract No. 13. May 25, 1870.	\$ 6,122,947 738,000	\$ 877,880 .....	\$ 6,062,890 909,933	\$ 818,423 171,933	<i>Intercolonial Railway.—</i> Con. Grading and Masonry; length of Section 20½ miles, in Province of Quebec.	Forty-two tenders received, the highest amounting to \$1,413,688. Fifth lowest, W. E. Macdonald & Co., \$909,933, accepted. Lowest, John McKenzie, \$738,000; the Commissioners, after careful examination of the prices and enquiries, were not satisfied with their skill, experience and resources. Second lowest, Tracey and Murphy, \$774,285; the Commissioners, after careful examination into the prices and enquiries, were not satisfied as to their skill, experience and resources. Third lowest, R. P. Mitchell & Co., \$799,743; Commissioners, after careful examination into the prices and enquiries, were not satisfied as to their skill, experience and resources. Fourth lowest, D. Sutherland & Co., \$863,927; Commissioners, after careful examination into the prices and enquiries, were not satisfied with the skill, experience and resources of these parties.
104	Neilson & McGaw. Contract No. 14. May 25, 1870.	230,600	.....	245,475	14,875	Grading and Masonry; length of Section 22½ miles, in Province of Quebec.	Thirty-nine tenders received, the highest amounting to \$500,000. The second lowest, Neilson and McGaw, \$245,475, accepted. Lowest D. C. Archibald, Metapedia, \$230,600. This tender is not signed by the sureties, and not being in accordance with the advertised conditions, was ruled out.

105	King & Gough. Contract No. 16. May 25, 1870.	206,000	206,000	.....	Nil.	Grading and Masonry; length of Section 18 $\frac{1}{2}$ miles, in Province of New Brunswick.	Thirty-eight tenders received, the highest amounting to \$426,761. Lowest, King and Gough, \$206,000, accepted. In March, 1874, a considerable quantity of work remaining to be executed, was completed by the Government.
106	J. B. Bertrand & Co. Contract No. 15. June 15, 1870.	316,415	.....	360,020	43,605	Grading and Masonry; length of Section 12 $\frac{1}{2}$ miles, in Province of New Brunswick.	Forty-three tenders received, the highest amounting to \$655,319. The second lowest accepted, J. B. Bertrand & Co., \$360,020. Lowest, Tracey and Murphy, \$316,415; the Commissioners, after careful enquiries, were not satisfied with their skill, experience and resources. Contractors failed to fulfil their contract, and the work was assumed and completed by the Government in 1874.
107	S. P. Tuck. Contract No. 17. June 15, 1870.	383,130	.....	440,000	50,870	Grading and Masonry; length of Section 20 miles, in Province of Quebec.	Thirty-one tenders received, the highest amounting to \$837,195. The fifth lowest, S. P. Tuck, \$440,000, accepted. Lowest, Ralph Jones, \$383,130. Tender withdrawn by letter from Mr. Jones, dated 26th May, 1870. Second lowest, S. Rettie & Co., \$339,779; the Commissioners were advised that they decline to accept the contract if awarded to them. Third lowest, A. Sylvain & Co., \$386,000; the Commissioners, after enquiries, were not satisfied with their skill, experience and resources. Fourth lowest, R. Lister & Co., \$406,780; the Commissioners were informed, but the sureties named were responsible, but that they state they never heard of such a firm as R. Lister & Co., and it is evident they never signed the tender. The Commissioners, therefore, could not recommend the acceptance of such a tender. In 1873, the Government took the work out of the contractors' hands and finished it by days' labour, there being still much of the work to be performed.
<i>Carried forward</i> .....		8,002,492	1,083,660	8,018,318	1,089,706		

PUBLIC WORKS, CANADA----Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
108	Brought forward..... S. P. Tuck. Contract No. 19. June 16, 1870.	\$ 8,002,492	1,083,880	\$ 8,018,318	\$ 1,099,706	Interoceanial Railway.—Con.	Thirty tenders received, the highest amounting to \$751,768. The seventh lowest, S. P. Tuck, \$395,733, accepted. Lowest, P. Ross & Co., \$276,621; tender was ruled out, owing to an important error made in it. Second lowest, E. R. Burpee, \$282,031; tender was ruled out, owing to an important error made in it. Third lowest, Mitchell & Co., 317,502; the Commissioners, after careful enquiry, were not satisfied with their skill, experience and resources. Fourth lowest, Ralph Jones, \$364,463; tender withdrawn, owing to error made in calculations. Fifth lowest, P. Purcell, \$373,757; the tenderer requests leave to withdraw his tender, owing to an important error made in his calculations. Sixth lowest, Jas. W. Guest, \$376,937; the Commissioners, after making enquiries, were not satisfied with his skill, experience and resources. Contract 19 was afterwards assigned by Mr. S. P. Tuck to Messrs. Thos. Roggs & Co., of Halifax. (See O.C. dated June 13, 1871, and contract with Thos. Roggs & Co. dated August 2, 1871.)

<p>109 R. H. McGreevy. Contract No. 18. July 8, 1870.</p>	<p>514,500 ..... 648,500</p>	<p>131,100</p>	<p>Grading and Masonry; length of Section 20 miles, in Province of Quebec.</p>	<p>Twenty-nine tenders received, the highest amounting to \$1,387,967. The fifth lowest accepted. R. H. McGreevy, \$618,600. Lowest, S. Retie &amp; Co., \$514,400; the Commissioners are advised that the tenderers now decline to accept the contract if awarded to them. Second lowest, Ralph Jones, \$538,419; tender withdrawn. Third lowest, Mitchell &amp; Co., \$541,000; the Commissioners, after making enquiries, were not satisfied with their skill, experience and resources. Fourth lowest, S. P. Tuck, \$600,000; tender withdrawn at request of Mr. Tuck. "At the beginning of the season of 1875, the Government took the work in their own hands."</p>
<p>110 Montreal Telegraph Co. No. 3,287. Sept. 22, 1870.</p>	<p>16,830</p>	<p>16,830</p>	<p>Nil.</p>	<p>Intercolonial Railway Commissioners authorized by O.C. No. 1,840, May 13, 1870, to enter into an agreement with the Montreal Telegraph Co. for the construction of this line of telegraph, on the terms and conditions mentioned in report to Council No. 994, \$30.00 per mile. Amount of contract, \$16,830.</p>
<p>111 Wm. Stewart, No. 3,302. Sept. 26, 1870.</p>	<p>2,616</p>	<p>2,616</p>	<p>Nil.</p>	<p><i>Nova Scotia Railway.</i></p>
<p>Carried forward.....</p>	<p>8,813,059</p>	<p>1,103,326</p>	<p>6,906,265</p>	<p>1,352,918</p>

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
112	Brought forward ..... Brown, Brooks & Ryan, No. 20, September 24, 1870.	\$ 8,813,059	\$ 1,103,326	\$ 9,062,651	\$ 1,352,918	Intercolonial Railway.—Con.  Grading and Masonry; length of Section 6 miles, in Province of New Brunswick.	Sixteen tenders received, the highest amounting to \$1,059,403. Seventh lowest, Messrs. Brown, Brooks & Ryan, \$642,854. Lowest, Wm. Ellis & Co., \$520,000; ruled out, owing to one of the sureties not having signed the requisite bond at the time specified. See G. C. August, 1870. Second lowest, T. C. Gallagher, \$546,600; commissioners were not satisfied with the skill, experience and resources of the tenderer, looking to the peculiar and important character of the work. Third lowest, W. W. Livingstone & Co., \$584,000; commissioners were not satisfied with the skill, experience and resources of the tenderers, looking to the peculiar and important character of the work. Fourth lowest, J. & G. Jackson, 612,376; commissioners were satisfied with the skill, experience and resources of Messrs. J. & G. Jackson, after they had associated with them Messrs. Wardrop & Ryan; but the Committee of the Honorable the Privy Council were unable to accept the recommendation of the Commissioners, that contract for Section No. 20 should be awarded to Messrs. Jackson, & Co., in consequence of the introduction of new parties, possessed of skill and experience, which, in a sufficient



degree, the original tenderers did not possess then, by making it a new tender. (See O.C. dated September 20, 1870.) Fifth lowest, Wm. Kingsford, \$613,550; ruled out, because there are no sureties mentioned. Sixth lowest, A. L. McDonald & Co., \$635,000; in view of the peculiar and important character of the work, the Commissioners were not satisfied with the skill, experience and resources of A. L. McDonald & Co. This Section includes for the crossing of the two Miramichi Rivers; for the additional span at North-West Bridge, a sum of \$25,000 was to be paid in addition to contract sum.

Twenty-eight tenders received, the highest amounting to \$705,808. Lowest, Duncan McDonald, \$400,000, accepted upon the terms named in the advertisement, viz.: "Subject to the deduction of a percentage sum equivalent to the percentage of the whole work, which the Chief Engineer shall report to have been executed by the first Contractors." Second letting.

Thirty-four tenders received, the highest amounting to \$713,945. The second lowest, P. Purcell, \$483,195, accepted. Lowest, G. W. Charland & Co., \$441,271; the contract was awarded to them, but the Commissioners considered that, from the delay in executing the necessary contract and bond, it appears Messrs. Charland & Co. do not now intend to enter into contract, and the award was therefore cancelled on the grounds that the parties have neglected to comply with the usual formalities and to sign the contract and bond.

113	Duncan McDonald. No. 10. September 1, 1870.	400,000	400,000	.....	Nil.	Grading and Masonry; length of Section 20 miles, in Province of New Brunswick.	degree, the original tenderers did not possess then, by making it a new tender. (See O.C. dated September 20, 1870.) Fifth lowest, Wm. Kingsford, \$613,550; ruled out, because there are no sureties mentioned. Sixth lowest, A. L. McDonald & Co., \$635,000; in view of the peculiar and important character of the work, the Commissioners were not satisfied with the skill, experience and resources of A. L. McDonald & Co. This Section includes for the crossing of the two Miramichi Rivers; for the additional span at North-West Bridge, a sum of \$25,000 was to be paid in addition to contract sum.
114	Patrick Purcell. No. 21. December 1, 1870.	441,271	.....	483,195	41,924	Grading and Masonry; length of Section 25 miles, in Province New Brunswick.	Twenty-eight tenders received, the highest amounting to \$705,808. Lowest, Duncan McDonald, \$400,000, accepted upon the terms named in the advertisement, viz.: "Subject to the deduction of a percentage sum equivalent to the percentage of the whole work, which the Chief Engineer shall report to have been executed by the first Contractors." Second letting.
Carried forward.....		10,174,330	1,503,326	10,188,700	1,817,696		

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
115	<i>Brought forward</i> ..... C. Cummings & Co. No. 22. December 1, 1870.	\$ 10,174,330 323,877	\$ 1,503,325 .....	\$ 10,188,700 331,000	\$ 1,517,696 7,123	<i>Intercolonial Railway.—Con.</i> Grading and Masonry; length of Section 25 miles, in Province of New Brunswick.	Thirty-four tenders received, the highest amounting to \$517,729. Second lowest, C. Cummings & Co, accepted, \$331,000. Lowest, Sutherland, Grant & Co, \$323,877. Commissioners having decided to recommend this firm for Section No. 23, are not prepared to recommend the placing of more than one section in the same hands. This contract was annulled at the end of year 1872, owing to the slow progress of the work; it was completed by Government in the spring of 1875.
116	Sutherland, Grant & Co. No. 23. December 1, 1870.	276,750	276,750	.....	Nil.	Grading and Masonry; length of Section 22½ miles, in Province of New Brunswick.	Forty tenders received, the highest amounting to \$466,269. The lowest, Sutherland, Grant & Co, \$276,750, accepted. This contract was annulled, and the work completed by the Government early in 1875.
117	Jas. Blair. February 26, 1870.	1,969	1,969	.....	Nil.	Eleven thousand Sleepers on Section No. 11, Intercolonial Railway, Province of Nova Scotia.	Nine tenders received, the highest amounting to \$4,400. Lowest, Jas. Blair, \$1,969, accepted; awarded by A. W. McJellan, Commissioner.
118	Wm. Montgomery & Co. March 19, 1870. (Date of tender.)	115,750	.....	125,000	9,250	Ten Locomotives for the Intercolonial Railway.	Fourteen tenders received, the highest amounting to \$145,000. The second lowest, Wm. Montgomery & Co., \$125,000, ac-

cepted. Lowest, Yorkshire Engine Co., \$116,750. Commissioners cannot recommend the acceptance of this tender; for, after careful enquiry, they are satisfied that engines built according to the specification could not be satisfactory at such an extremely low figure, the parties having to pay both transportation and duties.

Fourteen tenders received, the highest amounting to \$217,500. The second lowest, Dubbs & Co. (on par with Wm. Montgomery & Co.), \$187,500, accepted. Lowest, Yorkshire Engine Co., \$173,625. Commissioners cannot recommend the acceptance of the Yorkshire Engine Co.'s tender; for, after careful enquiry, they are satisfied that engines built according to the specification could not be satisfactory at such an extremely low figure, the parties having to pay both transportation and duties. Dubbs & Co., fifteen engines at \$11,000 each, in bond, making, with the duty, about \$12,500 each; total, \$187,500.

Fourteen tenders received, the highest amounting to \$217,500. The second lowest, Canadian Engine and Machinery Co., \$187,500 (on par with Wm. Montgomery & Co., and Dubbs & Co.), accepted. Lowest, Yorkshire Engine Co., \$173,625. Commissioners cannot recommend the acceptance of this tender; for, after careful enquiry, they are satisfied that engines built according to the specifications could not be satisfactory at such an extremely low figure, the parties having to pay both transportation and duties.

Nineteen tenders received, the highest amounting to \$158,550. The lowest, Wm. Hamilton & Son, \$107,850, accepted.

119	Dubbs & Co. March 19, 1870. (Date of tender.)	173,625	.....	187,500	13,875	Fifteen Locomotives for Intercolonial Railway.	Fourteen tenders received, the highest amounting to \$217,500. The second lowest, Dubbs & Co. (on par with Wm. Montgomery & Co.), \$187,500, accepted. Lowest, Yorkshire Engine Co., \$173,625. Commissioners cannot recommend the acceptance of the Yorkshire Engine Co.'s tender; for, after careful enquiry, they are satisfied that engines built according to the specification could not be satisfactory at such an extremely low figure, the parties having to pay both transportation and duties. Dubbs & Co., fifteen engines at \$11,000 each, in bond, making, with the duty, about \$12,500 each; total, \$187,500.
120	Canadian Engine and Machinery Co. March 19, 1870. (Date of tender.)	173,625	.....	187,500	13,875	Fifteen Locomotives for Intercolonial Railway.	Fourteen tenders received, the highest amounting to \$217,500. The second lowest, Canadian Engine and Machinery Co., \$187,500 (on par with Wm. Montgomery & Co., and Dubbs & Co.), accepted. Lowest, Yorkshire Engine Co., \$173,625. Commissioners cannot recommend the acceptance of this tender; for, after careful enquiry, they are satisfied that engines built according to the specifications could not be satisfactory at such an extremely low figure, the parties having to pay both transportation and duties.
121	William Hamilton & Son. March 19, 1870. (Date of tender.)	107,850	.....	.....	Nil	One hundred and fifty Box Cars for Intercolonial Railway.	Nineteen tenders received, the highest amounting to \$158,550. The lowest, Wm. Hamilton & Son, \$107,850, accepted.
		11,347,776	1,889,895	11,019,700	1,561,819	Carried forward.....	

PUBLIC WORKS, CANADA—Continued.

Number	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$ 11,347,776	\$ 1,889,895	\$ 11,019,700	\$ 1,561,819	<i>Intercolonial Railway.—Con.</i>	
122	Gough & Hunter. March 19, 1870. (Date of tender.)	35,950	.....	36,750	800	Fifty Box Cars for Intercolonial Railway.	Nineteen tenders received, the highest amounting to \$52,850. The second lowest, Gough & Hunter, \$36,750, accepted. Lowest, Wm. Hamilton & Son, \$35,950; they having already been awarded a contract, the tender of Messrs. Gough & Hunter was accepted.
123	John F. Feed. March 19, 1870. (Date of tender.)	35,950	.....	36,750	800	Fifty Box Cars for Intercolonial Railway.	Nineteen tenders received, the highest amounting to \$52,850. The second lowest, John Feed, \$36,750 (on par with Gough & Hunter), accepted. Lowest, Wm. Hamilton & Son, \$35,950, already awarded contract.
124	Wm. Clendenning. March 19, 1870. (Date of tender.)	51,300	51,300	.....	Nil.	Ninety Platform Cars for Intercolonial Railway.	Eighteen tenders received, the highest amounting to \$67,500. The lowest, Wm. Clendenning, \$51,300, accepted.
125	Intercolonial Iron & Steel Co. March 19, 1870.	34,200	34,200	.....	Nil.	Sixty Platform Cars for Intercolonial Railway.	Eighteen tenders received, the highest amounting to \$45,000. The lowest, Intercolonial Iron and Steel Co.'s tender, \$34,200, accepted. Tender was for \$34,800, but an arrangement was made with them at the rate of lowest tender by Wm. Clendenning.

126	Jas. McCulloch. Nov. 20, 1870.	2,689	.....	3,315	616	Seventeen thousand sleepers on Section No. 12, Intercolonial Railway, Nova Scotia.	Nineteen tenders received, the highest amounting to \$6,280. Sixth lowest accepted, Jas. McCulloch, \$3,315. Lowest, G. P. Grant & Co., \$2,689.60, withdrawn; declined to accept and sign. Second lowest, T. A. Lawrence, \$2,847; no reason. Third lowest, R. McLeod, \$2,890; no reason. Fourth lowest, R. N. B. McLellan, \$2,946; he declined to accept. Fifth lowest, Lindsay & Peppard, \$2,975; refused to accept contract. Arrangements were made with McCulloch, \$19.56, by Commissioner McLellan.
127	Starr Manufacturing Co. ....	40,737	40,737	.....	Nil.	Seaboard-joint fastenings and bolts.	Two tenders received, the highest, £23 6s. 8d per ton. The lowest, Starr Manufacturing Co., 12 in. long, 60c. each; 10 in. long, 54c. each; 8 in. long, 40c. each; bolts, 4c. per lb. Accepted, O.C. No. to Starr Manufacturing Co., No. 1,714, Jan. 17, 1871. Secretary's letter January 15, 1871.
128	Campbell & Burley. No. 3,415. July 29, 1871.	2,000	2,000	.....	Nil.	Erect a Dwelling-house for Lock-master, Fort Colborne, Welland Canal.	Two tenders received (16,417, May 30, 1871, and 16,722, June 16, 1871). Lowest tender accepted, on the recommendation of Supt. Woodruff. (See No. 16,417, May 31, 1871.) Expenditure authorized by O.C., 16,921, May 8, 1871.
129	Denis O'Brien. No. 3,398. June 27, 1871.	2,705	.....	3,955	1,250	Construct Mooring Piers and Booms and Timber Basins at Lachine.	Nineteen tenders received, the highest amounting to \$6,963. (Schedule No. 17,117, July 18, 1871.) Fourth lowest accepted, O.C. 16,770, June 19, 1871. Lowest, Clement Deschamps, \$2,705, and second lowest, Hyp. Pichette, \$3,513; both declined to undertake the work. Third lowest, J. O'Shea, \$3,742; could not be found. Two tenders, John Donnelly's and P. Turgeon & Co.'s, incomplete.
		11,563,317	2,018,132	11,100,470	1,565,265	Carried forward.....	

PUBLIC WORKS, CANADA — Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
130	<i>Brought forward.</i> ..... James Goodwin. No. 3,419. August 16, 1871.	\$ 11,553,317 122,000	\$ 2,018,132 122,000	\$ 11,100,470 .....	\$ 1,565,285 Nil.	<i>Grenville Canal.</i>  Enlarge Locks 9, 10, 11, Grenville Canal, in addition to Contract No. 3,346.	No tenders called for. In order to avoid loss of time the contract was awarded to Mr. Goodwin by O.C. 17,600, July 27, 1871, at prices and on conditions recommended by Chief Engineer J. Page, Esq., whose report was adopted in so far as the enlarged locks were concerned. (See No. 17,488, July 27, 1871.)
131	Thos Redmond. No. 3,456. November, 20, 1871.	3,000	3,000	.....	Nil.	Construct two Swing Bridges at Locks 9, 11, Grenville Canal.	Two tenders received, the highest amounting to \$3,080. Schedule 19,064, October 29, 1871. Lowest excepted.
132	Andrew Hodge. No. 3,366. February 8, 1871.	5,739	.....	6,647	908	<i>Cornwall Canal.</i>  Repair Wharves, Cornwall Canal, at Upper Entrance.	Eight tenders received, the highest amounting to \$12,318. (Schedule 12,669, September 12, 1870.) Second lowest accepted, O.C. 14,250, January 23, 1871. Lowest, D. Tait, \$5,739; declined to undertake the work. Expenditure authorized by O.C. 10,937, May 14, 1870, and O.C. 16,088, May 9, 1871.
133	Sketh & Johnston. No. 3,414. July 28, 1871.	4,100	4,100	.....	Nil.	Erect a Dwelling House for Cornwall Canal Superintendent.	Only one tender received, which was accepted. Expenditure authorized by O.C. 10,937, May 14, 1870, and O.C. 16,066, May 9, 1871.

134	W.M. Kavanagh. No. 3,441. June 8, 1871.	4,196	4,196	.....	Nil.	<i>St. Peter's Canal.</i> Remove Earth and Stone from slope of St. Peter's Canal.	Three tenders received, the highest being for \$1.05 per cubic yard for earth. See No. 17,448, July 17, 1871. Lowest accepted, 974 cents per cubic yard. Mr. Alex. McNab, authorized by No. 11,395, July 26, 1871, to expend \$5,680 on repairs.
135	Allan McNeil. No. 3,442. June 8, 1871.	187	187	.....	Nil.	Supply 100 Hardwood Logs for St. Peter's Canal.	Four tenders received, the highest amounting to \$450. See Report No. 17,448, July 17, 1871, by Alex. McNab, who was authorized by No. 11,395, July 26, 1871, to expend \$5,680 on repairs. Lowest accepted.
136	Calvin & Breck. No. 3,384. May 15, 1871.	12,000	12,000	.....	Nil.	<i>Tug Service.</i> Tug Service between Lachine and Kingston for 1871.	Contract continued for one year "on terms and conditions of contract just expired." O.C. 14,938, March 3, 1871.
137	Geo. Roberts. No. 3,375. March 9, 1871.	1,825	1,825	.....	Nil.	<i>Public Buildings.</i> Furniture and Fittings for new Custom House, Montreal.	Expenditure authorized by O.C. 12,165, Aug. 19, 1870, granting \$12,500 for furnishing and fitting up. Twelve tenders received, the highest amounting to \$4,150 (Schedule 14,764, Feb. 24, 1871). Lowest accepted.
138	John Elliott. No. 3,373. March 16, 1871.	51,587	60,123	.....	8,536	Construct new Post Office Building, Toronto.	Expenditure authorized by O.C. 14,535, Feb. 11, 1871, for \$75,000. Twelve tenders received, the highest amounting to \$70,870 (Schedule 15,220, March 17, 1871). Second lowest accepted, O.C. 14,535, Feb. 11, 1871. Lowest, Thos. Woodhall, \$51,587; much below estimated value of the work, and Mr. Woodhall is not a practical builder (O.C. 14,535, Feb. 11, 1871).
139	H. G. Mead. No. 3,378. April, 1871.	700	700	.....	Nil.	Convert Commissariat Bakery, Quebec, into a temporary Post Office.	Four tenders received, the highest amounting to \$1,300 (Schedule 15,140, March 16, 1871). Lowest accepted.
140	Robert Weir. No. 3,409. July 17, 1871.	963	963	.....	Nil.	Convert an Outbuilding of Geological Museum, Montreal, into a Dwelling for office keeper.	Expenditure authorized by O.C. 16,915, July 29, 1871, for \$1,000. Two tenders received, the highest amounting to \$1,562, No. 16,806, June, 1871. Lowest accepted.
						<i>Carried forward.....</i>	
							1,574,729

PUBLIC WORKS, CANADA ----Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
	<i>Brought forward.....</i>						
141	Jos. Laplante. No. 3,417. August 4, 1871.	\$ 11,759,614	\$ 2,167,103	\$ 11,167,240	\$ 1,574,729	<i>Public Buildings. -- Continued.</i> Erect an Emigrant Shed, near Lachine Canal, and Fence.	Expenditure authorized by O.C. 16,038, May 5, 1871, granting \$18,000 for drill sheds. Eleven tenders received, the highest amounting to \$6,265 (Schedule 17,672, July 17, 1871). Lowest accepted.
142	Thos. Overend. No. 3,420. August 8, 1871.	\$ 3,700	\$ 3,700	.....	Nil.	Build an Emigrant Shed at Kingston.	Expenditure authorized by O.C. 16,038, May 5, 1871, granting \$5,000 for sheds at Toronto and Kingston. Three tenders received, the highest amounting to \$3,894 (Schedule 17,744, Aug. 2, 1871). Lowest accepted.
143	Joseph Mathieu. No. 3,438. August 15, 1871.	\$ 3,722	.....	\$ 4,300	578	Build Doctor's Residence, Grosse Isle.	Expenditure authorized by O.C. 16,099, granting \$12,000 for sundry works. Eight tenders received, the highest amounting to \$7,569 (Schedule 17,591, July 15, 1871). Second lowest accepted, O.C., 17,803, Aug. 3, 1871. Lowest, O. Touchette, \$3,722; declined "to undertake the work unless he is awarded also the contract for the building of the pier" at same place, which cannot be entertained, his tender for the pier in question not being the lowest. (See O.C. 17,803, Aug. 3, 1871, and No. 17,368, July 21, 1871).



144	Jacques Jobin. No. 3,440. August, 18, 1871.	3,875	5,975	.....	Nil.	Build an Emigrant Shed at Pointe Lévis.	Expenditure authorized by O. C. 16,039, May 5, 1871, granting \$18,000 for emigrant sheds. Nine tenders received, the highest amounting to \$9,689 (Schedule 17,346, Aug. 3, 1871). Lowest accepted.
145	A. Laberge & Son. No. 3,443. Sept. 1, 1871.	3,528	3,528	.....	Nil.	Alterations in old Custom House, Montreal, for Inland Revenue Department.	Expenditure authorized by O. C. 16,766, June 19, 1871, for \$4,000. Two tenders received for the whole work, the highest amounting to \$4,520 (Schedule 17,396, July 10, 1871). Lowest accepted: James Thomas, painting and paper hanging, \$795; Mr. Martin, woodwork, \$1,416.
146	Quinton & Tilley. No. 3,348. Sept. 10, 1871.	7,639	7,639	.....	Nil.	Repair Custom H St. John, N.B.	Expenditure authorized by O. C. 16,005, May 8, 1871, for \$12,540. Two tenders received, the highest amounting to \$7,966 (Schedule 18,306, Aug. 28, 1871). Lowest accepted.
147	Jacob Bowser. No. 3,465. Dec. 11, 1871.	7,077	7,077	.....	Nil.	Build Quarantine Steamer on Lawlor's Island, Halifax Harbour, N.S.	Expenditure authorized by O. C. 18,643, Sept. 30, 1871, for \$8,000. Two tenders received, the highest amounting to \$7,660. Schedule 18,682, Sept. 29, 1871. Lowest accepted.
148	Laird Paton. No. 3,475. Oct. 18, 1871.	550	550	.....	Nil.	Make and fit up forty Window Sashes and two Inside Porches, Montreal Custom House. <i>Public Buildings, Ottawa.</i>	Expenditure authorized by O. C. 19,795, Dec. 7, 1871, granting \$750. Three tenders received, the highest amounting to \$690. Schedule 19,498, Nov. 17, 1871. Lowest accepted.
149	E. J. O'Neill. No. 3,363. Jan. 26, 1871.	1,150	1,150	.....	Nil.	Remove Snow from Public Buildings, Ottawa	Sixteen tenders received, the highest amounting to \$13,530, Nov. 18, 1870. Lowest accepted: amount of tender, \$700. Additions, \$450.
150	E. G. Lavendure. No. 3,412. July 26, 1871.	686	686	.....	Nil.	Covering of Roof of Public Buildings, Ottawa.	Eight tenders received, the highest amounting to \$1,904. Schedule 17,251, July, 13, 1871. Lowest accepted.
151	Evans Brothers. No. 3,416. Aug. 5, 1871.	1,450	1,450	.....	Nil.	Supply 200 tons Grate Coal, for Public Buildings, Ottawa.	Eight tenders received, the highest amounting to \$2,000. Lowest accepted.
		11,799,354	2,203,101	11,171,540	1,575,307	<i>Carried forward.....</i>	

PUBLIC WORKS, CANADA-----Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$	\$	\$	\$	<i>Public Buildings, Ottawa.—Con.</i>	
	<i>Brought forward</i> .....	11,799,354	2,203,101	11,171,540	1,575,307		
152	John W. Webster. No. 3,461. Oct. 28, 1871.	10,037	10,037	.....	Nil.	Complete Lantern Portion and Iron Works of Central Tower, Parliament, Ottawa.	Work authorized by O. C. 19,129, Oct. 25, 1871, granting \$12,500. Schedule 19,118, Sept. 27, 1871. Three tenders received for the whole work, the highest amounting to \$17,700. Lowest accepted. One tender for whole work, except ironwork, \$16,000. One tender for iron work, \$4,653.
153	Louis Paiement. No. 3,472. Dec. 9, 1871.	715	715	.....	Nil.	Remove Snow from Public Buildings, Ottawa.	Thirteen tenders received, the highest amounting to \$1,405. Schedule 19,921, Nov. 17, 1871. Lowest accepted.
154	H. F. Shms. No. 3,473. Dec. 18, 1871.	250	250	.....	Nil.	Remove Snow from Rideau Hall.	Eight tenders received, the highest amounting to \$800. Schedule 19,930, Nov. 22, 1871. Lowest accepted.
155	John Heney. No. 3,484. Dec. 20, 1871.	16,079	.....	22,126	6,047	Supply Firewood for Public Buildings, Ottawa.	Five tenders. Schedule 17,554, July 13, 1871. Lowest, J. W. McGuire, whose tender was accepted on July 27. Contract had to be cancelled in Dec. 1871, owing to tenderer's inability to fulfil his obligations. New contract entered into with Mr. Heney, at \$6.00 per cord on account of the "inability" of original tenderers "to take up the contract at this advanced season of the year," and at the rates tendered for in July. (See O. C. 20,036, Dec. 16, 1871.)

156	Geo. Fleming & Sons. No. 3,393. June 3, 1871.	222	222	.....	Nil.	Dredge Vessels. Alter the Boiler of "Dominion Dredge," St. John.	Expenditure authorized by O. C. 15,979, granting \$2,600 for fitting up dredges. Two tenders received, both based on Schedules of rates, No. 16,568, June 6, 1871. Fleming & Sons, tender accepted by Mr. Carvell.
157	John Harvey. No. 3,366. February 9, 1871.	1,175	1,175	.....	Nil.	Slides and Booms. Build two Piers at High Falls, and one at Romain, Coulonge River (Ottawa Works).	Three tenders received, the highest amounting to \$1,290. (Schedule 13,971, Dec. 29, 1870.) Lowest accepted. Expenditure authorized by O. C. 13,610, Nov. 26, 1870.
158	John Soulier. No. 3,367. February 16, 1871.	2,490	.....	2,626	136	Repair Slides, S. Chaudière and Hull, Ottawa River and Gati. near River.	Three tenders received, the highest amounting to \$4,119. Second lowest accepted. O. C. 14,483, Feb. 8, 1871. Lowest, Moses Aubrey, \$2,490; withdrawn by No. 14,359, Jan. 30, 1871.
159	Moses Aubrey. No. 3,368. February 18, 1871.	635	635	.....	Nil.	Repair Calumet Slides, Ottawa River.	Three tenders received, the highest amounting to \$694. Lowest accepted. (Schedule 14,328, Jan. 27, 1871.)
160	Moses Aubrey. No. 3,369. February 18, 1871.	1,129	1,129	.....	Nil.	Repair Chat Slide, Ottawa River.	Three tenders received, the highest amounting to \$1,190. Lowest accepted. (Schedule 14,328, Jan. 27, 1871.)
161	Moses Aubrey. No. 3,370. February 18, 1871.	1,865	1,865	.....	Nil.	Repair Works on Petewawa River.	Three tenders received, the highest amounting to \$2,475. Lowest accepted. (Schedule 14,328, Jan. 27, 1871.)
162	John Harvey. No. 3,365. March 1, 1871.	1,819	.....	2,011	192	Repair and Construct Dams, Slides, &c., Madawaska River, lower reach.	Four tenders received, the highest amounting to \$2,401. (Schedule 14,348, Feb. 5, 1871.) Second lowest accepted. O. C. 14,209, Jan. 19, 1871. Lowest, Thos. Stewart, \$1,819; "It appears, upon enquiry, that Mr. Stewart had no experience in works of this nature." (See O. C. No. 14,209, Jan. 19, 1871.)
		11,855,770	2,219,149	11,198,303	1,581,682	<i>Carried forward</i> .....	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
163	<i>Brought forward</i> ..... John Harvey. No. 3,364. March 1, 1871.	\$ 11,825,770	\$ 2,219,149	\$ 11,198,303	\$ 1,561,622	<i>Slides and Rooms.</i> —Continued. Repair and Construct Dams, Slides, &c., Madawaska River, upper reach.	Seven tenders received, the highest amounting to \$10,951. (Schedule 14,348, Jan. 5, 1871.) Second lowest accepted. O.C. 14,209, Jan. 19, 1871. Lowest, Thos. Stewart, \$8,815; "It appears, upon enquiry, that Mr. Stewart had no experience in works of this nature." (See O.C. No. 14,209, Jan. 19, 1871.)
164	J. W. Ormsby. No. 3,400. July 3, 1871.	\$ 2,450	\$ 2,450	.....	Nil.	Construct side Crib-Pier at foot of La Tuque Falls, St. Maurice Works.	Twelve tenders received, the highest amounting to \$6,200. (Schedule 17,069, July 10, 1871.) Lowest accepted. Two tenders received too late, and one, including the St. Maurice Works, together with those at La Tuque station, amounting to \$52,000. Expenditure authorized by O.C. 15,982, May 5, 1871.
165	F. O. Richard & fils. No. 3,404. July 8, 1871.	\$ 29,000	.....	\$ 33,800	\$ 4,800	Construct Rooms and Piers at mouth of River St. Maurice.	Thirteen tenders received, the highest amounting to \$54,557. Third lowest accepted. O.C. 17,004, July 5, 1871. Lowest, Labbe & Valin, \$29,000; refused to sign the contract. (See No. 16,871, June 28, 1871.) Second lowest, A. Grenier, \$30,500; refused to sign the contract. (See No. 16,873, June 29, 1871.)

166	William Davis. No. 3,408. July 14, 1871.	1,615	.....	1,644	29	Construct three Piers, &c., near head of Calumet Slide, Ottawa River.	Six tenders received, the highest amounting to \$2,579. (Schedule 17,701, July 23, 1871.) Second lowest accepted. Lowest, J. R. O'Connor, \$1,615; tender informal. (See No. 11,109, July 7, 1871.)
167	William Davis. No. 3,407. July 14, 1871.	2,087	2,087	.....	Nil.	Construct a flat Dam above the head of Chat's slide, Ottawa River.	Six tenders received, the highest amounting to \$3,431. (Schedule No. 17,686, July 23, 1871.) Lowest accepted.
168	William Davis. No. 3,408. July 14, 1871.	1,192	1,192	.....	Nil.	Construct a flat Dam and Pier at head of Portage du Fort Slide.	Six tenders received, the highest amounting to \$1,815. (Schedule No. 17,688, July 23, 1871.) Lowest accepted.
169	William Davis. No. 3,410. July 14, 1871.	13,794	.....	14,005	211	Construct a Single Stick Slide at High Falls, Dumoine River, Ottawa River.	Six tenders received, the highest amounting to \$17,094. Second lowest accepted, O. C. 17,166, July 10, 1872. Lowest, M. P. Davis, \$13,794, withdrawn by No. 16,983, July 5, 1871.
170	F. B. McNamee, No. 3,401. July 17, 1871.	5,236	5,236	.....	Nil.	Construct five Piers and Guide Boom above Sault-au-Recollet Bridge, River des Prairies.	Expenditure authorized by O. C. 15,976, May 5, 1871, granting \$7,000. Nine tenders received, the highest amounting to \$10,054. (Schedule 17,081, June 17, 1871.) Lowest accepted.
171	William Davis. No. 3,411. August 12, 1871.	1,068	.....	1,068	26	Build two Piers and Stop Logs near head of Mountain Slide, Ottawa River.	Five tenders received, the highest amounting to \$1,647. (Schedule 17,694, June 23, 1871.) Second lowest accepted, O. C. 17,481, July 21, 1871. Lowest, W. Falen, \$1,042, withdrawn by No. 17,254, July 17, 1871.
172	Jas. Dick & Co. No. 3,376. March 30, 1871.	35,120	35,120	.....	Nil.	Construct two Steamboats, Red River Route—Rainy Lake and Lake of the Woods.	Expenditure authorized by O. C. 14,120, granting \$130,000 to open communication between Fort William and Fort Garry. Seven tenders received, the highest amounting to \$64,000. Lowest accepted, O. C. 14,483, February 8, 1871.
173	D. Row & F. Koyl. No. 3,458. November 21, 1871.	15,500	15,500	.....	Nil.	Construct a Bridge at Portage-du-Fort across River Ottawa.	Eleven tenders received, the highest amounting to \$32,801. (Schedule 18,186, August 14, 1871.) \$8,000 granted by Dominion Legislature; \$4,000 granted by Ontario Legislature; \$4,000 granted by Quebec Legislature.
		11,951,620	2,280,733	11,258,281		Carried forward.....	1,587,397

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number of Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
174	<i>Brought forward</i> ..... Grant, Sutherland & Co. No. 3,321. January 24, 1871.	\$ 11,951,620	\$ 2,280,733	\$ 11,268,284	\$ 1,587,397	<i>Harbours and Piers.</i> Build a Breakwater at Little Hope Island, N.S.	Five tenders received, the highest amounting to \$21,111. (Schedule 12,483, September 16, 1870.) Lowest accepted. Expenditure authorized by O.C. 16,020, May 6, 1871.
175	John Brown. No. 3,368. January 26, 1871.	120,741	120,741	.....	Nil.	Enlarge Channel, deepen Basin and build Piers, Rondeau, Lake Ontario.	Twenty-five tenders received, the highest amounting to \$297,895. Lowest accepted, O.C. 14,072, January 9, 1871. Expenditure authorized by O.C. 10,081, March 22, 1870.
176	Geo. Harvey & Jg. Korman. No. 3,369. January 31, 1871.	158,768	158,768	.....	Nil.	Form a Channel, enlarge Harbour and build Piers, Goderich, Lake Huron.	Twenty-six tenders received, the highest amounting to \$385,214. (One tender in-lined; one received too late. Schedule 14,690, February, 1871.) Second lowest accepted, O.C. 14,074, January 9, 1871. Contract awarded to Harvey & Korman, provided that they agree to execute the work at the rates given by the lowest tenderer, John Brown, who had already received contract for Rondeau Works. (See Rep. to C. 9,332, December 31, 1870.)
177	Robt. Reed & Robt. Walker. No. 3,360. January 31, 1871.	78,157	78,157	.....	Nil.	Construct a Breakwater and Beacon, remove Stones, &c., Chantry Island, Lake Huron.	Twenty-six tenders received, the highest amounting to \$287,369; one tender received too late. (Schedule 14,663, Feb., 1871.) Second lowest accepted at rates of

178	Aug. Mathieu No. 3,421. August 7, 1871.	3,800	3,800	Nil.	Build Extension to Pier at Grosse Isle.	lowest tenderers, Harvey & Korman, who had already been awarded contract for the Goderich Works. O.C. 14,072, January 9, 1871.  Fourteen tenders received, the highest amounting to \$10,400. (Schedule 17,582, July 16, 1871.) Lowest accepted. Expenditure authorized by O.C. 16,038, May 5, 1871.	
179	Clark & Stackhouse. No. 3,449. Sept. 10, 1871.	3,500	3,500	Nil.	Construct a Wharf and Slipway at Partridge Island, N.E.	Three tenders received, the highest amounting to \$8,090. (Schedule 18,310, September 7, 1871.) Lowest accepted. Report to Council, 10,290, May 2, 1871, to expend \$4,000 at Partridge Island.	
180	William Hall. No. 3,439. September 20, 1871.	4,455	4,455	Nil.	Build Extension of Piers, Kincardine Harbour, Lake Huron.	Ten tenders received, the highest amounting to \$5,203. (Schedule 17,834, July 22, 1871.) Lowest accepted. Expenditure authorized by O.C. 17,739, August 3, 1871.	
181	Thomas Evans. No. 3,457. November 25, 1871.	26,203	26,203	Nil.	New Channel at mouth of Mabou Harbour, Cape Breton, N.S.	Four tenders received, the highest amounting to \$40,121. Lowest accepted. Expenditure authorized by O.C. 15,975, May 5, 1871.	
182	A. E. Munson. No. 2,463. December 7, 1871.	16,200	16,200	Nil.	Dredge Channel at entrance of Presqu'isle Harbour, Lake Ontario.	Two tenders received, viz.: one for 30c per cubic yard in the solid and 18c. in scow; and the other for 26c. and 20c. per cubic yard respectively. Lowest for dredging, measured in scow, as recommended by Engineer, U. P. Morse & Co., who "are citizens of a foreign country (the United States), and are beyond the jurisdiction of the tribunals of Canada." They offered as security the Hon. A. Burnham, a senator, which is contrary to law. Second lowest accepted by O.C. 19,131, Oct. 25, 1871, Mr. Munson having by letter No. 18,493 of the 21st September, 1871, declared that he would be prepared to reduce his price for dredging in scow from 20c. to 18c. Expenditure authorized by O.C. 15,975, May 5, 1870.	
				12,369,336	2,698,449	11,258,284	1,587,397
				<i>Carried forward</i> .....			

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
183	<i>Brought forward</i> ..... George S. & J. A. Parker. No. 3,466. Dec. 8, 1871.	\$ 12,368,336 20,750	\$ 2,698,449 20,750	\$ 11,268,284 .....	\$ 1,587,997 Nil.	<i>Harbours and Piers.—Con.</i> Construct a Breakwater at Brooklyn or Liverpool Bay, N.S.	Three tenders received, the highest amounting to \$24,590. Lowest accepted. Expenditure authorized by O.C. 15,973, May 5, 1871.
184	George Neilson & Co. No. 3,461. Dec. 26, 1871.	99,811	.....	101,677	1,866	Enlarge and deepen Harbour at Port Colborne, Welland Canal.	Ten tenders received, the highest amounting to \$368,944. Second lowest accepted, O.C. 20,163, December 27, 1871. Lowest, Dixon & Gibson, \$99,811, withdrawn. (No. 19,478, Nov. 3, 1871.) Expenditure authorized by O.C. 17,626, July 29, 1871.
185	O'Brien & McKin. Jan, 1871.	4,500	.....	4,800	300	<i>Intercolonial Railway.</i> Thirty thousand Sleepers on Section No. 7, Province of Nova Scotia.	Thirty-eight tenders received, the highest amounting to \$14,100. The second lowest, O'Brien & McKiee, \$4,800, accepted. Lowest, R. McLeod, \$3,500; no reason.
186	Ebbw Vale Co. Jan. 13, 1871.	535,334	535,334	.....	Nil.	Ten thousand tons Steel Rails.....	Seventeen tenders received, the highest amounting to £141,126. Lowest, Ebbw Vale Co., £110,000, accepted.
187	Barrow Hematite Steel Co.	1,606,001	.....	1,642,501	36,500	Thirty thousand tons Steel Rails.	Seventeen tenders received, the highest amounting to £423,375. The second lowest, Barrow, Hematite Co., £337,500, accepted, Lowest, Ebbw Vale Co., £360,000; having a contract already awarded them, Commissioners accepted second lowest.



188	Jos. Rouleau. January 30, 1871.	11,850	.....	16,500	4,650	Fifty thousand Sleepers on Section No. 2, Province of Quebec	Nineteen tenders received, the highest amounting to \$22,500. The eighth lowest, Jos. Rouleau, \$16,500, accepted. Lowest, M. Fitzgerald, \$11,850; no reason. Second lowest, A. McDonald & Co., \$12,500; no reason. Third lowest, F. X. Guénet, \$12,500; no reason. Fourth lowest, O. & D. Dumais, \$12,500; no reason. Fifth lowest, G. & J. Worthington, \$13,500; no reason. Sixth lowest, A. LePage & Co., \$14,500; no reason. Seventh lowest, S. Marceau, \$14,750; no reason. The Commissioners, having reference to all the particulars of each tender, recommend that the tender of Jos. Rouleau be accepted.
189	A. LePage & Co. January 30, 1871.	12,000	12,900	.....	Nil.	Fifty thousand Sleepers on Section No. 8, Province of Quebec.	Thirty-three tenders received, the highest amounting to \$22,500. The lowest, A. LePage & Co., \$12,000, accepted; upon the recommendation of the Commissioners, having had reference to all particulars.
190	A. LePage & Co. January 30, 1871.	14,820	.....	15,525	1,105	Sixty-five thousand Sleepers on Section No. 1, Province of Quebec.	Twenty-five tenders received, the highest amounting to \$29,250. The second lowest, A. LePage & Co., \$15,925, accepted. Lowest, Mr. Fitzgerald, \$14,820. Upon recommendation of the Commissioners, after having reference to all the particulars, Jan. 12, 1871.
191	A. G. Côté. February, 1871	12,500	.....	16,000	3,500	Fifty thousand Sleepers on Section No. 1, Province of Quebec.	Twenty-three tenders received, the highest amounting to \$30,000. Ninth lowest, A. G. Côté, accepted, \$16,000. Lowest, A. McDonald, \$12,500. Second lowest, F. X. Garnet, \$12,500. Third lowest, O. & D. Dumais, \$12,500. Fourth lowest, G. & J. Worthington, \$13,500. Fifth lowest, A. LePage & Co., \$14,000. Sixth lowest, S. Maréchal, \$14,750. Seventh lowest, T. Paradis, \$15,000. Upon recommendation of the Commissioners, after having had reference to all the particulars.
		Carried forward .....	3,266,533	13,055,687	1,635,318		

PUBLIC WORKS, CANADA---Continued.

Number.	Name of Contractor, and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
192	<i>Brought forward</i> ..... Fairbairn Engineering Co. No. 45. April 6, 1871.	\$ 14,686,902	\$ 3,266,533	\$ 13,085,687	\$ 1,635,318	<i>Intercolonial Railway.</i> ---Con.  Iron Bridges of Span 100 feet and under, in Provinces of Quebec and New Brunswick.	Five tenders received, the highest amounting to \$497,926. The lowest, Fairbairn Engi- neering Co., \$315,589, accepted.
193	Clarke, Reeves & Co. No. 47. April 6, 1871.	309,352	309,352	.....	Nil.	Iron Bridges over Restigouche and Miramichi Rivers, Pro- vince of New Brunswick.	Five tenders received, the highest amounting to \$425,316. The lowest, Clarke, Reeves & Co., \$309,352, accepted.
194	O. Blondeau & Co. No. 25, May 12, 1871.	27,784	27,784	.....	Nil.	Track Laying and Ballasting be- tween Rivière du Loup and Trois Pistoles, Province of Quebec.	Nineteen tenders received. The lowest, C. Blondeau & Co., \$27,784, accepted.
195	A. & F. Burpee. May 12, 1871.	6,300	6,300	.....	Nil.	One hundred tons of Spikes.....	Five tenders received, the highest amounting to \$11,200. Lowest, Messrs. I. & F. Bur- pee, \$6,300; accepted by Commissioners without report to Council.
196	Jas. Harris & Co. May 15, 1871.	39,900	.....	36,100	1,200	One Postal Car, two Second Class Cars, and fifty Platform Cars.	Four tenders for platform, two for postal and second class, the highest amounting to \$40,100. Second lowest, James Harris & Co., \$36,100, accepted, Lowest, R. A. Saunders, \$34,900; the Commissioners not being satisfied with the skill, experience and resources of R. A. Saunders, awarded the contract to Harris & Co.

187	<i>Alkens &amp; McElmen.</i> June 14, 1871.	4,764	.....	5,925	1,161	Thirty thousand Sleepers on Section No. 12, Province of Nova Scotia.	Nineteen tenders received, the highest amounting to \$11,000. Seventh lowest, <i>Aikens &amp; McElwen</i> , \$5,925, accepted. Lowest, <i>G. P. Grant &amp; Co.</i> , \$4,764, declined. Second lowest, <i>T. A. Lawrence</i> , \$5,025; no reasons. Third lowest, <i>R. McLeod</i> , \$5,100; no reasons. Fourth lowest, <i>R. N. B. McLellan</i> , \$5,199; declined. Fifth lowest, <i>Lindsay &amp; Peppan</i> , \$6,250; declined. Sixth lowest, <i>Jas. McCulloch</i> , \$6,850; already awarded a contract.
188	<i>Crosby &amp; McKean.</i> No. 24. Aug. 2, 1871.	69,000	.....	83,923	14,923	Moncton Buildings, Province of New Brunswick.	Fifteen tenders received, the highest amounting to \$203,800. Fourth lowest, <i>Crosby &amp; McKean</i> , \$83,923, accepted. Lowest, <i>Arch. McKay</i> , \$69,000. Second lowest, <i>William Robertson</i> , \$75,000. Third lowest, <i>W. J. Mills</i> , \$83,000; the Commissioners were not satisfied with the skill, experience and resources of the three lowest tenderers, and therefore recommended the acceptance of <i>Crosby &amp; McKean's</i> tender.
199	<i>Wm. Faulkner.</i> Aug. 7, 1871.	2,030	.....	2,030	Nil.	Fourteen thousand Sleepers on Section No. 12, Province of Nova Scotia.	This was a private arrangement made with <i>Faulkner</i> by Commissioner <i>McLellan</i> , at \$14.50 per 100, making <i>Faulkner</i> the lowest tenderer.
200	<i>James Blair.</i> Sept. 1, 1871	7,280	.....	7,484	204	Twenty-eight thousand Sleepers on Section No. 4, Province of Nova Scotia.	Thirteen tenders received, the highest amounting to \$9,000. Second lowest, <i>Jas. Blair</i> , \$7,484, accepted. Lowest, <i>Freeman &amp; Fraser</i> , \$7,280. This contract awarded by Commissioner <i>McLellan</i> .
201	<i>C. C. Seamen.</i> Sept. 6, 1871.	7,280	.....	7,484	204	Twenty-eight thousand Sleepers on Section No. 4, Province of Nova Scotia.	Thirteen tenders received, the highest amounting to \$9,200. Second lowest, <i>C. C. Seamen</i> , \$7,484, accepted. Lowest <i>Freeman &amp; Fraser</i> , \$7,280; this contract was awarded by Commissioner <i>McLellan</i> .
202	<i>R. N. B. McLellan.</i> Sept. 6, 1871.	1,255	.....	1,359	104	Seven thousand eight hundred and forty-four Sleepers on Section No. 4, Province of Nova Scotia.	Twenty-three tenders received, the highest amounting to \$2,745. Second lowest, <i>R. N. B. McLellan</i> , \$1,359. — Lowest, <i>R. McLeod</i> , \$16.00 per 100, \$1,255. Recommended by the Commissioners, Jan. 12, 1871.
				3,927,588	13,197,962		
					1,653,114		
							<i>Carried forward</i> .....

PUBLIC WORKS, CANADA---Continued.

Number.	Name of Contractor and Date of Contract.	Amount of Lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
203	<i>Brought forward</i> .... Hawkins & Tait, No. 3,446, Sept. 12, 1871.	\$ 15,472,436 35,297	3,927,588 35,297	\$ 13,197,962 .....	\$ 1,653,114 Nil.	<i>E. &amp; N. A. Railway.</i> Works at Point du Chêne, Shediac	Expenditure authorized by O. C. 2,669, R. B., May 8, 1871. Six tenders received, the highest amounting to \$86,904. Schedule 2,974, Aug. 23, 1871. Lowest accepted.
204	Clark & Stackhouse, No. 3,450, Oct. 5, 1871.	36,416	.....	40,290	3,874	Works at Mill Pond, St. John, N.B.	Expenditure authorized by O. C. 2,669, May 8, 1871. Five tenders received, the highest amounting to \$73,750. Second lowest accepted, O. C. 3,043, Sept. 19, 1871. Lowest, Hawkins & Tait, \$36,416; declined to undertake the work at prices stated in their tender.
205	Robert Connors, October 20, 1871.	9,860	.....	10,880	1,020	34,000 Sleepers on Section No. 15, Province of New Brunswick.	Fifteen tenders received, the highest amounting to \$22,100. The second lowest, Robt. Connors, \$10,880, accepted. Lowest, D. Connors, \$8,860; refused to accept contract.
206	G. A. Girouard, October 20, 1871.	11,130	.....	17,490	6,360	53,000 Sleepers on Section No. 9, Province of New Brunswick.	Ten tenders received, the highest amounting to \$38,690. The second lowest, G. A. Girouard, \$17,490, accepted. Lowest, D. Connors, \$11,130; declined to accept contract.
207	Côté & McDonald, October 20, 1871.	32,205	.....	35,030	2,825	113,000 Sleepers on Sections No. 3 and 6, Province of New Brunswick.	Twenty-seven tenders received, the highest amounting to \$87,575. The fifth lowest, Côté & McDonald, \$35,030, accepted.

208	Amos Fountain, December 30, 1871.	6,750	.....	8,415	1,685	45,000 Sleepers on Section No. 7, Province of Nova Scotia.	Lowest, David Connors, \$32,205; no reason. Second lowest, David Connors, \$33,900; no reason. Third lowest, G. A. Girouard, \$33,900; no reason. Fourth lowest, Robert Connors, \$34,465; no reason. The Commissioners, having reference to the quality of the timber specified to be delivered, recommend that the tender of Messrs. Côté & McDonald be accepted for Nos. 3 and 6.
209	C. Schreiber, September 11, 1871.	1,914,559	.....	2,024,929	110,370	<i>Prince Edward Island Railway.</i> Main line, Cascumpec to George- town, 146½ miles.	Let by public tender; date of Act authorizing construction, 17th April, 1871. Date of Act amending construction, 9th August, 1872. Twenty tenders received, the highest amounting to \$3,002,534. The sixth lowest, C. Schreiber, \$2,024,929, accepted. Lowest, T. & C. Walker; declined to accept contract. Second lowest, W. D. O'Brien, failed to comply with conditions. Third lowest, H. D. McLeod; declined to accept contract. Fourth lowest, Jas. H. Fraser; declined to accept contract. Fifth lowest, William Rennie & Co.; declined to accept contract.
210	O. Schreiber.....	40,000	.....	.....	NIL.	Agreement for change of line, Summerside.	No tender. An arrangement made with the contractor for construction of trunk line.
<i>Carried forward.....</i>		17,558,653	4,002,885	15,334,996	1,779,228		

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of Lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price Given.	Nature of Contract.	Explanations.
211	Brought forward ..... Robert Mitchell No. 3,491. January 23, 1872.	\$ 117,568,653	\$ 4,002,885	\$ 15,334,986	\$ 1,779,228	Welland Canal.	Twenty-one tenders received, the highest amounting to \$285,000, at the rate of 50c. per cubic yard of earth excavated. See No. 18,833, October 7, 1871, and Schedule 20,742, October 26, 1871. Fourth lowest accepted, O. G. 20,192, December 27, 1871. Lowest, G. Harvey, 18½c. per cubic yard, \$105,450, withdrawn by 19,450, November 16, 1871. Second lowest, E. Kilman, 18½c. per cubic yard, \$106,875, withdrawn by 19,549, November 29, 1871. Third lowest, M. Fitzgerald, 19c. per cubic yard, \$108,300, withdrawn by 20,188, December 23, 1871.
212	F. B. McNamee, No. 3,462. February 9, 1872.	18,900	18,900	.....	Nil.	Enlarge and deepen Harbour at Port Dalhousie, in a southerly direction, depth to be 13 feet at the lock, or one foot below top of sill, and to be increased to 14 feet towards outer end of West Pier; 21 cents per cubic yard; Engineer's estimate.	Expenditure authorized by O. G. Seven tenders received, the high amounting to \$36,000, at the rate of 40c. per cubic yard. See No. 18,884, October 9, 1871, and Schedule 20,899, October 23, 1871. Lowest accepted.
213	John McDonagh, Tender, No. 22,098, April 10, 1872.	7,091	.....	8,472	1,381	Supply of Timber Piles, between Port Dalhousie and Thorold.	Three tenders received, the highest amounting to \$8,960. (Schedule No. 22,098, October 10, 1872.) The second lowest, \$8,472, John McDonagh, accepted. O. G. No. 22,093, 8th April. Lowest, \$7,991,

214	H. W. Manning & Co. No. 3,853. October 11, 1872.	98,700	.....	126,700	28,000	Deepening and clearing out the feeder to two feet below the depth it was made in the winter of 1843-44; from the junction with the main line of canal, upwards to Port Maitland Lock, a distance of 17½ miles, and to a level, of 2½ feet below the top of the mitre sills of the Guard Lock at Dunville, at Stromness, upwards, a distance of five miles; Engineer's estimate.	Messrs. M. & O. J. Phelps; this firm not bargaining to deliver the whole of the material by the date mentioned in the specification, June 1, 1872; it appears to the Minister that their offer cannot be entertained. Nos. 22,095, 22,096, 22,097, 22,098, 22,265, 31,486.
215	Hennessey & Doughney. No. 3,469. September 7, 1872.	10,969	.....	.....	Nil.	Lachine Canal. Straightening Channel of part of River St. Pierre.	Eight tenders received, the highest amounting to \$221,800. Schedule 25,932, September 31, 1872. Third lowest accepted, O. C. 25,023, October, 12, 1872. Lowest, G. Harvey, 98,700; Minister considers that Mr. Harvey should not be given a second contract, the work he has on hand at Goderich Harbour being sufficient for the means at his disposal. (See O. C. 25,673, September 30, 1872.) Second lowest, Cairns & Co., \$105,450; who being unable to procure the necessary plant, have declined by No. 25,817, October 6, 1872, to proceed with the work. See O. C. 26,023, October 12, 1872.
216	S. Bonneville. No. 3,623. October 9, 1872.	92,222	.....	101,542	9,320	Form two Slips or Basins (St. Gabriel) between Wellington Street Bridge and St. Gabriel Lock.	Twenty tenders received, the highest amounting to \$259,910. Schedule 25,567, September 5, 1872. Fourth lowest accepted, O. C. 25,674, September 30, 1872. O. C. 31,306, dated 31st May, cancelled this contract, the contractor having failed to carry it out; completed by days' work. Lowest, J. Blackie, \$92,222. Second lowest, Dennis Connelly, \$95,236. Third lowest, J. B. Spencer, \$97,386; the Minister instituted enquiries in regard to these parties, the information he obtained was not such as would warrant him in recommending that the contract be placed in their hands. (See O. C. 25,874, September 30th 1872.)
<i>Carried forward.....</i>		17,991,985	4,032,764	15,698,960	1,840,729		

PUBLIC WORKS, CANADA.----Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
217	<i>Brought forward</i> ..... James O. Johnston. No. 3,518. May 20, 1872.	\$ 17,891,985	\$ 4,022,754	\$ 15,699,960	\$ 1,840,729	<i>Cornwall Canal.</i>	Expenditure authorized by O.C. 19,110, October 27, 1871. See 21,109, February 29, 1872. Three tenders received, the highest amounting to \$1,072. Lowest accepted.
218	Alex. Fleck. No. 3,516. April 17, 1872.	646	646	.....	Nil.	<i>Grenville Canal.</i>	Offer of A. Fleck accepted on recommendation of Chief Engineer. See No. 20,193, December 29, 1871, and O.C. 20,468, January 13, 1872.
219	M. P. Davis. No. 3,622. September 20, 1872.	5,467	5,467	.....	Nil.	<i>Rideau Canal.</i>	Expenditure authorized by O.C. 23,730, June 27, 1872. Only one tender received, No. 25,118, Sept. 6, 1872, which was accepted.
220	Reed & Stanley. No. 4,022. December, 3, 1872.	1,887	1,887	.....	Nil.	Swing Bridge above Upper Gates of Lock at Brewer's Lower Mills.	Thirteen tenders received, the highest amounting to \$16,723; schedule 26,479, November 2, 1872. Second lowest accepted; O.C. 26,560, November 7, 1872. Lowest, Robert Stanley, \$6,762, "who does not appear to be possessed of sufficient means to carry out the work." (See O.C. No. 26,560, Nov. 7, 1872.) Mr. Reed, of the firm of Stanley & Reed, having failed to carry out the works, and certain
		6,762	.....	7,395	633	Excavate and enlarge Basin, and construct Wharves at Ottawa.	



<p>221</p>	<p>Antoine Lepage. No. 3,515. April 13, 1872.</p>	<p>350</p>	<p>350</p>	<p>.....</p>	<p>Nil.</p>	<p><i>Public Buildings, Ottawa.</i> Build a Fire Engine for Rideau Hall.</p>	<p>Offer of Antoine Lepage, No. 21,789, March 23, 1872, accepted. Amount of Contract, \$350.</p>	<p>arrears being still due to workmen, Mr. Stanley's offer to complete the works at contract prices, with Mr. McGillivray as surety, was accepted, after the partnership between Read &amp; Stanley had been dissolved. Contract No. 4,102, March 8, 1873; O. C. No. 23,683, February 20, 1873. See also 28,263, McGillivray's offer.</p>
<p>222</p>	<p>Thomas O. Pidgeon. No. 3,520. April 13, 1872.</p>	<p>955</p>	<p>1,050</p>	<p>.....</p>	<p>95</p>	<p>Erect a Shed at Rideau Hall to replace the one destroyed by fire.</p>	<p>Expenditure authorized by O. C. 20,895, granting \$5,400 to repair damage. Schedule No. 21,449, March 24, 1872. Fourteen tenders received, the highest amounting to \$2,279. Fourth lowest accepted; O. C. 22,100, April 9, 1872. Lowest, Andrew Ritchie, \$956; withdrawn by No. 21,450, March 9, 1872. Second lowest, Stephen Knapp, \$1,000; withdrawn by No. 21,450, March 9, 1872. Third lowest, Michel Brisbois, \$1,018; withdrawn by No. 21,450, March 9, 1872.</p>	<p>Eleven tenders received, the highest amounting to \$67,680; schedule 22,218, April 2, 1872. Second lowest accepted; O. C. 22,102, April 9, 1872. Lowest, James Murphy, \$36,550. Chief Architect is of opinion that the lowest tender should not be accepted, it being too low for the quantity of work to be done." See O. C. No. 22,102, April 9, 1872.</p>
<p>223</p>	<p>James Goodwin. No. 3,522. May 23, 1872.</p>	<p>36,550</p>	<p>45,000</p>	<p>.....</p>	<p>8,450</p>	<p>Enclosure Wall on Wellington Street, Public Buildings.</p>	<p>Offer of the Ottawa Gas Company, made on the 17th September, 1872, No. 25,289, in answer to No. 16,213, September 9, 1872, to introduce gas into Rideau Hall on certain conditions, was accepted by O. C. 25,793, granting a loan of \$10,000, bearing 6 per cent interest, to be repaid to the Government quarterly by the price of the gas consumed at Rideau Hall, rate charged being the same as that paid by the citizens generally. See O. C. 25,793, October 2, 1872.</p>	<p>The offer of the Ottawa Gas Company, made on the 17th September, 1872, No. 25,289, in answer to No. 16,213, September 9, 1872, to introduce gas into Rideau Hall on certain conditions, was accepted by O. C. 25,793, granting a loan of \$10,000, bearing 6 per cent interest, to be repaid to the Government quarterly by the price of the gas consumed at Rideau Hall, rate charged being the same as that paid by the citizens generally. See O. C. 25,793, October 2, 1872.</p>
<p>224</p>	<p>Ottawa Gas Company. No. Contract. O. C. 25,793. Oct 2, 1872.</p>	<p>10,000</p>	<p>10,000</p>	<p>.....</p>	<p>Nil.</p>	<p>To introduce Illuminating Gas into Rideau Hall.</p>	<p>Offer of the Ottawa Gas Company, made on the 17th September, 1872, No. 25,289, in answer to No. 16,213, September 9, 1872, to introduce gas into Rideau Hall on certain conditions, was accepted by O. C. 25,793, granting a loan of \$10,000, bearing 6 per cent interest, to be repaid to the Government quarterly by the price of the gas consumed at Rideau Hall, rate charged being the same as that paid by the citizens generally. See O. C. 25,793, October 2, 1872.</p>	<p>Carried forward.....</p>
		<p>17,954,602</p>	<p>4,051,104</p>	<p>15,753,406</p>	<p>1,849,907</p>			

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
225	<i>Brought forward</i> ..... Blyth & Kerr. No. 3,850. October 30, 1872.	\$ 17,954,602	\$ 4,051,104	\$ 15,753,405	\$ 1,819,907	<i>Public Buildings, Ottawa.—Con.</i> Furnish and lay Pipes for Gas at Riteau Hall.	Expenditure authorized by O. C. No. 25,830, Oct. 7, 1872. Offer of Blyth & Kerr accepted. See No. 26,749, October 5, 1872. No tenders called for by advertisement. Amount of Contract, \$6,555.
226	John Heney. No. 3,855, October 30, 1872.	\$ 1,440	.....	1,900	460	Supply 200 tons Sydney Grate Coal for Public Buildings.	Five tenders received for the supply of coal of various kinds; Schedule 21,432, February 26, 1872. Third lowest accepted—\$8.00 per ton for unscreened, and \$9.50 per ton for screened. See O. C. 25,794, (October 2, 1872. Lowest, D. W. Coward & Co., \$7.10 per ton, and ten cents extra for labor connected with screening. Government assuming screenings. Contract was awarded to D. W. Coward & Co. by O. C. No. 21,340, February 29, 1872; Acceptance declined. See O. C. No. 25,373, September 21, 1872. Second lowest, O'Connor & Waller, \$7.50 per ton for unscreened coal.
227	Peter Kilduff. No. 4,025. November 21, 1872.	\$ 4,500	4,500	.....	Nil.	Couple Iron Roof of Parliament Library.	Two tenders received, the highest amounting to \$8,979; Schedule 26,813, Nov. 13, 1872. Lowest accepted.
228	O. Archambault. No. 4,033. December 10, 1872.	\$ 695	.....	1,350	655	Removal of Snow from Public Buildings.	Fourteen tenders received, the highest amounting to \$2,000 and the lowest to \$695; Schedule 26,987, Nov. 20, 1872. Ninth lowest accepted. See Tel. No.

27,085, Dec. 3, 1872, and O. C. 26,921, November, 26, 1872. "Of the seven persons whose tenders for the Parliament and Departmental Buildings were lowest, five declined to undertake the work, having misunderstood the specification, and two, viz., Francois Joli and James Curran, cannot be found." See O. C. 26,921, November 25, 1872. Fifth lowest, R. B. Bell, \$875. Contract first awarded to this party had to be cancelled, owing to contractor's negligence to proceed with the work. See telegrams, No. 17,359, December 3, 1872, and No. 27,085, December 3, 1872.

Five tenders received, the highest amounting to \$500. (Schedule 26,972, Nov. 20, 1872.) Second lowest accepted, O. C. 26,921, Nov. 25, 1872. Lowest, Frs. Joli, \$275; cannot be found. (See O. C. 26,921, Nov. 25, 1872.)

Five tenders received, the highest being for \$6.55, average price per cord. (Schedule 21,424, Jan. 18, 1872.) Second lowest accepted, average rate per cord for tamarac, hard maple and mixed wood, being \$4.73 per cord, O. C. 21,339, March 29, 1872. Lowest Edward Mooney, "who is unknown to the Department." (See O. C. 21,339, March 29, 1872.) Average price \$4.54 per cord.

Lowest accepted; work being urgent; two parties were asked to tender for it by Mr. Hutchinson; only one offer was received however, which was accepted.

Eleven propositions received from five parties, for different systems of heating, the highest amounting to \$6,073, and the lowest to \$1,575. Third lowest accepted, as recommended by chief architect in No. 17,134, June 23, 1871. (O. C. 17,252, July 13, 1872.)

229	H. F. Simms. No. 4,027. Dec. 11, 1872.	275	.....	450	175	Removal of Snow, at Rideau Hall.	Five tenders received, the highest amounting to \$500. (Schedule 26,972, Nov. 20, 1872.) Second lowest accepted, O. C. 26,921, Nov. 25, 1872. Lowest, Frs. Joli, \$275; cannot be found. (See O. C. 26,921, Nov. 25, 1872.)
230	John Hency. No. 3,511. Dec. 21, 1872.	16,412	.....	17,102	690	Supply, during three years, Fire-wood.	Five tenders received, the highest being for \$6.55, average price per cord. (Schedule 21,424, Jan. 18, 1872.) Second lowest accepted, average rate per cord for tamarac, hard maple and mixed wood, being \$4.73 per cord, O. C. 21,339, March 29, 1872. Lowest Edward Mooney, "who is unknown to the Department." (See O. C. 21,339, March 29, 1872.) Average price \$4.54 per cord.
231	Chas. Garth & Co. No. 3,493.	680	.....	.....	Nil,	Public Buildings. Plumbers' work in old Custom House, for Inland Revenue Department, Montreal.	Lowest accepted; work being urgent; two parties were asked to tender for it by Mr. Hutchinson; only one offer was received however, which was accepted.
232	Chas. Garth & Co. No. 3,454. Jan. 29, 1873	1,575	.....	3,368	1,793	Heating Apparatus for new Post Office, Quebec.	Eleven propositions received from five parties, for different systems of heating, the highest amounting to \$6,073, and the lowest to \$1,575. Third lowest accepted, as recommended by chief architect in No. 17,134, June 23, 1871. (O. C. 17,252, July 13, 1872.)
		17,986,734	4,062,839	15,777,575	1,853,680	Carried forward.....	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price Given.	Nature of Contract.	Explanations.
233	<i>Brought forward</i> ..... Simon Peters. No. 3,497. March 22, 1872.	17,986,734 1,100	\$ 4,062,839 1,100	\$ 15,777,575 .....	\$ 1,853,680 Nil.	<i>Public Buildings.—Con.</i> Construct a Landship to new Custom House Wharf, Quebec.	Seven tenders received, the highest amounting to \$1,855. (Schedule enclosed in No. 20,246, Dec. 28, 1871.) Lowest accepted.
234	C. F. Tilley & J. W. Redfern. No. 3,611. Aug. 22, 1872.	9,330	9,330	.....	Nil.	Additions and Alterations to Savings Bank Buildings, St. John, N.B.	Expenditure authorized by O. C. 23,732, June 20, 1872, for \$40,000. Four tenders received for entire work, painting and glazing, iron doors, lining staircase and asphalt covering of basement being accepted, the highest amounting to \$13,912. (Schedule 24,285, July 19, 1872.) Lowest accepted, as recommended by chief architect.
235	Allard, Dufort & Co. No. 3,856. Nov. 12, 1872.	182,000	182,000	.....	Nil.	Montreal Post Office .....	(See Schedule No. 25,860, Oct. '5, 1872, for the whole work, exclusive of general inside work (viz.: portion of joiners' work, plastering, painting, glazing, plumbing for water and gas, &c.) Two tenders were received, the highest amounting to \$195,000. Second, lowest, accepted, Allard & Dufort, Montreal, \$182,000. Walter Wardle, Montreal, \$195,000.

For Masoury :—  
Antoine Ferrault, Montreal..... \$121,200  
A. Leberge & fils do ..... 123,980  
Bourgoin & fils, Bertrand, Montreal 142,350

**For Carpentry:—**  
 Archibald McIntyre, Montreal..... \$19,985  
 Lacroix & fils do ..... 22,000  
 Moise Martin do ..... 24,200  
 Alexander Holmes do ..... 29,000

**For Iron Work:—**  
 Day & Deblois, Montreal..... \$19,000  
 Godfroi Chapleau do ..... 20,600  
 W Clendinning do ..... 21,000  
 W. P. Bartley do ..... 24,234  
 Thomas Redmond do ..... 28,000  
 Messrs. Allard & Dufort's tender to execute the whole of the work for \$182,000 was accepted by O. C. No. 25,011, Oct. 12, 1872.

Expenditure authorized by O. C. 23,735, granting \$40,000. Ten tenders received for the whole work, the highest amounting to \$24,167. Lowest accepted, O. C. 26,012, Oct. 12, 1872. Also ten tenders received for parts of the works. Total cost of building, if let to the lowest tenderers for the several trades respectively, amounts to \$185,899. The sum for the highest tenders for work connected with each of these trades is equal to \$194,975.

Three tenders received, the highest amounting to \$585. Schedule 19,496, Nov. 17, 1871. Lowest accepted.

Four tenders received, the highest amounting to \$29,246, at \$1.75 per cubic yard in the solid. Schedule 25,697, October 24, 1872. Second lowest accepted, rate being 75c. per cubic yard, O. C. No. 25,333, October 7, 1872. Lowest, William A. Hearn, amounting to \$8,384, at the rate of 50c. per cubic yard; declined to undertake the work. See No. 25,530, Sept. 28, 1872.

Erect a Post Office, Custom House, and Inland Revenue Offices, Ottawa.

*Improvement of Rivers.*

Repair and Rebuild the Stone Lockhouse at Hastings, River Trent.

Dredging and Removal of a Bank or Bar on North side of Gatineau River, near its mouth, opposite Government Boom.

Nil.

Nil.

4,193

105,000

360

12,577

105,000

360

8,384

Hatch Bros. No. 3,851, Nov 25, and Dec. 4, 1872.

Alexander Brough. No. 3,519. April, 20, 1872.

John Hunev. No. 3,853. Oct. 14, 1872.

*Carried forward.....*

236

237

238

1,857,873

15,790,152

4,360,679

18,292,908

## PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract	Explanation.
239	<i>Brought forward</i> ..... Thos. Spence. No. 4,030. Dec. 3, 1872.	\$ 18,292,908	\$ 4,360,629	\$ 15,790,152	\$ 1,857,873	<i>Improvement of Rivers.</i> —Conn. Removal of Sister Rock in Fraser River, British Columbia.	Mr. B. W. Pearce, Rest. Eng., B. C., was instructed to call for tenders and to award the contract to the lowest responsible acceptable bidder, the expenditure being limited to \$7,000. See No. 23,736, F. Braun to B. W. Pearce, Oct. 7, 1872. Tender of Thos. Spence accepted by Mr. Pearce in accordance with the above instructions. See No. 26,933, Nov. 12, 1872.
240	John Harvey. No. 3,503. Feb. 3, 1872.	1,450	1,450	.....	Nil.	Repairs to Dumoine River Booms and Piers, Ottawa, R. W.	Three tenders received, the highest amounting to \$1,527. Schedule 20,834, Jan. 25, 1872. Lowest accepted.
241	Janvier Soulier. No. 3,502. Feb. 6, 1872.	3,610	3,610	.....	Nil.	Repairs to Slide at Chaudière, Hull at Gatineau Canal, Ottawa River Works.	Five tenders received, the highest amounting to \$5,356. Schedule 20,834, Jan. 25, 1872. Lowest accepted.
242	Wm. McKnight. No. 3,506. Feb. 12, 1872.	1,597	1,597	.....	Nil.	Repairs to Slides, Calumet and Mountain Stations, Ottawa River Works.	Three tenders received, the highest amounting to \$1,797. Schedule 20,834, Jan. 25, 1872. Lowest accepted.
243	John Proudfoot. No. 3,505. Feb. 22, 1872.	2,271	2,271	.....	Nil.	Repairs to Coulonge and Black River Works.	Two tenders received, the highest amounting to \$2,277. Schedule 20,834, Jan. 25, 1872. Lowest accepted.
244	John Harvey. No. 3,504. March 22, 1872.	6,228	6,228	.....	Nil.	Repairs to Madawaska River Works.	Two tenders received, the highest amounting to \$6,934. Schedule 20,834, Jan. 25, 1872.
245	John Harvey. No. 3,507. March 22, 1872.	1,350	1,350	.....	Nil.	Construct a Boom and four Piers in Grassy Bay, Callabogie Lake, Madawaska River, Ottawa River Works.	Expenditure authorized by O. C. 20,890, Feb. 2, 1872, for \$1,750. Five tenders received, the highest amounting to \$1,740. Schedule 20,843, Jan. 31, 1872. Lowest accepted. Mr. J. Harvey's tender is not entered in

Schedule No. 20,343, Jan. 31, 1872, but  
 filed in letter No. 20,547, Jan. 19, 1872.

Thirteen tenders received for works embraced  
 by contract No. 3,501 (cancelled), the  
 highest amounting to \$50,185. Schedule  
 20,694, Jan. 11, 1872. Fourth lowest ac-  
 cepted, amounting to \$8,866. See O. C.  
 20,774, Jan. 26, 1872. Lewest, A. H.  
 Hamel, \$6,719; too low and cannot be  
 carried out for sum named. Second, F.  
 Lemay, \$7,307; too low and cannot be  
 carried out for sum named. Third, A. J.  
 Pottier \$8,030; also too low, and the per-  
 sons named by Mr. Pottier, as sureties for  
 the due performance of his contract, viz:  
 Emmanuel and Etienne Beauchemin of St.  
 Zephrin, are unknown in the Department.  
 See report to Council 13,380, Jan. 23, 1872.  
 Mr. O. Z. Hamel having declined to sign  
 contract No. 3,501 on account of the in-  
 crease of the price of iron, &c. (See letter  
 enclosed in No. 22,272, April 13, 1872).  
 The second and third lowest tenderers  
 above named, viz: F. Lemay and A. J.  
 Pottier were asked by telegraph if they  
 were ready to undertake the work at the  
 prices stated in their tenders (see telegrams  
 Nos. 14,417, 14,421, 14,526); both parties,  
 however declined to adhere to these prices.  
 (See telegrams Nos. 22,331 and 22,519). Mr.  
 Symmes, the Superintendent, was then re-  
 quested, by letter No. 14,738, May 16, 1872,  
 to see the parties who tendered and ascer-  
 tain whether the works could be completed  
 for \$7,500, the balance of the appropriation  
 on hand. Mr. Symmes having ascertained  
 that the work could not possibly be done  
 for \$7,500, in consequence of the great rise  
 in the price of iron, nor yet for the amount  
 of his estimate, viz.: \$11,500 (see No.  
 22,998, May 18, 1872) he was instructed to  
 call for new tenders. Only two tenders  
 were received in answer to this second call,  
 the highest from F. B. McNamee, amount-  
 ing to \$17,088, and the lowest, \$13,143,  
 from O. Z. Hamel, to whom contract No.  
 3,567 was awarded.

Construction of a Dam, &c.,  
 across River St. Maurice at  
 Grandes Piles Falls. Engi-  
 neer's estimate for flat Dam,  
 465 feet long with 7 bulkhead  
 and 10 side piers, \$11,535.  
 See No. 19,750, Dec. 2, 1871.

Nil.

13,143

13,143

246 O. Z. Hamel. No. 3,567.  
 Sept. 9, 1872.

1,857,873

4,891,778 16,790,152

18,398,087

Carried forward.....

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$	\$	\$	\$		
	<i>Brought forward.....</i>	18,328,057	4,391,778	15,790,152	1,857,873	<i>Improvement of Rivers.—Con.</i>	
247	John Soulier. No. 3,612. November 2, 1872.	23,155	23,155	.....	Nil.	Crib-Slide, Piers and Booms, &c., at Rocher Capitaine Rapids.	Expenditure authorized by O.C. 23,733, June 20, 1872, for \$27,000. Six tenders received, the highest amounting to \$32,202. Schedule 24,750, Aug. 6, 1872. Lowest accepted.
248	A. H. Johnson. No. 3,857. December 10, 1872.	14,195	14,195	.....	Nil.	Extension of Cheneaux Boom, Ottawa River. <i>Harbours and Piers.</i>	Four tenders received, the highest amounting to \$30,800. Schedule 26,436, Oct. 26, 1872. Lowest accepted.
249	F. B. McNamee. No. 3,477. February 9, 1872.	6,436	.....	7,249	813	Extension of Mooring Pier at Côteau Landing, P.Q., about 270 ft. in length, 25 ft. wide.	Expenditure authorized by O.C. 16,086, May 11, 1871, for \$8,000. Eight tenders received, the highest amounting to \$12,430. Schedule 17,097, June 21, 1871. Second lowest accepted. O.C. 19,863, Dec. 12, 1871. Lowest, James Wright, \$6,436; contract first entered into with this party was cancelled by O.C. No. 19,863, Dec. 12, 1871, contractor having notified the Department that he was unable to perform the work during the winter season, as required. See No. 19,528, Nov. 15, 1871.
250	S. B. Cochrane & Co. No. 3,499. March 1, 1872.	11,919	11,919	.....	Nil.	Construct a Breakwater at Little Hope Island, South-West coast of Nova Scotia, on three sides of the island, forming a con-	Five tenders received, the highest amounting to \$24,922. Schedule 20,716, Jan. 16, 1872.



251	Clark & Stackhouse. No. 3,474. March 26, 1872.	15,000	.....	15,990	990	tinuous range of about 285 ft. in length and 16 ft. high.	Construct a Breakwater at Quaco Harbour, New Brunswick, in a S.S.W. direction from the Eastern point, at the entrance of the harbour. The total length of breakwater, measured at the line of high water, to be 300 ft., and the width 30 ft., with an L at the outer end, 30 X 40 ft.; height of the seaward end, 28 ft.	Three tenders received, the highest amounting to \$16,110. Schedule 19,639, Nov. 12, 1871. Second lowest accepted. O.C. 19,800, Dec. 7, 1871. Lowest, Edward Nugent, \$15,000, a shopkeeper and Postmaster of St. Martins, N.B., having no experience in the construction of such works, whose tender should therefore not be entertained. See O.C., 19,800, Dec. 7, 1871.
2	M. G. McLeod & Co. No. 3,500. April 11, 1872.	10,344	.....	14,822	4,478	Construct a Breakwater at McNair's Cove, Cape George, N.S., in a south-south-westerly direction from the northern point of the cove. Pier, 400 ft. in length, measured at line of low water, 200 ft. being 20 ft. wide, and 160 ft. being 30 ft. wide, with an L at the outer end 40 ft. by 60 ft.; height at outer end, 26 ft.; allowing 2 ft. for settlement.	Nine tenders received, the highest amounting to \$25,268. (Schedule 20,183, November 17, 1871.) Fourth lowest accepted, O.C. 20,787, January 25, 1872. Lowest, Jas. H. Frazer, New Glasgow, N.S., \$9,966, tender informal and unacceptable, as it omits to state in detail the quantity and cost of each item included in the said bulk sum, and also omits to give the names of the securities. (See O.C. 19,793, December 7, 1871.) Second lowest, Hugh McAdam & Co., of Arisaig, Antigonish Co., N.S., \$10,344; this tender was accepted by O.C. 19,793, and the work offered to the above firm (see Tel. 12,879, December 11, 1871), who declined to enter into contract. (See No. 20,237, December 14, 1871.) Third lowest, Frank, Young & Co., Westville, Pictou Co., N.S., \$12,573; tender withdrawn. (See Tel. No. 20,260, Jan. 4, 1872.) Contract was offered to this firm by Tel. No. 13,163, January 3, 1872.	
253	M. Duffy, A. Steeves, Wm. Shaw & T. Duffy. No. 3,848. Nov. 26, 1872.	10,450	10,450	.....	Nil.	Construct a Breakwater at Ptey Creek Gully, River Petitcodiac, N.B., to improve channel to Moncton Railway Harbour.	Expenditure authorized by O.C. 23,323, May 3, 1872, for \$11,000. Thirteen tenders received, the highest amounting to \$15,500. (Schedule 25,600, Sept. 26, 1872.) Lowest accepted. (See No. 16,474, Sept. 28, 1872.)	
<i>Carried forward.....</i>		18,419,656	4,455,497	15,928,213	1,864,154			

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
254	Brought forward..... Peck, Benny & Co.; R. Millar & Co. January, 1872.	\$ 18,419,656 17,000	\$ 4,455,497 .....	\$ 16,828,213 27,000	\$ 1,864,154 10,000	Harbours and Piers—Con.  Three hundred tons of Spikes for Intercolonial Railway.	Nine tenders received, the highest amounting to \$100,800. At first awarded to lowest tenderer, Jas. Scoville, \$17,000; he refused to accept. The next five lowest also declined. Contract was then let by Mr. Brydges to the parties named.
255	Fraser, Stewart & Fraser. No. 20. Feb. 13, 1872.	\$ 45,047	.....	70,200	25,183	Track-laying and ballasting Sections 4, 7 and 12, Province of Nova Scotia.	Forty-six tenders received, the highest amounting to—Track-laying, \$1,335 per mile; switches, \$25; crossings, \$25; ballast, 50c. Sixteenth lowest, D. Fraser & Co. (Fraser, Stewart & Fraser), \$97,429, accepted. Lowest, J.D. Fraser & Co., \$45,047, declined 2nd do do 46,695, no reas'n 3rd do do 49,242 do 4th do Duncan McDonald, 52,865 do 5th do W McCullough & Co. 54,634 do 6th do R.R. McLellan & Co. 54,787 do 7th do A. McDonald & Co. 55,835 do 8th do A. McDonald, 56,312 do 9th do W McCullough & Co. 57,754 do 10th do A. McDonald & Co. 58,140 do 11th do W McCullough & Co. 59,524 do 12th do A. McDonald, 59,717 do 13th do R.R. McLellan & Co. 61,131 do 14th do do 63,106 do 15th do Longley & McLellan, 63,156 do

256	A. McKay. No. 33. February 20, 1872	6,650	8,000	1,350	Station Houses at Debert and Londonderry, Province of Nova Scotia.	This contract was first let to J. D. Fraser & Co. (See O. C. Sept. 28, 1871, No. 1,403), but they refused to sign contract on Dec. 11, 1871. The Commissioners then, looking to the importance of having the work promptly executed, recommended that the contract be awarded to D. Fraser & Co., of Picton (Fraser, Stewart & Fraser), Dec. 14, 1871. (O. C. No. 1,596, Dec. 13, 1871.)
257	A. Colborn. No. 34; verbal. 1872.	3,750	3,750	Nil.	Station Houses at Maccart, Thompsons and Wentworth, Province of Nova Scotia.	Let without competition by the Commissioners.
258	Colburn & Black. No. 35. February 20, 1872.	3,437	3,437	Nil.	Station House at River Philip, Province of Nova Scotia.	Eighteen tenders received, the highest amounting to \$9,900. Lowest, Alexander Colburn (Colburn & Black), \$3,437, accepted.
259	Colburn & Black. No. 35. February 20, 1872.	900	1,525	625	Tank House and Fuel Sheds at Port Philip, Province of Nova Scotia.	Fifteen tenders received, the highest amounting to \$3,456. Fourth lowest, Alexander Colburn (Colburn & Black), \$1,525, accepted. Lowest, Jno. W. Macdonald, \$900, declined. Second lowest, McKenzie & Chisholm, \$1,474, declined. Third lowest, Douglass & Cove, \$1,500, declined.
260	Douglass & Cove. No. 36. February 20, 1872.	3,650	3,650	Nil.	Station Building and Platform at Athol, Province of Nova Scotia.	Sixteen tenders received, the highest amounting to \$9,800. The lowest, Douglass & Cove, \$3,650, accepted.
261	Douglass & Cove. No. 36. February 20, 1872.	800	1,500	700	Tank House and Fuel Shed at Athol, Province of Nova Scotia.	Sixteen tenders received, the highest amounting to \$3,700. The fifth lowest, Douglass & Cove, \$1,500, accepted. Lowest, J. W. McDonald, \$800; no reason. Second lowest, F. A. Donkin & Co., \$1,315, declined. Third lowest, James G. Fraser, declined. Fourth lowest, McKenzie & Chisholm, declined.
		18,500,790	4,466,334	15,936,438	Carried forward .....	

Carried forward .....

PUBLIC WORKS, CANADA—Continued.

Number	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
262	<i>Brought forward</i> ... Douglass & Cove. No. 36. February 20, 1872.	\$ 18,500,790 1,397	\$ 4,466,334 .....	\$ 15,936,438 1,480	\$ 1,901,982 83	<i>Intercolonial Railway—Con.</i> Tank House and Fuel Shed at Salt Springs, Pr. vices of Nova Scotia.	Thirteen tenders received, the highest amounting to \$3,678. The third lowest, Douglass & Cove, \$1,480, accepted. Lowest, James D. Fraser, declined. Second lowest, McKenzie & Chisholm, \$1,474, declined.
263	Oscar Bradley. February 23, 1872.	24,235	24,235	.....	Nil.	Four first-class Passenger Cars for the Intercolonial Railway.	Let without competition by C. J. Brydges, under authority of O.C., Jan. 17, 1872.
264	Midland General Manufacturing Co. February 25, 1872.	55,400	55,400	.....	Nil.	One hundred Platform Cars for Intercolonial Railway.	Eight tenders received, the highest amounting to \$91,000. Lowest, Midland Manufacturing Co., \$55,400, accepted.
265	James Harris & Son. Feb. 25, 1872.	6,000	6,000	.....	Nil	Two Postal Cars for Intercolonial Railway.	One tender received, awarded to Jas. Harris & Son, \$6,000, upon recommendation of Commissioners.
266	A. Grant & Co. No. 43. March, 1872.	13,100	.....	16,500	3,400	Engine House, Rivière du Loup, Province of Quebec.	Fourteen tenders received, the highest amounting to \$26,500. The third lowest, A. Grant & Co., \$16,500, accepted. Lowest, C. Touchette & Co., \$13,100, declined. Second lowest, A. Gingras, \$13,350, declined.

267	A. Grant & Co. No. 43. March, 1872.	3,900	.....	4,900	1,000	Station House, Trois Pistoles, Province of Quebec. Twenty-four tenders received, the highest amounting to \$8,800. The sixth lowest, A. Grant & Co., \$4,900, accepted. Lowest, A. St. Laurent & Co., \$3,900; awarded other buildings. Second lowest, G. Dion & Co., \$4,000, declined. Third lowest, A. LePage & Co., \$4,400, declined. Fourth lowest, A. LePage & Co., \$4,600, declined. Fifth lowest, J. E. LePage & Co., \$4,800, declined.
268	A. LePage & Co. No. 39 March 13, 1872.	4,250	.....	4,400	150	Station House at St. Simon, Province of Quebec. Twenty-four tenders received, the highest amounting to \$8,800. The second lowest, A. LePage & Co., \$4,400, accepted. Lowest, A. St. Laurent & Co., \$4,250; awarded other buildings.
269	A. Le Page & Co. No. 39. March 13, 1872.	4,200	.....	4,250	80	Station House, St. Fabien, Province of Quebec. Twenty four tenders received, the highest amounting to \$8,800. The second lowest, A. Le Page & Co., \$4,280, accepted. Lowest, A. St. Laurent & Co., \$4,200; awarded other buildings. After full enquiry and consideration, the Commissioners recommend the tender of A. Le Page & Co. for acceptance.
270	A. Le Page & Co. No. 39. March 5, 1872.	3,600	.....	4,280	680	Station House at Bic, Province of Quebec. Twenty-six tenders received, the highest amounting to \$8,800. The third lowest, A. Le Page & Co., \$4,280, accepted. Lowest, J. P. Larin & Co., \$3,600; refused to accept and sign contract. Second lowest, A. St. Laurent & Co., \$4,000; awarded other buildings.
271	A. Le Page & Co. No. 39. March 3, 1872.	3,400	.....	3,980	580	Station House at Rimouski, Province of Quebec. Twenty-seven tenders received, the highest amounting to \$8,800. The fourth lowest accepted, \$3,980. Lowest, J. P. Larrivé & Co., \$3,400, declined. Second lowest, G. F. Parent, \$3,800; no reason. Third lowest, A. St. Laurent & Co., \$3,830; awarded other buildings.
272	Hillson & Son. No. 37. March 14, 1872. Tender accepted as contract.	3,376	3,376	.....	Nil.	Refreshment Building at Amherst, Province of Quebec. Six tenders received, the highest amounting to \$7,800. The lowest, John Hillson & Son, \$3,376, accepted.
					18,623,648	1,907,956

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PUBLIC WORKS, CANADA---Continued.

Number.	Name of Contractor, and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
273	<i>Brought forward</i> ..... Hillson & Son. No. 37. March 14, 1872.	\$ 18,623,648 1,200	\$ 4,555,345 1,200	\$ 15,976,258 .....	\$ 1,907,955 Nil.	<i>Intercolonial Railway</i> —Con. Coal Sheds at Amherst, Province of Quebec.	Let without competition by the Commis- sioners. Tender accepted as contract.
274	F. Soucey. No. 41. March 14, 1872.	4,400	.....	4,925	525	Station House at Cacouna, Pro- vince of Quebec.	Twenty-four tenders received, the highest amounting to \$11,200. Lowest, A. St. Laurent & Co., \$4,400; awarded, but he de- clined to accept. Second lowest, J. E. Le Page & Co., \$4,600; no reason. Third lowest, G. Dion & Co., \$4,750; no reason. Fourth lowest, T. Le Page & Co., \$4,800; no reason. The fifth lowest, F. Soucey, \$4,925, accepted.
275	F. Soucey. No. 41. March 14, 1872.	4,875	4,875	.....	Nil.	Station House at Arsene, Pro- vince of Quebec.	Let without competition by Commissioners.
276	F. Soucey. No. 41. March 14, 1872.	4,100	.....	4,875	775	Station House at Isle Verte, Province of Quebec.	Twenty-five tenders received, the highest amounting to \$8,800. The sixth lowest, F. Soucey, \$4,875, accepted. Lowest, A. St. Laurent & Co., \$4,100; refused to accept and sign contract. Second lowest, T. Le Page & Co., \$4,150; no reason. Third lowest, G. Dion & Co., \$4,240; no reason. Fourth lowest, J. E. Le Page & Co., \$4,500; no reason. Fifth lowest, A. Le Page & Co., \$4,600; no reason.

277	J. Rouleau & Co. March 16, 1872.	No. 40.	3,300	.....	4,250	950	Station House, St. Luce, Province of Quebec.	Twenty-five tenders received, the highest amounting to \$3,800. The sixth lowest, J. Rouleau & Co., \$4,250, accepted. Lowest, J. P. Larrivé & Co., \$3,300, declined. Second lowest, E. Cole Marchand, \$3,750, declined. Third lowest, A. St. Laurent & Co., \$4,000; no reason. Fourth lowest, A. Le Page & Co., \$4,080; declined. Fifth lowest, G. Dion & Co., \$4,200; no reason.
278	J. Rouleau & Co. March 16, 1872.	No. 40.	3,300	.....	4,280	980	Station House at Ste. Flavie, Province of Quebec.	Twenty-five tenders received, the highest amounting to \$8,800. Sixth lowest, J. Rouleau & Co., \$4,280, accepted. Lowest, J. P. Larrivé & Co., \$3,300, declined. Second lowest, C. F. Parent, \$4,000, declined. Third lowest, A. Le Page & Co., \$4,080, declined. Fourth lowest, A. St. Laurent & Co., \$4,100; no reason. Fifth lowest, G. Dion & Co., \$4,250; no reason.
279	A. Matte. 16, 1872.	No. 42. March	640	.....	1,600	960	Tank House and Fuel Shed at Ile Verte, Province of Quebec.	Twenty-five tenders received, the highest amounting to \$3,580. Third lowest, A. Matte, \$1,600, accepted. Lowest, A. St. Laurent & Co., \$640, declined. Second lowest, G. Dion & Co., \$650; no reason.
280	A. Matte. 16, 1872.	No. 42. March	600	.....	1,500	900	Tank House and Fuel Shed at Trois Pistoles, Province of Quebec.	Twenty-four tenders received, the highest amounting to \$2,750. Third lowest, A. Matte, \$1,500, accepted. Lowest, A. St. Laurent & Co., \$600; no reason. Second lowest, G. Dion & Co., \$600, declined.
281	A. Matte. 16, 1872.	No. 42. March	600	.....	1,500	900	Tank House and Fuel Shed at Bic, Province of Quebec.	Twenty-six tenders received, the highest amounting to \$2,750. Fourth lowest, A. Matte, \$1,500, accepted. Lowest, A. St. Laurent & Co., \$600; no reason. Second lowest, G. Dion & Co., \$600, declined. Third lowest, C. F. Parent, \$1,252; no reason.
282	A. Matte. 16, 1872.	No. 42. March	600	.....	1,400	800	Tank House and Fuel Shed at Rimouski, Province of Quebec.	Twenty-seven tenders received, the highest amounting to \$2,750. Fifth lowest, A. Matte, \$1,400, accepted. Lowest, A. St. Laurent & Co., \$600, declined. Second lowest, G. Dion & Co., \$900; no reason. Third lowest, L. V. Martin & Bros., \$1,212; no reason. Fourth lowest, C. F. Parent, \$1,250; no reason.
					18,647,263	4,561,420	16,000,588	1,914,745
					Carried forward .....			

PUBLIC WORKS, CANADA --Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
283	<i>Brought forward</i> ..... A. Matte. No. 42. March 16, 1872.	\$ 18,647,263	\$ 4,561,420	\$ 16,000,568	\$ 1,914,746	<i>Intercolonial Railway</i> .— <i>Con.</i> Tank House and Fuel Shed at Metapedia Road (Ste. Flavie), Province of Quebec.	Twenty-four tenders received, the highest amounting to \$2,750. Third lowest, A. Matte, \$1,500, accepted. Lowest, A. St. Laurent & Co., \$650, declined. Second lowest, G. Dion & Co., \$700; no reason.
284	McKenzie & Chisholm. No. 30. Not signed.	\$ 195	.....	280	65	Flag Station at Napan, Province of N.S.	Fourteen tenders received, the highest amounting to \$400. Seventh lowest, McKenzie & Chisholm, \$280, accepted. Lowest, H. Murray & Co., \$195, declined. Second lowest, John McQuarrie & Co., \$200; no reason. Third lowest, D. Grant & Co., \$210; no reason. Fourth lowest, Wm. F. Ross, \$210; no reason. Fifth lowest, Wm. Stewart & Co., \$220; no reason. Sixth lowest, John W. Forbes, \$230; no reason.
285	McKenzie & Chisholm. No. 30. Not signed.	\$ 195	.....	280	65	Flag Station at Minudie, Province of Nova Scotia.	Fourteen tenders received, the highest amounting to \$400. Seventh lowest, McKenzie & Chisholm, \$280, accepted. Lowest, H. Murray & Co., \$195, declined. Second lowest, John McQuarrie & Co., \$200; no reason. Third lowest, D. Grant & Co., \$200; no reason. Fourth lowest, W. F. Ross, \$215; no reason. Fifth lowest, Wm. Stewart & Co., \$220; no reason. Sixth lowest, John W. Forbes, \$230; no reason.



286	McKenzie & Chisholm, No. 30. Not signed.	200	.....	250	50	Flag Station at Salt Springs, Province of Nova Scotia.	Thirteen tenders received, the highest amounting to \$424. Sixth lowest, McKenzie & Chisholm, \$350, accepted. Lowest, H. Murray & Co, \$270, declined. Second lowest, John McQuarrie & Co., \$200; no reason. Third lowest, D. Grant & Co., \$220; no reason. Fourth lowest, Wm. F. Ross, \$220; no reason. Fifth lowest, Wm. Stewart & Co., \$220; no reason.
287	McKenzie & Chisholm, No. 30. Not signed.	200	.....	250	50	Flag Station at Greenville, Province of Nova Scotia.	Twelve tenders received, the highest amounting to \$440. The sixth lowest, McKenzie & Chisholm, \$250, accepted. Lowest, H. Murray & Co., \$200, declined. Second lowest, John McQuarrie & Co., \$220; no reason. Third lowest, D. Grant & Co., \$230; no reason. Fourth lowest, W. F. Ross, \$230; no reason. Fifth lowest, Wm. Stewart, \$230; no reason.
288	do do	1,474	1,474	.....	Nil.	Tank House and Fuel Shed at Greenville, Province of Nova Scotia.	Eleven tenders received, the highest amounting to \$3,456. The lowest, McKenzie & Chisholm, \$1,474, accepted.
289	do do	985	.....	1,600	605	Tank House and Fuel Shed at Folly Lake, Province of Nova Scotia.	Thirteen tenders received, the highest amounting to \$3,345. The second lowest, McKenzie & Chisholm, \$1,600, accepted. Lowest, Summer & Somers, \$995; no reason.
290	do do	850	.....	1,600	750	Tank House and Fuel Shed at Iron Mines, Province of Nova Scotia.	Fifteen tenders received, the highest amounting to \$3,456. The second lowest, McKenzie & Chisholm, \$1,600, accepted. Lowest, John W. McDonald, \$850; no reason.
291	do do	1,600	1,600	.....	Nil.	Tank House and Fuel Shed at Debert, Province of Nova Scotia.	Thirteen tenders received, the highest amounting to \$3,345. The lowest, McKenzie & Chisholm, \$1,600, accepted.
292	Jas. Isbester & Co. No. 44. April 1, 1872.	13,250	.....	21,989	9,739	Engine House, Ste. Flavie, Province of Quebec.	Thirteen tenders received, the highest amounting to \$26,000. The sixth lowest, James Isbester & Co., \$21,989, accepted. Lowest, A. LePage & Co., 12,250, declined. Second lowest, J. Rouleau & Co., \$13,250; the Commissioners are of opinion that LePage & Co. are interested in this tender. Third lowest, A. Gingras, \$13,900; declined. Fourth lowest, J. P. Larrivé, \$16,000; declined. Fifth lowest, C. Touchette, \$16,080; declined.
				16,028,287	1,925,919	<i>Carried forward.....</i>	

PUBLIC WORKS, CANADA---Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
293	<i>Brought forward</i> ..... John Moffatt. No. 51. April 5, 1872.	\$ 18,655,872	4,564,494	16,028,297	\$ 1,225,919	<i>Intercolonial Railway</i> --- <i>Con.</i>	Six tenders received, the highest amounting to \$6,000. Second lowest, John Moffatt, \$800, accepted. Lowest, T. Gallagher & Sons, \$720; they declined to sign and accept contract.
294	T. Gallagher & Sons. No. 80.	2,585	2,585	.....	Nil.	Freight House, Newcastle, Province of New Brunswick.	Four tenders received, the highest amounting to \$4,000. The lowest, T. Gallagher & Sons, \$2,585, accepted.
295	George Perkins & Co. No. 29. April 10, 1872; not signed.	7,887	.....	16,947	9,060	Engine House and two Fuel Sheds at Newcastle, Province of New Brunswick.	Eleven tenders received, the highest amounting to \$23,000. The third lowest, George Perkins & Co., \$16,947, accepted. Lowest, Thos. Oxley, \$7,887; no reason. Second lowest, T. Gallagher & Sons, \$15,086; no reason. The Commissioners, after full enquiry, recommend the tender of Geo. Perkins & Co.
296	George Grant & Co. No. 31. April 10, 1872.	10,300	.....	10,483	183	Refreshment Building, Truro, Province of Nova Scotia.	Fourteen tenders received, the highest amounting to \$14,389. The second lowest, George Grant & Co., \$10,483, accepted. Lowest, A. Mackay, \$10,300; no reason.
297	do do ...	1,495	.....	2,000	505	Freight Building at Truro, Province of Nova Scotia.	Eleven tenders received, the highest amounting to \$3,122. Eighth lowest, Geo. Grant

298	M. D. Harris. No. 38. April 11, 1872.	7,300	7,300	.....	Nil.	Passenger Building, Moncton, Province of New Brunswick.	Seven tenders received, the highest amounting to \$8,428. The lowest, M. D. Harris, \$7,300, accepted.
299	A. Johnston & Co. No. 32. O. C. May 14, 1872 (taken as contract).	16,400	17,905	.....	1,505	Engine House, Truro, Province of Nova Scotia.	Ten tenders received, the highest amounting to \$24,793. The third lowest, A. Johnston & Co., \$17,905, accepted. Lowest, S. S. Crowe, \$16,400, declined. Second lowest, A. Le Page, \$16,800, declined.
300	H. Mahony & Robertson. No. 3, 526. May 23, 1872.	52,000	52,245	.....	245	<i>E. and N. A. Railway.</i> Branch Line of Railway from E. and N. A. Railway at Gilbert Island, west side of Courtney Bay, to Ballast Wharf at St. John, N.B.	Five tenders received, the highest amounting to \$81,000. Second lowest accepted. Lowest, Hurd Peters, \$52,000, "has been made on behalf of the present contractors for the works at Point du Chêne, and is unacceptable as it does not offer the requisite guarantees that the proposed extension will not be delayed." (See O. C. No. 3, 516, April 29, 1872.)
301	Geo. Perkins & Co. No. 58. June, 1872.	25,123	.....	.....	Nil.	<i>Intercolonial Railway.</i> Branch Line, Miramichi, Province of New Brunswick.	Let without competition by A. L. Light, under authority of Chief Engineer.
302	Geo. Perkins & Co. No. — June, 1872.	13,442	.....	.....	Nil.	Grading for Engine House and Station Yard, Newcastle, Province of New Brunswick.	do do do
303	James Domville. No. — June 12, 1872.	23,500	.....	.....	Nil.	Two hundred and fifty tons of Spikes.	Two tenders received, the highest amounting to \$24,750. The lowest, James Domville, \$23,500, accepted.
304	Fairbairn Engineering Co. No. 48. June 17, 1872.	21,063	.....	.....	Nil.	Iron Roof for Engine Houses, Truro, Newcastle, St. Flavie, Campbellton and Rivière du Loup.	Contract let without competition by Sandford Fleming, under the authority of the Commissioners.
		18,847,687	16,128,777	.....	1,938,597		
		4,657,567					

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor, and Number of Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
305	<i>Brought forward</i> .... Danforth Locomotive Works, No. 3,568. June 17, 1872.	\$ 18,847,687 14,500 (U.S. C'y.)	\$ 4,657,507 ..... (U.S. C'y.)	\$ 16,128,777 15,750 (U.S. C'y.)	\$ 1,938,597 1,250	<i>Nova Scotia Railway.</i>  Ten-wheel soft-coal burning Lo- comotive Engine and Tender.	The three following tenders for two engines were obtained by the President of the Aca- dian Coal Co., with the approval of the Minister of Public Works, from leading manufacturers of railway engines, viz.: Rogers' Locomotive Works, \$16,000 each engine; Danforth Locomotive Works, \$15,750 per engine; and the Grant Loco- motive Works, \$14,500 each engine, all in U.S. Currency.
306	Grant Locomotive Works, No. 3,568. July 17, 1872.	\$ 14,500 (U.S. C'y.)	\$ 14,500 (U.S. C'y.)	.....	Nil.	A Locomotive Engine and Ten- der.	The lowest, Grant Locomotive Works, was accepted for one engine, to be delivered in October, for \$14,500; and as that firm could deliver the other engine only in Novem- ber, and considering the emergency of the case, the second lowest from the Danforth Locomotive Works was accepted for the second engine, to be delivered in August, for \$15,750.
307	James Worthington. No. 27. July, 1872.	\$ 67,234	.....	97,429	30,195	<i>Intercolonial Railway.</i>  Track-laying and Ballasting be- tween Trois Pistoles and Ste. Flavie, Province of Quebec.	Forty tenders received, the highest amount- ing to \$174,998. The thirteenth lowest, Jas. Worthington, \$97,429, accepted. Low- est, J. P. Larrivee & Co., \$67,234. Second lowest, Magloire Danjou, \$75,707. Third lowest, A. Grant & Co., \$78,789. Fourth

lowest, A. D. Rouleau & Co., \$80,257.  
 Fifth lowest, A. Le Page & Co., \$82,089.  
 Sixth lowest, McLaughlin & Roy, \$86,032.  
 Seventh lowest, M. Duchéne & Co., \$85,837.  
 Eighth lowest, Chas. Kirby & Co., \$87,509.  
 Ninth lowest, M. H. Vallée & Co., \$88,864.  
 Tenth lowest, D. McKircey & Co., \$92,173.  
 Eleventh lowest, Benj. Walker, \$93,566.  
 Twelfth lowest, F. C. Rouleau, \$95,092.  
 The Commissioners, after obtaining the minimum estimate of the Chief Engineer for work and a full consideration of all the tenders received, recommends the acceptance of that of James Worthington, of Trois Pistoles, at the following prices: track laying, \$250 per mile; switches, \$15; plank in crossings, \$12 B.M.; ballast, 19 c. per cub. yard, being the lowest satisfactory tender.

Twenty-seven tenders received, the highest amounting to \$4,000. Seventh lowest, F. B. Leger, \$2,700, accepted. Lowest, Arch. McRoy, \$2,000; no reason. Second lowest, J. O'Brien, \$2,400; no reason. Third lowest, J. C. Gough, \$2,500; no reason. Fourth lowest, H. A. Johnston, \$2,600; no reason. Fifth lowest, Amos Fountain, \$2,600; no reason. Sixth lowest, Steeves, Holdstead & Co., \$2,675; no reason. The Commissioners recommend that the tender of F. B. Leger be accepted.

Thirty-seven tenders received, the highest amounting to \$37,200. The fifth lowest, Michael Savoy, \$12,586, accepted. Lowest, Jas. Fitzsimmons, \$10,850, no reason. Second lowest, Arch. McKay, \$11,780; no reason. Third lowest, Jas. Blair, \$12,369; no reason. Fourth lowest, Jos. Blair, \$12,400; no reason. The Commissioners recommend that the tender of Michael Savoy, \$12,586, be accepted.

<p>308 F. B. Leger, No. ....                  Sept. 18, 1872.</p>	<p>2,000</p>	<p>.....</p>	<p>2,700</p>	<p>700 Ten thousand Sleepers. Section No. 20. Province of New Brunswick.</p>	<p>.....</p>
<p>309 Michael Savoy. Sept. 18, 1872.</p>	<p>10,850</p>	<p>.....</p>	<p>12,586</p>	<p>1,736 Sixty-two thousand Sleepers in Section No. 21. Province of New Brunswick.</p>	<p>.....</p>
				<p>1,972,478</p>	<p>d..... 18,956,771</p>
				<p>4,672,007</p>	<p>10,257,242</p>

PUBLIC WORKS, CANADA-----Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
310	<i>Brought forward</i> ..... John Weir. Sept. 18, 1872	\$ 18,956,171 10,625	\$ 4,672,007 .....	\$ 16,257,242 14,375	\$ 1,972,478 3,750	<i>Intercolonial Railway—Con.</i>  Sixty-two thousand five hundred Sleepers on Section No. 22, Province of New Brunswick.	Forty-one tenders received, the highest amounting to \$22,500. The eighth lowest, John Weir, \$14,355, accepted.  Lowest, Arch. McKay, \$10,625; no reason. 2nd do Jos. Fitzsimmons, 11,250 do 3rd do Jas. Blair, 12,331 do 4th do Jos. Blair, 12,468 do 5th do Hugh McIntosh, 14,125 do 6th do Robt. Orr, 14,225 do 7th do Chas. Cummings, 14,225 do The Commissioners recommend the acceptance of John Weir's tender.
311	D. C. King. Sept. 18, 1872	9,200	.....	13,225	4,025	Fifty-seven thousand five hundred Sleepers on Section No. 23, Province of New Brunswick.	Thirty-two tenders received, the highest amounting to \$23,000. The fifth lowest, D. C. King, \$13,225, accepted.  Lowest, Arch. McKay, \$9,200. 2nd do Jos. Blair, 11,471. 3rd do Jos. Blair, 11,632. 4th do Amos Fountain, 12,650. The Commissioners recommend the acceptance of D. C. King's tender.
312	J. Harris & Co. No. 3,569. Oct. 3, 1872.	33,000	33,000	.....	Nil.	<i>E. &amp; N. A. Railway.</i>  Fifty Platform Freight Cars .....	Only one tender received. Lowest accepted.

313	Geo. Grant. No. 57. Oct. 1872.	1,600	1,600	.....	Nil.	<p><i>Intercolonial Railway.</i> Coal Shed, Truro, Province of Nova Scotia.</p>	Let without competition by C. Schriber, under authority of Commissioners.
314	D. Hawkins. No. 3,847. Nov. 19, 1872.	3,600	3,600	.....	Nil.	<p><i>Branch Line of Railway.</i> From line of Intercolonial Railway at Dorchester Station to Dorchester Island, N.B.</p>	Eight tenders received, the highest amounting to \$6,450. Lowest accepted.
315	J. Lowerison and R. S. Manus. No. 4,024. Dec. 4, 1872.	7,061	7,061	.....	Nil.	<p>Wharf, &amp;c., near Dorchester Island, N.B., Intercolonial Railway. Engineer's Estimate: (No. 4,276. Sept. 23, 1872.) \$5,944.81.</p>	Five tenders received, the highest amounting to \$17,650. Lowest accepted.
316	W. D. O'Brien. No. 3,868. Dec. 4, 1872.	66,000	78,000	.....	12,000	<p><i>Nova Scotia Railway.</i> Construct a Deep-water Wharf at Richmond Station, N.S.</p>	<p>Ten tenders received—these tenders were made for a bulk sum; but were accompanied by a schedule of prices, as well as a schedule of quantities. Before awarding the contract the Chief Engineer of the Intercolonial Railway suggested that the deep-water wharf should be built in a somewhat different position from that originally contemplated. This suggestion having been communicated to the Resident Engineer, Mr. MacVab, he altered the original plan, and reported that the adoption of the new site would alter the character of the tenders, and would necessitate the construction of the wharf at such schedule of prices submitted by the contractors, as he, the Minister, might deem it expedient to accept. Applying these prices to the estimated quantities required for the work such estimates being made by the Local Engineer, the position of the various tenders stands as follows: Robt. Listler and J. Hamilton, \$64,882; 2nd. W. D. O'Brien, \$75,830; 3rd. D. Sutherland &amp; Co. and S. B. Cochrane, \$78,054, &amp;c. Second lowest accepted, \$75,830, plus a sum of \$2,169 added as compensation for the extra cost involved by the altered site which increased the first amount to \$78,000. Lowest, Robt. Listler &amp; J. Hamilton, \$64,882, is informal, as no names of responsible sureties are attached. (See O. C., 4,398, October, 26, 1872.)</p>
					16,362,842	1,992,253	
					4,717,568		
					19,088,157		
							<i>Carried forward.....</i>

PUBLIC WORKS, CANADA—Continued

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract..	Explanations.
317	<i>Brought forward</i> ..... Wm. Montgomery. No. 4,023. Dec. 16, 1872.	\$ 19,088,957	\$ 4,717,568	\$ 16,362,842	\$ 1,992,253	<i>Nova Scotia Railway</i> —Con.  Wooden Roof and repairs for Round Engine House at Richmond Station, Nova Scotia.	Five tenders received, the highest amounting to \$17,650. Lowest accepted.
318	John E. O'Brien. Dec. 16, 1872.	\$ 9,262	.....	11,875	2,613	<i>Intercolonial Railway.</i>  Forty-seven thousand five hundred Sleepers for Section No. 16.	Ten tenders received, the highest amounting to \$21,375 Third lowest, John E. O'Brien, 11,875, accepted. Lowest, John Meahan, \$9,262; no reason. Second lowest, F. Meahan, \$10,925; no reason. The Commissioners recommend that the tender of John E. O'Brien be accepted. (Report to Council, Nov. 29, 1872.)
319	F. L. McDonald. Dec. 16, 1872.	\$ 9,897	.....	12,305	2,408	Fifty-three thousand five hundred Sleepers for Section No. 13, Province of Quebec.	Thirty-nine tenders received, the highest amounting to \$19,343. Ninth lowest, F. L. McDonald, \$12,306, accepted. Lowest, N. Richard, \$ 9,897; no reason. 2nd do A. R. McDonald, 10,165 do 3rd do David Gagné, 10,700 do 4th do A. McDonald, 10,700 do 5th do R. Turriff, 11,502 do 6th do L. Martin, 11,770 do 7th do A. M. McDonald, 11,770 do 8th do W. J. Ward, 11,770 do



320	P. L. Gauvreau. Dec. 16, 1872.	12,375	12,375	.....	Nil.	Fifty-six thousand two hundred and fifty Sleepers for Section No. 14, Province of Quebec.	Thirty tenders received, the highest amounting to \$24,750. Lowest, P. L. Gauvreau, \$12,375, accepted.	
321	F. L. McDonald. Dec. 16, 1872.	25,000	.....	33,750	8,750	One hundred and twenty-five thousand Sleepers for Sections Nos. 17, 18 and 19, Province of Quebec.	Twenty-five tenders received, the highest amounting to \$55,000. Second lowest, F. L. McDonald, \$33,750, accepted. Lowest, A. M. McDonald, \$25,000; no reason. The Commissioners recommend that the tender of F. L. McDonald be accepted.	
322	W. F. Costigan. Dec. 16, 1872.	16,000	16,000	.....	Nil.	Fifty thousand Sleepers for Section No. 10, Province of New Brunswick.	Ten tenders received, the highest amounting to \$25,000. Lowest, W. F. Costigan, \$16,000, accepted.	
323	Schrieber & Burpee. Dec. 31, 1872.	656,955	.....	771,680	114,725	<i>Prince Edward Island Railway.</i> Branch Lines—say Eastern, 39 miles; Western, 13 miles.	Thirteen tenders received, the highest for whole amounting to \$1,021,332. Second lowest accepted. Lowest, Finlay McNeil, \$656,955; he was not considered possessed of sufficient skill and resources. Work let by Provincial Government.	
324	Schrieber & Burpee. June, 1873.	25,000	25,000	.....	Nil.	Agreement to raise Embankment at the Morel River, and erect a Swing Bridge.	No tenders. Arrangement made with the Contractors for the construction of the line of railway.	
325	John Brown. No. 4, 1873. July 17, 1873.	358,510	358,510	.....	Nil.	<i>Welland Canal.</i> Enlargement, Section No. 15, and alteration of Welland Railway. Length 2,040 feet; two Locks and two Weirs. Earth and Rock Excavation. Engineer's estimate No. 35,407, \$465,395.	Fifty-two tenders received, the highest amounting to \$1,577,727. Schedule No. 34,433, Feb, 1873. Lowest tender accepted, although very low. O. C. 32,050, June 24, 1873.	
					20,216,716	5,145,013	17,192,502	2,120,749
								<i>Carried forward.....</i>

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
325	<i>Brought forward.</i> ..... John Brown. No. 4,160. July 17, 1873.	\$ 20,216,716 97,930	\$ 5,145,013 .....	\$ 17,192,452 120,480	\$ 2,120,749 22,550	<i>Weiland Canal—Con.</i>  Enlargement, Section No. 31, between Junction and Kanney's Bend. Length, one mile. Earth Excavation and Dredging. Engineer's estimate, No. 35,407. March 22, 1873, and April 3, 1873, \$127,680.	Twenty-six tenders received, the highest amounting to \$229,200. Schedule 38,433, Feb., 1873. Fifth lowest accepted, although very low. O.C. 32,046, June 24, 1873. Lowest, H. J. Sutton, \$97,920, much below the actual value of the work. Second lowest, H. C. Symmes & Co., \$104,760, also too low. Third lowest, John Ferguson & Co., \$110,880; have already been awarded a contract for Section No. 30. Fourth lowest, R. Mitchell & Co., \$112,980; have already been awarded a contract for Section No. 29.
327	John Brown. No. 4,160. July 17, 1873.	100,870	.....	111,185	10,315	Enlargement, Section No. 32, between Junction and Ranney's Bend. Length, 4,050 feet. Earth and Rock Excavation and Dredging. Engineer's Estimate, No. 35,407, March 22, 1873, and April 3, 1873, \$120,380.	Twenty-seven tenders received, the highest amounting to \$230,100. Schedule 38,433, Feb., 1873. Fifth lowest accepted, although very low. O.C. 32,053, June 24, 1873. Lowest, H. J. Sutton & Co., \$100,870, much below the actual value of the work. Second lowest, H. C. Symmes & Co., \$105,220, also too low. Third lowest, R. Mitchell & Co., \$105,735; have already been awarded a contract for Section No. 29. Fourth lowest, J. Ferguson & Co., \$108,000; have already been awarded a contract for Section No. 30.

328	R. Mitchell & Co. No. 4,163. July 17, 1873. Transferred to John Ferguson & Co. on December 4, 1873.	107,380	.....	124,380	13,000	Enlargement, Section No. 29, between Junction and Ranney's Bend. Length, one mile Earth Excavation and Dredging. Engineer's Estimate, No. 35,407, \$138,645.	Twenty-six tenders received, the highest amounting to \$252,850. Schedule 35,433, Feb., 1873. Third lowest accepted, although very low. O. C. 32,019, June 24, 1873. Lowest, H. J. Sutton & Co., \$107,380, much below the actual value of the work. Second lowest, H. C. Symmes & Co., \$117,000, also too low.
329	John Ferguson & Co. No. 4,164. July 17, 1873.	110,500	.....	128,750	18,250	Enlargement, Section No. 30, between Junction and Ranney's Bend. Length, one mile. Excavation and Dredging. Engineer's Estimate, No. 35,407, March 22 and April 3, 1873, \$142,625.	Twenty-six tenders received, the highest amounting to \$250,250. Schedule 38,433, Feb., 1873. Fourth lowest accepted, although very low. O. C. 32,052, June 24, 1873. Lowest, H. J. Sutton & Co., \$110,500, much below the actual value of the work. Second lowest, H. C. Symmes & Co., \$119,450, also too low. Third lowest, R. Mitchell & Co., \$125,700; have already been awarded a contract for Section No. 29.
330	John Ginty & Co. No. 4,165. July 18, 1873.	261,680	.....	311,970	50,290	Enlargement, Section No. 10, between Thorold and Port Dalhousie. Length, 2,215 feet Two Locks, two Weirs, one Swing Bridge and Earth Excavation. Engineer's Estimate, No. 35,407, March 22 and April 3, 1873, \$319,180.	Forty-two tenders received, the highest amounting to \$1,395,745. Schedule 38,433, Feb., 1873. Tenth lowest accepted, price and guarantee being sufficient. O. C. 32,059, June 24, 1873. Lowest, Peter McGraw, \$261,680; considered too low, and that party does not possess the necessary means. Second lowest, P. H. McAdam, \$272,615, considered too low. Third lowest, R. P. Cooke & Co., \$283,580; not accepted, the firm having already the Carleton Dam and Canal. Fourth lowest, Lemmy & Buchanan, \$291,450; considered too low. Fifth lowest, R. E. Cross, \$290,830; tenderer does not offer necessary guarantee for due performance of contract. Sixth lowest, Cairns, Morse & Co., \$303,089; already hold Sections 8 and 9, hence should not receive this section. Seventh lowest, W. E. McDonald, \$305,075; having already a section on Intercolonial Railway, is not therefore considered as available for this work. Eighth lowest, J. A. Gordon, \$307,555; tenderer does not offer sufficient guarantee for successful performance of contract. Ninth lowest, Wm. Kingsford, \$310,719; tenderer does not offer sufficient guarantee for successful performance of contract.
		20,895,070	5,145,013	17,980,217	2,230,154	<i>Carried forward.....</i>	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
331	<p><i>Brought forward.....</i></p> <p>John Elliott &amp; Co. No. 4,166. July 18, 1873. By an agreement, dated March 15, 1874, the name of the contractor was changed to that of "John Brown."</p>	<p>\$ 20,895,070</p> <p>244,850</p>	<p>\$ 5,145,013</p> <p>.....</p>	<p>\$ 17,980,217</p> <p>276,664</p>	<p>\$ 2,230,154</p> <p>31,814</p>	<p><i>Welland Canal—Con.</i></p>	<p>Enlargement Section No. 16, between Thorold and Allandburgh. Length, 3,500 feet. Earth and Rock Excavation. 1 Siphon Culvert under canal. Engineer's Estimate, No. 35, 407, 22nd March and 3rd April, 1873, \$271,785.</p> <p>Twenty-five tenders received; the highest amounting to \$708,597. Schedule 38,433, Feb., 1873. Eleventh lowest tender accepted. O. C. 32,050, June 24, 1873. Lowest, Paul Ross, \$244,850, not accepted, party holding already Section No. 11. Second lowest, Chillon, Jones &amp; Co., \$249,595; considered too low and unacceptable, owing to parties' connection with Carillon work. Third lowest, A. &amp; R. McDonald, \$253,485; do not offer sufficient guarantee, at prices tendered for, to perform contract. Fourth lowest, H. J. Sutton &amp; Co., \$253,705; do not offer sufficient guarantee, at prices tendered for, to perform contract. Fifth lowest, Cairns, Morse &amp; Co., \$254,035; unavailable for this Section, as firm already hold Sections 8 and 9. Sixth lowest, Peter McGraw, \$258,315; considered too low, and that party does not possess necessary means. Seventh lowest, George Harvey, \$266,027; unacceptable owing to party's connection with another contract at Godenich. Eighth lowest, Richard E. Cross, \$267,753; tenderer does not offer sufficient guarantees for due performance of contract. Ninth lowest, Wm. Kingsford, \$270,350; tenderer does not offer sufficient guarantees for due</p>

332	Paul Ross. No. 4, 162. July 16, 1873.	301,310	311,620	10,310	<p>Enlargement Section No. 11, new line between Thorold and Port Dalhousie. Length, 2,125 feet. 2 Locks, 2 Weirs, 1 Road Culvert under canal. Engineer's Estimate, No. 35,407, 22nd March and 3rd April, 1873, \$369,936.</p>	<p>performance of contract. Tenth lowest, H. C. Symmes &amp; Co., \$274,080; tenderers do not offer sufficient guarantees for due performance of contract.                  Forty-four tenders received, the highest amounting to \$1,426,105. Schedule 38,433, Feb., 1873. Third lowest tender accepted, guarantee being sufficient. O. C. 32,050, June 24, 1873. Lowest, Peter McGraw, \$301,310; considered too low, and party does not possess necessary means. Second lowest, Chillon, Jones &amp; Co., \$307,470; considered too low, and unacceptable on account of parties' connection with Carillon Canal and Dam.</p>
333	Cairns, Morse & Co. No. 4, 161. July 21, 1873.	184,095	198,930	14,855	<p>Enlargement Section No. 8, new line between Port Dalhousie and Thorold. Length, 4,375 feet. 1 Lock, 1 Culvert under canal, and Earth Excavation. Engineer's Estimate, No. 35,407, March 22 and April 3, 1873, \$217,915.</p>	<p>Forty-four tenders rec'd, the highest amounting to \$901,575. Schedule 38,433, Feb. 1873. Third lowest tender accepted, parties having necessary means, and being desirable contractors. O. C. 32,050, June 24, 1873. Lowest, Chillon, Jones &amp; Co., \$184,095; considered too low, and unacceptable on account of parties' connection with Carillon Canal and Dam. Second lowest, Peter McGraw, \$189,030; considered too low, and that party does not possess the necessary means.</p>
334	Cairns, Morse & Co. No. 4, 161 July 21, 1873.	278,755	307,020	28,265	<p>Enlargement Section No. 9, new line between Port Dalhousie and Thorold. Length, 1,960 feet. 2 Locks, 2 Weirs and Earth Excavations. Engineer's Estimate, No. 35,407. March 22 and April 3, 1873. \$330,805.</p>	<p>Forty-three tenders received, the highest amounting to \$1,407,980. Schedule 38,433, February, 1873. Seventh lowest tender accepted, although low, as this firm having Section No. 8 can save a great deal in plant and management. O. C. 32,050, June 21, 1873. Lowest, Chillon, Jones &amp; Co., \$278,755; considered too low and unacceptable on account of parties' connection with Carillon Works. Second lowest, Peter McGraw, \$281,680; considered too low, and that party does not possess the necessary means. Third lowest, P. H. McAdam, \$284,473, too low. Fourth lowest, R. P. Cooke &amp; Co., \$294,680; not accepted because this firm has already the Carillon Works. Fifth lowest, W. E. McDonald, \$297,560; this contractor having already a section on Intercolonial Railway, is not considered as available for this work. Sixth lowest, Lemay &amp; Buchanan, \$299,595; this tender is considered too low, and therefore not acceptable.</p>
<i>Carried forward</i> .....		21,904,086	19,074,451	2,315,978		

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price Given.	Nature of Contract.	Explanations.
335	<i>Brought forward</i> ..... John Brown. No. 4,204. Sept. 24, 1873.	\$ 21,904,086 325,800	\$ 5,145,013 .....	\$ 19,074,451 413,500	\$ 2,315,378 87,700	<i>Welland Canal.—Con.</i>  Enlargement Sections Nos. 21 and 22. Deep Cut, west side, Between Allanburgh and Port Robinson. Length, 10,900 ft., Earth Excavation and Dredging. Engineer's Estimate, No. 35,407. March 23 and April 3, 1873. \$477,350.	Twenty-eight tenders received, the highest amounting to \$638,000. Schedule 38,433, Feb., 1873. Fourth lowest tender accepted, on account of large means and experience of contractor. O.C. 33,502, Aug. 4, 1873. Lowest, H. J. Sutton & Co., \$325,800; much below the actual value of the work. Second lowest, John Elliot & Co., \$400,600; accepted at first, but withdrawn on his application to be relieved. No. 32,973, July 30, 1873. Third lowest, John Ferguson & Co., \$410,657; his present contract on Section No. 30 considered as sufficient.
336	Bonneville & O'Brien. No. 4,199. Aug. 28, 1873.	19,588	.....	23,870	4,282	<i>Lachine Canal.</i>  Construction of two Flour Sheds in front of New St. Gabriel Basins Nos. 1 and 2.	Thirteen tenders received, the highest amounting to \$42,350. Schedule 33,740, Aug. 26, 1873. Second lowest tender accepted. O.C., 33,495, Aug. 13, 1873. Lowest, Bowie & Bros., \$19,588, declined to undertake the works. See No. 33,306, Aug. 8, 1873.
337	Lemay & Bowie. No. 4201. Oct. 4, 1873.	381,707	.....	462,284	80,577	Construction of Wellington Basin, 1,250 feet long, 325 feet wide and 19 feet deep, and enlargement of Basin No. 2. Section No. 2.	Eighteen tenders received, the highest amounting to \$1,577,512. Schedule 35,654, July 24, 1873. Third lowest tender accepted. O.C., 33,578, Aug. 13, 1873. Lowest, J. Courtney & Co., \$381,707; far below the actual value of the work. Second lowest,

338	A. P. McDonald & Co. No. 4,203. Sept. 29, 1873.	498,685	.....	626,728	128,043	<p>Montreal Terminus, Section No. 1. Locks Nos. 1 and 2 with Basin between and Abutments for Bridge. Locks to be 270 feet long, 45 feet wide at bottom; depth of water on sills to be 18 feet.</p>	<p>est. A. P. McDonald &amp; Co., \$418,992; far below the actual value of the work. Contract was afterwards transferred, on 29th March, 1873, from Messrs. Lemay &amp; Bowie to Jas. Worthington &amp; Co., for same price as former contract. See contracts awarded on Lachine Canal in 1875.</p>
339	Mich. Hennessey. No. 4,230. Oct. 22. 1873.	5,856	.....	8,845	2,989	<p>Extension of St. Patrick Street to Cote St. Paul Mills; length, 6,100 feet.</p>	<p>Eighteen tenders received, the highest amounting to \$20,679. Schedule 33,940, Aug. 30, 1873. Twelfth lowest tender accepted. O. C., 34,789, Sept. 23, 1873. Lowest, John Wood or A. Part, \$5,856. 2nd do F. H. McKenna &amp; Wright, 5,947. 3rd do J. B. Spence, 7,320. 4th do P. Coleman, 7,564. 5th do H. Bowie &amp; Co., 7,625. 6th do J. Parker, 7,747. 7th do Peter Murray, 7,869. 8th do J. M. D. Campbell, 8,052. 9th do J. B. Proudson &amp; Co., 8,082. 10th do W. Hefferman, 8,296. 11th do J. Murray, 8,367. Rejected, Engineer having reported that work could not be properly done for less than \$1.50 per foot, which would bring the total cost up to \$9,150. See No. 33,940, Aug. 30, 1873.</p>
340	John McIntosh. No. 4,134. July 7, 1873.	11,015	11,015	.....	NIL.	<p>Blacksmith's work required on Lachine Canal for two years.</p>	<p>Three tenders received, based on schedule of rates. Schedule 30,622, May, 1873. Lowest accepted.</p>
<i>Carried forward</i> .....		23,146,737	5,156,028	20,609,678	2,618,969		

PUBLIC WORKS, CANADA -----Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
341	Brought forward ..... Albert Becker. No. 4,195. Aug. 24, 1873.	\$ 23,146,737	\$ 5,156,028	\$ 20,609,678	\$ 2,618,989	Ottawa River Canals—St. Anne's Lock.	Fourteen tenders received, the highest amounting to \$224,557. Schedule 33,726, Aug. 25, 1873. Lowest tender accepted. O. C., 33,501, Aug. 4, 1873.
342	Jas. Goodwin. No. 4,100. Feb. 19, 1873.	107,750	107,750	Nil.	Nil.	Grenville Canal.	Additional work in connection with existing contract. J. Page, Chief Engineer, in No. 28,249, Feb. 1, 1873, states that he has had several interviews with Mr Goodwin, as directed by letters, Nos. 17,624 and 17,954, that to alter location of locks Nos. 9 and



10 will not improve line of canal, but will be advantageous in other respects; and that the work, at the rates asked by the contractor, will cost \$107,750. O. C., No. 28,534, Feb. 12, 1873, approves report No. 28,249, and authorizes Department to enter into an agreement with Mr. Goodwin.

Twenty-eight tenders received, the highest amounting to \$1,359,122. Schedule 28,840, Feb. 28, 1873. Fourth lowest tender accepted. O. C., 23,082, March 10, 1873. Lowest, Chillon, Jones & Co., \$523,689; first accepted and afterwards withdrawn by No. 28,987, March 8, 1873. 2nd lowest, E. Charlton & Co., \$529,734; withdrawn by No. 28,988, March 7, 1873. 3rd lowest, Thos. McCready, \$537,994; withdrawn by No. 28,989, March, 5, 1873.

Contract awarded on recommendation of Chief Engineer, at whose request A. Fleck submitted a tender which was approved. See No. 28,428, Nov. 4, 1872, and No. 17,101, Nov. 11, 1872. Amount of contract \$13,367.

Nineteen tenders received, the highest amounting to \$422,000. Schedule 33,918, July 30, 1873. Fourth lowest accepted—O.C. 33,630, Aug. 4, 1873. Lowest, J Stewart & Co., \$122,608; considered by Engineer to be much below value of work. Second lowest, E. Charlton & Co., \$128,116; considered by Engineer to be much below value of work. Third lowest, G. Harvey, \$143,725; not accepted, considering the small difference between this tender and that of Wm. Davis & Sons, as well as the sureties offered.

*Carleton Canal.*

Canal Dam and Raft Slide of 110 ft., and Flat Dam, 1,800 ft. in length across the river Ottawa,  $\frac{3}{4}$  of a mile above Carleton Village; a Raft Slide 600 ft. long, 120 ft. wide, on the south side of the river, and a Canal  $\frac{3}{4}$  of a mile long, with 2 Locks of 200 X 45 ft each, with 9 ft. of water on the sills along the north shore of the Ottawa; excavation more than  $\frac{3}{4}$  in earth and boulders; remainder rock. Engineer's Estimate, No. 26,755, Nov. 15, 1872, \$767,300.

*Grenville Canal.*

Entire Iron-work and Machinery for four pairs of Gates for Locks Nos. 9 and 10; Gates built by day's labor under the Department.

*Culbute Canal.*

Construction of a Dam, 520 feet long; two Combined Locks, each 200 feet in length and 45 feet in width, with six feet of water on the sills; also, of Mooring Piers at each entrance to Locks. Structures to be of timber, ballasted with stone, and to be located in the North Channel of the Ottawa River at the Allumette Island.

343	R. P. Cooke & Co. No. 4,108. March 21, 1873.	523,689	.....	570,272	46,683
344	Alexander Fleck. No. 4,088. Jan. 30, 1873.	13,367	.....	.....	Nil.
345	Wm. Davis & Sons. No. 4,194. Aug. 14, 1873.	122,608	.....	145,646	23,038
<i>Carried forward.....</i>		14,017,183	5,380,177	21,325,696	2,689,690

PUBLIC WORKS, CANADA ---Continued.

Number.	Name of Contractor and Date of Contract.	Amount of Lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
346	<i>Brought forward</i> ..... Row & Koyl (with Corporation, Town of Perth). No. 4,295. Nov. 26, 1873.	\$ 24,017,183 12,000	\$ 5,380,177 12,000	\$ 21,325,596 .....	2,688,590 Nil.	<i>Rideau Canal.</i> Construct a Bridge and Swing Bridge, Oliver's Ferry, Rideau Canal.	Tenders called and contract awarded by Authorities of the Town of Perth. See 36,021, Oct. 30, 1873. \$6,700 paid to Treasurer of Town Council, being the portion of Government aid of \$10,000 voted by Parliament, payable on cost of bridge. See 26,806, Sept. 8, 1874.
347	James Wright. No. 4,132. June 16, 1873.	3,620	.....	3,850	220	<i>Chambly Canal.</i> 2,200 Panels of Guard Railing on West bank of Canal, from St. Therèse Bridge to St. John.	Eleven tenders received, the highest amounting to \$6,490. Schedule 30,212, April 24, 1873. Second lowest accepted, \$1.75 per panel of 12 feet. O. C. 31,306, May 31, 1873. Lowest, John Blackie, \$1.65 per panel of 12 feet, or \$3,630; rejected, there being no prospect of the work being carried out by this party, who left the Province without signing the contract which was first awarded to him. See No. 31,185, May 27, 1873, from J. G. Sippell.
348	James Sheridan. No. 4,246. Oct. 23, 1873.	2,415	2,415	.....	Nil.	Construct a Dwelling-house for Lock Master at Lock No. 8, and another for Bridge Keeper at Ste. Therèse Road. Engineer's Estimates (No. 34,305, Sept. 10, 1873) \$900 each.	Four tenders received, the highest amounting to \$2,980. Schedule 35,731, Oct. 25, 1873. Lowest accepted. See Schedule No. 35,731, Oct. 25, 1873.

349	Léandre Robert. No. 4,251. Nov. 3, 1873.	5,000	5,000	.....	Nil.	Raise and Macadamise 5,000 feet of Road, for a width of 16 feet, on West side of Canal from Treyer's Bridge No. 2, southward, to the Island of Ste. Thérèse.	Only one tender submitted by L. Robert, which was recommended to be accepted by J. G. Sippell, Esq., Superintendent Engineer, in No. 35,499, Oct. 20, 1873. See No. 21,915, authorizing expenditure, and No. 22,548, respecting contract.
350	James C. Johnston. No. 4,256. Nov. 5, 1873.	1,832	1,832	.....	Nil.	Build House, Wood Shed and Well for Bridge Keeper at Cornwall.	Three tenders received, the highest amounting to \$2,275. Schedule 35,709, Oct. 22, 1873. Lowest accepted.
351	Ives & Allen. No. 4,170. July 29, 1873.	5,995	6,990	.....	995	<i>Public Buildings Ottawa.</i> Iron Railing on enclosed wall on Wellington Street, Ottawa.	Five tenders received, the highest amounting to \$9,750. Schedule included in O.C. 32,695, July 8, 1873. Second lowest accepted. O.C. 32,695, July 8, 1873. Lowest, D. W. Somerville, \$5,995, withdrawn by No. 31,877, June 24, 1873.
352	Geo. Thompson. No. 4,193. Aug. 22, 1873.	2,400	2,400	.....	Nil.	Supply 250 tons of Nova Scotia Bituminous Coal, known as Black Diamond.	Four tenders received, the highest amounting to \$3,600. Schedule 33,030, Aug. 4, 1873. Lowest accepted.
353	Barnabas Gibson. No. 4,207. Sept. 10, 1873.	9,950	9,950	.....	Nil.	Excavation, Grading and Leveling public grounds, exclusive of bridge across Rideau Canal	Seven tenders received, the highest amounting to \$16,510. Schedule 36,912, Oct. 30, 1873. Lowest accepted.
354	E. G. Laverdure. No. 4,200. Sept. 16, 1873.	11,960	11,960	.....	Nil.	Covering Roof of Library of Parliament.	Two tenders received, the highest amounting to \$12,831. Schedule 33,354, August 13, 1873. Lowest accepted.
355	E. G. Laverdure. No. 4,214, part of No. 4,190. Sept. 18th 1873.	2,000	2,000	.....	Nil.	Covering portion of Roof, East Block, Departmental Buildings.	Contract for part of work included in Contract No. 4,190, which was sub-divided into Nos. 4,200 and 4,214. Offer of E. G. Laverdure whose tender for whole work was lowest accepted on recommendation of Chief Architect in No. 34,375, Sept. 11, 1873.
		24,074,365	5,427,734	21,356,436	2,689,805	<i>forward.....</i>	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
356	<i>Brought forward</i> ..... Wm. McKay, No. 4,213, Sept. 22, 1873.	\$ 24,074,365 1,352	\$ 5,427,734 1,352	\$ 21,336,436 .....	\$ 2,689,805 NIL.	<i>Public Buildings, Ottawa.</i> —Con- Glazing Windows of Library.. ...	Three tenders received, the highest amounting to \$1,412. Lowest accepted, as recommended by Mr. Scott. See back of Tender No. 34,259, Sept. 4, 1873.
357	James Matthews, Stewart & Stockhand, No. 4,224, Oct. 25, 1873.	25,790	25,790	.....	NIL.	Build Workshops and additions, &c., Three Bays of Fence Walls.	Five tenders received for workshops, &c., the highest amounting to \$87,000. Schedule 36,849, Dec. 4, 1873. Lowest accepted, amounting to \$25,790. Additions awarded to the same firm on recommendation of Chief Architect. See No. 35,573, Oct. 22, 1873.
358	Francis McCann, No. 4,254, Oct. 28, 1873.	950	950	.....	NIL.	Removing Snow from public grounds.	Ten tenders received, the highest amounting to \$1,325. Schedule 35,974, Oct. 30, 1873. Lowest accepted.
359	John Corbett, No. 4,257, Nov. 4, 1873.	450	450	.....	NIL.	Removing Snow from Rideau Hall property; keeping cur- ling rink in proper condition. <i>Public Buildings.</i>	Nine tenders received, the highest amounting to \$850. Schedule 35,984, Oct. 30, 1873. Lowest accepted. Extra allowance to contractor for removal of snow, \$175.
360	Benjamin Walton, No. 4,118, April 10, 1873.	61,130	161,130	.....	NIL.	To construct a New Custom House on a lot at the Junction of Yonge and Front streets, Toronto.	Ten tenders received, the highest amounting to \$257,500 for entire work, exclusive of interior fittings, heating apparatus and boundary wall. Schedule 30,079, March 31, 1873. Fifteen tenders received for parts of work only. Lowest for whole work accepted. O. C. 29,997, April 16, 1873.

361	James Stothart. No. 4,114. May 3, 1873.	2,982	2,982	.....	Nil.	Quarantine Buildings on Middle Island, Miramichi River, near Chatham, N.B.	Expenditure authorized by O.C. 28,044, granting \$1,100 for quarantine purposes at Middle Island. Eight tenders received, the highest amounting to \$4,900. Schedule 29,836, April 12, 1873. Lowest accepted. Eight tenders received, the highest amounting to \$21,956. Schedule 30,520, May 5, 1873. Second lowest accepted. O.C. 30,766, May 10, 1873. Lowest, Charles Touchette, \$12,012; not possessed of sufficient means to carry out the work.
362	Piton & Co. No. 4,126. January 6, 1873.	12,012	.....	14,500	2,488	Quarantine Buildings, at Grosse Isle, Quebec.	Expenditure authorized by O.C. 23,673, May 2, 1872, adopting plan and granting \$65,000, and O.C. 23,742, June 20, 1882, for \$50,000. Four tenders received for the whole work, the highest amounting to \$133,604. Schedule 30,430, May, 1873. Lowest accepted. Expenditure authorized by O.C. 23,739, June 25, 1872, for \$4,000, and O.C. 28,676, Feb. 17, 1873, for \$2,500. Three tenders received for a building one story high, the highest from W. Egar, amounting to \$3,528, with stone foundation, according to Section 1, and the lowest from John Purdom, amounting to \$2,920. See Schedule No. 29,454, March 28, 1873, and tenders No. 29,438, 29,452, 29,453. On the 2nd May, 1873, Mr. Thos. Scott reported in No. 30,494, that on his interview with Mr. Purdom this contractor stated he would undertake the building of the immigrant depot, with an additional story, on a stone foundation, for \$6,295. In tender No. 30,834, dated May 12, 1873, Mr. Christie offered to execute the whole of the main works for \$5,195, and the well and two water-closets for an additional sum of (\$80 and \$200) \$260, making a total of \$5,455. On the 22nd May, 1873, Mr. Christie was informed by telegraph that a tender with extras could not be accepted, and that if he was willing to execute the whole of the works for \$5,195, without extras, the contract would be awarded to him. See back of No. 30,834, May 12, 1873. Mr. Christie answered by No. 31,054, May 22, 1873: I will accept the contract, including well and water-closets for \$5,195, and secured the work.
363	W. Causey, Stirling & Emery. No. 4,131. June 7, 1873.	116,486	116,486	.....	Nil.	Post Office, St. John, N.B. ....	
364	John Christie. June 16, 1873. No. 4,157.	5,195	5,195	.....	Nil.	Immigrant Depot near London, Ont.	
<i>Carried forward.....</i>		24,400,712	5,742,069	21,350,936	2,692,293		

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract	Explanation.
	<i>Brought forward</i> .....	\$ 24,400,712	\$ 5,742,069	\$ 21,350,936	\$ 2,692,293	<i>Public Buildings.—Con.</i>	
365	A. Mathieu. No. 4,171. July 16, 1873.	4,980	4,980	.....	Nil.	Observatory, etc., Quebec, on Bonner's property, near the new jail.	Nine tenders received, the highest amounting to \$8,922. Schedule 32,456, July 14, 1873. Lowest accepted.
366	George Brown. No. 4,173. August 21, 1873.	600	600	.....	Nil.	Custom House, Newcastle, N.B., Alterations, etc.	The only tender, No. 32,102, June 20, 1873, approved by Chief Architect.
367	Peter Loggie. No. 4,197. August 26, 1873.	1,400	.....	1,500	100	Alter a building at Chatham, N.B., to a Custom House, Post Office and Inland Revenue Office.	Three tenders received, the highest amounting to \$1,700. Schedule 34,869, June 24, 1873. Second lowest accepted, O. C. 33,505, August 5, 1873. Lowest, Robert Whalen, \$1,400, who declined to enter into contract. See No. 33,298, August 14, 1873.
368	August Stinson. No 4 218. Sept. 25, 1873.	4,520	4,520	.....	Nil.	Marine Hospital, St. Andrews, N.B.	Seven tenders received, the highest amounting to \$5,225. Schedule 33,139, August 1, 1873. Lowest accepted by letter No. 33,267, August 8, 1873, from H. L. Langevin. Amount of contract, \$4,520.
369	J. B. Lefrançois.....	2,300	.....	4,770	2,470	Custom-House Wharf, Quebec. Repairs and Additions, Leveling, &c.	Eight tenders received, the highest amounting to \$7,900. Schedule 35,642, August 24, 1873. Third lowest accepted. O. C. 34,423, Sept. 10, 1873. Lowest, Gingras & Co., \$2,300; could not possibly do the work at prices named by them. Second lowest, S. Lachance, \$4,360, is unknown. O. C. 34,423, Sept. 10, 1873.

370	Geo. Harding. No. 4,216. Sept. 29, 1879.	6,000	6,000	.....	Nil.	Post Office, Toronto. Heating Apparatus.	Four tenders received, the highest amounting to \$6,750. Schedule 36,061, Nov. 3, Lowest accepted.
371	Charles Dugré. No. 4,212. Oct. 10, 1873.	8,975	8,975	.....	Nil.	Custom-House and Inland Revenue Offices, Three Rivers.	Expenditure authorized by O. C. 22,738, June 29, 1872, for \$12,000, and O. C. 32,887, July 1, 1873, for \$2,000. Six tenders received, the highest amounting to \$16,875. Schedule 36,052, Nov. 3, 1873. Lowest accepted.
372	Jacques Jobin. No. 4,211. Oct. 11, 1873.	1,378	1,378	.....	Nil.	Emigrant Shed, Lévis. Repairs to Roof.	Two tenders received, the highest amounting to \$1,433. Schedule 36,064, Nov. 3, 1873. Lowest accepted.
373	Kinsman, Styles and others. No. 4,278. Oct 11, 1873.	14,686	14,686	.....	Nil.	Marine Hospital, Victoria, B.C....	O. C. 32,761, July 8, 1873, authorizes erection of Marine Hospital on the Indian Reserve, opposite Victoria, B.C. Five tenders received. Lowest accepted. Kinsman & Styles, bricklayers, \$7,990; Smith & Clark, carpenters, \$4,677; Alex. and Wm. Wilson, plumbers, \$1,220; Thos. and Robert Mitchell, painters, \$689; Chas. Ball, ironwork, \$110. Total \$14,686—lower than lowest for whole work. See Fraser's letter, March 12, 1870.
374	Joseph Wood. No. 4,226. Oct. 22, 1873.	51,320	.....	52,000	680	Custom-House, Inland Revenue Office, Post-Office, &c. Winnipeg, Manitoba.	Six tenders received (Telegram 34,143, Sept. 2, 1873), the highest amounting to \$68,000. Second lowest accepted. O. C. 34,639, Sept. 19, 1873. Lowest, Larivière & McArthur, \$51,320, was not accepted, he being an employee of the Government.
375	James Webster. No. 4,280. Dec. 5, 1873.	3,569	3,569	.....	Nil.	Post-Office, Hamilton. Excavation, Brick, and Stone Work.	Two tenders received, the highest amounting to \$4,529. Schedule 32,393, July 11, 1873. Lowest, accepted, was for \$4,319, which amount was reduced to \$3,569 by dispensing with a part of the work amounting to \$750.
376	Peter Brass. No. 4,284. Dec. 16, 1873.	1,944	1,944	.....	Nil.	Post-Office, Hamilton. Carpenters' and Joiners' Work.	Two tenders received, the highest amounting to \$2,160 (Schedule 33,195, Aug. 3, 1873), after making deduction for work dispensed with. Lowest accepted.
				21,09,206	2,695,543	<i>Carried forward.....</i>	
				5,788,721	24,503,984		

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
377	Brought forward..... John Heney. No. 4,223. Oct. 14, 1873.	\$ 24,502,384 22,134	\$ 5,788,720 .....	\$ 21,409,206 30,183	\$ 2,695,543 8,049	Improvement of Rivers.	Eleven tenders received, the highest amounting to \$80,480, at the rate of \$2 per cubic yard. Schedule 35,929, Sept. 29, 1873. Fifth lowest accepted. O.C. 35,050, Oct. 1, 1873. Lowest, R. Pronderville, 55 cents per cubic yard, \$22,134; declined to undertake the work. See No. 34,572, Sept. 18, 1873. Second lowest, L. Heavey, 65 cents per cubic yard, \$26,158. No. 34,630, Sept. 18, 1873. Third lowest, J. Murphy, 65 cents per cubic yard, \$26,158. No. 34,633. Sept. 21, 1873. Fourth lowest, P. Conway, 70 cents per cubic yard, \$28,170. No. 34,669, Sept. 23, 1873.
378	Sarnia Shipbuilding Company. No. 4,287. Dec. 16, 1873.	9,350	9,350	.....	Nil.	Dredge Vessels. Build a new Hull for Dominion Steam Dredge now at Sarnia; also two Dumping Scows and a new Dipper.	Two tenders received, the highest amounting to \$10,150. Lowest accepted. O.C. 36,942, Dec. 5, 1873. See tenders Nos. 36,759, 36,784 and J. R. Arnold's on the work, &c. No. 36,820, Dec. 2, 1873.
379	Wm. Simmons & Co. No. 4,294. May 1, 1873.	95,452	95,452	.....	Nil.	Construct a Patent Combined Hopper Dredge, to be delivered at Halifax, with 10 additional horse power.	Tenders for supplying a Dredge were called for by advertisement in newspapers (see 32,952, July 26, 1873), but none were received. The offer of Wm. Simmons & Co.



380	Wm. McKnight. No. 4,063. Feb. 7, 1873.	1,223	1,223	.....	Nil.	Repairs to Calumet and Mountain Slides, Ottawa Works.	Two tenders received, the highest amounting to \$1,239. Schedule 28,290, Jan. 29, 1873. Lowest accepted.
381	Roderick O'Neil. No. 4,049. Feb. 7, 1873.	1,723	1,723	.....	Nil.	Repairs to Madawaska River Works, Ottawa Works.	Only one tender received, which was accepted Schedule 28,290, Jan. 29, 1873.
382	Louis Turpine. No. 4,098. Feb. 17, 1873.	1,259	1,259	.....	Nil.	Construct a Bulk Head at outlet of Hull Slide, Ottawa Works.	Three tenders received, the highest amounting to \$1,445. Schedule 28,194, Feb. 13, 1873. Lowest accepted. See tenders Nos. 28,491, 92,93, Feb. 11, 1873.
383	Roderick O'Neil. No. 4,065. Feb. 21, 1873.	1,421	1,421	.....	Nil.	Repairs, High Fall, Black River Slide, Ottawa Works	Four tenders received, the highest amounting to \$2,463. Schedule 28,427, Feb. 10, 1873. Lowest accepted.
384	John Rowan. No. 4,087. March 3, 1873.	6,899	6,899	.....	Nil.	Repair works on Petewawa River, Ottawa Works.	Three tenders received, the highest amounting to \$9,365. Schedule 27,981, July 17, 1873. Lowest accepted.
385	Louis Turpine. No. 4,092. March 15, 1873.	1,768	1,768	.....	Nil.	Repairs, South Chaudière and Hull Stations and Gatineau Boom, Ottawa Works.	Three tenders received, the highest amounting to \$1,930. Schedule 28,290, Jan. 29, 1873. Second lowest accepted. Lowest, John McDonell, \$1,393; informal.
386	Henry Calcutt. No. 4,293. Sept. 16, 1873.	2,350	2,350	.....	Nil.	Repair Dam and Piers at Whitelaws Rapids and Boom in Little Lake on Otonabee River, near Peterboro', Trent Works.	Henry Calcutt's offer accepted on recommendation of T. D. Belcher, Superintendent of Trent Works, in No. 33,880, after the amount was reduced from \$2,500 to \$2,350, which is the cost of the work as estimated by the Engineer.
		24,945,963	5,910,166	21,435,389	2,703,591	<i>Carried forward.....</i>	

## PUBLIC WORKS, CANADA----Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
387	<i>Brought forward</i> ..... Hippolyte Dufour, No. 4, 32, Oct. 28, 1873.	\$ 24,645,963 2,713	\$ 5,910,166 2,713	\$ 21,439,389 .....	\$ 2,703,692 Nil.	<i>Slides and Booms.</i> —Con. Repair Dams and Booms, make three Piers, &c., head of Lake St. John, Saguenay River.	No tenders called for. Contract awarded to Hippolyte Dufour, at Engineer's prices, on strong representations of Mr. Merrill (No. 33,309, Aug. 11, 1873) as to the reliability of Contractor and the satisfactory fulfilment of his contract for Chicoutimi Wharf.
388	Dominique Fox, No. 4,097, Nov. 24, 1873.	9,075	9,075	.....	Nil.	Construct Dam at Cedar Lake and Traverse Lake, Petewawa River, Ottawa Works.	Four tenders received, the highest amounting to \$13,693. Schedule 28,502, Feb. 13, 1873. Lowest accepted.
389	John Boyd, No. 4,290, Dec. 16, 1873.	3,090	3,090	.....	Nil.	Build Piers and Booms, Fenelon River, Trent Works.	Lowest accepted, as recommended by T. D. Belcher, Superintendent Trent Works, by whom tenders were called.
390	William Watts, No. 4,109, March 7, 1873.	1,400	1,400	.....	Nil.	<i>Roads and Bridges.</i> Construct two Launches and Boats for Red River Route.	
391	A. A. Benway, No. 4,111, March 7, 1873.	700	700	.....	Nil.	Construct one Launch for Red River Route.	Contracts given out by Mr. Dawson, who was notified that authority to expend \$8,500 for this purpose had been granted by Order in Council No. 28,061, Jan. 21, 1873. See No. 18,669, Feb. 1, 1873.
392	Gregory, Burley & Co. No. 4,110, March 7, 1873.	3,000	3,000	.....	Nil.	Construct three Engines and Boilers for Red River Route.	

393	George G. Walker. 4,081. Jan. 11, 1873.	2,000	2,000	.....	Nil.	Construct four Mud Punts, for Dredging. Victoria Harbour, B.C.	Construct four Mud Punts, for \$2,000 placed to B. W. Bearse's credit for repairs to the Government Dredge and the construction of Mud Punts. See No. 16,634, dated Oct 8, 1872, to B. W. Pearse, and No. 28,160, Jan. 11, 1873, from B. W. Pearse, transmitting contract.
394	R. Churchill. No. 4,040. Feb. 12, 1873.	9,000	9,000	.....	Nil.	Yarmouth Harbour, N.S. Crib-work Protection to the Bar, 2,200 ft. in length.	Expenditure authorized by O.C. 31,298, May 30, 1873, for \$6,500. Three tenders received, the highest amounting to \$14,900. Schedule 27,422, Dec. 22, 1872. Lowest accepted, was for \$11,300; but tender was amended so as to cover only a portion of the work, the rates remaining unchangeable in order to reduce expenditure to amount granted by Parliament for this purpose. See O.C. 27,543, Dec. 23, 1872.
395	Sam' S. Mayes. No. 4,090. Fe. 17, 1873.	8,000	8,000	.....	Nil.	Richibuctou Harbour, N.B. Construct 320 ft. lineal, of a Pile Breakwater—extension of old Breakwater. Total length of new portion of Breakwater, when completed, to be 1,500 feet. Engineer's Estimate No. 24,621, July 29, 1873, \$75,000.	Expenditure authorized by O.C. 31,300, May 30, 1873. Three tenders received, the highest being at the rate of \$50 per foot, lineal, or a total length of 166 feet for the sum of \$8,000 granted by Parliament. See Schedule 27,909, Jan. 17, 1873. Lowest accepted, was at the rate of \$25 per foot, lineal, or a total length of 320 feet for the sum of \$8,000 granted by Parliament.
395 1/2	Portland Locomotive Company.	181,323	181,323	.....	Nil.	Intercolonial Railway. Thirteen Locomotive Engines.	Expenditure authorized by O.C. No 5066, 30th M. 1873. Mr. Carvell made an arrangement for the Locomotives with Mr. Morse, manager of the Company, they both being at Ottawa at the time.
	Carried forward.....	24,866,264	6,130,467	21,439,389	2,703,592		

PUBLIC WORKS, CANADA—Continued

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
386	Brought forward ..... Hippolyte Dufour. No. 4,725. March 5, 1873.	\$ 24,886,264	\$ 6,130,457	\$ 21,439,389	\$ 2,703,582	Harbours and Piers. Contract for Construction of a Pier for a Lighthouse, Chicoutimi.	No tenders were called for by the Department when work was first let. The tenders first called for by the Department were for the completion of the work. See Report No. 42,555, 4th July, 1874, from H. Merrill, enclosing tenders Nos. 42,581 and 42,582, as shown on sheet for 1874. H. Dufour's contract for this work was with the St. Lawrence Tow-Boat Co., through the Hon. D. Price; contractor was bound to construct the pier and finish the stone filling, the Company having agreed to supply the timber and iron. This contract was based on a plan prepared by P. Gauvreau, May 2, 1870, for Local Government of Quebec, who afterwards decided that that work was not under their jurisdiction. The contract was given by the Company to Dufour, without any written authority, it appears, from the Department. Mr. Merrill was afterwards instructed to measure and estimate the work, as shown by his Report No. 33,405, Aug. 14, 1873, wherein he stated that the Company had expended \$5,232.07 on the work, and that \$4,201.17 were required to complete it. After the reception of that Report, a telegram, No. 21,878, Sept. 17, 1873, was sent by the Secretary of Public Works to J. B. St.

397	W. H. Duffy & Co. No. 4,110. May 3, 1873.	10,940	.....	12,800	1,860	Herring Cove, Albert County, N.B. Construct a Breakwater on southern side. Length to be about 215 feet as far as the line of low water. Engineer's Estimate, \$15,226. The probable cost of the work if carried to 14 feet depth at low tide is estimated at \$30,000.	Expenditure authorized by O.C. 31,300, May 30, 1873, for \$12,000. Sixteen tenders received, the highest amounting to \$22,640. Schedule 29,584, March 31, 1873. Fourth lowest accepted, O.C. 30,000, April 14, 1873. Lowest, Duffy, Steeves & Shaw, \$10,940; much below the actual value of the work; and parties engaged in another contract. See O.C. 29,638, April 3, 1873. Second, O. Cannon, \$11,000; Party, a farmer, not possessed of sufficient means and experience to carry on works at low figure tendered for. See O.C. 29,638, April 3, 1873. Third, S. McKean & Co., \$11,980; declined to accept contract, after it had been awarded them by O.C. 29,638. See Telegram 29,808, April 9, 1873.
398	F. W. McKeuzie. No. 4,125. July 22, 1873.	74,110	.....	78,208	4,098	South Ingonish, Cape Breton, N.S. Cribwork and Dredging at entrance of inner harbour to 15 feet, depth of water at lowest tide. Pier to be about 700 feet in length. Channel to be about 200 feet wide. Engineer's Estimate 22,969, May 15, 1874, \$85,300.	Expenditure authorized by O.C. 31,298, May 26, 1873, for \$50,000. Four tenders received, the highest amounting to \$101,648. Schedule 29,713, April 7, 1873. Second lowest accepted, O.C. 30,763, May 10, 1873. Lowest, Thomas Evans, \$74,110; has already a contract with this Department for work in Mabou Harbour, which is considered sufficient to occupy his time and attention, and also for his means. Expenditure authorized by O.C. 31,298, May 30, 1873, for \$33,000. Three tenders received, the highest amounting to \$28,530. Schedule 32,461, July, 9, 1873. Lowest accepted.
399	J. Gardner, J. McLeod & A. McLeod. No. 4,132. September 6, 1873.	26,750	.....	.....	Nil.	Brooklyn, Liverpool Bay, N.S. Additional length of 300 feet to the 434 feet of Breakwater, already completed at a cost of \$21,565. Total length, when completed, 734 feet. Engineer's Estimate 18,192, August 24, 1871, for entire work if extended to 874 feet, \$79,000.	.....
				21,530,397	6,160,617	24,981,414	..... Current forward

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
400	<i>Brought forward</i> ..... Clark & Stackhouse. No. 4,208. Sept. 20, 1873.	\$ 24,981,464 11,200	\$ 6,160,617 .....	\$ 21,530,397 19,950	\$ 2,709,750 8,750	<i>Harbours and Piers—Con.</i>  Dipper Harbour, N.B. Construct a Breakwater on reef west side of Harbour; length to be about 450 feet. Engineer's Estimate 29,991, April 17, 1873, \$22,500.	Expenditure authorized by O.C. 31,300, May 30, 1873. Five tenders received, the highest amounting to \$41,800. See 32,376, July 7, 1873. Third lowest accepted, O.C. 33,323, August 6, 1873. Lowest, J. J. Kennedy, \$11,200; amount tendered being equivalent to about one-half of the actual value of the work required. Second lowest, Gedeon K. Hanson, \$19,500, not accepted; Mr. Hanson not being known to this Department.
401	U. W. Moberly. No. 4,221. October 10, 1873.	\$ 52,657	\$ 52,657	.....	Nil.	Collingwood Harbour, P.O. Construct a Breakwater, Pier and Lighthouse. Channel to be dredged to depth varying from 14 to 16 feet. Engineer's Estimate 22,497, April 24, 1872. Dredging, \$21,000; Breakwater, \$46,500; total, \$67,500.	Expenditure authorized by O.C. 31,301, May 30, 1873, for \$35,000. Four tenders received, the highest amounting to \$59,668. Schedule 33,736, October 25, 1873. Lowest accepted. See O.C. 22,947, May 14, 1872, to place \$35,000 in Estimates on condition that a similar amount is paid by the Northern Railway, and that Tonnage dues and Harbour Tolls are imposed, to repay the amount advanced by Government. See Report to Council 22,542, May 11, 1872.
402	John H Johnston. No. 4,249. Oct. 23, 1873.	\$ 6,709	\$ 6 70	.....	Nil.	Kincardine Harbour, Lake Huron. Extension and raising of Piers, to be completed as intended under Hall's contract.	Hall's contract, amounting to \$4,455 at schedule rates, in No. 17,824, was cancelled by O.C. No. 30,949, May 15—19, 1873, as he had failed to carry it out in due time. Mr. Jno. H. Johnston, who had done the greater part of the work for Mr. Hall, was directed

403	Adolphe Gagnon. 4,250. Nov. 6, 1873.	No.	7,316	7,316	.....	Nil.	Baie St. Paul, River St. Lawrence. For the construction of one Pier for the Lighthouse. Dimensions—60 ft. by 50 ft. at base; 35 ft. to 37 ft. in height. Engineer's Estimate, No. 34,583, Sept. 15, 1873, \$8,000.	by the Department to complete it after Mr. Hall had failed to do so. This, however, Mr. Johnston refused to do, unless a small advance on the ordinary schedule rates was granted and the drawback retained from Mr. Hall was paid to him. This proposal being considered fair and reasonable by the Chief Engineer, was acceded to, and a contract framed in accordance therewith. Amount paid to H. Johnston to complete Hall's contract, \$6,709.
404	Andrew Lindsay. 4,247. Nov. 11, 1873.	No.	100,187	.....	114,452	14,265	Chantry Island, Lake Huron. Construct a Breakwater 1,800 ft. long on easterly side of Island; also a Landing Pier, 400 ft. long, to the southern end of Breakwater, and extending to a depth of 14 ft. at low water. Engineer's Estimate (J. Page), \$134,000.	Twelve tenders received, the second lowest accepted. (Schedule 35,863, Oct. 27, 1873.) Lowest, Ed. Beaulieu, informal. Prices given in written schedule do not apply to materials asked for in printed form of tender.
405	J. Hillson & Son. 49. January, 1873.	No.	6,995	6,995	.....	Nil.	<i>Intercolonial Railway.</i>  Passenger and Refreshment Building, Newcastle, Province of New Brunswick.	Eleven tenders received, the highest amounting to \$151,890. Schedule 35,906, Sept. 18, 1873. Fourth lowest accepted; O. O. 35,506, October 18, 1873. This tender, although very low, was accepted, on account of party residing in the locality of the proposed works. Lowest, Baiter & Sutton, \$100,187; far below actual value of the work. Second lowest, D. Fleming, \$106,361; far below the actual value of the work. Third lowest, Koyle & Row, \$109,005; far below the actual value of the work. See O.O. 35,506, Oct. 18, 1873.
406	T. Gallagher & Sons. 52. January, 1873.	No.	2,200	.....	3,485	1,285	Freight House, Campbellton, Province of New Brunswick.	Thirteen tenders received, the highest amounting to \$4,800. The lowest, J. Hillson & Son, \$6,995, accepted.
<i>Carried forward.....</i>							25,168,728	
							6,234,294	
							21,669,284	
							2,733,850	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
407	<i>Brought forward</i> ..... T. Gallagher & Sons. No. 53. January, 1873.	\$ 25,168,728	\$ 6,234,294	\$ 21,668,284	\$ 2,733,850	<i>Intercolonial Railway—Con.</i> Engine House, Campbellton, Province of New Brunswick.	Nineteen tenders received, the highest amounting to \$39,750. The second lowest, T. Gallagher & Sons, \$16,880, accepted. Lowest, Robt. Litster & Co., \$2,655; no reason. The Commissioners recommend the acceptance of T. Gallagher & Sons' tender.
408	Portland Engine Co. Jan. 8, 1873.	112,100	112,100	.....	Nil.	Six Locomotives at \$80,750, two Locomotives at \$31,350.	Let without competition by Lewis Carvell, under authority of Commissioners. O.C., January 16, 1873.
409	Peck, Benny & Co. Feb. 5, 1873.	65,800	65,800	.....	Nil.	Seven hundred tons of Spikes.....	Nineteen tenders received, the highest amounting to \$112,500, the lowest, Peck, Benny & Co., \$85,800, accepted.
410	Wm. Hamilton. March 9, 1873.	34,800	34,800	.....	Nil.	Sixty Platform Cars.....	Let without competition by Commissioners.
411	Jas. Worthington. No. 55. June 1873.	19,336	19,336	.....	Nil.	Snow Sheds and Fences between Rivière du Loup and Rimouski, Province of Quebec.	Let without competition by Samuel Hazlewood, District Engineer, with Commissioners' authority.
412	Starr Manufacturing Co. No. 4,227. July 23, 1873.	70,520	70,520	.....	Nil.	Building 172 Coal Cars, delivered at Richmond, Nova Scotia.	Five tenders received by Mr. Carvell, the highest amounting to \$79,808, Schedule enclosed in No. 5,262, June 23, 1873; for authority see No. 2,956, June 3, 1873.
412½	Portland Locomotive Company, 5th Nov., 1873.	40,800	40,800	.....	Nil.	100 coal cars .....	An arrangement was made by Mr. Carvell with the Company for the construction and delivery of 100 cars at the same rate as the lowest tender received on the 23rd July, 1873. See Schedule No. 5262 and O.C. No. 4336 of 12th October, 1872.





PUBLIC WORKS, CANADA----Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
417	<i>Brought forward</i> ..... Denison, Belden & Co. No. 4,309. April 6, 1874.	\$ 26,041,205 396,665	\$ 6,695,105 396,665	\$ 22,160,520 .....	\$ 2,804,420 Nil.	<i>Welland Canal</i> —Con.  Enlargement, Section No. 2, new line between Port Dalhousie and Thorold, through May's Ravine. Length, 2,700 feet. Two Locks, two Weirs, one Swing Bridge, and Earth Excavation. Engineer's Estimate, No. 40,286, Nov. 17, 1873, \$471,952.	Twenty tenders received, the highest amounting to \$637,040; Schedule 40,330, April 20, 1874. Lowest tender accepted. Second letting. See note at Section No. 14.
418	Denison, Belden & Co. No. 4,310. April 6, 1874.	\$ 328,415	\$ 328,415	.....	Nil.	Enlargement, Section No. 3, new line between Port Dalhousie and Thorold, two Locks and Earth Excavation. Length, 2,500 feet. Engineer's Estimate, No. 40,280, Nov. 17, 1873, \$384,610.	Twenty-two tenders received, the highest amounting to \$1614,295; Schedule 40,330, April 20, 1874. Second letting. See note at Section No. 14.
419	Higgins & Sullivan. No. 4,325. June 3, 1874.	\$ 283,935	.....	\$ 327,650	\$ 43,645	Enlargement, Section No. 7, new line between Port Dalhousie and Thorold. Length 3200 feet. Two Locks and one Swing Bridge near Cemetery, and Earth Excavation. Engineer's Estimate, No. 40,280, Nov. 17, 1873, \$348,395.	Thirty tenders received, the highest amounting to \$585,660; Schedule 40,330, April 20, 1874. Fourth lowest accepted. Lowest, Buck, Flood & Co., \$283,935; withdrawn. See No. 39,487, March 16, 1874. Conditions of Department not complied with; Telegram No. 24,799, April 24, 1874. See also Nos. 40,458 and 40,481 of April 23, 1874. Second lowest, Hartwell & Helliwell,

420	Patrick Shannon. No. 4,360. June 4, 1874.	67,880	.....	68,280	410	Enlargement, Section No. 6, new line between Port Dalhousie and Thorold. Length, 7,060 feet. Swing Bridge and Road between St. Catharines and Niagara, Earth Excavation. Engineer's Estimate, No. 40,280, Nov. 17, 1873, \$88,540.	Forty tenders received, the highest amounting to \$149,576; Schedule 40,330, April 20, 1874. Second lowest tender accepted. Lowest, Hartwell & Helliwell, \$67,880. Conditions of Department not complied with; Telegram No. 24,799, April 24, 1874. See also Nos. 40,448 and 40,481 of 23rd April, 1874. Second letting. See note at Section No. 14.
421	Ginty & Dickey. No. 4,354. June 29, 1874.	312,160	.....	326,490	12,330	Enlargement, Section No. 13, new line between Port Dalhousie and Thorold. Length, 3,500 feet. Two Locks, two Weirs, Basins, &c., Earth Excavation. Engineer's Estimate, No. 40,280, Nov. 17, 1873, \$352,100.	Twenty-seven tenders received, the highest amounting to \$701,690; Schedule 40,330, April 20, 1874. Third lowest accepted, only \$325 in excess of Denison, Belden & Co's. Tender, the second lowest. O. C. 40,641, March 27, 1874. Lowest, Hartwell & Helliwell, \$313,160. Conditions of Department not complied with; Telegram No. 24,799, April 24, 1874. See also Nos. 40,458 and 40,481 of April 23, 1874. Second lowest, Denison, Belden & Co., \$325,165; already hold contracts on Sections 2 and 3. Second letting. See note at Section No. 14.
422	Alex. Manning. No. 4,372. Aug. 31, 1874.	312,265	.....	332,000	39,735	Enlargement, Section No. 5, new line between Port Dalhousie and Thorold. Length, 3,200 feet. Two Locks, two Weirs, one Swing Bridge and Earth Excavation. Engineer's Estimate, No. 40,280, Nov. 17, 1873, \$363,260.	Twenty-eight tenders received, the highest amounting to \$595,135; Schedule 40,330, April 20, 1874. Fifth lowest tender accepted. Lowest, Denison, Belden & Co., \$312,265, execution of contract declined; No. 41,024, May 4, 1874. Second lowest, Hartwell & Helliwell, \$333,760. Conditions of Department not complied with; No. 24,799, April 24, 1874. See also Nos. 40,458 and 40,481, April 23, 1874. Third lowest, R. McDonald & Co., \$340,815. Fourth lowest, A. P. McDonald & Co., \$345,592. Second letting. See note at Section No. 14.
423	Welland Railway Company (No Contract.)	6,500	.....	6,500	Nil.	Deviation of the railway line between the Railway Station at Welland and Thorold.	Offer of Welland Railway Company to execute work for \$6,500 accepted, as recommended by the Chief Engineer in No. 46,090, Nov. 19, 1874, and O. C. 46,439, Nov. 27, 1874.
		27,749,925	7,496,585	25,253,340	2,900,540	<i>Carried forward.....</i>	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
424	<i>Brought forward</i> ..... Stephen Harvey, No. 4,460. Sept. 17, 1874.	\$ 27,749,925 18,574	\$ 7,426,585 18,574	\$ 23,223,880 .....	\$ 2,900,540 Nil.	<i>Welland Canal—Con.</i> Rebuild part of west Pier at Port Maitland, Welland Canal.	Fourteen tenders received, the highest amounting to \$39,006. Schedule 44,557, Sept. 18, 1874. Lowest accepted.
425	Jas. Howley, No. 4,445. Sept. 14, 1874.	12,194	.....	12,705	511	<i>Lachine Canal.</i> Reconstruction of Flour Shed No. 2 and repairing the Docking Timber and Wharf burned during the summer of 1874, at St. Gabriel Basin.	Eight tenders received, the highest amounting to \$31,657; Schedule 43,979, Sept. 5, 1874. Second lowest tender accepted; O.C. 44,172, Sept. 7, 1874. Lowest, Campbell & Spence, \$12,194; tenderers not considered reliable, having in hand a contract with the Public Works Department, which is being unsatisfactorily carried out.
426	Bonneville & O'Brien, No. 4,301. Feb. 21, 1874.	8,645	8,645	.....	Nil.	<i>Chambly Canal.</i> Extension of Mooring Pier for a length of 200 feet and a width of 25 feet at lower end of the Chambly Canal on Chambly Basin.	Eighteen tenders received, the highest amounting to \$26,884. Schedule 38,189, Feb. 4, 1874. Lowest tender accepted.
427	James Latimer, No. 4,277. Feb. 9, 1874.	1,508	1,508	.....	Nil.	<i>Rideau Canal.</i> Build a Swing Bridge over Long Island Locks, Rideau Canal.	Two tenders received, the highest amounting to \$1,740. See Report No. 35,563, Oct. 21, 1873. Lowest accepted.

426	Allard, Dufort & Co. No. 4, 21b. March 31, 1874.	84,500	84,500	Nil.	Public Buildings. Montreal Post Office. Joiners' Work, Plastering, Painting, Glazing, &c.	<p>This is in connection with first contract, No. 3,856, and was authorized as follows:—1st, O. C., No. 4, 190, Aug. 30, 1873, for general inside work, \$64,500. Offer of original Contractors (No. 31,891) accepted by Minister on recommendation of Chief Architect, who has reported in No. 31,891, June, 18, 1873, as, follows:—Allard &amp; Dufort's tender for the work was the sum of \$276,416. Portion now under contract with them, \$182,000; price now asked for the balance of the work, \$64,500 = \$246,500. The latter sum, \$64,500, is slightly in advance of the estimate of the architect, Mr. Perreault. I beg to recommend that the tender of Allard &amp; Co., to finish the building in accordance with the original specification, as made out for the balance of the work to be done, be accepted. Aug. 22, 1873. (Signed) Thos. S. Scott.</p> <p>2nd O. C., No. 38,580, Feb. 7, 1874, for iron girders, \$20,000; the Chief Architect of the Dominion being of the opinion that the offer of the Contractors should be accepted. See O. C. No. 38,580.</p> <p>Ten tenders received, the highest amounting to \$22,500. Schedule 39,428, March 21, 1874. Second lowest accepted, O. C. 39,550, March 21, 1874. Lowest—Eeml. Walton, \$12,300—has informed the Department that, owing to miscalculation, he is unable to undertake the work. O. C. 39,550, March 21, 1874.</p> <p>Twenty-three tenders received, the highest amounting to \$63,222. Schedule 40,275, April 18, 1874. Sixth lowest accepted, O. C. 40,555, April 21, 1874. Lowest, McCarron &amp; Cameron, \$21,822; declined to take this branch of the work unless awarded the others. Second lowest, O. A. Roque, \$34,000; see O. C. 40,555, April 21, 1874. Third lowest, A. W. Mathewman, \$34,112; see No. 39,949, April 4, 1874. Fourth lowest, Miniholland, \$37,226; see No. 40,053, April 6, 1874. Fifth lowest, H. Hatch, \$40,233, is not considered satisfactory (tenderer an insolvent). O. C. 40,555, April 21, 1874.</p>
428	Elliott & O'Connor. No. 4, 324. April 25, 1874.	12,300	14,917	2,617	Alterations and additions to old Post Office, Toronto, for Assistant Receiver-General and Inland Revenue Department.	
430	J. W. Webster. No. 4, 335. May 7, 1874.	21,882	50,122	28,240	Post Office, Custom House, &c., Ottawa. Excavation, Masonry, Brickwork. Architect's Estimate, \$61,121.	
				23,301,624	2,931,908	<i>Carried forward</i> .....

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number of Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
431	<i>Brought forward</i> .... Cameron & Mudie. No. 4,337. May 23, 1874.	\$ 27,909,525	7,539,809	\$ 23,301,524	2,231,908	<i>Public Buildings—Con.</i> Post Office, Custom House, Ottawa. Carpenters' and Joiners' work. Architect's Estimate, \$37,000.	Twenty-three tenders received, the highest amounting to \$60,000. Schedule 40,275, April 18, 1874. Fourth lowest accepted, O.C. 40,555, April 21, 1874. Lowest, Jas. Murphy, \$22,610; declined to take this branch of the work unless awarded the others; see No. 39,770, March 31, 1874. Second lowest, Jas. Goodwin, \$24,515; see O.C. 40,555, April 21, 1874. Third lowest, A. W. Mathewman, \$31,891; see No. 39,949, April 4, 1874.
432	Godfroi Chapleau. No 4,367. June 13, 1874.	\$ 15,243	.....	\$ 26,594	11,351	Post Office, Custom House, &c., Ottawa. Iron Columns, Girders, Safe Doors. Architect's Estimate, \$26,000.	Thirteen tenders received, the highest amounting to \$28,200. Schedule 40,275, April 18, 1874. Seventh lowest accepted, O.C. 41,166, May 14, 1874. Lowest, Jas. Murphy, \$15,243; declined to enter into contract, see No. 39,770, March 31, 1874. Second lowest, Jas. Goodwin, \$18,650; see O.C. 41,166, May 14, 1874. Third lowest, Davison, Doran & Co., \$21,288; see O.C. 41,166, May 14, 1874. Fourth lowest, A. W. Mathewman, \$22,458; see No. 39,949, April 4, 1874. Fifth lowest, —, Mulholland, \$23,300; see No. 40,053, April 6, 1874. Sixth lowest, Henry Hatch, \$24,100, is not considered satisfactory (tenderer an insolvent.) O.C. 41,166, May 14, 1874.

433	D. S. Keith & Co. No. 4,371. June 2, 1874.	3,769	3,76	.....	Nil	Old Post Office, Toronto. Heating Apparatus.	Three tenders received, the highest amounting to \$3,800. Schedule 40,653, April 30, 1874. Lowest accepted was for \$3,600, to which sum \$169 were added for extra work, making a total of \$3,769.
434	Smith & Clark and McKay & Burgess. No. 4,422. June 24, 1874.	27,830	27,830	.....	Nil.	Custom House, Victoria, B.C.	Four tenders received for whole work, exclusive of plastering, the highest amounting to \$26,681. Schedule 41,197, April 30, 1874. Lowest accepted, from Smith & Clark, \$26,030, to which was added \$1,800 for plastering.
435	Morrison & Barclay. No. 4,420. July 16, 1874.	89,000	.....	116 440	27 440	Penitentiary at Stoney Mountain, Manitoba.	Seven tenders received, the highest amounting to \$160,000. Schedule 42,424, July 7, 1874. Fourth lowest accepted, O. C. 42,640, July 8, 1874. Lowest, McFarnden, \$89,000. Second lowest, Bell & Johnston, \$89,945. Third lowest, C. P. Brown, \$95,000. These tenders were much below actual value of the work. O. C. 42,640, July 8, 1874.
436	P. Brass, S. North & Freeborn. No. 4,436. July 27, 1874.	3,034	3 034	.....	Nil.	Post Office, Hamilton. Works on roofs, outbuildings, &c.	Lowest tender accepted, as recommended by Chief Architect. Three tenders received for galvanized iron work, the highest amounting to \$1,467. Lowest, from S. North, \$1,133. Only tender for woodwork of main building, re-shingling and repairs of outbuildings and fencing sent in by P. Brass, amounts to \$1,825. Only tender for painting from Freeborn, \$76. See Schedule 42,553, July 4, 1874.
437	Dodge & Dodge. No. 4,423. Aug. 28, 1874.	18,500	18,500	.....	Nil.	Custom House and Inland Revenue Offices, Picton, N.S.	Seven tenders received, the highest amounting to \$27,097. Schedule 42,656, July 15, 1874. Lowest accepted.
438	Benj. Walton. No. 4,494, Oct. 30, 1874.	117,745	.....	150,000	32,255	Examining Warehouse, Toronto. To be built at Corner of Yonge and Esplanade Streets.	Three tenders received, the highest amounting to \$175,063 for the whole work; Schedule 46,255, Oct. 6, 1874. One tender received for the whole work, exclusive of founders' and smiths' work, amounting to \$122,324. Two tenders received for the founders' and smiths' work, amounting respectively to \$41,820 and \$58,786. Second lowest tender for the whole work accepted; O. C. 45,681, Nov. 5, 1874. Lowest tender for the whole work, John Forin, \$117,745, withdrawn; O. C. 45,681, Nov. 5, 1874.
		28,207,256	7,592,942	23,627,812	3,013,493	<i>Carried forward.....</i>	

PUBLIC WORKS, CANADA—Continued.

Number	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
439	<i>Brought forward</i> ..... Kinsman & Styles. No. 4,450.	\$ 28,207,256	7,592,942	\$ 23,627,815	\$ 3,013,498	<i>Public Buildings</i> .—Con. Penitentiary, New Westminster, British Columbia.	Three tenders received, the highest amounting to \$139,305; Schedule 42,887, July 21, 1874. Third lowest accepted; O.C. 43,706, Aug. 10, 1874. Lowest, Smith, Clark & Co., \$42,160; informal. Second lowest, Hayward & Jenkinson, \$78,500, far below the value of work to be executed; O.C. 43,706, Aug. 10, 1874.
440	Robert Mitchell & Co. No. 4,501. Nov. 17, 1874.	6,450	6,450	.....	Nil.	Post Office, Montreal. Heating Apparatus.	Three tenders received, the highest amounting to \$7,700. Schedule 47,750, Oct. 21, 1874. Lowest accepted.
441	Bowman & Le Lachend. No. 4,514. Dec. 16, 1874.	1,528	1,528	.....	Nil.	Custom House, St. John, N.B. Sixteen tenders received, the highest amounting to \$1,980. Schedule 45,779, Nov. 5, 1874. Lowest accepted.	
442	E. S. Perkins. No. 4,331. March 27, 1874.	720	720	.....	Nil.	<i>Public Buildings</i> , Ottawa. Creating for Library of Parliament Buildings.	Two offers received at same rate of 9c. per lb., viz.: from E. S. Perkins and from McFarland. Perkins' tender, No. 40,204, March 27, 1874, accepted on Mr. Bowes' recommendation. See No. 39,731, March 30, 1874.
443	Goldie & McCullough. No. 4,489. July 31, 1874.	7,500	7,500	.....	Nil.	Build four locomotive-shaped Boilers for Parliament House.	Seventeen tenders received, the highest amounting to \$12,800; Schedule 43,178, July 27, 1874. Second lowest accepted;



444	Alex. Fleck. No. 4434. Aug. 4, 1874.	1,863	1,863	1,863	Nil.	Erect an Iron Staircase, East Block.	O.C. 43,699, Aug. 11, 1874. Lowest, McEwen & Son, for only two boilers, at \$1,500 each, instead of four; informal. Three tenders received, the highest amounting to \$1,975. Schedule 42,952, July 27, 1874. Lowest accepted.
445	E. G. Laverdure. No. 4,425. Aug. 10, 1874.	2,089	1,722	2,089	367	Cover portion of roof, East Block.	Six tenders received; Schedule 41,762, June 11, 1874. Second lowest accepted; O.C. 42,629, July 14, 1874. Lowest, Mason & Co., \$1,722, withdrawn, No. 41,891, June 15, 1874.
446	David Harrow. No. 4,437. August 21, 1874.	4,990	4,990	4,990	Nil.	Complete walls around Public Buildings.	Four tenders received, the highest amounting to \$7,200; Schedule 43,619, August 20, 1874. Lowest accepted.
447	Barnabas Gibson. No. 4,465. September 2, 1874.	37,682	37,682	37,682	Nil.	Excavate and refill drains, Public Grounds.	Work considered additional to Gibson's previous contract for grading and levelling public grounds. See No. 43,938. Authorized in No. 43,595, August 19, 1874.
448	Frs. Clemow. No. 4,436. September 16, 1874.	3,250	3,250	3,250	Nil.	Supply 400 tons of grate coal for Public Buildings.	Three tenders received, the highest amounting to \$3,530; Schedule 43,233, August 1, 1874. Lowest accepted.
449	John Heney. No. 4,482. October 30, 1874.	19,271	21,057	19,271	1,786	Supply firewood for Public Buildings.	Nine tenders received, the highest being for \$6.37 per cord, the average price tendered for hard and mixed wood; Schedule 45,272, October 23, 1874. Fifth lowest accepted; O.C. 45,680. <i>Average price tendered for hard and mixed wood.</i> Lowest, H. Kirby, \$5.12½ per cord; withdrawn by No. 45,274, October 1, 1874. Second lowest, Jas. McBrien, \$5.25 per cord; failed to furnish security; see O.C. 45,680. Third lowest, John Finley, \$5.38 per cord; withdrawn by No. 45,275, October 1, 1874. Fourth lowest, Robt. Graham, \$5.47½ per cord; withdrawn by No. 45,276, October 7, 1874.
450	James Heavy. No. 4,493. October 24, 1874.	615	615	615	Nil.	Remove snow from Public Buildings and Grounds, for winter of 1874-75.	Eleven tenders received, the highest amounting to \$1,250; Schedule 46,263, November 26, 1874.
451	B. Gibson. No. 4,481. Oct. 28, 1874.	2,768	2,768	2,768	Nil.	Excavate trenches for water pipes, Rideau Hall.	Five tenders received, the highest amounting to \$3,399; Schedule 46,274, November 16, 1874. Lowest accepted.
		28,374,115	7,660,308	23,790,263	3,076,456	Carried forward.....	

PUBLIC WORKS, CANADA — Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of Lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between Lowest Tender and Price given.	Nature of Contract.	Explanations.
452	<i>Brought forward</i> ..... John & Wm. McAdam. No. 4,497. Nov. 11, 1874.	\$ cts 28,374,115	\$ cts. 7,650,306	\$ cts 23,790,263	\$ cts. 3,076,456	<i>Public Buildings, Ottawa.</i>  Remove snow, Rideau Hall, 1874-75.	Eleven tenders received, the highest amounting to \$1,450; see Schedule 46,286, November 26, 1874. Fourth lowest accepted; O.C. 45,747, November 6, 1874. Lowest, O. D. Archambault, \$280; far below actual value of work. Second lowest, N. St. Denis, \$275; far below actual value of work. Third lowest, H. Y. Reed & Co., \$600; ineligible.
453	John Lyons. No. 4,499. December 15, 1874.	1,300	.....	1,500	200	Construct temporary offices, rear of West Block, for Chief Engineer, Canadian Pacific Railway.  <i>Harbours and Piers.</i>	Seven tenders received, the highest amounting to \$2,100; Schedule 46,363, November 2, 1874. Second lowest accepted; O.C. 45,744, November 6, 1874. Lowest, S. Bingham, \$1,300; withdrawn.
454	John S. Tolton, with Corporation of the Township of St. Vincent. No. 4369. March 30, 1874.	20,297	20,297	.....	Nil.	Meaford Harbour Works. Prolongation of Pier 160 feet to 13 feet of water, and addition of wing, 200 feet long, on east side; also removal of boulders, and dredging. The Engineer's Estimate for total value of work, \$25,000; three-fifths payable by Government and two-fifths by Municipal Council of St. Vincent.	Local authorities of Meaford empowered by O.C. No. 34,615 to carry out the harbour improvements themselves, in accordance with approved plans and specifications, and a sum amounting to \$15,000 placed at their disposal, on condition that they will pay two-fifths of the progress estimates certified by the Engineer of the Department. See No. 22,950, Oct. 11, 1873, from Secretary of Public Works to C. R. Ling, Reeve, &c., of the Township of St. Vincent, enclosing copy of O.C. No. 34,615 and 34,461, with map prepared by Engineer.

<p><b>J. Ross &amp; J. McKay, No. 4,319. April 10, 1874.</b></p>	<p>78,208</p>	<p>Nil.</p>	<p>Second letting. Contract given to M. M. Ross &amp; McKay at the original figure at F. W. McKenzie, the first contractor's request. See his letter No. 39,404, March 7, 1874; also his contract No. 4,126, July 22, 1873. Amount of contract \$78,208.</p>
<p><b>David Moore &amp; Co. No. 4,312. April 15, 1874.</b></p>	<p>182,630</p>	<p>212,540</p>	<p>Sixteen tenders received, the highest amounting to \$361,183; Schedule 38,863, Feb. 25, 1874. Fourth lowest accepted, \$212,540; O.C. 39,201, March 7, 1874. Lowest, J. S. Tolton, \$182,630. In reference to passing over this tender, John Page, Esq., Chief Engineer of Public Works, has reported in No. 65,167, Feb 16, 1877.—1st. That on being shown the list of tenders, after these had been opened and extended, he observed that the name of Mr. Wm. Sutton, Sheriff, Walkerton, one of the sureties in this case, had also appeared as a surety for Messrs. Harvey &amp; Korman, in connection with the contract for the new entrance to channel, &amp;c., at Goderich, which was awarded to them in 1871-72; he was however informed by this firm that Mr. Sutton was in some measure a partner, and was so very sharp and troublesome that they had to buy him out in order to get along in anything like a satisfactory manner. 2nd. That John S. Tolton's tender was at that time looked upon as so low that some trouble was taken to ascertain whether he was a person acquainted with such work, but no information could be obtained about him. The other surety offered was Henry Tolton, a farmer of Emarosa, and judging from the tender (which appears as if it were in Mr. Sutton's handwriting) it was feared that Mr. Tolton might also be a farmer unacquainted with the class of work required. He (Mr. Page) therefore advised it would be injudicious to entrust the execution of such work to him (Mr. Tolton), as it probably would result not only in a loss to the Government, but also prove ruinous to the man. Second lowest, Geo. Neilson,</p>
<p><b>South Ingomish, Cape Breton, N.S. Cribwork and dredging at entrance of inner harbour to 15 feet depth of water at lowest tides. Pier to be about 700 feet in length; channel to be about 200 feet wide. Engineer's Estimate, No. 22,969, May 15, 1873, \$85,000.</b></p>	<p>78,208</p>	<p>Nil.</p>	<p>Goderich Harbour, Lake Huron. Divert channel of the Maitland River; construct Docking on north side of Harbour; make up breach in South Pier; deepen and enlarge Harbour between the new docking and existing basin to an extent of 10 acres and a depth of 15 feet below the lake level of 1868, which was 51 feet below the top of piles supporting G.T.R. Elevator; additional Harbour accommodation, including the present space, to be at least 20 acres or such other area as required. Municipality to furnish \$20,000 towards removal of docking.</p>
<p><b>Carried forward.....</b></p>		<p>24,009,953</p>	<p>3,111,966</p>

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
	<i>Brought forward.....</i>	\$ 28,656,500	\$ 7,758,513	\$ 24,009,953	3,111,966	<i>Harbours and Piers—Con.</i>	
457	P. S. McLaren, No. 4,383 July 2nd, 1874.	1,975	1,975	.....	Nil.	Inverhuron Harbour, Lake Huron. Furnish timber for repairs to Wharf, about 540 feet long. Engineer's Estimate, \$5,000.	\$200,375. Third lowest, W. H. Ellis, \$212,155; at first accepted by O.C. No. 38,831, dated Feb. 23, 1874, because he was in a position to execute the work satisfactorily, the sureties being good and solvent; but Mr. Ellis having left the country, the contract was given to the next lowest, who is the present Contractor.
458	Cornelius Daly, No. 4,438. August 7, 1874.	5,792	5,792	.....	Nil.	Pictou Harbour, Lake Ontario. Dredging for vessels of 9 feet draught. \$75 per day, if mud is deposited 1½ mile from Brick Kiln Point outside the Harbour; \$50, if in cribs or on roads. Engineer's Estimate, No. 40,777, May 30, 1874, \$8,000.	Expenditure of \$5,000 authorized by O.C. No. 41,473, June 29, 1874. Work executed by days' labour. Contract awarded for timber to P. McLaren, as recommended by Supt. Lundie, at the same rates as those of Geo. Backbit, the first party to whom contract was offered, but who withdrew his tender. See Telegram 41,530. Amount of contract, \$1,975.
							Arrangements made with Corporation of Pictou to execute works under Mr. Kingford's direction, precautions being taken to ascertain value for work before payments are made, as authorized by Minister. See Engineer's Report No. 40,777, April 30, 1874. Contract was awarded by the Corporation of the Town of Pictou to Cornelius Daly. Amount of appropriation, \$6,000.

459	Toronto, Grey & Bruce Railway Co. No. 4,449. August 12, 1874.	2,656	2,656	Nil.	Owen Sound, Georgian Bay, in- provements. Dredge a chan- nel 100 feet to 180 feet wide from Wharf at foot of Peel Street to outer Light, with a depth of 10 feet.
460	Row & Koyl. Government to pay two-thirds. No. 4,374. Sept. 16, 1874.	74,820	87,286	12,466	Cobourg Harbour, Lake Ontario. Construct a Pier 1,650 feet long and 30 feet wide, of which 800 feet in 12½ feet to 21½ feet of water. Engineer's Estimate, \$80,000. To be paid by Gov- ernment, \$60,000; to be paid by Town of Cobourg, \$30,000.
461	Cornelius Daly. No. 4,447. October 22, 1874.	2,831	2,831	Nil.	Shannonville, Salmon River, Lake Ontario. Dredging en- trance to depth of 7 feet of water. Engineer's Estimate, \$3,000.
462	John Duffy & Co. No. No. 4,475 October 31, 1874.	224,940	224,940	Nil.	St. John, N.B. build a Break- water, 2,250 feet in length, from Negro Point southward across the West Channel to within 1,000 feet of Partridge Island. Engineer's Estimate, No. 38,082, March 4, 1874, \$220,000.
463	C. W. Moberly. No. 4,468. Dec. 4, 1874.	18,567	18,567	Nil.	Port Hope Harbour, Lake On- tario. Extension of Piers and Dredging to 13 feet depth of water. East Pier to be 120 feet long by 40 feet wide; pro- longation of West Pier, 150 feet long by 30 feet wide. En- gineer's Estimate, \$20,000.
		28,988,081	8,015,274	24,087,239	3,124,432
		<i>Carried forward.....</i>			

Ten tenders received, the highest amounting to \$137,050; Schedule 36,557, Nov., 1873. Second lowest accepted, the lowest tenderers having failed to proceed with the works O.C. 41,437, May 28, 1874. Lowest, Baker & Sutton, \$74,829; contract cancelled by O.C. 41,440, May 28, 1874, on account of their negligence to proceed with the works.

Three tenders received. Lowest accepted at \$75 per day, as recommended by Superintendent Engineer in No. 44,561, Sept. 28, 1874.

Fourteen tenders received, the highest amounting to \$408,538; Schedule 46,339, Nov. 26, 1874. Lowest accepted.

Expenditure authorized by O.C. 41,467, May 29, 1874, for \$20,000. Eight tenders received, the highest amounting to \$27,434. Schedule 46,927, Dec. 17, 1874. Lowest accepted.

PUBLIC WORKS, CANADA.----Continued.

Number	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
464	<i>Brought forward</i> ..... G. & H. McKay, No. 4,507. December 16, 1874.	\$ 28,988,081	\$ 8,015,274	\$ 24,097,239	\$ 3,124,432	<i>Harbours and Piers</i> ---Con.  New London, Prince Edward Island. Construct a Brush Breakwater, extending 650 feet north-west from northern end of old work towards outer Light, and repair existing works at entrance of Harbour.	Expenditure authorized by O. C. 42,624, June 17, 1874, for \$4,000. Five tenders received, the highest amounting to \$4,500; Schedule 45,925, Nov. 9, 1874. Lowest accepted.
465	J. S. McEwen, No. 4,531. December 24, 1874.	50,680	50,680	.....	Nil.	Bayfield Harbour, Lake Huron Extension of North Pier 50 feet wide, an arm to the south-west 200 feet in length. South Pier to be reconstructed for a total length of 641 feet. Crib-work to be 30 feet wide. Harbour to be dredged to a depth of 9 feet, which is to be increased to 11 feet at outer end.	Seventeen tenders received, the highest amounting to \$71,091; Schedule 47,770, Dec. 2, 1874. Lowest accepted.
466	T. McManus, & Sons, No. 4,518. Dec. 28, 1874.	9,000	.....	19,339	10,339	Richibucto Harbour, N.B. Extension of Pile Breakwater, now 320 feet in length, 880 feet further. Engineer's Estimate, No. 24,621, July 29, 1872, for work when fully completed	Expenditure authorized by O. C. 41,477, May 30, 1874, for \$20,000. Six tenders received, the highest amounting to \$52,500; Schedule 45,935, November 9, 1874. Second lowest accepted. Lowest, Water & Easly, \$9,000; much below actual value of the work. No

467	W. Warren .....	1,819	1,819	Nil.	Completion of Chicoutimi Pier. Engineer's Estimate, No. 42,955, July 4, 1874, \$1,865.	Report to Council made in connection with this work, which would indicate that T. McManus & Sons were considered to be the lowest available tenderers, the tender made by Water & Easby being less than half that of T. McManus & Sons.
468	Wm. Thomson. No. 4,307. February 7, 1874. J. West & Wm. O'Connor. No. 4,308. February 13, 1874.	1,496	1,496	Nil.	Repairs to Slide at Mountain Station, Ottawa Works.	Expenditure authorized by O. C. 43,121, May 28, 1874. Two tenders received, the highest amounting to \$2,052. Lowest accepted, No. 42,582, June 30, 1874. Second lowest, H. Dufour, \$2,052, No. 42,581, June 2, 1874. (For details respecting this work, see sheet for 1873.)
469	J. West & Wm. O'Connor. No. 4,305. February 13, 1874.	2,384	2,384	Nil.	Repairs on Madawaska River, from mouth to Chêne Rapids Slide, Ottawa Works.	Three tenders received, the highest amounting to \$2,263; Schedule 38,534, February 11, 1874. Lowest accepted.
470	J. West & Wm. O'Connor. No. 4,303. February 13, 1874.	2,129	2,129	Nil.	Repairs, (Lower) Petawawa River, at mouth. Construct two Piers and Boom. Ottawa Works.	Two tenders received, the highest amounting to \$2,653; Schedule 38,544, Feb. 11, 1874. Lowest accepted.
471	John Harvey. No. 4,304. February 17, 1874.	5,177	6,455	1,478	Repairs, (Upper) Petawawa River, from mouth to Long Sault Rapids, Ottawa Works.	Two tenders received, the highest amounting to \$2,339; Schedule 38,541, Feb. 11, 1874. Lowest accepted.
472	Robert Stanley. No. 4,466. September 25, 1874.	2,321	2,321	Nil.	Repair and strengthen two Boom Piers, Rivière des Prairies	Two tenders received, the highest amounting to \$6,655; Schedule 38,537, Feb. 11, 1874. Second lowest accepted, as recommended by Mr. Merrill. Lowest, West & O'Connor, \$5,177; declined to enter into contract. See 38,220, Feb. 5, 1874.
		29,066,897	8,079,913	24,123,233	3,136,249	Nine tenders received, the highest amounting to \$3,980; Schedule 47,787, Sept. 16, 1874. Lowest accepted.
		<i>Carried forward.....</i>				

## PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
473	<i>Brought forward</i> ..... Wm. Richards. No. 4,471. Oct. 24, 1874.	\$ 29,086,897	\$ 8,079,913	\$ 24,123,233	\$ 3,136,249	<i>Slides and Booms.</i> Repairs, &c., to upper and lower Slides, Des Joachims Station, Ottawa Works.	Eleven tenders received, the highest amounting to \$85,000. Schedule 46,300, Nov. 26, 1874. Lowest accepted.
474	O. Z. Hamel. No. 4,608. Oct. 24, 1874.	8,049	.....	9,736	1,687	Construct a Flat Dam at Grandes Piles Falls, River St. Maurice. Engineer's Estimate, \$8,824.	Nine tenders received for this work, which is additional to that comprised in Contract No. 3,567, awarded to O. Z. Hamel, the lowest bidder; Schedule 36,270, Nov. 7, 1873. Second lowest accepted. In order to avoid delays and arbitrations on claims which had arisen in connection with Mr. Hamel's first contract, this additional work was again awarded to him at the old Schedule rates contained in No. 3,567, Sept. 9, 1872, as strongly recommended by Mr. Symmes, the Superintendent of the St. Maurice Works. Lowest tender by Jos. Sanson amounted to \$8,049, and the highest to \$12,537.
475	John Proudfoot. No. 4,467. Dec. 18, 1874.	5,966	5,966	.....	Nil.	Rebuild Slide and Bulkhead, repair Dams, Booms and Piers, at Portage du Fort, Ottawa River.	Twenty-one tenders received, the highest amounting to \$15,402. Schedule 46,324, Nov. 26, 1874. Lowest accepted.
476	James Murphy. No. 4,308. Feb. 18, 1874.	15,863	.....	16,550	687	Construct a Boom, a Mooring Pier, four Anchor Piers, and enlarge upper Mooring Pier, three-fourths of a mile above mouth of Gatineau River.	Expenditure authorized by O. C. 38,587, Feb. 7, 1874. Six tenders received for whole work, the highest amounting to \$19,415; Schedule 38,556, Feb. 11, 1874. Third lowest accepted. Lowest, W. Pallen, \$15,863;



477	W. H. Carpenter & Co. No. 4,333. May 4, 1874.	75,000	75,000	.....	Nil.	<i>Roads and Bridges.</i> Working the line of Transportation for Passengers and Freight, between Thunder Bay and Fort Garry.	this tender was received nearly two days after the tenders had been opened; see No. 24,184, March 12, 1874, F. Braun to W. McKay Wright, in answer to 38,977, Feb. 27, 1874. Second lowest, J. Harvey, \$16,069; no reason.
478	O. F. Begg. No. 4,889. Oct. 8, 1874.	562	562	.....	Nil.	<i>Bridging</i> 300 Yards of Cariboo Muskeg, at North-West Angle, Lake of the Woods.	Nine tenders received, the highest amounting to \$300,069; see Nos. 40,120 to 40,728, April 18, 1874. Lowest accepted; O.C. 40,636, April 27, 1874.
479	Wm. H. Carpenter & Co. No. 4,545. Oct. 21, 1874.	16,000	16,000	.....	Nil.	Will take charge of Government Plant, &c., on Red River Route	Given out by Mr. Dawson (see letter from D. M. Grant); No. 55,124, Nov. 17, 1875 (transmitting contract). Amount of contract, \$662.
480	Daniel Fraser. No. 4,533. Dec. 29, 1874.	800	800	.....	Nil.	Keep in repair, Metapedia Road, one year.	Agreement with lowest contractor for transportation of passengers, &c., between Thunder Bay and Fort Garry.
481	Bonneville & O'Brien. No. 4,302. Feb. 21, 1874.	8,097	8,097	.....	Nil.	Richelieu River—construct seven Supporting Piers and Booms above Belœil Bridge, and in two lines to form an entrance to the channel under the Bridge	Contract continued with Daniel Fraser at same rates as heretofore. See No. 47,095, Dec. 26, 1874, and No. 28,386, Dec. 23, 1874, to D. Fraser.  Expenditure authorized by O. C. 31,297, May 30, 1873. Seventeen tenders received, the highest amounting to \$25,295. Lowest accepted. Schedule 38,169, Feb. 3, 1874.
482	John Heney. No. 4,469. Oct. 12, 1874.	4,059	4,059	.....	Nil.	<i>Improvement of Rivers.</i> Continue Dredging on the north side of the Gatineau River, 850 feet up stream from the end of the dredging already completed	Further work in connection with existing Contract, No. 4,223, authorized by Minister; see No. 44,390, Sept. 22, 1874. On recommendation of H. Merrill, September, Ottawa River Works.
483	Martineau & Gingras (with Quebec Harbour Commissioners). No. 4,503. Oct. 29, 1874.	18,500	18,500	.....	Nil.	St. Lawrence River, near Quebec, construct a Lifting Barge 104 ft. long, 38½ ft. width of beam, and 10½ ft. depth of hole, for removing Chains and Anchors from bed of river.	Quebec Harbour Commissioners authorized to expend the \$25,000 voted by Parliament for the construction of this barge, and requested to forward a copy of the contract; see O. C. 41,578, June 1, 1874. Amount of Contract, \$18,500.
		29,256,793	8,215,637	34,149,519	3,138,623	Carried forward.....	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
481	<i>Brought forward</i> ..... A. LePage. No. 66. 1874. Verbal agreement	\$ 29,236,793	\$ 8,215,887	\$ 24,149,519	\$ 3,138,623	<i>Intercolonial Railway.</i> Station House, Bic, Province of Quebec.	Let without competition by C. Schrieber, under authority of Commissioner Brydges.
485	Wm. Hamilton. Feb. 6, 1874.	4,100	4,100	.....	Nil.	Two hundred Platform Cars.....	Five tenders received, the highest amounting to \$116,000. Lowest, William Hamilton, \$103,000, accepted.
486	Canada Car Co. Feb. 6, 1874.	103,000	103,000	.....	Nil.	One hundred sets of Trucks....	Five tenders received, the highest amounting to \$41,600. Lowest, Canada Car Co., \$34,400, accepted.
487	Manchester Locomotive Works. Feb. 6, 1874.	34,400	34,400	.....	Nil.	Five Locomotives .....	Let after communication by C. J. Brydges with Engine Builders.
488	Wm. Stewart. No. 4,330. May 18, 1874.	50,000	50,000	.....	Nil.	Richmond, N.S. Embankment to connect Wharf with Inter- colonial Railway Station grounds.	Twenty-one tenders received; Schedule 6,677, R. W. B., Dec. 30, 1874. Seventh lowest accepted, O. C. 6,408, April 7, 1874. Lowest, S. D. Oakes—earth excavation, \$1.45 per cubic yard; rock excavation, 30c. per cubic yard. See Schedule of Tenders, No. 6,277; very far below actual cost of such work, favourably situated. Second lowest, T. McManus & Sons—earth excava- tion, 30c. per cubic yard; rock excavation, 89c. per cubic yard; far below actual cost of such work. Contract offered to this firm, who refused to sign it; see O.O. 6,208, February 23, 1874. Third lowest,

G. & D. Sutherland—earth excavation, 30c. per cubic yard; rock excavation, \$1.05 per cubic yard; too low, considering the many difficulties attending the execution of such work. See 6,013, Engineer's Report, Jan. 15, 1874. Fourth lowest, Alex. Forbes & Co.—earth excavation, 29c. per cubic yard; rock excavation, \$1.17 per cubic yard; same reasons as third tenderers, G. & D. Sutherland. Fifth lowest, Frankford Davis—earth excavation, 30c. per cubic yard; rock excavation, \$1.20 per cubic yard; party not possessed of sufficient energy or resources to carry the work through to completion. Sixth lowest, John D. Fraser & Co.—earth excavation, 30c. per cubic yard; rock excavation, \$1.25 per cubic yard; parties not possessed with sufficient energy or resources to carry the work through to completion. See Nos. 6,013 and 6,361, Railway Branch letters, from C. Schrieber.

Eight tenders received for the whole work, the highest amounting to \$3,804; Schedule 6,784, April 11, 1874. Also six tenders received for part of the work. Third lowest accepted: O.C. 6,858, May 29, 1874. Lowest, W. M. Robertson, \$1,090; incorrect. Second lowest, Isaac Logan, \$1,188; declined to enter into contract, which was first awarded to him by O.C. 6,720, May 4, 1874. See Telegram No. 6,834, May 20, 1874.

Forty-six tenders received, the highest amounting to \$8,950; Schedule 5,960, Dec. 29, 1873. Lowest accepted, No. 5,809, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, January 12, 1874.

Forty-six tenders received, the highest amounting to \$18,150; Schedule 5,980, Dec. 29, 1873. Lowest accepted, Tender No. 5,942, Dec. 29, 1863. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 21,

489  
121

Saml. McKean, No. 4,375, March 4, 1874.

1,090 ..... 2,065 975

Timber Trestle-work (Coal Siding) at Sussex, Moncton, Amherst and Shubenacadie.

Eight tenders received for the whole work, the highest amounting to \$3,804; Schedule 6,784, April 11, 1874. Also six tenders received for part of the work. Third lowest accepted: O.C. 6,858, May 29, 1874. Lowest, W. M. Robertson, \$1,090; incorrect. Second lowest, Isaac Logan, \$1,188; declined to enter into contract, which was first awarded to him by O.C. 6,720, May 4, 1874. See Telegram No. 6,834, May 20, 1874.

480

Warren Taylor, No. 4,346 March 20, 1874.

4,900 ..... 4,900 Nil.

Deliver 20,000 Pine Ties between Sussex and St. John.

Forty-six tenders received, the highest amounting to \$8,950; Schedule 5,960, Dec. 29, 1873. Lowest accepted, No. 5,809, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, January 12, 1874.

491

D. W. McLellan, No. 4,347, March 20, 1874.

7,200 ..... 7,200 Nil.

Deliver 10,000 Spruce and 10,000 Hemlock and 20,000 Pine Sleepers between Sussex and Point du Chêne.

Forty-six tenders received, the highest amounting to \$18,150; Schedule 5,980, Dec. 29, 1873. Lowest accepted, Tender No. 5,942, Dec. 29, 1863. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 21,

29,456,968 8,419,497 24,178,817 3,141,968

Carried forward.....

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price Given.	Nature of Contract.	Explanations.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.		
492	<i>Brought forward.....</i> John A. Breton. No. 4,339. March 23, 1874.	220	8,419,497	24,178,817	3,141,956	<i>Intercolonial Railway—Con.</i> Deliver 800 Spruce and 200 Hemlock Sleepers, between Truro and Halifax.	Sixty-one tenders received, the highest amounting to \$390; Schedule 5,980. Dec. 29, 1873. Lowest accepted. Tender No. 5,953, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
493	Jacob Harvey. No. 4,340. March 23, 1874.	660	660	.....	Nil.	Deliver 2,000 Spruce and 1,000 Hemlock Sleepers, between Truro and Halifax.	Sixty-one tenders received, the highest amounting to \$1,150; Schedule 5,980. Dec. 29, 1873. Lowest accepted. Tender No. 5,819, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
494	Wm. Kennedy. No. 4,351. March 20, 1874.	710	710	.....	Nil.	Deliver 3,000 Spruce and 500 Hemlock Sleepers, between Halifax and Truro.	Sixty-one tenders received, the highest amounting to \$1,375. Lowest accepted. Tender No. 5,815, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
495	J. W. Stevens. No. 4,353. March 22, 1874.	860	860	.....	Nil.	Deliver 2,000 Spruce and 2,000 Hemlock Sleepers, between Halifax and Truro.	Sixty-one tenders received, the highest amounting to \$1,500. Lowest accepted. Tender 5,834, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
496	Wm. Faulkner, Jr. No. 4,341. March 23, 1874.	315	315	.....	Nil.	Deliver 1,500 Hemlock and Spruce Sleepers, between Halifax and Truro.	Sixty-one tenders received, the highest amounting to \$662.50. Lowest accepted. Tender 5,807, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.

497	John Ross. No. 4,342. March 23, 1874.	124	124	Nil.	Deliver 200 Spruce and 400 Hemlock Sleepers, between Halifax and Truro.	tions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874. Sixty-one tenders received, the highest amounting to \$220. Lowest accepted. Tender 5,923, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
498	James Burreis. No. 4,343. March 23, 1874.	116	116	Nil.	Deliver 100 Spruce, 200 Pine and 200 Juniper Sleepers, between Truro and Halifax.	Sixty-one tenders received, the highest amounting to \$219.50. Lowest accepted. Tender 5,927, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
499	Jacob Dowell. No. 4,350. March 23, 1874.	216	216	Nil.	Deliver 400 Spruce and 700 Hemlock Sleepers, between Truro and Halifax.	Sixty-one tenders received, the highest amounting to \$405. Lowest accepted. Tender 5,873, Dec. 22, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
500	Wm. Etter. No. 4,344. March 23, 1874.	2,640	2,640	Nil.	Deliver 6,000 Spruce and 6,000 Hemlock Sleepers, between Windsor Junction and Windsor.	Eighteen tenders received, the highest amounting to \$3,480. Lowest accepted. Tender 5,792, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
501	Leblanc & White, No. 4,345. March 23, 1874.	1,730	1,730	Nil.	Deliver 3,500 Spruce, 2,000 Hemlock and 1,000 Pine Sleepers between Dorchester and Paisement Junction.	Forty tenders received, the highest amounting to \$3,185. Lowest accepted. Tender 5,917, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
502	Thos. Parker. No. 4,348. March 24, 1874.	1,730	1,730	Nil.	Deliver 2,000 Spruce, 2,000 Hemlock, 1,000 Pine and 2,000 Juniper Sleepers, between Halifax and Truro.	Sixty-one tenders received, the highest amounting to \$2,850. Lowest accepted. Tender 5,899, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
503	G. W. Walker. No. 4,952. March 24, 1874.	230	230	Nil.	Deliver 200 Spruce, 400 Hemlock, 200 Pine and 200 Juniper Sleepers between Halifax and Truro.	Sixty-one tenders received, the highest amounting to \$400. Lowest accepted. Tender, No. 5,828, Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
			28,465,909	34,178,817	3,141,956	
		Carried forward.....				

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract	Explanation.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.		
504	Brought forward.....	29,465,909	8,429,048	24,178,817	3,141,966	Intercolonial Railway.—Con.	
505	D. D. Buchanan, No. 4,349. April 8, 1874.	4,000	4,000	.....	Nil.	Deliver 20,000 Spruce Sleepers between Truro and Pictou.	Fifty-four tenders received, the highest amounting to \$6,000. Lowest tender No. 5,814, accepted; Dec. 29, 1873. See instructions on No. 5,730, Dec. 22, 1873, and No. 5,946, Jan. 12, 1874.
505	Thos. Currie, No. 4,317. April 7, 1874.	4,639	.....	5,210	571	Build a Customs Warehouse at St. John Station, on the Intercolonial Railway.	Thirteen tenders received, the highest amounting to \$16,248; Schedule 6, 195, Feb. 4, 1874. Third lowest accepted, \$5,210; O. C. 39,151, March 4, 1874; \$600 taken off by Contractor on condition of being relieved of the making of the new road, which was dispensed with, as recommended by C. Schreiber, Esq. (see No. 6,436, March 26, 1874), and the amount of contract was thus reduced to \$4,610. Lowest, Andrew Myles, \$4,243; informal; see Schedule 6, 196. Second lowest, Wm. M. Robertson, \$4,639; nothing could be learned relative to this party, and as it was necessary to proceed at once with the works, the next lowest was accepted; see O. C. 39,151, March 4, 1874, and R. to C. 3,581, March 2, 1874, and O. C., March 31, 1874. No. 6367.

506	J. E. Martineau. April 10, 1874.	23,985	23,985	Nil.	Three hundred tons of Spikes for the Intercolonial Railway.	Sixteen tenders received, the highest amounting to \$30,000. Lowest accepted.
507	Ryan & Booth. No. 66. April 14, 1874.	61,568	80,199	18,633	Tracklaying and Ballasting on Sections 20, 21, 22 and 23, in all about 72½ miles.	Thirty-eight tenders received, the highest amounting to \$247,889. Ninth lowest, Ryan & Booth, \$80,199, accepted. Lowest, J. P. Larrivé & Co., \$61,568; no reason. 2nd lowest, A. LePage.....\$61,566 do 3rd do Germain Langis 66,724 do 4th do G. Dixon..... 66,724 do 5th do Alex. McLean... 72,988 do 6th do Alf. LeBel..... 72,988 do 7th do W. Wilson & Co 73,403 do 8th do J. M. Piblado .. 78,486 do One-third of the work was first awarded to P. Purcell, which he gave up.
508	Jas. S. Scott & Co. No. 4,452. May 12, 1874.	320	352	32	Erect a Fence between Shubena-cadie and Stewiacke. Pole Fence, 55c. per rod.	Five tenders received, the highest amounting, at 75c. per rod, to \$488. The third lowest accepted. Lowest, Ben. Donnell, at 50c., \$320. Second lowest, R. Moore, at 55c., \$339.20.
509	Thos. Lindsay, jun. No. 4,453. May 14, 1874.	384	480	96	Erect a Fence between Stewiacke and Brookfield. Pole Fence, 50c. per rod.	Six tenders received, the highest amounting, at 75c. per rod, to \$720. The second lowest accepted. Lowest, J. W. Stevens, at 40c., amounting to \$384.
510	R. Christie. No. 4,457. May 15, 1874.	686	686	Nil.	Erect a Fence between Truro and Pictou. Board Fence, \$1 per rod; Pole Fence, 60c. per rod.	Twelve tenders received, the highest amounting, at \$1.75, board fence, to \$ ; pole fence, at \$1.60, to \$ . Lowest accepted.
511	Geo. Christie. No. 4,454.....	724	724	Nil.	Erect a Fence between Truro and Riversdale. Pole fence, 55c. per rod.	Nine tenders received, the highest amounting, at \$1.10 per rod, to \$1,449.80. Lowest accepted.
	<i>Carried forward.....</i>	<b>29,563,318</b>	<b>34,265,068</b>	<b>3,161,288</b>		

PUBLIC WORKS, CANADA ----Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$ cts.	\$ cts.	\$ cts.	\$ cts.		
	<i>Brought forward.....</i>	29,502,213	8,858,443	24,265,058	3,161,288		
512	A. MacDonell. No. 4,456. May 18, 1874.	1,203	1,203	.....	Nil.	Erect a Fence between Windsor Junction and Elmsdale. (Pole Fence, 47 cents per rod.)	Twelve tenders received, the highest amounting, at 95 cents per rod, to \$2,432.40. Lowest accepted.
513	A. Forbes & T. McLeod. No. 4,458. May 19, 1874.	603	.....	804	201	Erect a Fence between Elmsdale and Milford. (Pole Fence, 60 cents per rod.)	Eleven tenders received, the highest amounting, at \$1.01 per rod, to \$1,353.40. The fifth lowest accepted. Lowest, Archy McDonald, at 45 cts, amounting to \$693; 2nd lowest, Allan McDonald, at 47 cts., amounting to \$629; 3rd lowest, Ben. Donnell, at 50 cts., amounting to \$670; 4th lowest, Henry Donaldson, at 50 cts, amounting to \$670.
514	A. Forbes & T. McLeod. No. 4,459. May 23, 1874.	3,128	.....	3,454	326	Erect a Fence between Windsor Junction and Brookfield, and between Mildford and Schubenacadie. (Board Fence, \$1.10 per rod; Pole Fence, 60 cents per rod.)	Nineteen tenders received, the highest amounting, at \$1.75, board fence, \$1.11, pole fence, to \$..... The third lowest accepted. Lowest, Ben. Donnell, at \$1 for board and 50c. for pole, \$3,128. Second lowest, Archy McDonald, at \$1.14 for board and 45c. for pole, \$3,436.



515	John C. Archibald, No. 4,407. May 26, 1874.	30	.....	30	Nil.	Supply 600 Fir Fence Poles, delivered between Valley and Union, at 5 cents.	Two tenders received, the highest amounting, at 5 cents each, to \$30. Lowest accepted.
516	A. Forbes & T. McLeod. No. 4,408. May 26, 1874.	495	.....	495	Nil.	Supply 2,000 Posts, at 6 cents, and 7,500 Poles, at 5 cents, delivered between Wellington and Pictou.	Twenty-one tenders received, the highest amounting, at 20¢ cents posts and 10 cents rails, to \$1,160. Lowest accepted.
517	R. J. Thingley.....	40	.....	40	Nil.	Supply 1,000 Poles, at 4 cents, delivered between Riversdale and West River.	Four tenders received, the highest amounting, at 5¢ cents each, to \$55. Lowest accepted.
518	L. Donaldson. No. 4,410. May 26, 1874.	15	.....	15	Nil.	Supply 250 Mixed Poles, delivered at Enfield, at 6 cents.	Three tenders received, the highest amounting, at 10 cents each, to \$25. Lowest accepted.
519	C. D. Fillmore. No. 4,413. May 26, 1874.	84	.....	95	11	Supply 2,100 Mixed Poles, at 4¢ cents, delivered between Thompson and Oxford.	Five tenders received, the highest amounting, at 7½ cents each, to \$157.50. Second lowest accepted. Lowest, Forbes & McLeod, at 4 cents, amounting to \$84; declined to accept for small quantity.
520	H. L. Ferguson. No. 4,409. May 28, 1874.	1,080	.....	1,330	250	Supply 17,000 poles, at 5 cents, and 8,000 Poles, at 6 cents, delivered between Truro and Paissec.	Eleven tenders received, the highest amounting, at 6½ cents and 7 cents, to \$1,695. Second lowest accepted. Lowest, J. Fitzsimmons, at 4 cents and 5 cents, to \$1,080; declined to accept contract.
521	J. Gordon. No. 4444. June 4, 1874.	40	.....	50	10	Supply 1,000 Poles, at 5 cts., delivered at Gordon's Summit.	Eight tenders received, the highest amounting to \$60. Third lowest accepted. Lowest, R. J. Thingley, at 4 cts., \$40. Second lowest, Ben. Langill, at 4½ cts., \$45.
522	A. Forbes & J. Hamilton. No. 4,455. Aug. 7, 1874.	961	.....	988	27	Erect a Fence between Port du Chêne and St. John : Pole Fence, 60 cts. per rod : Board Fence, \$4.10 per rod. Sussex to St. John..... Port du Chêne to Sussex, \$1.05.	Contract first awarded to Arch. McKay, the lowest bidder, viz. : at 75 cts. per rod for pole fence, and 98 cts for board fence, was transferred by Mr. Carvell to the next lowest tenders, owing to negligence of original contractors to prosecute the work ; see No. 6,941, June 17, 1874.
		29,568,892	8,460,326	24,271,779	3,162,113	Carried forward,....	

PUBLIC WORKS, CANADA---Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of Lowest Tender received.	Amount of Contract Awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
523	<i>Brought forward</i> .....	\$ 29,569,892	\$ 8,460,226	\$ 24,271,779	\$ 3,162,113	<i>Intercolonial Railway.—Con.</i>	
	Duncan McDonald. No. 58. Aug. 28, 1874.	\$ 35,604	.....	49,149	13,542	Track-laying and Ballasting on Sections 10, 16 and 20—in all, 45 miles—Province of New Brunswick.	Thirty-one tenders received, the highest amounting to \$134,680.61 The seventh lowest, Duncan McDonald, \$49,146, accepted. Lowest, J. P. Larrivée & Co., \$35,604; no reason. Second lowest, A. LePage, \$35,689; no reason. Third lowest, G. Dixon, \$38,108; no reason. Fourth lowest, Germain Langis, \$39,115; no reason. Fifth lowest, Alex. McLean, \$41,183; no reason. The Commissioners recommend the acceptance of tender of Duncan McDonald.
524	Wm. Corbett. No. 4,464. Sept. 2, 1874.	2,400	2,400	.....	Nil.	Build two Freight Houses, one at Brookfield Station, and another at Apohaqui Station.	Twelve tenders received for Brookfield Freight House, the highest amounting to \$1,975. Thirteen tenders received for Apohaqui Freight House, the highest amounting to \$2,200; No. 7,334, Aug. 28, 1874. Lowest accepted.
525	Angus Barclay & Co. No. 4,479. Sept. 10, 1874.	1,640	1,640	.....	Nil.	Build a Car Shed at Truro.....	Nine tenders received, the highest amounting to \$2,980; No. 7,334, Aug. 28, 1874. Lowest accepted.

526	Sam. McKean. No. 4,848. Sept. 16, 1874.	178,302	178,302	.....	Nil.	Grading and Masonry extension from Richmond to Halifax.	Twelve tenders received; Schedule 7,216, Aug. 8, 1874. Lowest accepted.
527	McCarron & Cameron. No. 73. Oct. 28, 1874.	41,349	41,349	.....	Nil.	Track-laying and Ballasting on Sections 13, 14, 17 and part of 18—about 73 miles.	Forty-eight tenders received, the highest amounting to \$128,471. The lowest, McCarron & Cameron, \$41,349, accepted.
528	Geo. J. Grant. No. 4,505. Nov. 6, 1874.	987	987	.....	Nil.	Build Passenger Station at Bedford, N.S.	Five tenders received, the highest amounting to \$1,900; Schedule 7,550, Oct. 21, 1874. Lowest accepted.
529	Geo. J. Grant. No. 4,506. Nov. 6, 1874.	3,011	3,268	.....	257	Build Passenger Stations, one at Stellarton, for \$1,648, and one at Shubenacadie, for \$1,620.	Six tenders received for Shubenacadie Station, the highest amounting to \$2,300, and six for Stellarton, highest amounting to \$2,200; Schedule 7,580, Oct. 21, 1874. Second lowest for both stations accepted. Lowest, John Fielding, \$3,011; declined to accept. Shubenacadie..... \$1,496 Stellarton..... 1,515 3,011 Tenders from M. Jorah, A. Monro & Co., and Barclay, received too late.
530	Anglo - American Telegraph Co.	6,528	6,528	.....	Nil.	Prince Edward Island Railway Laying Telegraph Line between Charlottetown and Summerside.	Estimated cost, 204 miles at \$60= \$12,240. The A. A. T. C. to bear as their proportion..... \$5,712 The Government to pay as their proportion..... 6,528 \$12,240 The A. A. Telegraph Co. to be allowed to string extra wires on the posts at their own cost. The A. A. Co. to maintain line in good working order. Mr. Swynyard, reports, Sept. 2, 1874, No. 7,351, that A. A. Co. ask for amendment in clause to telegraphing from Charlottetown, the limit of free messages from island to mainland shall be seventy-five words per day. He thinks this reasonable. Approved, O. C.
		29,839,713	24,324,193	8,691,439	3,175,912	<i>Carried forward.....</i>	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number of Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
531	Brought forward..... Jos. Whitehead (5th). No. 4,441. Aug. 31, 1874.	\$ 29,839,713	8,691,432	\$ 24,324,191	\$ 3,175,912	Canadian Pacific Railway.  Grading and form Road Bed, Pembina Branch, at 22c. per cubic yard.	Twenty-one tenders received, the highest amounting to \$36,363, at 59c. per yard; Schedule 7,999, Jan. 29, 1875. Second lowest accepted. Lowest, C. Peach, \$190,909, at 21c. per yard cube; failed to furnish security required when called upon, C.C. No. 7,363, Sept. 7, 1874.
532	Sifton, Glass & Co. No. 4,483. Oct. 17, 1874.	\$ 38,750	.....	107,850	69,100	Construct 250 miles of Telegraph Line from Fort Garry to Livingston, opposite Fort Pelly, \$492 for woodland, &c., \$189 through prairies per mile, maintaining, \$16 per mile per annum for operating with profits.	Fifteen tenders received of various forms; Schedule 7,244½, Aug. 12, 1874. Fourth lowest accepted, according to Mr. Fleming's classification. See letter, S. Fleming to F. Braun, dated Aug. 10, 1874, enclosed in No. 7,244½. Lowest, R. Fuller, Winnipeg, \$38,750; contract at first awarded to this party, on condition that he will obtain from a bank a certificate of deposit for \$10,000 to the credit of the Minister of Public Works as security. See Tel. No. 4,694½, T. Trudeau to R. Fuller, dated Ottawa, Aug. 15, 1874, which condition was accepted by Tel. No. 7,242, from R. Fuller to Hon. A. Mackenzie, dated Fort Garry, Aug. 18, 1874. In the interview with Mr. Fleming on Sept. 14, 1874, at Ottawa, Mr. Fuller stated that his tender for that portion of the line between Fort Garry and Fort Pelly,

Sec. No. 1, was based on carrying the line south of the Riding Mountain, and almost entirely through a prairie country; that if it was taken north of the Riding Mountain, he would require to be paid \$20 per acre for all the clearing necessary to be done; this having the effect of adding between fifty and sixty thousand dollars to the sum mentioned in the tender under consideration, Mr. Fleming intimated to Mr. Fuller, as directed by the Minister, that the altered terms proposed by him could not be entertained by the Government. See letter, S. Fleming to F. Braun, dated Ottawa, Sept. 16, 1874, and letter from R. Fuller to S. Fleming, Sept. 16, 1874, both enclosed in No. 7,244<sup>3</sup>. Second lowest, H. P. Dwight, \$56,250, on behalf of North Western Telegraph Co. On Sept. 16, 1874, the following Tel. No. 4,185, signed F. Braun, was sent to H. P. Dwight, Toronto. "The Minister of Public Works directs me to enquire whether the Montreal Telegraph Co. is still prepared to carry out Section 1, Pacific Telegraph Line, Fort Garry to Fort Pelly, according to your tender; the answer received enclosed in No. 7,287, and dated Sept. 17, 1874 is as follows:—'The Telegraph Co. on whose behalf I forwarded tender for telegraph line from Fort Garry to Fort Pelly, are quite ready to carry it out on the terms named. I forwarded yesterday from Toronto, under cover, to Mr. Buckingham, another tender for completing line from Fort Pelly to Edmonton, in a manner and on terms which I think will be worth Mr. Mackenzie's attention.' This tender was accepted by a telegram sent in answer to the above, Sept. 17, 1874. On Oct. 5, 1874, however, the following letter was addressed to F. Braun, Esq., by Sandford Fleming, Esq., Chief-Engineer, Canadian Pacific Railway.

"OTTAWA, Oct. 5, 1874.  
 "Sir,—Referring to my letter of Sept. 16, respecting the tender for the Pacific Railway Telegraph, and the subsequent award of Section No. 1 to the parties represented by H. P. Dwight. It appears that these parties, who

	30,069,372	8,691,432	24,937,013	3,254,103
<i>Carried forward</i> .....				

PUBLIC WORKS, CANADA ---- Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
	<i>Brought forward ..</i>	\$ 30,089,372	\$ 8,691,432	\$ 24,632,043	\$ 3,254,103	<i>Canadian Pacific Railway—Con.</i>	<p>have recently been here, now decline to execute the contract on the ground that they did not embrace the clearing required in the wooden portion in their calculations; and they would require to be paid extra for clearing, at the rate of \$320 per mile, &amp;c., &amp;c. (Signed) SANDFORD FLEMING. F. BRAUN, Esq., Secretary Public Works. I am, &amp;c.,</p> <p>Third lowest, Waddle &amp; Smith, \$106,250. The tender of this firm for Section 5 was the lowest submitted, and the Engineer-in-Chief considered if this section was awarded to them, as recommended, it would require all their energies to complete it. See No. 7,244}. This Section, No. 5, was offered to them, and a Contract, No. 4,443, prepared accordingly; this contract, however, had to be cancelled, tenderers having failed to procure securities. Contract for Section No. 5 was then awarded to Oliver Davidson &amp; Co. who tendered in the name of Sutton, Thompson &amp; Co. On Oct. 6, the following letter, No. 4,239, was addressed by F. Braun to Sifton, Glass, &amp; Co.: "Are you prepared to contract for Section No. 1, Telegraph Line, as tendered for July 22 last; if so, state</p>

nature of five per cent. on contract amount; you will give also names and address in full of two solvent securities." The answer received by telegraph on Oct. 7, 1874 from London, Ont. is: "We will enter into contract for Section 1, as per tender July 22 last; will give particulars in a few days. (Signed) SIFTON, GLASS & Co.

Thirteen tenders received; Schedule 7, 2443, Aug. 12, 1874. Lowest accepted; No. 7, 2443, Aug. 12, 1874; S. Fleming to Hon. A. Mackenzie.

Fifteen tenders received of various forms; Schedule 7, 2443, Aug. 12, 1874. Third lowest accepted. Lowest, Wm. R. MacDonald, of Yale, B.C., \$133,225. With respect to this Contractor's reliability, Chief Engineer S. Fleming gives his opinion in Report No. 7, 2443 as follows: "The price he asked for the work, is, in my judgment, so low, and the time within which he would undertake to complete it, so short, that I have grave doubts as to the tender being *bona fide*." Second lowest, Waddle & Smith, of Kingstons, \$224,500, who are also the lowest for Section 5, according to Mr. Fleming's classification, which Section (5), if awarded to them as recommended, would require all their energies; See No. 7, 2444, Aug. 12, 1874, comprising Chief Engineer's Report, and approved of the same by the Minister, who authorizes Mr. Fleming to communicate with the parties who tendered for Sections 1, 2, 3, 4, 5.

Construct 550 miles of Telegraph Line from Livingstone, opposite Fort Pelly, to Edmonton. Schedule of rates: \$213.18 per mile; \$23.63 per mile, or \$13,000 per annum for maintenance.

Construct 550 miles of Telegraph Line from Edmonton to Cache Creek, \$495 per mile; \$46.50 per mile per annum for maintenance, and operating without profits.

R. Fuller. Section No. 3. No. 4,472. Oct. 30, 1874.	117,250	117,250	.....	Nil.	Construct 550 miles of Telegraph Line from Livingstone, opposite Fort Pelly, to Edmonton. Schedule of rates: \$213.18 per mile; \$23.63 per mile, or \$13,000 per annum for maintenance.
F. J. Barnard. Section No. 4. No. 4,462. Nov. 10, 1874.	133,225	272,250	.....	139,025	Construct 550 miles of Telegraph Line from Edmonton to Cache Creek, \$495 per mile; \$46.50 per mile per annum for maintenance, and operating without profits.
<i>Carried forward</i> .....					
					3,393,128

PUBLIC WORKS, CANADA — Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
535	Brought forward..... Guest & Co. (H. O. V. Post, Agent). No. 4,536. Dec. 23, 1874.	\$ 30,319,847	\$ 8,808,682	\$ 24,904,293	\$ 3,393,128	Canadian Pacific Railway.— Con. Supply 5,000 tons Steel Rails, at \$64 per ton, delivered at Mon- treal; 5,000 tons Steel Rails, at \$55.24 per ton, delivered at Montreal; 80 tons bolts, at \$93.29, delivered at Montreal.	Thirty-six proposals received for the supply of steel rails in quantities not less than 5,000 tons, and proportionate quantity of fish-plates, the highest being for delivering steel rails and plates at Montreal at the rate of \$82.73 per ton; Schedule 8,043, Feb- ruary 1, 1875. The tender for 5,000 tons, at \$64.00 per ton, as accepted, is the second lowest offer received for rails delivered at Mon- treal. The tender for 5,000 tons, at \$55.24 per ton, as accepted, is the sixth lowest offer received for rails delivered at Montreal. The lowest tenders were the West Cumberland Iron and Steel Co. of Workington, Eng., through Cox & Green, Montreal, and the Ebbw Vale Steel, Iron and Coal Co., through Jas. Robinson & Co., Agents, London, Eng., whose tenders were equal, both being at the rate of \$63.53 per ton of rails and proportionate quantity of fish-plates. These two firms obtained Con- tracts Nos. 4,527 and 4,540 for quantity of steel rails, plates and bolts, tendered for, amounting to \$790,937. Third lowest tender received from the Mersey Steel and Iron Co., Liverpool, through Cooper, Fairman & Co., Montreal, for 5,000 tons, at \$54.26 per ton, of steel rails and fish-plates delivered at Montreal. This firm obtained



536	C. F. Dunbar. No. 4, 713. July 17, 1875.	499,627	499,627	Nil.	Welland Canal. Enlargement Section No. 36; length, 4,300 ft., Port Colborne; deepening and widening Channel and Basin; Pier Work (Guard Lock not included), Rock Excavation. Engineer's Estimate.	Contract No. 4,538 for the supply of 20,000 tons of steel rails, at \$54.26, and 160 tons of bolts, at \$101, delivered at Montreal, amounting to \$1,101,360. Fourth lowest tender by the Aberdare Co., through Thos. Reynolds, jun Agent, London, Eng., for 5,000 tons, at \$54.75 per ton, of steel rails and plates delivered at Montreal. Fifth lowest received from Riee, Lewis & Son, Toronto, for from 5,000 to 10,000 tons of steel rails and plates, at \$55 per ton, delivered at Montreal.	
537	C. F. Dunbar. No. 4, 715. July 17, 1875.	79,447	79,447	Nil.	Enlargement Section No. 24, between Port Robinson and Welland; length, one mile; Earth Excavation and Dredging. Engineer's Estimate.	Six tenders received, the highest amounting to \$1,080,679; Schedule 52,991, Aug. 26, 1875. Lowest tender accepted.	
538	Blake Bros. & Campbell. No. 4, 719. July 27, 1875.	87,890	87,890	Nil.	Enlargement Section No. 4, new line, between Port Dalhousie and Florold; length, 3,250 ft.; 1 Swing Bridge, alteration. Earth Excavation. Engineer's Estimate.	Seven tenders received, the highest amounting to \$114,397; Schedule 53,000, Aug. 26, 1875. Lowest tender accepted.	
539	Ferguson, Mitchell & Symmes. No. 4, 723. July 27, 1875.	143,755	143,755	Nil.	Enlargement Section No. 25, between Port Robinson and Welland; length, 1 mile; 2 Swing Bridges, Earth Excavation and Dredging. Engineer's Estimate.	Twenty-two tenders received, the highest amounting to \$169,877; Schedule 52,967, Aug. 26, 1875. Lowest tender accepted.	
				Carried forward.....	31,873,881	25,457,956	3,403,706

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
540	<i>Brought forward</i> ..... Lobb, Dawson & Murray. No. 4,728. July 27, 1875.	\$ 31,673,651	\$ 9,619,401	\$ 25,457,956	\$ 3,403,706	<i>Welland Canal.</i> —Con.  Enlargement Section No. 12, between Port Dalhousie and Thorold; length, 2,115 ft.; 2 Locks, 2 Weirs, 1 Swing Bridge, 1 Culvert, 1 Tunnel for Railway. Earth and Rock Excavation. Engineer's Estimate.	Nine tenders received, the highest amounting to \$710,385; Schedule 52,977, Aug. 26, 1875. Lowest tender accepted, being the third letting. First tenders received from Sept. 25 to Oct. 18, 1873, were rejected; see note opposite Section No. 14, No. 37,327, Dec. 23, 1873. Second tenders received from Jan. 5 to 21, 1874, were also rejected. Third tenders received in July 1875.
541	John Carroll. No. 4,791. Sept. 13, 1875.	169,282	169,282	.....	Nil.	Enlargement Section No. 23, between Allanburg and Port Robinson; length, 1 mile; 1 Swing Bridge, Masonry for Guard Gates, Earth Excavation and Dredging. Engineer's Estimate.	Six tenders received, the highest amounting to \$227,886; Schedule 52,984, Aug. 26, 1875. Lowest tender accepted.
542	Patrick Larkin. No. 4,826. Oct. 16, 1875.	424,344	424,344	.....	Nil.	Enlargement Section No. 1, Port Dalhousie; length, 5,100 ft.; 1	Eleven tenders received, the highest amounting to \$857,772; Schedule 52,944, Aug. 26,

543	J. Worthington & Co. No. 4,558. March 29, 1875.	1,089,012	1,089,012	.....	Nil.	Lock with 18 ft. water on the Sills, and 1 Weir, 1 Swing Bridge, Earth Excavation and Dredging. Engineer's Estimate.	1875. The contract was first given to Denison, Belden & Co., the lowest tenderer, but on account of alleged frauds committed by them in New York State, the contract was cancelled by O. C., No. 53,410, Sept. 3, 1875, and awarded to the next lowest tenderer, Patrick Larkin, at same price as that demanded by Denison, Belden & Co., \$424,344. Patrick Larkin's price was \$427,300.
<i>Lachine Canal.</i>							
544	McNamee, Gaherty & Fréchet. No. 4,839. Nov. 20, 1875.	531,607	.....	559,242	27,635	Enlargement Section No. 3. One Lock, 1 Weir, Abutments and Piers, 1 Wellington Bridge. Channel to be excavated 200 ft. wide and 13 ft. deep. Excavation chiefly through earth. Engineer's Estimate.	Twelve tenders received, the highest amounting to \$1,069,869; Schedule 56,055, Dec. 23, 1875. Second lowest accepted; O. C. 54,968, Nov. 10, 1875. Lowest, J. McShane, jr., \$531,607; did not transmit till some days after the deposit of \$3,000 required to be furnished with the tender; and, when transmitting deposit, requested to be allowed to correct certain alleged errors.
<i>Culbute Canal.</i>							
545	John Stewart. No. 4,802. Sept. 28, 1875.	23,800	23,800	.....	Nil.	Construct three pairs of Lock-Gates one Stop-Gate, fully equipped.	Four tenders received, the highest amounting to \$25,377; Schedule 56,031, Dec. 23, 1875. Lowest accepted.
			11,877,160	26,017,198	3,431,341	Carried forward.....	

PUBLIC WORKS, CANADA—Continued.

Number	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
546	<i>Brought forward</i> .... S. Parker Tuck. No. 4,755. Sept. 6, 1875.	\$ 34,465,017	\$ 11,877,160	\$ 26,017,198	\$ 3,431,341	<i>St. Peter's Canal.</i> Removal of Old Lock, 122 ft. long, 26 ft. wide, which was completed in 1869. Construction of a new Lock, 200 ft. in length, 36 ft. in width, with 14 ft. depth of water on the sills; enlarging the canal from its width of 24 ft. to a general width of 36 ft. at bottom, and deepening it from 10 to 15 ft. below summer level of Bras d'Or (original depth was 14 ft., but has decreased to 10 ft., owing to earth washed off from banks). Dredging at each end of canal; Building retaining walls for slopes on western side; Removal of present and building of new swing-bridge and abutments; also erection of a dwelling-house for Lock-master, &c.; Fencing. Engineer's Estimate, per O. C. No. 52,327, \$280,000.	Ten tenders received, the highest amounting to \$352,985; Schedule 56,661, July 1, 1875. Lowest tender accepted; O. C. 52,327, July 26, 1875. Expenditure limited to \$75,000 for 1876 and 1876.
547	James Goodwin. No. 4,612. May 19, 1875.	\$ 449,410	\$ 449,410	.....	Nil.	<i>Grenville Canal.</i> Increase Depth of Water from 8 to 10 ft., and Enlarge to 40	Contract awarded to first contractor, Mr. Goodwin, by O.C. 48,761, Jan. 23, 1876, at

548	H. R. Ives & Co. No. 4,486. April 13, 1875.	4,700	4,700	Nil.	and 50 ft. at Bottom at Sections Nos. 1, 2 and 3. Chief Engineer's Estimate, No. 48, - 026, Feb. 3, 1875, \$449,410.	engineer's prices, as recommended by Minister in Mem. No. 28,937, Feb. 16, 1875. The first O.C., No. 35,963, Oct. 22, 1873, authorizing contract to be given to Mr. Goodwin for increasing depth of canal from 6 to 10 ft., at \$1.50 per cubic yard, was not acted upon.
					<i>Public Buildings, Ottawa.</i>	
					Iron gates for central portion of wall, Wellington Street.	Offer No. 45,178, Oct. 13, 1876, accepted by Department, on recommendation of Chief Architect. Work a speciality. See No. 27,047, Sept. 23, 1874, letter to T. Scott. Amount of contract \$4,700.
549	F. Toms. No. 4,602. May 5, 1875.	4,300	4,300	Nil.	Construct Fence Walls, Gateways, &c., near workshops Public Buildings.	Eight tenders received, the highest amounting to \$7,973. Schedule 52,016, July 21, 1875. Lowest accepted.
550	B. Gibson. No. 4,607. May 11, 1875.	34,500	34,500	Nil.	Basement portion of extension of West Block.	Twelve tenders received, the highest amounting to \$45,738. Schedule 52,059, July 21, 1875. Lowest accepted.
561	Harrow & Sinclair. No. 4,647. June 1, 1875.	32,199	32,199	Nil.	Erect Masonry, &c., for terrace walls, stairs, fountain, &c., Public Grounds.	Five tenders received, the highest amounting to \$54,553. Schedule 52,197, May 28, 1876. Lowest accepted.
552	Webster & Aitchison. No. 4,811. Sept. 28, 1875.	173,000	179,343	6,343	Masonry, &c., extension of west Block.	Five tenders received, the highest amounting to \$291,000. Schedule 56,164, Dec. 28, 1875. Second lowest accepted. Lowest, John Saul, \$173,000; fails to make required deposit, and withdraws his tender accordingly. See No. 53,498, Sept. 9, 1875.
553	Wm. McKay. No. 4,815. Oct. 7, 1875.	4,833	4,833	Nil.	Fresco Painting, Gilding and Decoration of ceiling and walls of Library.	Minister accepts offer of Wm. McKay. See No. 49,851, April 10, 1875. Work of a special nature. Amount of contract \$4,833.
554	Wm. M. Beattie & Co. No. 4,783. Oct. 19, 1875.	5,867	5,914	57	Supply 850 tons Grate Coal, Public Buildings.	Six tenders received, Schedule 53,026, Aug. 27, 1875. Lowest accepted for 600 tons bituminous coal, \$4,132. Second lowest accepted for 250 tons hard or anthracite coal (2,000), \$1,782. Lowest for hard egg coal, Francis Clemow, \$1,725, for 250 tons; declines accepting contract for hard coal only. See 53,566, Sept. 14, 1875.
				12,610,182	35,374,896	
				35,202,455	3,437,741	

Carried forward.....

PUBLIC WORKS, CANADA—Continued

Number	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$	\$	\$	\$	<i>Public Buildings, Ottawa.—Con.</i>	
555	<i>Brought forward.....</i> Strachan, Beckett & Aspell, No. 4,798. Oct. 20, 1876.	35,374,896	12,610,182	26,202,455	3,437,741	Carpenters' Work, &c., extension of West Block.	Five tenders received, the highest amounting to \$77,634. Schedule 56,164, Aug. 28, 1875. Lowest accepted.
556	Thos. Leighton. No. 4,853. Nov. 9, 1875.	46,342	46,342	.....	Nil.	Iron Work for extension of West Block.	Eight tenders received, the highest amounting to \$66,064. Schedule 56,906, Nov. 5, 1875. Lowest accepted.
557	Alex. Devlin. No. 4,844. Nov. 9, 1875.	525	525	.....	Nil.	Removal of Snow, Rideau Hall, for winter of 1875-76.	Twenty tenders received, the highest amounting to \$1,560. Schedule 54,769, Nov. 5, 1875. Lowest accepted.
558	Frs. McKenna. No. 4,860. Nov. 20, 1875.	580	580	.....	Nil.	Removal of Snow from Public Grounds, 1875-76.	Fifteen tenders received, the highest amounting to \$1,349. Schedule 51,770, Oct. 26, 1875. Lowest accepted.
559	F. Toms. No. 4,857. Nov. 25, 1875.	4,106	.....	6,125	2,019	Drying House, Lumber Shed, Fence Walls, &c., near work-shops.	Fourteen tenders received, the highest amounting to \$14,859. Schedule 56,076, Nov. 5, 1875. Fifth lowest accepted. O. C. 55,106, Nov. 15, 1876. Lowest, John Cass, \$4,106, withdrawn. See No. 54,898, Nov. 6, 1875. Second lowest, Edward Cass, \$5,521, withdrawn. See 54,895, Nov. 8, 1875. Third lowest, White & O'Reilly, \$5,621, withdrawn. See 54,897, Nov. 8, 1875. Fourth lowest, R. Johnson and R. Reid, \$5,660, withdrawn. See 54,966, Nov. 9, 1875.

		<i>Public Buildings.</i>			
560	Allard, Dufort & Co. No. 4,876. Dec. 20, 1875.	7,922	7,922	Nil.	Montreal Post Office—Interior Fixtures, Fittings, &c.
561	W. A. McKeen. No. 4,569. March 29, 1875.	6,720	6,720	Nil.	Marine Hospital, Sydney, Cape Breton, N.S.—Construction.
562	John McCormack. No. 4,564. April 7, 1875.	3,100	3,600	500	Marine Hospital, Souris, P. E. I.—Construction.
563	Jos. Gauthier & Frère. No. 4,589. May 14, 1875.	1,600	2,095	495	Marine Hospital, Quebec—Painting the interior.
564	Mathieson, Young & Co. No. 4,645. May 29, 1875.	5,565	5,565	Nil.	New Custom House, Toronto—Heating Apparatus.
565	Bourgoin & Lamontagne. No. 4,693. June 12, 1875.	166,865	166,865	Nil.	Erect an Examining Warehouse at Montreal.
566	James Howley. No. 4,710. June 24, 1875.	1,291	1,291	Nil.	Alterations to Inland Revenue Building on Custom House Square, Montreal.
		35,682,186	26,214,275	3,440,755	<i>Carried forward.....</i>

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
567	Brought forward..... Robt. Mitchell & Co. No. 4,789. Sept. 16, 1875.	\$ 35,683,186 5,220	\$ 12,908,666 5,220	\$ 26,214,275 .....	\$ 3,440,755 Nil.	Public Buildings.—Con. Post Office, &c., Ottawa—Heating Apparatus.	Five tenders received, the highest amounting to \$7,400. Schedule 55,671, Aug. 6, 1875. Lowest accepted.
568	Walker, Pratt & Co. No. 4,796. Sept. 30, 1875.	2,850	2,850	.....	Nil.	New Post Office, St. John, N.B.—Heating Apparatus.	Six tenders received, the highest amounting to \$4,783. Schedule 55,678, Aug. 10, 1875. Lowest accepted.
569	Blyth & Kerr. No. 4,769. Oct. 14, 1875.	875	875	.....	Nil.	Post Office, Ottawa. Plumber's work. Architect's Estimate, \$2,500.	Thirteen tenders received, the highest amounting to \$5,987; Schedule 40,275, April 18, 1874. Lowest accepted.
570	John Cunningham. No. 4,809. Oct. 19, 1875.	9,493	9,493	.....	Nil.	Build a Brick House at Point Frederick, at Kingston, for Commandant Military College.	Three tenders received, the highest amounting to \$9,975; Schedule 55,912, Sept. 1, 1875. Lowest accepted.
571	Sutherland & Cochrane. No. 4,498. Jan. 7, 1875	17,800	.....	21,700	3,900	Harbours and Piers. Jordan Bay, N.S. Construct a Breakwater on the Eastern side of the Bay, 550 ft. long. Engineer's Report No. 35,517, Oct. 16, 1873, \$28,500.	Expenditure authorized by O.C. 41,476, May 30, 1874, for \$28,000. Nine tenders received, the highest amounting to \$49,500; Schedule 44,699, Sept. 21, 1874. Second lowest accepted. Lowest, Edward Faye, \$17,800, withdrawn. See Telegram No. 44,689, Oct. 29, 1874.



572	D. G. McDonald. No. 4,517. Jan. 26, 1875.	\$,245	8,245	.....	Nil.	Tignish, P.E.I. Old Breakwater. Repair and Construct Block 40 x 41 ft.; also Pile and Brush Breakwater, 170 ft. long.	Expenditure authorized by O.C. 42,624, July 17, 1874, granting \$6,000. Four tenders received, the highest amounting to \$13,478; Schedule 45,917, Nov. 9, 1874. Lowest accepted.
573	Aaron Wilson. No. 4,523. March 4, 1875.	13,682	13,682	.....	Nil.	Pointe du Chêne, Shediac, N.B. Construct Breakwater, 600 ft. in length, to the northward of the Intercolonial R.R. Wharf.	Expenditure authorized by O.C. 41,477, May 30, 1874, granting \$17,000. Fifteen tenders received, the highest amounting to \$27,777; Schedule 49,532, April 10, 1875. Lowest accepted.
574	Wm. Wickwire. No. 4,547. March 25, 1875.	13,140	.....	16,320	3,180	Oak Point Harbour, N.S. Extension of Breakwater, 270 ft. long, 30 ft wide. Engineer's Estimate No. 35,613, Oct. 18, 1873, \$20,000.	Ten tenders received, the highest amounting to \$21,000; Schedule 49,514, April 9, 1875. Third lowest accepted; O.C. 47,543, Jan. 15, 1875. Lowest, D. A. Munro, \$13,140, withdrawn. Second lowest, Mitchell & Oakes, \$15,990, withdrawn by No. 47,157, Dec. 30, 1874.
575	Thos. Spence. No. 4,603. April 12, 1875.	11,950	11,950	.....	Nil.	Victoria Harbour, B.C. Removal of Beaver Rock, equal to 770 cubic yards. Engineer's Estimate No. 46,933, Nov. 27, 1874, \$11,900.	Two tenders received, the highest amounting to \$15,000. Second letting. Tenders called for removal of Beaver Rock only by B. W. Pearce, Esq., Resident Engineer, British Columbia, who accepted that of Thomas Spence, which was the lowest. The tenders first called for comprised Beaver and Tuzo rocks; See No. 49,026, March 1, 1873.
576	Archibald & Co. No. 4,596. May 14, 1875.	47,640	47,640	.....	Nil.	Cow Bay, C.B., N.S. Repairing and Strengthening Breakwater.	Wharf purchased under authority of O.C. 43,855, Sept. 26, 1874, subject to the approval of Parliament, for the sum of \$26,000 from Archibald & Co. Their offer, No. 49,060, March 19, 1875, to repair and strengthen breakwater for \$47,640, was accepted by No. 49,131, after reference to Engineer; See Engineer's Report: No. 47,566. Mr. Page, in No. 28,785, states that company must have expended \$96,519 on their breakwater. Amount of contract \$47,640.
						<i>Carried forward</i> .....	
			13,008,621	26,252,295	3,447,835		

PUBLIC WORKS, CANADA -----Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
577	<i>Brought forward</i> ..... T. M. Hobbell. No. 4,613. May 26, 1876.	\$ 35,813,081	\$ 13,008,621	\$ 26,252,295	\$ 3,447,835	<i>Harbours and Piers—Con.</i>  Owen Sound Harbor, Ont. Dredging to 10 feet depth of water.	No tenders called for. Contractor recommended by Wm. Kingsford (50,361, May 10, 1875) and approved by Minister at \$75 per day of 10 hours. Amount paid for dredging, \$7,282.
578	J. Ellison & Son. No. 4,696. July 8, 1876.	\$ 5,635	.....	6,707	1,072	Port Stanley Harbor, Ont. Addition to existing Pier 85 feet to 17 feet depth of water; width to be 30 feet.	Nine tenders received, the highest amounting to \$10,975. Schedule 52,883, May 4, 1875. Third lowest accepted; O. C. 51,268, June 14, 1876. Second lowest, A. A. Houghton, \$6,660; failed to furnish security. Lowest, Wm. Morrison, \$5,635; declined. The extension of the tenders for this work was based on quantities 33 per cent. in excess of the work contracted for.
579	L. & J. McKeen. No. 4,723 July 22, 1876.	\$ 5,595	.....	.....	Nil.	Mabou Harbor, N.S. Construct a Brush Dam at eastern end of Cribwork, and another Dam across former outlet of Harbor, and complete present Crib-work, &c., and close up Channel.	Five tenders received, the highest amounting to \$9,900. Schedule 52,890, June 18, 1875. Lowest accepted. The original contract of Thomas Evans was for the opening of a channel, 12 feet deep at low water, across the sand spit between the harbor and the St. Lawrence, and for the construction of a pier, 582 feet long, on the south side of its lower entrance. The contractor failed to complete the work, the cost of which, according to his final estimate, Nov. 24, 1873, was \$57,541.

580	C. Daly. No. 4,766. Aug. 28, 1875.	4,562	4,562	.....	Nil.	Darlington, Lake Ontario. Dredging present Harbor to a depth of 10 feet at lowest water between present Entrance Piers. Excavation to be removed at the rate of \$70 for 500 cubic yards per day of 10 hours, and to be measured on SCOWS.	Five tenders received, the highest amounting to \$120 per day of 10 hours. Schedule 52,898, August 10, 1875. Lowest accepted, at \$70 per day of 10 hours.	
581	J. C. Richard. No. 4,767. September 7, 1875.	5,411	6,001	.....	590	Grosse Isle Quarantine Station. Repairs to Wharf.	Twelve tenders received, the highest amounting to \$13,392. See Symme's Report, No. 51,836, July 13, 1875. Second lowest accepted; O.C. 52,683, August 11, 1875. Lowest, Piton & Co., \$5,411.44; having failed to execute satisfactorily his contract for the buildings. See Symme's Report, No. 51,836, July 13, 1875.	
582	McLaren & Walker. No. 4,768. Sept. 8, 1875.	8,085	8,085	.....	Nil.	Kincardine Harbor, Ont. Extension of Pier, each side, 100 feet in length, 30 feet in width, to 16 feet depth of water. Engineer's Estimate, \$12,000.	Seventeen tenders received, the highest amounting to \$15,798. Schedule 57,689, August 13, 1875. Lowest accepted.	
583	A. Wilson. No. 4,830. September 22, 1875.	55,000	67,000	.....	12,000	Colville Bay, Souris East, P.E.I. Present breakwater to be raised two feet for a length of 200 feet and to be extended 896 feet, the width to be 36 feet.	Thirteen tenders received, the highest amounting to \$95,200. Summary of Tenders 53,191, June 2, 1876. Fourth lowest accepted; O.C. 53,396, Oct. 16, 1875. Lowest, A. Mackay, \$55,000; rejected, being too low, besides which the tenderer is passing through the Insolvency Court; see O.C. 52,682, August 21, 1876, based on Engineer's Report. Second lowest, J. Croucher, \$61,325; declined; see Perley's Report, No. 53,408, September 7, 1875, and O.C. 53,396, October 16, 1875. Third lowest, J. Ross, \$63,890; declined; see Perley's Report, No. 53,408, September 7, 1875, and O.C. 53,396, October 16, 1875.	
584	McLaren & Walker. No. 4,837. Oct. 15, 1875.	2,200	2,200	.....	Nil.	Kincardine Harbour. Revetment Piling round the Basin for about 390 feet. The estimate of \$12,000 opposite Contract No. 4,768, for improvement of this Harbour, comprises \$3,000 for the Revetment.	Considering limited expenditure required, Engineer was instructed to make arrangements with the contractors who were the lowest tenderers for additions to pier in same harbour. Contract No. 4,768. See No. 32,141, Oct. 5, 1875, telegram to Engineer. No. 54,611, Oct. 29, 1875, from Engineer. Amount of contract, \$2,200.	
								Carried forward.....
								35,906,851   26,339,003   3,461,457

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$	\$	\$	\$	<i>Harbour and Piers.—Con.</i>	
	<i>Brought forward.....</i>	35,206,851	13,036,345	26,332,003	3,461,497		
	Edward Faye. No. 4,833. Oct. 27, 1875.	14,000	.....	18,700	4,700	Shipagan Gully, N.B. Construct a Brush and Stone Breakwater, 2,750 feet long, at west extremity of sand-bar called Alexander Point, and build a Dam across East Gully at the lower outlet; Breakwater to be 15 feet wide on top, with slopes of 3/4 to 1 and to be 2 feet above high water spring tides. Engineer's estimate, Breakwater and Dam, \$22,132; Dredging, 100 feet wide and 10 feet deep, at low water, \$27,783—\$50,015.	The first call for tenders was made in October, 1874, when eleven tenders were received, the highest amounting to \$47,766. Schedule 48,913, March 16, 1875. The second lowest tender, by McManus & McManus, amounting to \$19,000, was accepted by O. C. 48,804, March 17, 1875, but this firm declined to accept the contract. See telegram No. 48,984, March 17, 1875. On the 15th April, 1875, Mr. Perley was informed by No. 29,667, that \$21,000 had been granted for works at Shipagan, and was instructed to call for new tenders. In answer to this second call, nineteen tenders were received, the highest amounting to \$40,000. Schedule 55,590, May 3, 1875. Sixth lowest accepted; O. C. 54,580, Oct. 25, 1875. Lowest, H. J. McGowan, \$14,000; declined to undertake the work offered to him. O. C. 52,181, July 22, 1875, and 53,413, Sept. 3, 1875. Second lowest, E. Charters & Co., \$14,548; declined to undertake the work. O. C. 53,4413, Sept. 3, 1875. Third lowest, H. McIntosh, \$15,155; declined to undertake the work. O. C. 53,413, Sept. 3, 1875. Fourth lowest, H. F. Donkin, \$16,150; failed to enter into contract for work offered to him. O. C. 54,580, Oct. 25, 1875. Fifth lowest, S. P. Tuck, \$16,750; had

already a contract, the execution of which will necessitate the employment of all his means. O.C. 54,580, Oct. 26, 1876.

One-half paid to corporation of Chatham, or Engineer's certificate that the work had been duly performed, according to contract passed by town authorities.

No tenders called for Contract given to C. Daly on recommendation of the municipal authorities of the Town of Napanee and those of the Counties of Lennox and Ad-dington, at a rate approved by Engineer of Department in charge of the works.

Contract renewed with lowest tenderers for last year which had expired on the 1st of November, 1874; tariff rate being as set forth in memorandum annexed to O. C. 48,123, under date of 8th January, 1875.

This contract was let without competition in a hurry in the Autumn, with a view of having the locomotives housed for the winter.

Let without competition by C. Schreiber, under authority of C. J. Brydges, General Superintendent.

Let without competition by C. Schreiber, under authority of C. J. Brydges, General Superintendent.

<p><i>Improvement of Rivers.</i></p>	<p>River Thames, Chatham, Ont. Dredging Channel across Bar, 70 to 75 feet wide and 10 feet deep. Government to pay one-half and the local authorities who are to assume the execution of the work, the other half. See Contract No. 4,759.</p>	<p>River Napanee, Ontario. Dredging to a depth of 8 feet below surface of lowest water, at the rate of \$75 per day of ten hours. The Council of United Counties of Lennox and Ad-dington to furnish \$2,000, and the Town Council of Napanee \$3,000 of the amount required for the whole of the works.</p>	<p><i>Roads and Bridges.</i></p> <p>Working the line of transportation for passengers and freight between Thunder Bay and Fort Garry for two years, from Nov. 1, 1874.</p>	<p><i>Intercolonial Railway.</i></p> <p>Tank-house and Woodshed, Jacques River, Province of New Brunswick.</p>	<p>Tank-house and Fuel-sheds at Canaan, Beckwith Road and Kouchibouguac, Province of New Brunswick Stations at Berry's Mill, Canaan, Kouchibouguac, Barnaby River, Province of New Brunswick.</p>
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<p>586; Wilcox, Stock &amp; Co., with Corporation of the Town of Chatham. No. 4,759. Jan. 15, 1876.</p>	<p>3,007</p>	<p>3,007</p>	<p>166,000</p>	<p>1,600</p>	<p>4,200</p>
<p>587 C. Daly. No. 4,727. July 23, 1876.</p>	<p>Nil.</p>	<p>12,500</p>	<p>166,000</p>	<p>1,600</p>	<p>4,200</p>
<p>588 W. H. Carpenter &amp; Co. No. 4,563. Feb. 18, 1876.</p>	<p>Nil.</p>	<p>166,000</p>	<p>166,000</p>	<p>1,600</p>	<p>4,200</p>
<p>589 J. J. McDonald. Verbal...</p>	<p>Nil.</p>	<p>1,600</p>	<p>1,600</p>	<p>1,600</p>	<p>4,200</p>
<p>590 D. McKenzie. No. 74. Feb. 15, 1875.</p>	<p>Nil.</p>	<p>4,200</p>	<p>4,200</p>	<p>4,200</p>	<p>4,200</p>
<p>591 Jos. Baker. No. 75. Feb. 15, 1875.</p>	<p>Nil.</p>	<p>4,000</p>	<p>4,000</p>	<p>4,000</p>	<p>4,000</p>
<p><i>Carried forward.....</i></p>	<p>3,466,197</p>	<p>26,350,703</p>	<p>13,227,652</p>	<p>36,112,168</p>	<p>2,466,197</p>

PUBLIC WORKS, CANADA---Continued.

Number.	Name of Contractor and Date of Contract.	Amount of Lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
582	<i>Brought forward</i> ..... A. Grant. March 16, 1875.	\$ 38,112,158	\$ 13,227,652	\$ 26,350,703	\$ 3,466,197	<i>Intercolonial Railway</i> —Con.	
583	A. Grant. March 19, 1875.	7,200	7,200	.....	Nil.	Six Tank-houses and Woodsheds combined at St. Octave, Tartagne, Cedar Hill, Gauscapscal, Assametchuagan and Mill Stream, Province of Quebec.	Five tenders received, the highest amounting to \$8,850. Lowest, Grant & Deschênes, \$7,200. Accepted subsequently. Contract made in A. Grant's name alone.
584	A. Grant. March 19, 1875.	5,375	5,375	.....	Nil.	Five Station-houses, one at each of the following places,—St. Octave, Tartagne, Sayabec, Assametchuagan, Millstream, Province of Quebec.	Three tenders received, the highest amounting to \$6,375. The lowest, Grant & Deschênes, \$5,375, accepted subsequently. Contract made in A. Grant's name alone.
585	A. Grant & Deschênes. March 19, 1875.	1,110	1,110	.....	Nil.	Two Tank-houses, one at Sayabec and one at Amqui, Province of Quebec.	Let without competition by C. Schreiber, under authority of C. J. Brydges, General Superintendent.
586	Robt. Henderson. March 28, 1875.	500	500	.....	Nil.	Tank-house at Charlo, Province of New Brunswick.	Two tenders received, the highest amounting to \$900. Lowest, Robt. Henderson, \$500, accepted.
587	John Moffatt. No. 80. Mar. 29, 1875.	3,500	3,500	.....	Nil.	Tank-house and Fuel-shed at Dalhousie and Belledune, and Tank-house at Petite Roche, Province of New Brunswick.	Two tenders received, the highest amounting to \$3,800. The lowest, John Moffatt, \$3,500, accepted.
588	John Moffatt.....	1,780	.....	2,000	230	Station House at Belledune and Petite Roche, Province of New Brunswick.	Two tenders received, the highest amounting to \$2,000. The second lowest, John Moffatt, \$2,000, accepted. Lowest, Chambers & Co., \$1,780; declined contract.

598	Murphy & Bassett. No. 79.	1,450	.....	Nil.	Wood Shed and Tank House at New Mills Station, Province of New Brunswick.	Let without competition by C. Schreiber, under authority of C. J. Brydges, General Superintendent.
599	A. LePage. No. 77. March 31, 1876.	31,281	.....	Nil.	All Snow Shedding and Fencing that may be ordered to be erected between Ste. Flavie and Millstream.	Eight tenders received, the highest amounting to \$44,257. Lowest, A. LePage, \$31,281, accepted. In consequence of the Contractor making very inferior and unsafe work, his contract was cancelled, and his work finished by day labour.
600	A. Grant. No. 87. April 26, 1876.	1,524	.....	Nil.	Station House and Tank House at Metapedia, Province of Quebec.	Five tenders received, the highest amounting to \$2,024. Lowest, A. Grant, \$1,524, accepted. Notice of awarding contract given by C. Schreiber, under instruction from C. J. Brydges.
601	Charles Mann. No. 85. June 1, 1876.	1,440	.....	Nil.	Tank House and Wood Shed at Bathurst, Province of New Brunswick.	Seventeen tenders received, the highest amounting to \$3,000. Lowest, Charles Mann, \$1,440, accepted.
602	William Murphy. June 1, 1876.	3,000	.....	Nil.	Station Houses at Charlo New Mills and Jaquet River, Province of New Brunswick.	Let by C. Schreiber, without competition, under authority of U. J. Brydges, General Superintendent.
603	George Kitchin. No. 78. June 10, 1876.	3,750	.....	Nil.	Station Houses, Fuel Sheds and Tank Houses at Red Pine, Bartibogue, and Tank House at Beaver Brook, Province of New Brunswick.	Tank House and Fuel Sheds, six tenders received; Station House, let without competition; the highest amounting to \$5,480 for Fuel Sheds and Tank Houses. Lowest, George Kitchin, \$3,750, accepted.
604	Warren Taylor. No. 76. June 26, 1876.	5,925	.....	Nil.	Stations at Beckwith Road, Coal Branch Kouchibouguac; and Tank Houses and Masonry, Berry's Mill, Coal Branch, Kouchibouguac, and Barnaby River.	Let by C. Schreiber, without competition, under authority of C. J. Brydges, General Superintendent.
605	Jos. Hamilton. No. 4,779. July 19, 1876.	18,798	.....	Nil.	Build Wharf at Pictou Landing, Nova Scotia.	Thirty tenders received, the highest amounting to \$36,000; Schedule 10,584, March 24, 1875. Lowest accepted.
		36,198,791	26,352,703	3,466,417	<i>Carried forward.....</i>	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract	Explanation.
606	<i>Brought forward.....</i> Henry Peters No. 4,600. Sept. 11, 1875.	\$ 36,198,791	\$ 13,312,505	\$ 26,352,703	\$ 3,466,417	<i>Intercolonial Railway.—Con.</i> Construct a Passenger Station or Dépôt at Halifax, Nova Scotia.	Nine tenders received, the highest amounting to \$59,528; Schedule 9,046, June 1, 1875. Second lowest accepted. Lowest, Archibald McKay, \$45,000.
607	E. E. Gilbert. No. 4,795. Sept. 14, 1875.	\$ 22,500	\$ ..... ..	\$ 37,500	\$ 15,000	Build a Twin-Screw Steam Ferry Boat at Pictou, N.S.	Sixteen propositions received from seven different parties, the highest amounting to \$70,000; Schedule 9,801, Sept. 11, 1875. Mr. Gilbert's tender for a twin-screw boat was accepted, on recommendation of C. J. Brydges, Esq., as best suited both with respect to hull and machinery for the place where it is to be used. See Report No. 9,369, dated July 6, 1875. The tenderers made offers according to the vessels they could supply. The decision was determined on the principle of selecting the vessel the best adapted to the service.
608	Charles Mann. No. 89. Sept. 24, 1875.	\$ 52,409	\$ 52,409	\$ ..... ..	Nil.	Snow Sheds and Fences on Sections 3, 6, 9 and 15, Province of New Brunswick.	Three tenders received, the highest amounting to \$64,030. Lowest accepted. Explanations made of this letting by C. Schreiber in letter to F. Braun, Secretary, October 25, 1876.
609	James Isbester. No. 4,770. 1875.	\$ 6,150	\$ 6,150	\$ ..... ..	Nil.	Rimouski Branch, Province of Quebec.	Seven tenders received, the highest amounting to \$11,150. Lowest accepted. Mr. Brydges authorized by the Department to award contract to Jas. Isbester.



610	Cooper, Fairman & Co., for Mersey, Steel and Iron Co. and Robb & Co. No. 4,538. Jan. 14, 1875.	1,085,871	.....	1,101,360	15,489	<i>Canadian Pacific Railway.</i> Supply 20,000 tons Steel Rails, \$54.26; and 160 tons of Bolts at \$101; delivered at Montreal	Thirty-six proposals received for the supply of steel rails, in quantities not less than 5,000 tons, and proportionate quantity of fish-plates, the highest being for delivering steel rails and plates at Montreal, at the rate of \$82.73 per ton. Schedule 8,043. Feb. 1, 1875. Third lowest accepted. The lowest were the Ebbw Vale Co. and the West Cumberland Co., whose tenders were equal, viz.: at the rate of \$63.53 per ton of rail sand plates delivered at Montreal. These two firms have obtained a contract each, Nos. 4,537 and 4,540, for quantity of steel rails, &c. tendered for. Second lowest, Guest & Co. who tendered for 5,000 tons of rails, at \$54.00 per ton, delivered at Montreal. This firm has obtained contract No. 4,536, which comprises the supply of the quantity of rails offered at this rate of \$54.00 per ton.
611	West Cumberland Iron and Steel Co., Cox & Green, Agents, Montreal. No. 4,540. April 6, and May 8, 1875.	543,085	543,085	.....	Nil.	Supply 5,000 tons Steel Rails, at \$53.53; and 40 tons Bolts, at \$37.33; delivered at Montreal Supply 5,000 tons Steel Rails, at \$48.67; and 40 tons Bolts, at \$32.47; delivered t.o.b. at Eng- lish Ports. Shipment of 5,000 tons Rails and 40 tons Bolts from Worthington to Montreal, at \$4.86½.	Thirty-six proposals received for the supply of steel rails, in quantities not less than 5,000 tons, and proportionate quantity of fish-plates, the highest being for delivering steel rails and plates at Montreal, at the rate of \$82.73 per ton. Schedule 8,043, Feb. 1, 1875. Lowest accepted. The Ebbw Vale Co. tendered at the same price for rails and plates, viz.: \$53.53 per ton, and were awarded contract No. 4,537 for 5,000 tons of rails and 40 tons of bolts, amounting to \$272,346. Offer of Cox & Green, No. 7,829, Dec. 18, 1874, on behalf of the West Cumberland Iron and Steel Co. to increase supply of steel rails from 5,000 to 10,000 tons; accepted by Minister. See No. 4,537, Jan. 6, 1875. Offer of West Cumberland Co., made by telegraph, through Sir John Rose, to ship this supply of 5,040 tons of rails, plates, bolts to Montreal at an advance of £1 per ton instead of delivering the same at Worthington, accepted by Minister. See No. 5,101, May 8, 1875. F. Braun to Cox & Green.
<i>Carried forward.....</i>		37,953,806	13 914,149	27,572,363	3,532,706		

PUBLIC WORKS, CANADA.—Continued.

Number	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
612	<i>Brought forward</i> ..... Oliver Davidson & Co. Section No. 5. No. 4,550. Feb. 8, 1876.	\$ 37,953,806	\$ 13,914,149	\$ 27,572,363	\$ 3,532,706	<i>Canadian Pacific Railway—Con.</i> Construct 420 miles of Telegraph Line from Lake Superior to Fort Garry; \$690 for Woodland, \$435 for Prairies, including maintenance.	Twenty-five proposals received for Section No. 5; Schedule 7,244, Aug. 12, 1874. Third lowest accepted. Tender made in the name of Sutton, Thompson & Co., Brantford; see 7,257, July 20, 1874. Lowest, Waddle & Smith, Kingston, \$189,120. This tender was accepted at first, as recommended by Mr. Fleming, the Engineer-in-Chief, in Report No. 7,244, and a contract, No. 4,443, prepared; but the contractors having failed to procure the requisite security, the contract had to be cancelled; see No. 7,268, July 21, 1874. Second lowest, Sutton & Thirkell, \$214,950, failed to furnish the security required after delay asked for, by Telegram 7,804, Dec. 10, 1874, had been granted by Minister; see Telegram 4,489, Dec. 16, 1874.
613	Ebbw Vale Steel, Iron and Coal Co., through T. Reynolds, Esq. Agent, London, England. No. 4,537. Feb. 9, 1876.	\$ 272,346	\$ 272,346	.....	Nil.	Supply 5,000 tons of Steel Rails at \$53.53. Supply 40 tons of Bolts at \$117.41, delivered at Montreal.	Thirty-six proposals received for the supply of steel rails and proportionate quantity of fish plates, the highest being for delivering rails and plates at Montreal at \$82.73 per ton; Schedule 8,043, Feb. 1, 1875. Lowest accepted. The West Cumberland Steel and Iron Co., of Workington, England, who tendered to supply 5,000 tons of steel rails at the same price of \$53.53 per ton, obtained Contract No. 4,540 for quantity of steel rails offered at this rate.

614	Canada Central Railway Co. No. 4,574. March 23, 1875.	1,440,000	1,440,000	.....	Extension of Canada Central from Douglas to Eastern Terminus. Government Subsidy, \$12,000 per mile.	No tenders in this case. Bonus of \$12,000 per mile of railway allowed by Government to the Canada Central Railway Co., according to the Canadian Pacific Railway Act of 1874, 37 Vict., sec. 14. Amount of contract, \$1,440,000.
615	Hon. A. B. Foster. No. 4,554. Feb. 27, 1875.	850,000	850,000	.....	Construct Georgian Bay Branch, \$10,000 and 20,000 acres of land per mile; and a guarantee of 4 per cent. per annum on \$7,500 per mile for 25 years. Cancelled. See O.C. 10,926, Feb. 28, 1876.	Four tenders received according to Form No. 1, for constructing the railway, the lowest being from John Wardrop & Co., of Brockville, on the following conditions, viz.:—1st. The payment of a sum per mile of \$10,000, as per Cap. 14, 37 Vict., sec. 8, sub-sec. 3; 2nd. A quantity of land equal to 20,000 acres per mile; 3rd. A guarantee of 4 per cent. on a sum of \$40,000 per mile for 25 years. See Schedules 8,283 and 8,280, March 16, 1875. Also four tenders received according to Form 2, for constructing and securing the continuous working of the railway, the lowest of which was accepted; see O.C. 8,139, Feb. 11, 1875, Report to Council 4,628, Feb. 2, 1875, and Schedule 8,280, March 16, 1875. This tender was made by N. C. Munson, Boston, who transferred it, together with all his interest therein, to the Hon. A. B. Foster, by assignment dated the 28th day of January, 1875; see O.C. 10,218, Feb. 27, 1875.
616	Sifton & Ward. No. 4,570. April 3, 1875.	363,420	.....	406,194	Grading and Bridging Fort William to Shebandowan.	Thirty-seven tenders received, the highest amounting to \$609,150; Schedule 8,583, April 15, 1875. Third lowest accepted; O.C. 8,370, March 18, 1875. Lowest, E. A. Charters & Co., \$363,420, withdrawn; see O.C. 8,370, and correspondence by telegraph enclosed in tender No. 8,602, dated Feb. 22, 1875. Second lowest, G. W. Taylor, \$397,520, withdrawn; see O.C. 8,370, March 18, 1875, and 8,324, dated March 15, 1875.
Carried forward. ....		41,069,692	16,476,498	28,221,707	3,629,510	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price Given.	Nature of Contract.	Explanations.
617	Brought forward ..... Sifton & Ward. No. 4,572. April 3, 1875.	\$ 41,068,692 377,250	\$ 16,476,495 .....	\$ 28,221,707 402,950	\$ 3,629,519 25,700	Canadian Pacific Railway—Con.  Grading and Bridging Red River to Cross Lake.	Twenty-two tenders received, the highest amounting to \$609,770; Schedule 9,516, March 19, 1875. Second lowest accepted. Lowest, Wallace, McMahon & Campbell, St. Catharines, \$377,250, failed to furnish requisite security in due time; see Telegram enclosed in Tender No. 9,327, March 18, 1875.
618	Cooper, Fairman & Co. March, 5, 1875. No. 31.	2,701	2,701	.....	Nil.	Doghead Spikes, 30 tons at \$90.04, \$2,701.00.	Ordered through C. P. Sandberg by letter of 27th Jan., 1875.
619	Cooper, Fairman & Co., for Naylor, Benson & Co. and the Patent Nut and Bolt Co. No. 4,565. Feb. 9, 1875.	259,581	259,581	.....	Nil.	Supply 5,000 tons Steel Rails at \$51.10 per ton, delivered at Liverpool, and 43 tons of Bolts and Nuts at \$94.90.	The offer made by Cooper, Fairman & Co., on the 7th January, 1875, No. 7,879, on behalf of the makers, Naylor, Benson & Co., to supply 6,400 tons more rails, at the rate of £10 10s. per ton, delivered at Liverpool, was accepted by Government to the extent of 5,000 tons, and an additional allowance of £2 per ton was granted for freight to Vancouver's Island, as agreed upon. See No. 7,878, Jan. 7, 1875, Cooper, Fairman & Co. to F. Braun; No. 4,542, Jan. 7, 1875, F. Braun to Cooper, Fairman & Co.; No. 7,943, Jan. 18, 1875, Jas. Cooper to W. Buckingham; No. 4,590, Jan. 21, 1875, F. Braun to Cooper, Fairman & Co., and also correspondence enclosed in No. 7,998, Jan. 13, 1875.

620	AnJerson, Anderson & Co. No. 4,686. April 8, 1878.	48,666	48,666	Nil.	Transport 5,000 tons of Steel Rails from Liverpool to Vancouver's Island, at \$9.73½ per ton.	No tenders. Price agreed on with Cooper Fairman & Co, on behalf of Anderson & Co. No. 4,690, Jan. 21, 1875. Amount of contract, \$48,666.
621	Red River Transportation Co., W. W. Kittson, Agent. No. 4,700. May 23, 1875.	32,044	32,044	Nil.	Transportation of Rails, Chains, Fish Bars, Spikes, &c., from Duluth to Manitoba, at \$15 per ton of 2,000 lbs., U.S. currency. This is to include all charges for Wharfage, Handling, etc.	Offer of the Red River Transportation Co. accepted by letter 5,189, dated May, 22, 1875.
622	Merchant's Lake and River Steamship Co. No. 4,699. July 29, 1875.	30,000	31,000	1,000	Transportation of Steel Rails and their accessories from Montreal to Duluth or Fort William, at \$6.20 per ton, including all charges for Wharfage, Insurance, Piling, Handling, etc. Contract completed 1st January, 1877.	Eight tenders received for 5,000 tons, more or less, viz : Lowest, E. Samuel, Montreal, \$30,000. 2nd lowest, C. Edwards, Kingston, 31,250. 3rd do C. E. Jacques & Co., Montreal..... 31,500. 4th do C. Stephenson, Kingston 32,500. 4th do Cox & Green, Montreal. 32,500. 5th do Holcomb & Stewart, Kingston..... 33,700. 6th do J. H. Beatty & Co., Thorold..... 35,000. 6th do W. H. Perry, Buffalo... 35,000. See Schedule No. 9,453, July 21, 1875. Lowest tender withdrawn by maker. See telegram No. 8,387, May 12, 1875. In a tender made in November last, No. 8,047, Nov. 14, 1874, for the supply of steel rails, W. M. Cooper, Fairman & Co, Agents, stated the difference in price for delivering those rails in Montreal or Duluth and French River, would be \$5.60 per ton, exclusive of any harbour or wharfage dues at the ports named. Those gentlemen having offered, on behalf of the Merchants Lake and Steamship Line, consisting of eighteen first class propellers, for an additional sum of not more than sixty cents per ton to the price of \$5.60 asked in their tender No. 8,047 of November last, or say a total sum of \$6.20 per ton (\$31,000 for 500 tons) to undertake the transport of 5,000 tons of rails from Montreal to Fort William or Duluth, and to assume all costs of handling, piling, insurance and charges as required by the advertisement, the Minister therefore recommended that the offer of Messrs. Cooper, Fairman & Co., be accepted. See O. C. 8,760, April 30, 1870.
<i>Carried forward.....</i>		41,819,934	16,819,487	28,655,657	3,656,310	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$	\$	\$	\$		
	<i>Brought forward.</i> .....	41,818,924	16,819,487	28,685,657	3,656,310	<i>Canadian Pacific Railway—Con.</i>	
623	Pat. Kenny. No. 4761. Aug. 9, 1875.	8,782	8,782	.....	Nil.	Transport Steel Rails from Montreal to Lachine, at 80 cents per ton.	Sixteen tenders received, the highest amounting to \$39,620. Schedule 9,474, July 20, 1875. Lowest accepted.
624	Holcomb & Stewart. No. 4,817. Sept. 23, 1875.	6,500	6,500	.....	Nil.	Transport Steel Rails from Montreal to Kingston, at \$1.30 per ton.	Three tenders received, the highest amounting to \$7,500. Lowest accepted.
625	Moses Chevette. No. 4,698. June 3, 1875.	1,600	1,600	.....	Nil.	Building Engineer's House, P.A. District.	Four tenders received, the highest amounting to \$1,900. Lowest accepted by Mr. Hazlewood.
626	Oliver Davidson & Co. No. 4,959. Sept. 6, 1875.	3,000	3,000	.....	Nil.	Building a first-class House.	For Engineering Staff at Fort William. Let without competition.
627	Sifton & Ward. No. 4,858. Oct. 4, 1875.	14,560	14,560	.....	Nil.	Furnish 56,000 Railway Sleepers, at 26 cents each.	Twenty-four tenders received, the highest amounting to \$26,330. Lowest accepted and contract passed by Mr. Hazlewood, matter being too urgent to allow of obtaining authority from Department. Thos. Marks & Bros. of Prince Arthur's Landing tendered at the same rate as Sifton & Ward.
628	John Carroll. No. 5,229. Aug. 10, 1876.	97,914	97,914	.....	Nil.	<i>Welland Canal.</i> Enlargement Section No. 26 between Port Robinson and Welland. Length, one mile. Widening the Canal to 100 feet at bottom and deepening	Four tenders received, the highest amounting to \$188,160. Schedule 53,000, Aug. 6, 1875. Lowest accepted. Tender of Denison, Belden & Co. withdrawn by letter No. 52,999, June 25, 1876.

629	Rodgers, Kelly & Co. No. 4,890 Jan. 21, 1876.	249,150	249,150	.....	Nil.	<p>2½ to 3 feet, forming tow-paths, roads, drains, &amp;c. Excavation in hard clay. Engineer's Estimate.</p> <p><i>Lachine Canal.</i></p> <p>Enlargement Section No. 10. Length, 1,400 feet. One Guard Lock, Swing Bridge Abutments, new Channel 150 feet wide at bottom, to be 15 feet deep above and 13 feet below the Lock. Engineer's Estimate.</p>	Nineteen tenders received, the highest amounting to \$805,750. See Schedule No. 58,078. Lowest tender accepted.
630	John Lyons & Co. No. 4,892. Jan. 29, 1876.	283,800	283,800	.....	Nil.	<p>Enlargement Section No. 9, at 1,000 feet below Lachine Guard Lock. Length, 6,000 feet eastward. Channel to be 150 feet wide and 13 feet deep. Excavation through earth and rock. Engineer's Estimate.</p>	Twenty-two tenders received, the highest amounting to \$515,690. See Schedule No. 58,031. Lowest tender accepted.
631	Wm. Davis & Sons. No. 4,952. April 3, 1876.	725,617	725,617	.....	Nil.	<p>Enlargement Section No. 11. New entrance to be formed by a continuous line of pier-work 6,200 feet in length, on south side of present entrance. Channel to be 200 feet wide and 15 feet deep. Excavation in rock. Engineer's Estimate.</p>	Eleven tenders received, the highest amounting to \$1,599,635. See Schedule No. 61,975. Lowest tender accepted. O. C. 59,210, May 6, 1876.
632	Whitney & Doty. No. 4,946. April 6, 1876.	263,383	263,383	.....	Nil.	<p>Enlargement, Section No. 4, between By-wash above Grand Trunk Railway Swing Bridge and head of Island above St. Gabriel Lock. Length, 3,800 feet; comprises Piers and Abutments for Brewster's and Grand Trunk Railway Swing Bridges, alterations to Culvert under Canal for main pipes of Montreal Water Works. Enlarged Channel to be 200 feet wide and 13 feet deep. Earth and Rock Excavation. Engineer's Estimate.</p>	Five tenders received, the highest amounting to \$425,626. Lowest tender accepted; O. C. 59,210, May 6, 1876. See Schedule No. 60,091. If Department of Public Works provides spoil ground, \$263,383; if contractor provides spoil ground, \$265,549.
						3 686,210	
						28,655,637	
						18,473,793	
						43,473,240	
							<i>Carrie. To and.....</i>

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
633	<i>Brought forward.....</i> A. Charlebois, No. 4,948. April 6, 1876.	\$ 43,473,240 261,412	\$ 18,473,793 261,412	\$ 28,655,657 .....	\$ 3,656,210 Nil.	<i>Lachine Canal—Con.</i> Enlargement, Section No. 5. Length, 4,200 feet; between lower factories of Côte St. Paul and centre of By-wash above Grand Trunk Railway Swing Bridge; comprises a By-wash and inverted Syphon, Culvert for River St. Pierre, Channel to be enlarged to a width of 200 feet and to be sunk to a depth of 13 feet. Earth and Rock Excavation. Engineer's Estimate.	Twelve tenders received, the highest amounting to \$626,793 or \$658,768. See Schedule No. 61,944. Lowest tender accepted; O.C. 59,210, May 6, 1876. If Department of Public Works provides spoil ground, \$261,412; if contractor provides spoil ground, \$269,822.
634	O'Brien, Sullivan & Co. No. 4,950. April 10, 1876.	\$ 310,465	.....	316,280	5,915	Enlargement, Section No. 8. Length, 7,500 feet. Channel to be enlarged to a mean width of 150 feet; depth, 13½ feet. Engineer's Estimate.	Eight tenders received, the highest amounting to \$528,600. See Schedule No. 61,953. Second lowest tender accepted; O.C. 59,210, May 6, 1876. The lowest, Wm. Davis & Sons, \$210,365; passed over, this firm having already been awarded two of the contracts on this Canal.
635	Wm. Davis & Sons. No. 4,955. April 26, 1876.	\$ 712,527	712,527	.....	Nil.	Enlargement, Sections Nos. 6 and 7. Length, 10,000 feet, from a point 700 feet below Côte St. Paul, thence westward; comprises new Lock, Piers and Abutments for Swing Bridge at Côte St. Paul, Chan-	Nine tenders received, the highest amounting to \$1,197,580. See Schedule No. 61,963. Lowest tender accepted; O.C. 59,210, May 6, 1876.





PUBLIC WORKS, CANADA----Continued.

Number.	Name of Contractor and Date of Contract.	Amount of Lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
641	<i>Brought forward</i> ..... S. P. Tuck. No. 4,990. June 13, 1876.	\$ 45,245,590 39,544	\$ 19,935,778 39,544	\$ 28,971,937 .....	\$ 3,662,125 .....	<i>St. Peters Canal, Cape Breton, N.S.</i>  Enlarge Lock to 48 feet wide, instead of 36 feet, as per former contract.	Additional to former contract, No. 4,755. See H. F. Perley's Report, No. 59,258, May 5, 1876, submitting S. P. Tuck's offer, and recommending its acceptance; also O.C. 59,603, May 26, 1876.
642	Thos. Dobbie & W. Grierson. No. 5,016. July 21, 1876.	18,641	18,641	.....	Nil.	<i>Public Buildings.</i>  Erection of a new Post Office, Custom House and Inland Revenue Offices at Guelph.	O.C. 59,598, May 26, 1876, authorizing purchase of land, &c., for \$4,000. Five tenders received, the highest amounting to \$26,288; Schedule 61,467, August 25, 1876. Lowest accepted.
643	A. McKenzie. No. 5,170. Oct. 3, 1876.	117,432	117,432	.....	Nil.	Erection of a Penitentiary, &c., near Dorchester, N.B.	O.C. 59,777, April 20, 1877, authorizing purchase of land, &c.; \$13,000, \$4,400, \$4,200. Eight tenders received, the highest amounting to \$184,384; see Schedule No. 62,187, July 24, 1876. Lowest for the whole work accepted. Minister having found prices too high, the four lowest tenderers were requested to subdivide their tenders according to subdivision of works to be made by Mr. Scott; see Nos. 36,638, 36,639, 36,640, the result being as follows:—

	No.	Contract No. 1.	Contract No. 2.	Total.
		\$	\$	\$
A. McKenzie .....	61,406	72,080	45,352	117,432
E. Milliken .....	61,407	67,209	52,922	120,131
J. S. Armstrong .....	61,433	76,800	48,200	125,000
R. Brunton .....	61,222	69,000	66,100	135,100
Renewal of Heating Apparatus in Dominion Building at Charlottetown, P. E. Island.	Nil.	4,020		
Excavator's, Mason's and Bricklayer's Work in and for foundation walls of addition to the Kingston Military College.	Nil.	4,874		
<i>Public Buildings, Ottawa.</i>				
Ewart's Composite Wood Block Pavement for footpaths, Public Grounds, Ottawa.	Nil.	5,218		
Supply 350 tons Bituminous Scotch Grate Coal.	Nil.	1,886		
<i>Carried forward .....</i>		45,497,306	50,127,383	28,871,937
				3,662,125

**PUBLIC WORKS, CANADA — Continued.**

Number	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
648	Brought forward..... J. W. McRae. No. 5,182. Oct. 11, 1876.	\$ 45,437,205 840	20,127,393 840	\$ 28,971,937 .....	3,662,125 Nil.	Public Buildings, Ottawa.—Con.  Supply 150 tons Anthracite Le-high Coal, egg size.	Four tenders received, the highest amounting to \$1,080; Schedule 62,196, Sept. 18, 1876. Lowest accepted; see 62,193, Sept. 12, 1876.
649	Louis Beausage. No. 5,209. Nov. 3, 1876.	450	.....	475	Nil.	Removal of Snow, Rideau Hall...	Twelve tenders received, the highest amounting to \$1,175; Schedule 63,070, Oct. 23, 1876. Second lowest accepted, O. C. 63,198, Nov. 14, 1876. Lowest, Jas. Carthy, \$480, withdrawn; see O. C. 63,198, Nov. 14, 1876.
650	M. O'Leary. No. 5,210. Nov. 3, 1876.	470	.....	535	65	Removal of Snow .....	Eighteen tenders received, the highest amounting to \$1,150. Schedule 63,185, Oct. 23, 1876. Second lowest accepted; O. C. 63,198, Nov. 14, 1876. Lowest, F. O'Reilly, \$470; withdrawn. See O. C. No. 63,198 and back of Schedule No. 63,185.
651	Hugh McDonald. No. 4,881. Feb. 6, 1876.	3,500	8,500	.....	Nil.	Harbours and Piers.  L'Ardoise, on eastern side of St. Peter's Bay, Richmond Co.; C.B.N.S. Build a Breakwater 400 ft. long, 14 ft. wide on top, with side batter of 1 in 3.	Sixteen tenders received, the highest amounting to \$18,770. Schedule 57,708, March 8, 1876. Lowest accepted.

652	Jno. Castleman. No. 4,987. May, 26, 1876.	7,500	7,500	.....	NIL.	Port Burwell, Lake Erie, Dredging Channel between entrance piers in harbours to 10ft. depth at lowest water; about 30,000 cubic yards to be removed. Excavation to be measured on scows.	Three tenders received, the highest amounting to \$100 per day of 10 hours. Schedule 60,085, June, 19, 1875. Lowest accepted, at \$74.00 per day of 10 hours.
653	J. Hunter & Jas. Murray. No. 5,009. Aug. 3, 1876.	17,700	17,700	.....	NIL.	Toronto Harbour, Lake Ontario. Dredging at Queen's Wharf, to a depth of 14 ft. below lowest water line, or to the surface of the rock where it crops out, or deeper than 14 ft., if required. Dredged material to be measured on scows.	Thirteen tenders received, the highest amounting to \$136 per day of 10 hours. Schedule 61,402, Aug. 13, 1876. Lowest accepted at \$69 per day of 10 hours.
654	Hunter, Morse & Co. No. 5,014. Aug. 3, 1876.	5,999	5,999	.....	399	Thunder Bay, Lake Superior. Dredging out portion of Channel, as may be pointed out.	Two tenders received, the highest being at the rate of \$15 per hour, which was accepted on recommendation of Engineer-in-charge. See No. 60,347, June 30, 1876. Lowest, Williams & Upham, \$14 per hour; declined to enter into contract when informed that "No foreign dredge is permitted to execute works in the Dominion waters without the payment of the duty on the machine." See Nos. 59,878, June 8, 1876, and No. 35,606, June 6, 1876, and No. 60,086, June 19, 1876.
655	John F. Feed. No. 95. Jan. 3, 1876.	1,995	1,995	.....	NIL.	Dwelling-House at Campbellton, for Foreman of car works, Province of New Brunswick.	Six tenders received, the highest amounting to \$2,800. Lowest, John F. Feed, \$1,995, accepted.
656	John Ryan. No. 99. March 21, 1876.	13,224	13,224	.....	NIL.	Loading Ballast with steam shovel, at North River Pit, Province of New Brunswick.	This contract was let without competition, when in treaty for cancelling contract for ballasting, Ryan & Booth. Arrangement made with sanction of Hon. Minister.
657	A. Grant. No. 98. April 1, 1876.	2,870	2,870	.....	NIL.	Refreshment Room, Trois Pistoles, Province of Quebec.	The tender was received and contract awarded by O. J. Brydges, General Superintendent.
658	John J. McDonald. No. 100. April 2, 1876.	9,125	9,125	.....	NIL.	Loading Ballast with steam shovel, at McKinnon's Brook and Vale Pits, New Brunswick	The same explanation as Ryan's contract was let without competition when in treaty for cancelling contract for ballasting, John J. McDonald. Arrangement made with sanction of Hon. Minister.
		20,189,147	28,978,946	3,682,614	<i>Carried forward. ....</i>		

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Number of Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
659	Brought forward..... C. H. Mann. No. 107. August 1, 1876.	\$ 45,505,479	20,189,147	28,978,946	\$ 3,662,614	Intercolonial Railway.—Con.  Snow Sheds and Fences between Moncton and Bathurst, Province of New Brunswick.	Four tenders received, the highest amounting to \$5,954. Lowest, Chas. Mann, \$4,632; accepted.
660	M. J. Hogan. No. 106. August 3, 1876.	17,824	.....	20,804	2,980	Snow Sheds and Fences between Campbellton and Caucapsal, Provinces of New Brunswick and Quebec.	Nine tenders received, the highest amounting to \$30,571. Fourth lowest, M. J. Hogan, \$20,804; accepted. Lowest, F. X. Lemieux, \$17,824; a section already awarded him. Second lowest, A. LePage, \$18,100; failed in former contract. Third lowest, J. Marmon, \$18,483; a section already awarded him.
661	F. X. Lemieux. No. 104. August 5, 1876.	10,528	.....	11,279	751	Snow Sheds and Fences between St. Flavie and Rivière du Loup, Province of Quebec.	Ten tenders received, the highest amounting to \$15,886. The third lowest, F. X. Lemieux, \$11,279; accepted. Lowest, A. LePage, \$10,528; having failed in former contract. Second lowest, O. Moreau, \$11,074; no reason.
662	John Marmon. No. 105. August 5, 1876.	11,363	.....	14,501	3,148	Snow Sheds and Fences between Caucapsal and Sayabec, Province of Quebec.	Eight tenders received, the highest amounting to \$21,203. The third lowest, John Marmon, \$14,501; accepted. Lowest, A. LePage, \$11,363; having failed in former contract. Second lowest, F. X. Lemieux, \$12,197; has already a section awarded him.

(Signed) C. J. B.

(Signed) O. J. B.

(Signed) C. J. B.

660	Cross & Dwyer. No. 103 September 21, 1876.	17,000	17,000	.....	Nil.	Rimouski Pier Extension, Province of Quebec.	Fifteen tenders received, the highest amounting to \$39,000. The lowest, Cross & Dwyer, \$17,000; accepted.
664	Merchant's Lake and River Steamship Co. Jacques & Co., Agents.	86,060	89,060	.....	Nil.	Canadian Pacific Railway.	Offer accepted by Letter 6,519, May 16, 1876. Offer No. 10,575, December 31, 1875. Rates to cover all costs of insurance, wharfage, piling and handling. \$89,060. Contract completed on 1st January, 1877.
665	Red River Transportation Co. W. W. Kittison, Agent. May 16, 1876.	174,806	174,806	.....	Nil.	Transport Rails, &c., from Duluth to Manitoba. Schedule of Rates No. 11,289.	Offer No. 11,289, April 19, 1876, accepted by Letter 6,521, May 16, 1876.
666	Purcell & Ryan. No. 5,007. June 7, 1876.	1,037,061	1,037,061	.....	Nil.	Grading and Bridging, &c., Sunshine Creek to English River. Tracklaying and Ballasting, Fort William to English River.	Twelve tenders received, the highest amounting to \$1,635,660. Schedule 12,375 $\frac{1}{2}$ , May 22, 1876. Lowest accepted.
667	James Isbester. No. 5,012. July 17, 1876.	30,989	30,989	.....	Nil.	Erect a Ten-Stall Engine-House at Town Plot, Fort William, near Thunder Bay, for Canadian Pacific Railway.	Five tenders received, the highest amounting to \$38,900; Schedule 12,388, May 22, 1876. Lowest accepted.
668	R. Fuller. Letters No. 11,139, March 31, 1876, and No. 11,200, April 6, 1876.	15,000	15,000	.....	Nil.	Telegraph Line between Livingston and Edmonton. Total length 520 miles. Clearing about 280 miles of wooded land, viz.: 230 miles for a width of 12 ft., and 50 miles for a width of 50 ft.—a total of about 600 acres clearing at \$25 per acre. See No. 11,209 Report of S. Fleming, April 6, 1876.	Additional work to Contract No. 4,472 awarded to original contractor, by order of Minister, No. 6,368, April 7, 1876, on recommendation of S. Fleming, Esq. See Nos. 11,139, March 31, 1876; 6,371, April 6, 1876, and 11,300, April 7, 1876.
669	Oliver, Davidson & Co. O.C. 11,508. May 19, 1876.	4,200	4,200	.....	Nil.	Operating Telegraph Line between Lake Superior and Red River, furnishing officers, instruments and operators; 420 miles at \$10 a mile per annum.	Work additional to Contract No. 4,550. Offer of Contractors for the construction of the line accepted by O.C. No. 11,508, May 19, 1876, as recommended by Mr. Fleming in Report No. 11,368, May 3, 1876, the terms submitted being considered reasonable.
		46,917,932	21,561,895	28,025,530	3,669,493	Carried forward.....	

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
670	<i>Brought forward</i> ..... Wilnot Kennedy, No. 5,268. Jan. 26, 1877.	\$ 48,917,932	21,561,898	\$ 29,025,530	\$ 3,669,493	<i>Canadian Pacific Railway—Con.</i>  Construct a deep Water Wharf and Terminus near Ballast Wharf, at St. John, N.B. Engineer's Estimate, \$213,000.	Twenty tenders received, the highest amounting to \$249,300; Schedule 12,820, Dec. 20, 1876. Second lowest accepted. Lowest, Geo. R. Crowe, \$170,826. Mr. Brydges states, in No. 12,864, Dec. 28, 1876, that Crowe was unable to find security.
671	Denis Coholan, No. 5,288. Feb. 21, 1877.	5,000	5,000	.....	NIL.	Hire of Tug-boat, the "John Mitchells," for towing required in connection with the dredging of site of Deep Water Terminus, St. John, N.B.	Three tenders received. Lowest accepted; Schedule No. 13,199, Jan. 22, 1877.— For the removal of a loaded scow..... \$3 25 do empty scow..... 1 50 do loaded scow to place of safety.. 1 50 do dredge to place of working..... 10 00 do dredge to place of safety..... 4 00
672	Halifax Coal Co. No. 13,953. June 16, 1877.	40,500	.....	44,550	4,050	Supply what Coal may be required for the Intercolonial Railway at \$1.65 per ton of 2,240 lbs.	Five tenders received. Second lowest accepted; Schedule No. 13,953, Jan. 16, 1877. Lowest, Vale Coal Co., at \$1.50 per ton, \$40,500.
673	Intercolonial Coal Co. No. 8,262. July 17, 1877.	13,450	13,450	.....	NIL.	Supply what Coal may be required for the Prince Edward Island Railway at \$2.69 per ton.	Five tenders received. Lowest accepted; Schedule No. 13,953, Jan. 16, 1877.



674	Spring Hill Coal Co. July 17, 1877.	40,600	.....	51,300	10,800	Supply what Coal may be required for Intercolonial Railway, at \$1.90 per ton.	Five tenders received. Fourth lowest accepted. Lowest, Vale Coal Co., at \$1.50 per ton, \$40,600; second lowest, Halifax Coal Co., at \$1.65 per ton, \$44,550; third lowest, Intercolonial Coal Co., at \$1.70 per ton, \$45,900. Schedule No. 13,953, Jan. 6, 1877.	
675	Kingston Locomotive and Machinery Works, &c.	25,350	.....	25,500	180	To supply three Locomotives.....	Three tenders received, the highest amounting to \$27,000. Second lowest accepted. Lowest, Cooper, Fairman & Co., \$25,350.	
676	Steel Co. of Canada. Jan. 8, 1877.	9,400	.....	9,600	200	To supply 800 Car Wheels, at \$12 each.	Four tenders received, the highest amounting to \$9,600. Second lowest accepted. Lowest, London Car Co., \$9,400 2nd do J. Harris & Son..... 9,600 2nd do J. McDougall & Co. .... 9,600 2nd do Canada Steel Co. .... 9,600	
677	Jas. Crossan .....	103,000	.....	105,800	2,800	To supply 200 Box Freight Cars..	Seven tenders received, the highest amounting to \$128,000. Second lowest accepted. Lowest, Wm. Hamilton & Sons, \$103,000.	
678	Ontario Car Co. ....	51,500	.....	53,000	1,500	To supply 100 Box Freight Cars.	Seven tenders received, the highest amounting to \$64,000. Third lowest accepted.	
679	Sutton, Thompson & Whitehead. No. 5,258. Jan. 9, 1877.	1,443,175	.....	1,593,825	150,650	Grading from Cross Lake to Rat Portage and Tracklaying from Red River to Rat Portage (Section No. 15.)	Twenty-one tenders received, the highest amounting to \$2,950,000. Third lowest accepted. Schedule of tenders No. 12,999. Lowest, A. P. McDonald & Co., \$1,443,175; second lowest, Martin & Charlton, \$1,562,090.	
680	Cooper, Fairman & Co. No. 5,320. May 12, 1877.	13,738	.....	.....	Nil.	Supply 250 tons of Spikes, at \$4.95 per ton.	Seven tenders received, the highest amounting to \$18,750. Lowest accepted.	
				48,834,371	21,594,083	31,083,530	3,843,242	Carried forward.....

PUBLIC WORKS, CANADA—Continued.

Number	Name of Contractor and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
		\$	\$	\$	\$	<i>Harbours and Piers.</i>	
681	<i>Brought forward</i> ..... 48,834,371 Beaton & McDonald. No. 5,324. Aug. 18, 1877.	3,945	21,594,083	31,083,530	3,843,242	Construct a new Crib at outer end of McNair's Cove Breakwater.	Twelve tenders received, the highest amounting to \$7,900. Schedule No. 66,739. Lowest accepted.
682	McLaren & Walker. No. 5,418. Aug. 23, 1877.	11,469	11,469	.....	Nil.	Construction of a Pier at Kincardine Harbour, Ontario.	Three tenders received, the highest amounting to \$12,906. Schedule No. 68,243. Lowest accepted.
683	Archer & Co.....	2,810	2,810	.....	Nil.	Supply Timber for Piers at Berthier and L'Islet.	Five tenders received, the highest amounting to \$4,160. Schedule No. 68,570. Lowest accepted.
684	John Mulhally. No. 5,450. Oct. 16, 1877.	3,477	3,477	.....	Nil.	Construct a Breakwater at St. Peter's Bay, Kings Co., P.E.I.	Eight tenders received, the highest amounting to \$16,500. Schedule No. 69,151. Lowest accepted.
685	D. A. McDonald. No. 5,463. Dec. 8, 1877.	9,964	9,964	.....	Nil.	To extend Breakwater and deepen Channel at Shippegan Harbour, Gloucester County, New Brunswick.	Four tenders received. Lowest accepted.
686	James E. Simmons. No. 5,492. Dec. 18, 1877.	9,700	9,700	.....	Nil.	To construct a Shear Dam at Oromocto Shoals, St. John River, New Brunswick.	Twenty-one tenders received, the highest amounting to \$26,852. Schedule No. 71,046. Lowest accepted.

	Canals.								
687	David S. Booth. No. 5,262. Jan. 17, 1877.	117,958	.....	122,905	4,917	To supply Timber for the Lock Gates of Welland, Williams- burgh, Lachine and Beauhar- nois Canals.	Eight tenders received, the highest amount- ing to \$356,605. Schedule No. 64,485. Third lowest accepted. Lowest, Oliver & Brown, \$117,958. Second lowest, Brown Brothers, \$119,579.		
688	Ferguson, Mitchell & Sym- mons. No. 5,437. Sept. 25, 1877.	105,086	.....	112,311	7,225	Welland Canal. Canal enlargement, Section No. 28.	Sixteen tenders received, the highest amount- ing to \$215,650. Schedule No. 70,027. Second lowest accepted. Lowest, Hunter, Murray & Cleveland, \$105,086.		
689	Hunter, Murray & Cleve- land. No. 5,439. Sept. 26, 1877.	778,806	.....	.....	Nil.	Canal enlargement, Section No. 27.	Eighteen tenders received, the highest amounting to \$1,156,576. Schedule No. 70,009. Lowest accepted.		
690	Hunter, Murray & Co. No. 5,441. Sept. 26, 1877.	449,484	.....	.....	Nil.	Canal enlargement, Section No. 35.	Fourteen tenders received, the highest amounting to \$750,167. Schedule No. 70,081. Lowest accepted.		
691	Robert J. Campbell. No. 5,442. Sept. 26, 1877.	477,079	.....	488,856	11,777	Canal enlargement, Sections Nos. 17 and 18.	Eighteen tenders received, the highest amounting to \$692,158. Schedule No. 70,112. Second lowest accepted. Low- est, Hunter & Murray, \$477,079.		
692	Haney, Haney & Parry. No. 5,444. Sept. 29, 1877.	244,253	.....	250,678	6,725	Canal enlargement, Sections Nos. 19 and 20.	Sixteen tenders received, the highest amount- ing to \$423,903. Schedule No. 70,112. Second lowest accepted. Lowest, Hunter & Murray, \$244,253.		
693	Ambrose Clark. No. 5,457. Oct. 29, 1877.	276,238	.....	.....	Nil.	Canal enlargement, Section No. 33.	Seventeen tenders received, the highest amounting to \$582,841. Schedule No. 70,045. Lowest accepted.		
694	Ambrose Clark. No. 5,459. Oct. 29, 1877.	318,383	.....	.....	Nil.	Canal enlargement, Section No. 34.	Sixteen tenders received, the highest amount- ing to \$754,881. Schedule No. 70,064. Lowest accepted.		
695	Jas. T. Kennedy. No. 5,489 Oct. 23, 1877.	242,624	.....	.....	Nil.	St. Peters Canal. Canal enlargement.....	No tenders. Jas. T. Kennedy was surety for S. P. Tuck, and accepted the transfer of his contract.		
				31,865,647	23,700,983	32,068,580	3,873,916	<i>Carried forward.....</i>	

PUBLIC WORKS, CANADA—Continued

Number.	Name of Contractor and Number and Date of Contract.	Amount of lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
	<i>Brought forward</i> .....	\$ 51,885,647	\$ 23,700,983	\$ 32,058,580	\$ 3,873,916		
696	Ottawa Water Works Commissioners. No. 5,266. March 6, 1877.	9,000	9,000	.....	Nil.	Public Buildings.	An arrangement made with the Ottawa City Water Works for the supply of water.
697	Wm. Irving. No. 5,309. April 18, 1877.	45,475	45,475	.....	Nil.	Supplying water to the Public Buildings (Ottawa), the Post Office and Rideau Hall. To Build the Educational Block, Kingston Military College.	Three tenders received for the whole work, the highest amounting to \$57,800. Lowest accepted.
698	Peterson & Law.....	1,440	.....	1,500	60	To Provide an Iron Staircase for the Extension of the Western Block, Ottawa.	Four tenders received, the highest amounting to \$2,586. Second lowest accepted. Lowest, John Stewart, \$1,440; he withdrew his tender by Letter No. 69,505.
699	W. P. Bartley & Co. No. 5,426. Aug. 22, 1877.	11,613	11,613	.....	Nil.	Furnishing an Engine and Hoisting Machinery for the Examining Warehouse, Montreal.	Six tenders received, the highest amounting to \$22,500; Schedule No. 68,376. Lowest accepted.
700	James Perry. No. 5,429. Aug. 22, 1877.	3,400	3,400	.....	Nil.	For Gas-Holders at Rideau Hall.	Five tenders received, the highest amounting to \$4,395; Schedule No. 68,368. Lowest accepted.
701	Robert Mitchell & Co. No. 5,430. Sept. 4, 1877.	2,500	.....	2,690	190	Supplying Heating Apparatus for Examining Warehouse, Montreal.	Nine tenders received, the highest amounting to \$14,500; Schedule No. 68,376. Second lowest accepted. Lowest, Richard Patton, \$2,500.

702	John Waddell. Sept. 4, 1877.	2,588	2,588	Nil.	Erect Stables at Tête du Pont Parracks, Kingston.	Eleven tenders received, the highest amount- ing to \$3,873; Schedule No. 68,747. Low- est accepted.			
703	James Howley. Sept. 5, 1877.	3,270	3,270	Nil.	To make Roads, Gates, Foot- paths, Railing, &c., for Exam- ining Warehouse.	Five tenders received, the highest amount- ing to \$5,000; Schedules No. 69,082 to 69,086. Lowest accepted.			
704	T. G. Richards. Oct. 6, 1877.	4,280	4,842	552	To build a Row of Dwellings, Bakery and Chapel at Grosse Isle.	Eight tenders received, the highest amount- ing to \$7,300; Schedule No. 69,587. Sec- ond lowest accepted. Lowest, Pierre Lereault, \$4,290.			
705	S. D. and A. Fowler. No. 5,462. Oct. 3, 1877.	691	691	Nil.	To build a Fence and Gates at Military Grounds, St. John, New Brunswick.	Five tenders received, the highest amounting to \$1,980; Schedule No. 69,790. Lowest accepted.			
706	Holbrook & Mollington. Oct. 11, 1877.	6,480	6,480	Nil.	Carving Western Block Exten- sion, Departmental Buildings, Ottawa.	An arrangement made with Messrs. Holbrook & Mollington for this work at their offer of \$6,480; see No. 70,126.			
707	Matheson, Young & Co. No 5,473. November 23, 1877.	6,500	6,500	Nil.	Supply Heating Apparatus for the Educational Block at Kingston Military College.	Twelve tenders received, the highest amount- ing to \$9,850; Schedule No. 70,494. Low- est accepted.			
708	B. Mooney & Son. No. 5,480. Nov. 14, 1877.	24,677	24,677	Nil.	Build portion of Foundation Walls of Custom House, St. John, N.S.	Eleven tenders received, the highest amount- ing to \$37,561; Schedule No. 70,502. Low- est accepted.			
709	Eugène Jetté. No. 5,483. Nov. 13, 1877.	419	419	Nil.	Remove Snow from Public Build- ings, Ottawa.	Thirty tenders received, the highest amount- ing to \$1,000; Schedule No. 70,956. Low- est accepted.			
710	Morris Curran No. 5,484. Nov. 14, 1877.	310	310	Nil.	Remove Snow from Rideau Hall, Ottawa.	Twenty-eight tenders received, the highest amounting to \$1,110; Schedule No. 70,985. Lowest accepted.			
				52,008,030	52,008,030	23,815,136	32,067,612	3,874,718	<i>Carried forward.....</i>

PUBLIC WORKS, CANADA—Continued.

Number.	Name of Contractor and Date of Contract.	Amount of Lowest Tender received.	Amount of Contract awarded to lowest Tender.	Amount of Contracts awarded to others.	Difference between lowest Tender and Price given.	Nature of Contract.	Explanations.
711	<i>Brought forward</i> ..... Bernard Mooney & Son. No. 5,493. Nov. 14, 1877.	\$ 52,008,030 6,073	\$ 23,815,136 6,073	\$ 32,067,612 .....	\$ 3,874,718 Nil.	<i>Public Buildings</i> .— <i>Con.</i>  Repairs to the Military Store-house, Sydney Street, St. John, N.B.  <i>Marhours and Piers.</i>	Four tenders received, the highest amounting to \$9,131; Schedule No. 69,906. Lowest accepted.
712	Pierce Doyle. No. 5,494. January 9, 1877.	12,575	12,575	.....	Nil.	To construct a Breakwater at Malpeque, P. E. Island.	Six tenders received, the highest amounting to \$24,890; Schedule No. 69,150. Lowest accepted.
713	Read, Stevenson & Co. No. 5,542. February 14, 1878.	7,000	.....	9,000	2,000	Extending Breakwater at Clifton, Gloucester Co., New Brunswick.  <i>Pacific Railway.</i>	Four tenders received, the highest amounting to \$14,950; Schedule No. 69,179. Third lowest accepted. Lowest, J. McDonald & Co., \$7,000. Second lowest, H. Clancy & Co., \$7,894.
714	Wm. Robinson. No. 5,577. Feb. 22, 1878.	41,250	.....	72,600	31,350	To supply 165,000 Ties for the Pembina Branch.	Three tenders received, the highest amounting to \$72,600; Schedule No. 15,156. Third lowest accepted. Lowest, A. F. Martin, \$41,250. Second lowest, J. M. Quigley, \$44,500.
	<b>Total</b> .....	\$ 52,075,238	\$ 23,834,094	\$ 32,149,212	\$ 3,908,068		

## ALPHABETICAL INDEX TO CONTRACTORS.

Contractor.	Work.	Page.
<b>A</b>		
Aikins & McElmen.....	Sleepers, Section 12, Intercolonial Railway.....	49
Allard, Dufort & Co.....	Post Office, Montreal.....	58
Allard, Dufort & Co.....	Joiner's work, Montreal Post Office.....	107
Allard, Dufort & Co.....	Fixtures do.....	141
Allison, W. J.....	St. Croix Bridge, &c., Nova Scotia, Railway.....	12
Anderson, Anderson & Co.....	Transportation of Steel Rails to B. C. C. P. Railway.....	155
Anglo American Telegraph Co.....	Telegraph Line, Prince Edward Island Railway.....	129
Archambault, O.....	Clearing Snow, Public Buildings, Ottawa.....	56
Archer & Co.....	Supply of Timber for Piers, P.Q.....	168
Archibald & Co.....	Cow Bay Breakwater, N.S.....	143
Archibald, J. C.....	Fence Poles, Intercolonial Railway.....	127
Aubrey, Moses.....	Calumet Slides, Ottawa River.....	41
Aubrey, Moses.....	Chat Slide, Ottawa River.....	41
Aubrey, Moses.....	Works on Petewawa River Slides and Booms.....	41
<b>B</b>		
Baker, Joseph.....	Station Houses, Intercolonial Railway.....	147
Barclay & Co.....	Car Shed do do.....	128
Barnard, F. J.....	Telegraph Line, Canada Pacific Railway.....	133
Barrow Hematite Steel Co.....	Steel Rails, Intercolonial Railway.....	46
Bartley, W. P.....	Hoisting apparatus, Montreal Examining Warehouse.....	170
Beaton & McDonald.....	Crib-work, McNair's Cove.....	168
Beattie & Co., Wm.....	Coal, Public Buildings, Ottawa.....	139
Beaucage, Louis.....	Removal of Snow, Rideau Hall, Ottawa.....	162
Becker Albert.....	St. Anne's Lock, Channel.....	86
Begg, D. F.....	Bridging North West Angle, Muskeg Railway Route.....	119
Benway, A. A.....	Launch for Railway Route.....	96
Berlinguet & Co., F. X.....	Grading and Masonry, New Brunswick, Intercolonial Railway.....	22
Berlinguet & Co., F. X.....	do do do do.....	24
Bernier Dosithée.....	Gates, &c., Berthier.....	21
Bertrand & Co., J. B.....	Grading & Masonry, New Brunswick, Intercolonial Railway.....	13
Bertrand & Co., J. B.....	do do do do.....	27
Blair, Jas.....	Sleepers.....	49
Blair, Jas.....	do.....	32
Blake Bros. & Campbell.....	Welland Canal, Section 4.....	135
Riondeau & Co.....	Tracklaying, &c., Intercolonial Railway.....	48
Blyth & Kerr.....	Gas Pipes, Rideau Hall, Ottawa.....	56
Blyth & Kerr.....	Plumber's Work, Ottawa Post Office.....	142
Bonneville, S.....	St. Gabriel Basins, Lachine Canal.....	53
Bonneville & O'Brien.....	Flour Shed, Lachine.....	84
Bonneville & O'Brien.....	Mooring Piers, Chambly Canal.....	106
Bonneville & O'Brien.....	Belœil Bridge approaches, Richelieu River.....	119
Both, D. S.....	Timber for Lock Gates, Canals.....	169
Bourgoing & Lamontagne.....	Montreal Examining Warehouse.....	141
Bowman & Lelachend.....	Fitting Offices in St. John, New Brunswick, Post Office.....	110
Bowser, Jacob.....	Quarantine Station, Lawlor's Island, Nova Scotia.....	39
Boyd, John.....	Piers and Booms, Fenelon River.....	98
Bradley, Oscar.....	Cars, Intercolonial Railway.....	66
Brass, Peter.....	Hamilton Post Office.....	93
Brass, North & Freeborn.....	do do Roof, &c.....	109
Brassard, H.....	Pier at Pointe-à-Pic.....	21
Breton & Fréres.....	New Post Office, Quebec.....	17

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
Brenton, J. A.....	Ties, Intercolonial Railway.....	122
Brough, Alexander.....	Lockmaster's House, Trent River.....	59
Brown, Geo.....	Custom House, Newcastle, New Brunswick.....	92
Brown, John.....	Deepening of Welland Canal.....	3
Brown, John.....	Port Colborne, Port Dalhousie, Welland Canal.....	4
Brown, John.....	Dredge Channel, Thames River.....	20
Brown, John.....	Enlarge Channel, &c., Rondeau Harbour.....	44
Brown, John.....	Section 15, Welland Canal.....	79
Brown, John.....	do 31, 32 do.....	80
Brown, John.....	do 21, 22 do.....	84
Brown, John.....	do 14 do.....	103
Brown, Brooks & Ryan.....	Grading and Masonry, N.B., Intercolonial Railway.....	30
Buchanan, D. D.....	Ties, Intercolonial Railway.....	124
Burpee, I. & F.....	Spikes do.....	48
Burris, Jas.....	Ties do.....	123
<b>C</b>		
Cairns, Morse & Co.....	Sections 8 and 9, Welland Canal.....	83
Calcutt, Henry.....	Dam, Pier and Boom repairs, Trent River, Slides and Booms.....	95
Calvin & Breck.....	Lachine & Kingston Tug Service.....	8
Calvin & Breck.....	do do.....	37
Cameron, J. A.....	Regulating Weir, Lachine Canal.....	15
Cameron & Mudie.....	Ottawa Post Office, Carpenter's Work.....	108
Campbell, R. J.....	Sections 17 and 18, Welland Canal.....	169
Campbell & Burley.....	Dwelling-house, Port Colborne, Welland Canal.....	35
Canada Car Co.....	Car-trucks, Intercolonial Railway.....	120
Canada Central Railway Co.....	Extension of their Line to Canada Pacific Railway.....	153
Canadian Engine & Machinery Co.....	Engine, Nova Scotia Railway.....	7
Canadian Engine & Machinery Co.....	Locomotives, Intercolonial Railway.....	33
Cansey, Stirling & Emery.....	St. John, N.B., Post Office.....	91
Carpenter & Co., W. H.....	Operating Red River Route.....	119
Carpenter & Co., W. H.....	Care of Plant, Red River Route.....	119
Carpenter & Co., W. H.....	Operating the Red River Route.....	147
Carroll, John.....	Sec. 23, Welland Canal.....	136
Carroll, John.....	Sec. 26, Welland Canal enlargement.....	156
Castleman, John.....	Dredging Port Burwell, Ont.....	163
Chapleau, Godfroi.....	Ottawa Post Office, iron work.....	108
Charlebois, A.....	Sec. 5, Lachine Canal enlargement.....	158
Charlton, E. J.....	Supply of Coal, Public Buildings, Ottawa.....	161
Chevrette, Moses.....	Building a House, Canada Pacific Railway.....	156
Christie, Geo.....	Railway Fence, Intercolonial Railway.....	125
Christie, John.....	London Immigrant Depot.....	91
Christie, R.....	Railway Fence, Intercolonial Railway.....	125
Churchill, R.....	Crib-work, Yarmouth Harbor, Harbor and Pier.....	97
Clarke, Ambrose.....	Sections 33 and 34, Welland Canal.....	169
Clarke & Stackhouse.....	Lighthouse, Machias, Harbors and Piers.....	8
Clarke, Reeves & Co.....	Iron Bridges, N.B., Intercolonial Railway.....	48
Clarke & Stackhouse.....	Dredge Vessels* N.B.....	20
Clarke & Stackhouse.....	Wharf, &c., Partridge Island, N.B., Harbours and Piers.....	45
Clarke & Stackhouse.....	Mill Pond Works, Intercolonial Railway.....	50
Clarke & Stackhouse.....	Breakwater, Quaco Harbor, N.B.....	63
Clarke & Stackhouse.....	Dipper Harbor Breakwater, N.B.....	100
Clemow, Francis.....	Supply of Coal, Public Buildings, Ottawa.....	111
Clendeaning, W.....	Platform Cars, Intercolonial Railway.....	34
Cochrane & Co., S. B.....	Breakwater, Little Hope Island, N.S.....	62
Coholan, Denis.....	Hire of Tug Boat "Jno. Mitchell," N.B., Intercolonial Railway.....	66
Colburn, A.....	Station House, Intercolonial Railway.....	65
Colburn & Black.....	do do.....	65
Colburn & Black.....	Tank House, do.....	65
Connors, Robert.....	Sleepers, Sec. 15, do.....	50
Cooke & Co., R. P.....	Locks and Dam, Carillon Canal.....	87
Cooke & Co., R. P.....	Extra on Contract, agreement as to.....	159



## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
Cooper, Fairman & Co.....	Steel Rails, Canada Pacific Railway.....	151
Cooper, Fairman & Co.....	do do .....	154
Cooper, Fairman & Co.....	Spikes, do .....	154
Cooper, Fairman & Co.....	do do .....	167
Cooper, Fairman & Co.....	Transportation of Rails from Montreal to Duluth and Fort William.....	155
Corbett, John.....	Removing Snow, Rideau Hall, Ottawa.....	90
Corbett, Wm.....	Freight Houses, Intercolonial Railway .....	128
Costigan, W. F.....	Sleepers, do .....	79
Coté, A. G.....	Gates, &c., Rivière du Loup, Harbours and Piers..	21
Coté, A. G.....	Sleepers, Sec. 1, P. Q., Intercolonial Railway.....	47
Coté & McDonald.....	do Sec. 3, 6, do .....	50
Coutlée, P. B.....	Mooring Pier, Côteau Landing, Harbours and Piers.....	22
Coward & Co., D. W.....	Supply of Coal, Public Buildings, Ottawa.....	17
Cox & Green.....	Supply of Steel Rails, Canada Pacific Railway .....	151
Cross & Dwyer.....	Extension to Rimouski Pier, P. Q.....	165
Crossby & McKean.....	Buildings, Moncton, Intercolonial Railway.....	49
Crossen, James.....	Freight Cars, do .....	167
Cumming, Jas.....	Military Hospital, Ottawa Public Buildings.....	5
Cummings & Co., C.....	Grading and Masonry, N.B., Intercolonial Railway.....	32
Cunningham, John.....	Brick Building, Kingston, Military College .....	142
Curran, Morris.....	Removal of Snow, Rideau Hall.....	171
Gurrie, Thos.....	Customs Warehouse, St. John, Intercolonial Railway.....	124
<b>D</b>		
Daly, Cornelius.....	Dredging, Darlington, Ont.....	145
Daly, Cornelius.....	do Picton, Ont.....	114
Daly, Cornelius.....	do River, Napanee, Ont.....	147
Daly, Cornelius.....	do Shannonville, Ont.....	115
Danforth Locomotive Works.....	Locomotive, Nova Scotia Railway.....	74
Davis, M. P.....	Swing Bridge, Brewer's Mills, Rideau Canal.....	54
Davis, W.....	Slide, Black River, Ottawa Works .....	18
Davis, W.....	Piers, Calumet Slide do .....	43
Davis, W.....	Dam, Chats do do .....	43
Davis, W.....	do Portage du Fort Slide, Ottawa River.....	43
Davis, W.....	Slide, High Falls, River Dumoine.....	43
Davis, W.....	Piers, &c., Mountain Slide, Ottawa River.....	43
Davis, W.....	Bulkhead at Manotick, Rideau Canal .....	16
Davis, Grant & Sutherland.....	Grading and Masonry, Section 11, Intercolonial Railway.....	14
Davis & Sons.....	Dam, Locks, &c., Culbute Canal .....	87
Davis & Sons.....	Sections Nos. 6 and 7, Lachine Canal.....	158
Davis & Sons.....	Section No. 11, Lachine Canal.....	157
Denison, Belden & Co.....	do 2, Welland do .....	104
Denison, Belden & Co.....	do 3, do do .....	104
Denbiens, Abel.....	Lighthouse, Eboulements, P. Q.....	21
Devlin, Jas.....	Removal of Snow, &c., Rideau Hall.....	9
Devlin, Alexander.....	do do .....	140
Dexter & Robichau.....	Lighthouse, etc., Cape St. Mary's, N.S.....	3
Dick & Co., Jas.....	Steamboats, Red River Route.....	43
Dimock, W. M.....	Painting Bridges, Nova Scotia Railway .....	12
Dimwoodie, Jas.....	Improvements at Brook's Rapids, River Trent.....	7
Dobbie & Grierson.....	Post Office, Custom House and Inland Revenue Offices, Guelph;	160
Dodge & Dodge.....	do do do Pictou, N.S.....	109
Domville, Jas.....	Spikes, Intercolonial Railway.....	73
Donaldson, L.....	Fence Posts do .....	127
Douglas & Cove.....	Station and Tank Houses, Intercolonial Railway.....	66
Douglas & Cove.....	Station House do .....	65
Douglas & Cove.....	do do .....	65
Dowell, Jacob.....	Sleepers do .....	123
Doyle, Pierce.....	Breakwater, Malpeque, Prince Edward Island.....	172
Duda & Co.....	Locomotives, Intercolonial Railway.....	33
Duffy, John.....	Lighthouse, Jourmaine Island.....	9

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Works.	Page.
Duffy & Co., John.....	Breakwater, Negro Point, St. John, N.B.....	115
Duffy & Co., W. H.....	do Herring Cove, N.B.....	99
Duffy, M., Steeves, Shaw & Duffy, J.....	do Stoney Creek, N.B.....	63
Dufour, H.....	Chicoutimi Pier, History of Works.....	98
Dufour, H.....	Repairs to Piers, &c., Chicoutimi.....	96
Dugre, Chas.....	Custom House, &c., Three Rivers.....	93
Dunbar, C. F.....	Section No. 34, Welland Canal.....	135
Dunbar, C. F.....	do 36, do .....	135
Dunnett, Chas.....	Custom House, London, Ont.....	17
<b>E</b>		
Ebbw Vale Steel, Iron & Coal Co.....	Steel Rails, Intercolonial Railway.....	46
Ebbw Vale Steel, Iron & Coal Co.....	Supply of Steel Rails, Canada Pacific Railway.....	152
Elliott, John.....	Post Office, Toronto, Public Buildings.....	37
Elliott & Co., John.....	Section 16, Welland Canal.....	82
Elliott, Grant & Whitehead.....	Grading and Masonry, New Brunswick, Intercolonial Railway.....	10
Elliott, Grant & Whitehead.....	do Nova Scotia do .....	10
Elliott & O'Connor.....	Altering Toronto Post Office, Public Buildings.....	107
Ellison & Son, J.....	Improving Port Stanley Harbor, Ont.....	144
Etter, Wm.....	Ties, Intercolonial Railway.....	123
Evans, Thos.....	Channel, Mabou Harbor, Cape Breton, N.S., Harbors and Piers.....	45
Evans, Bros.....	Supply of Coal, Public Buildings, Ottawa.....	39
<b>F</b>		
Faye, Edward.....	Branch Line to Wharf, St. John, Intercolonial Railway.....	103
Faye, Edward.....	Shippigan Gully, N.B., Breakwater and Dam.....	146
Fairbairn Engineering Co.....	Iron Bridge, P.Q. and N.B., Intercolonial Railway.....	48
Fairbairn Engineering Co.....	Iron Roofs, Intercolonial Railway.....	73
Farquhar, W., & Co.....	Masonry and Brickwork, Library, Public Buildings, Ottawa.....	17
Faulkner, Wm., jun.....	Sleepers, Sec. 12, Intercolonial Railway.....	49
Faulkner, Wm., jun.....	Ties, do .....	122
Feed, John F.....	Box Cars, do .....	34
Feed, John F.....	Dwelling-house at Campbelltown, Intercolonial Railway.....	163
Ferguson, H. L.....	Fence Poles, Intercolonial Railway.....	127
Ferguson, J., & Co.....	Sec. 30, Welland Canal.....	82
Ferguson, Mitchell & Symmes.....	Sec. 25, do .....	135
Ferguson, Mitchell & Symmes.....	Sec. 28, do .....	169
Fillmore, C. D.....	Fence Poles, Intercolonial Railway.....	127
Fleck, Alexander.....	Iraa for Lock Gates, Grenville Canal.....	54
Fleck, Alexander.....	Lock Gates Machinery, do .....	87
Fleck, Alexander.....	Iron Staircase, East Block, Ottawa.....	111
Fleming & Sons, Geo.....	Dominion Dredge, St. John, Dredge Vessels.....	41
Fontaine, Amos.....	Sleepers, Sec. 7, Intercolonial Railway.....	51
Forbes, A., & Hamilton, J.....	Railway Fence, do .....	126
Forbes, A., & McLeod, J.....	do do .....	126
Forbes, A., & McLeod, J.....	do Posts and Poles, Intercolonial Railway.....	127
Forbes, A., & Hamilton, J.....	do Intercolonial Railway.....	127
Foster, Hon. A. B.....	Georgian Bay Branch of Canada Pacific Railway.....	153
Fourrier, Jas., and others.....	Metapedia Road, Roads and Bridges.....	19
Fowler, S. O. & A.....	Fence and Grounds, Military Grounds, St. John, N.B.....	171
Fox, Dominique.....	Dam at Cedar Lake and Petewawa River, Slides and Booms.....	96
Fraser, Daniel.....	Metapedia Road, Roads and Bridges.....	2
Fraser, Daniel.....	do do .....	7
Fraser, Daniel.....	do do .....	18
Fraser, Daniel.....	do do .....	19
Fraser, Daniel.....	do do .....	119
Fraser, Daniel.....	do keep in repair.....	119
Fraser, Stewart & Fraser.....	Track-laying, Sec. 4, 7, 12, Intercolonial Railway.....	64
Fuller, R.....	Telegraph Line, Canada Pacific Railway.....	133
Fuller, R.....	Additional Work on Telegraph Contract, C. P. Railway.....	165

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
<b>G</b>		
Gagnon, A.....	Bay St. Paul, P.Q., Pier.....	101
Gallagher & Sons, T.....	Freight-house, Intercolonial Railway.....	72
Gallagher & Sons, T.....	do Campbelltown, Intercolonial Railway.....	101
Gallagher & Sons, T.....	Engine-house do do.....	102
Gardner, J., McLeod J., & McLeod, A.....	Brooklyn Breakwater, Nova Scotia, Harbor and Piers.....	99
Garth, Chas.....	Plumber's work, Custom House, Montreal.....	57
Garth, Chas.....	Heating apparatus, Post Office, Quebec.....	57
Gauthier & Bro., Jos.....	Painting Quebec Marine Hospital.....	141
Gauvreau, P. L.....	Sleepers, Intercolonial Railway.....	79
Gibson, B.....	Grading Grounds, Public Buildings, Ottawa.....	89
Gibson, B.....	Drains in Public Grounds, Ottawa.....	111
Gibson, B.....	Trenches for Water Pipes, Rideau Hall.....	111
Gibson, B.....	Foundations of West Block Extension, Ottawa.....	139
Gilbert, E. E.....	Steam Ferry Boat, Intercolonial Railway.....	150
Gilbert, E. E.....	Chain Tug, St. Lawrence Canals.....	159
Gillespie, Henry.....	Lock-house, Chambly Canal.....	17
Ginty & Co., John.....	Section 10, Welland do.....	81
Ginty & Dickey.....	do 13, do do.....	105
Girouard, G. A.....	Sleepers, Section 9, Intercolonial Railway.....	50
Goldie & McCullough.....	Boilers for Parliament Buildings.....	110
Goodwin, James.....	Improvements, &c., Grenville Canal.....	4
Goodwin, James.....	Enlargement, &c., do.....	16
Goodwin, James.....	do of Locks do.....	36
Goodwin, James.....	Enclosure of Parliament Grounds Wall, Ottawa.....	55
Goodwin, James.....	Sections 2 and 3, Grenville Canal.....	86
Goodwin, James.....	Enlargement of do.....	138
Gordon, J.....	Fence Poles, Intercolonial Railway.....	127
Gordon, Woodward & Chamberlin.....	Section 1, Cornwall Canal, enlargement.....	150
Gough & Hunter.....	Box Cars, Intercolonial Railway.....	34
Grant, A.....	Tank and Station-house, Intercolonial Railway.....	148
Grant, A.....	do do do.....	149
Grant, A.....	Building at Trois Pistoles do.....	163
Grant, A., & Co.....	Station-house, Intercolonial Railway.....	67
Grant, Geo.....	Coal Shed do.....	77
Grant, Geo. J.....	Stations do.....	129
Grant, Geo. J.....	do do.....	129
Grant & Co., A.....	Engine-house do.....	66
Grant & Co., Geo.....	Refreshment and Freight-house, Intercolonial Railway.....	72
Grant & Deschênes.....	Tank-house, Intercolonial Railway.....	148
Grant & Yorke.....	Emigrant Shed, Toronto Public Buildings.....	17
Grant Locomotive Works.....	Locomotive, Intercolonial Railway.....	74
Grant & Sutherland.....	Grading and Masonry, Nova Scotia, Intercolonial Railway.....	14
Grant, Sutherland & Co.....	Breakwater, Little Hope Island, Nova Scotia, Harbors and Piers.....	44
Gregory, Burley & Co.....	Engines and Boilers, Red River Route, Roads and Bridges.....	96
Guest & Co.....	Supply of Steel Rails, Canada Pacific Railway.....	134
<b>H</b>		
Halifax Coal Co.....	Supply of Coal, Intercolonial Railway.....	166
Hall, Wm.....	Repairs River Saugeen Harbors and Piers.....	21
Hall, Wm.....	Extension Piers and Lake Huron Harbors and Piers.....	45
Hamel, O. Z.....	Construct Dam. St. Maurice River.....	61
Hamel, O. Z.....	Grandes Piles Dam, St. Maurice River.....	118
Hamilton, Jos.....	Freight Shed, N.S., Nova Scotia Railway.....	12
Hamilton, Jos.....	Wharf at Pictou, N.S., Intercolonial Railway.....	149
Hamilton, Wm.....	Platform Cars, Intercolonial Railway.....	103
Hamilton, Wm.....	do do.....	129
Hamilton & Son, Wm.....	Box Cars, Intercolonial Railway.....	28

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
Haney Stephen.....	Port Maitland Pier, Welland Canal.....	106
Haney, Haney & Perry.....	Sections 19 and 20, Welland Canal.....	169
Harding, Geo.....	Toronto Post Office.....	93
Harris, M. D.....	Passenger Building, Intercolonial Railway.....	73
Harris, Jas. & Son.....	Cars, Intercolonial Railway.....	66
Harris & Co., Jas.....	Postal Car, &c., Intercolonial Railway.....	48
Harris & Co., Jas.....	Cars, European and North American Railway.....	76
Harris & Co., Jas.....	Coal Cars, Intercolonial Railway.....	103
Harrow, David.....	Retaining Walls, Public Grounds, Ottawa.....	111
Harrow & Sinclair.....	Terrace Walls, Parliament Grounds, Ottawa.....	139
Harvey, Jacob.....	Ties, Intercolonial Railway.....	122
Harvey, John.....	Bulkhead at DeChenes Rapids, Slides and Booms.....	2
Harvey, John.....	Dam and Piers, Madawaska River do.....	18
Harvey, John.....	Piers, Ottawa Works do.....	41
Harvey, John.....	Repairs to Dam, &c., Madawaska River do.....	41
Harvey, John.....	do do do.....	42
Harvey, John.....	Repairs to Dumoine Booms, Ottawa River.....	60
Harvey, John.....	Repairs, Madawaska River Works.....	60
Harvey, John.....	Construct Boom and Piers, Madawaska River.....	60
Harvey, John.....	Petawawa River, repairs Ottawa River Works.....	117
Harvey & Korman.....	Form Channel, &c., Lake Huron Harbor and Piers.....	44
Hatch Bros.....	Post Office, Ottawa.....	59
Hawkins, D.....	Dorchester Branch Line, Intercolonial Railway.....	77
Hawkins & Tait.....	Pointe du Chêne Works do.....	50
Haycock, Edward.....	Grading and Masonry, P.Q. do.....	11
Heavy, Jas.....	Removal of Snow, Public Buildings, Ottawa.....	111
Henderson, Robt.....	Tank House, Intercolonial Railway.....	148
Heney, William.....	Port Robinson, Welland Canal.....	3
Heney, John.....	Supply Firewood, Public Buildings, Ottawa.....	6
Heney, John.....	do do do.....	40
Heney, John.....	Supply of Coal do do.....	56
Heney, John.....	do Firewood do do.....	57
Heney, John.....	Dredging Gatineau River.....	59
Heney, John.....	do do.....	94
Heney, John.....	Supply Firewood, Public Buildings, Ottawa.....	111
Heney, John.....	Gatineau River Dredging.....	119
Henessy, Michael.....	Extension of Street, Lachine Canal.....	85
Henessy & Doughney.....	River St. Peter, Lachine Canal.....	53
Higgins & Sullivan.....	Section 7, Welland Canal.....	104
Hillson & Son.....	Refreshment Building, Intercolonial Railway.....	67
Hillson & Son.....	Coal Shed do.....	68
Hillson & Son.....	Passenger and Refreshment Building, Intercolonial Railway.....	101
Hodge, Andrew.....	Regulating Weir, &c., Cornwall Canal.....	5
Hodge, Andrew.....	Pier, &c. do.....	5
Hodge, Andrew.....	Repairs Wharves do.....	36
Hogan, M. J.....	Snow Sheds and Fence, Intercolonial Railway.....	164
Helbrook & Millington.....	Carving Work, West Block, Ottawa.....	171
Holcomb & Stewart.....	Transportation of Rails from Montreal to Kingston, Canada Pacific Railway.....	156
Howley, James.....	Flour Shed, Lachine Canal.....	106
Howley, James.....	Alterations, Inland Revenue Office, Montreal.....	141
Howley, James.....	Roads and Gates, Montreal Examining Warehouse.....	171
Hubbell, T. M.....	Improving Owen Sound Harbor, Ont.....	144
Hunter & Murray.....	Dredging Toronto Harbor.....	163
Hunter, Morse & Co.....	do at Thunder Bay.....	163
Hunter, Murray & Cleveland.....	Section 27, Welland Canal.....	169
Hunter, Murray & Cleveland.....	do 35 do.....	169
Intercolonial Coal Co.....	Supply of Coal, Intercolonial Railway.....	166
Intercolonial Iron & Steel Co.....	Platform Cars, do.....	34
Irving, Wm.....	Masonry, &c., Military College, Kingston.....	161

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
Irving, Wm.....	Educational Block, Military College, Kingston.....	170
Irwin, David.....	Weir at Dunnville, Welland Canal.....	15
Irwin, David.....	Office do do.....	4
Ives & Allen.....	Iron Railing, Wall, Public Buildings, Ottawa.....	89
Ives & Co., H. R.....	Iron Gates, Public Grounds, Ottawa.....	139
Isbester, Jas.....	Engine House, Fort William, Canada Pacific Railway.....	165
Isbester, Jas.....	Rimouski Branch Line, Intercolonial Railway.....	150
Isbester, Jas.....	Engine House, Ste. Flavie, do.....	71
<b>J</b>		
Jacques & Co.....	Transportation of Rails, Canada Pacific Railway.....	165
Jetté, E.....	Removal of Snow, Public Buildings, Ottawa.....	171
Jobin, Jacques.....	Grading and Masonry, Section 6, Intercolonial Railway.....	11
Jobin, Jacques.....	Levis Immigrant Shed, construction of.....	39
Jobin, Jacques.....	do repairs to.....	93
Johnson, A. H.....	Cheneaux Boom, Ottawa River.....	62
Johnston, James C.....	Office for Collector of Customs, Cornwall Canal.....	54
Johnston, James C.....	Dwelling for Bridge-Keeper, do.....	89
Johnston, John H.....	Extension of Piers, Kincardine.....	100
Johnston & Co., A.....	Engine House, Truro, Intercolonial Railway.....	73
<b>K</b>		
Kavanagh, W. M.....	Removal of Earth, &c., St. Peter's Canal.....	37
Keith & Co., D. S.....	Heating Apparatus, Toronto, Old Post Office.....	109
Kennedy, Wm.....	Sleepers, Intercolonial Railway.....	122
Kennedy, Wm.....	Deep-water Wharf, St. John, N.B.....	166
Kennedy, Jas.....	St. Peter's Canal Enlargement.....	169
Kenny, Pat.....	Transportation of Rails, Canada Pacific Railway.....	166
Kilduff, Peter.....	Coupling-iron Roof, Library of Parliament.....	56
King, D. C.....	Sleepers, Intercolonial Railway.....	76
King & Gough.....	Grading and Masonry, Section 16, Intercolonial Railway.....	27
Kingston Locomotive Works.....	Locomotives, Intercolonial Railway.....	167
Kinsman & Styles.....	Penitentiary, New Westminster.....	110
Kinsman, Styles and others.....	Marine Hospital, Victoria, B.C.....	93
Kitchen, Geo.....	Station and Tank Houses, Intercolonial Railway.....	149
Kittson, W. W.....	Transportation of Rails, Duluth to Winnipeg, Canada Pacific Railway.....	155
Kittson, W. W.....	do do do.....	165
<b>L</b>		
Laberge & Sons, A.....	Montreal, Old Custom House, alterations to.....	39
Laplante, Jos.....	Emigrant Shed, Lachine Canal.....	38
Laplante, Jos.....	Montreal, New Custom House, alterations to.....	17
Larkin, Patrick.....	Section No. 1, Welland Canal.....	136
Latimer, Jas.....	Swing Bridge, Rideau Canal.....	106
Laverdure, E. G.....	Covering of Roof, Library of Parliament.....	39
Laverdure, E. G.....	do East Block, Public Buildings, Ottawa.....	111
Laverdure, E. G.....	do Public Buildings, Ottawa.....	89
Lavoie, Jos.....	Lighthouse, Malbaie.....	21
Leblanc & White.....	Sleepers, Intercolonial Railway.....	123
Leclerc, Marcel.....	St. Lawrence Gulf Road.....	18
Leclerc, Marcel.....	do.....	19
Leclerc, Marcel.....	do.....	19
Leclerc, Marcel.....	do Western Division.....	19
Leclerc, Marcel.....	do do.....	19
Leclerc, Marcel.....	do do.....	19
Leclerc, Marcel.....	do do.....	20
Leclerc, Marcel.....	do do.....	92
Lefrançois, J. B.....	Quebec Custom House, additions, &c.....	92

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
Leger, T. B.....	Sleepers, Intercolonial Railway.....	75
Leighton, Thos.....	Ironwork for West Block Extension, Public Buildings, Ottawa.....	140
Lemieux, F. X.....	Snow Sheds, &c., Intercolonial Railway.....	164
Lemay & Bowie.....	Section 2, &c., Lachine Canal.....	84
Lepage, A.....	Fire Engine, Rideau Hall, Ottawa.....	55
Lepage, A.....	Station House at Bic, Intercolonial Railway.....	120
Lepage, J.....	Rimouski Pier and Lighthouse Repairs.....	22
Lepage & Co., A.....	Station Houses, Intercolonial Railway.....	67
Lepage & Co., A.....	Sleepers, do.....	47
Lepage & Co., A.....	do do.....	47
Lepage, A.....	Snow Fences and Sheds, Intercolonial Railway.....	149
Lérèque, Geo.....	Lighthouse, Pointe aux Originaux.....	21
Lindsay, Andrew.....	Breakwater, &c., Chantry Island, Ont.....	101
Lindsay, Thos., jun.....	Fences, Intercolonial Railway.....	125
Lobb, Dawson & Murray.....	Section No. 12, Welland Canal.....	136
Loggie, Pêter.....	Convert a building into Custom House, &c., Chatham, N.B.....	92
Lowerison, J., & McManus, P. S.....	Wharf near Dorchester Island, Intercolonial Railway.....	77
Lyons, John.....	Temporary Offices for Canada Pacific Railway, Ottawa.....	112
Lyons & Co., John.....	Section No. 9, Lachine Canal.....	157
Lyon & Co., R. A.....	Lighthouse, &c., Michael's Point, Manitoulin Island, Lake Huron.....	8
<b>M</b>		
Malory & Gagnon.....	Gulf Road, Grading.....	20
Mahoney & Robertson.....	Branch Line of European and North American Railway.....	73
Manchester Locomotive Works.....	Locomotives, Intercolonial Railway.....	220
Mann, Chas.....	Tank-house, &c., do.....	49
Mann, Chas.....	Snow Sheds, &c., do.....	50
Mann, C. H.....	do do.....	64
Manning, Alex.....	Section No. 5, Welland Canal.....	105
Manning, H. W.....	Cleaning Feeder do.....	53
Marmon, John.....	Snow Sheds, &c., Intercolonial Railway.....	164
Martineau, J. E.....	Spikes do.....	125
Martineau & Gingras.....	Lifting Barge, River St. Lawrence, near Quebec.....	119
Mathews, Stewart & Stockland.....	Workshops &c., Ottawa.....	30
Mathieson, Young & Co.....	Heating apparatus, Custom House, Toronto.....	141
Mathieson, Young & Co.....	Kingston Military College, Heating apparatus.....	172
Mathieu, A.....	Quebec Observatory.....	92
Mathieu, Aug.....	Extension of Pier, Grosse Ile, Quebec.....	45
Mathieu, Jos.....	Doctors' Residence do.....	36
Matte, A.....	Tank-houses, Intercolonial Railway.....	69, 70
Mayes, Sam. S.....	Breakwater, Richibucto Harbor, N.B.....	97
Mead, H. G.....	Quebec Temporary Post Office.....	37
Merchants' Lake & River Steamship Co.....	Transportation of Rails to Duiuth, Canada Pacific Railway.....	155
Merchants' Lake & River Steamship Co.....	do do do.....	165
Mersey Steel and Iron Co.....	Steel Rails, Canada Pacific Railway.....	151
Midland Manufacturing Co.....	Cars, Intercolonial Railway.....	66
Miller & Co., Robt.....	Spikes do.....	64
Mitchell & Co., Robt.....	Heating apparatus, Montreal Post Office.....	110
Mitchell & Co., Robt.....	do do Examining Warehouse.....	170
Mitchell & Co., Robt.....	do Ottawa do.....	142
Mitchell & Co., Robt.....	Section No. 29, Welland Canal.....	81
Mitchell, Robt.....	Excavation, Deep Cut do.....	52
Mitchell, G. P.....	do Richmond Depot, Halifax, Nova Scotia Railway.....	7
Moberley, C. W.....	Breakwater, Collingwood, Ont.....	100
Moberley, C. W.....	Extension of Pier and Dredging, Port Hope, Ont.....	115
Moffatt, John.....	Wood Shed, Intercolonial Railway.....	72
Moffatt, John.....	Station House and Tank House, Intercolonial Railway.....	148
Montgomery, W.....	Repairs to Round House, Richmond Station, Nova Scotia Railway.....	78

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
Montgomery & Co.....	Locomotives, Intercolonial Railway.....	32
Montreal Telegraph Co.....	Telegraph Line do.....	29
Mooney & Son, B.....	Custom House, St. John, N.B., Foundations.....	171
Mooney & Son, B.....	Military Storehouse do Repairs.....	172
Moore & Co., David.....	Goderich Harbor Works.....	113
Morland, Watson & Co.....	Crane Chain, St. Lawrence Canals.....	159
Morrison & Barclay.....	Penitentiary, Stoney Mountain, Manitoba.....	109
Morton, Thomas.....	Timber for Blackburn Bridge, Nova Scotia Railway.....	12
Mulhally & Co.....	Breakwater, St. Peter's Bay, Prince Edward Island.....	168
Munson, A. E.....	Dredging, Presqu'ile Harbor, Ont.....	45
Murphy, Jas.....	Piers and Booms, Gatineau River, Quebec.....	118
Murphy, W.....	Station Houses, Intercolonial Railway.....	149
Murphy & Bassett.....	Tank House and Sheds do.....	149
Murphy & Lawlor.....	Lighthouse, &c, Moser's Island, Nova Scotia.....	3
Murphy & Lawlor.....	do Peggy's Point do.....	3
<b>Mc.</b>		
McAdam, Wm. & John.....	Removal of Snow, Rideau Hall, Ottawa.....	112
McBean & Robinson.....	Grading and Masonry, Section 10, Intercolonial Railway.....	14
McCann, Francis.....	Removal of Snow, Public Buildings, Ottawa.....	90
McCarron & Cameron.....	Track-laying and Ballasting, Sections 13, 14, 17 and 18, Intercolonial Railway.....	129
McCormack, John.....	Marine Hospital, Souris, P.E.I.....	141
McCullough, Jas.....	Sleepers, Intercolonial Railway.....	35
McDonagh, John.....	Supply of Timber, Welland Canal.....	52
McDonald, Angus.....	East Pier, Port Dalhousie, Welland Canal.....	7
McDonald, Angus.....	East Pier, Port Maitland Harbor.....	21
McDonald, Angus.....	West Pier, Port Dalhousie, Ont.....	4
McDonald, D. A.....	Extension of Breakwater, Shippegan, N.B.....	168
McDonald, Duncan.....	Grading and Masonry, Section 10, Intercolonial Railway.....	31
McDonald, Duncan.....	do do 8, do.....	13
McDonald, Duncan.....	Track-laying and Ballasting, Sections 10, 16, 20, Intercolonial Railway.....	128
McDonald, D. G.....	Breakwater, &c, Tignish, P.E.I.....	143
McDonald, F. L.....	Sleepers, Intercolonial Railway.....	78-79
McDonald, Hugh.....	Breakwater, L'Ardoise, Cape Breton, N.S.....	162
McDonald, J. J.....	Tank House, &c., Intercolonial Railway.....	147
McDonald, J. J.....	Loading Ballast with Steam Shovel, Intercolonial Railway.....	163
McDonald, W. E.....	Grading and Masonry, Section 13, do.....	26
McDonald & Co.....	Removal of Heating Apparatus, Charlottetown, Dominion Buildings.....	161
McDonald & Co., A. P.....	Section No. 1, Lachine Canal.....	85
McDonald & Co., J. J.....	Track-laying and Ballasting, Sections 3, 6, 9, 15, 18, 19, Intercolonial Railway.....	103
McDonnell A.....	Fences, Intercolonial Railway.....	126
McDonnell & Co., A.....	Grading and Masonry, Section 5, Intercolonial Railway.....	23
McEwen, J. S.....	Piers and Dredging, Bayfield Harbor, Ont.....	116
McGreery, R. H.....	Grading and Masonry, Section 18, Intercolonial Railway.....	29
McIntosh, John.....	Blacksmiths' Work, Lachine Canal.....	85
McKay, A.....	Station Houses, Intercolonial Railway.....	65
McKay, G. & H.....	Breakwater, New London, P.E.I.....	116
McKay, Wm.....	Glazing Windows, Library of Parliament.....	90
McKay, Wm.....	Fresco Painting, &c., do.....	139
McKean, S.....	Coal Siding at Moncton, &c., Intercolonial Railway.....	121
McKean, S.....	Grading and Masonry for extension into Halifax, Intercolonial Railway.....	129
McKeen, L. & J.....	Brush Dam, &c, Mabou Harbor, N.S.....	144
McKeen, W. A.....	Marine Hospital, Sydney.....	141
McKenna, F.....	Removal of Snow, Public Buildings, Ottawa.....	140
McKenzie, A.....	Penitentiary, Dorchester, N.B.....	160
McKenzie, F. W.....	Crib-work, &c., South Ingonish, N.S.....	99
McKenzie, D.....	Tank Houses, &c., Intercolonial Railway.....	147

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
McKenzie & Chisholm .....	Tank Houses and Flag-Stations, &c., Intercolonial Railway..	70-71
McKnight, Wm.....	Slides at Calumet, &c., Ottawa River, repairs.....	60
McKnight, Wm.....	do do .....	95
McLachlan, John.....	Lighthouse on Beacon Block, St. John, N.B.....	5
McLaren, P. S.....	Timber for Wharf, Inverhuron, Ont.....	114
McLaren & Walker.....	Revetment Piling around Basin, &c., Kincardine, Ont.....	145
McLaren & Walker.....	Extension of Pier, &c., Kincardine, Ont.....	145
McLaren & Walker.....	Pier, Kincardine, Ont.....	168
McLellan, R. N. B.....	Sleepers, Intercolonial Railway .....	49
McLellan, D. W.....	do do .....	121
McLeod & Co., M. G.....	Breakwater, McNair's Cove, N.S.....	63
McManus & Sons, T.....	Extension of Pile Breakwater, Richibucto .....	116
McNamee, F. B.....	do Mooring Pier, Côteau Landing.....	62
McNamee, F. B.....	Repairs to Locks 3 and 6, Chambly Canal.....	16
McNamee, F. B.....	Piers, &c., Des Prairies River, Q.....	43
McNamee, F. B.....	Deepening of Port Dalhousie Harbor, Welland Canal.....	52
McNamee, Gaherty & Frechette..	Section No. 3, Lachine Canal .....	137
McNeil, Allan.....	Logs for St. Peter's Canal.....	37
McRae, J. W.....	Coal, Public Buildings, Ottawa.....	162
<b>N</b>		
Nailor, Benson & Co.....	Supply of Steel Rails, Canada Pacific Railway.....	154
Neilson & Co., Geo.....	Enlarge Harbor, &c., Port Colborne, Harbors and Piers.....	46
Neilson & McGaw.....	Grading and Masonry, P.Q., Intercolonial Railway.....	26
<b>O</b>		
O'Brien, Denis.....	Mooring Piers, &c., Lachine Canal.....	35
O'Brien, D. W.....	Richmond Wharf, Intercolonial Railway.....	77
O'Brien, J. E.....	Sleepers, do .....	78
O'Brien & McKin.....	do Section No. 7, N.S., Intercolonial Railway .....	46
O'Brien, Sullivan & Co.....	Section 8, Lachine Canal Enlargement.....	158
O'Connor, J. R.....	Bridge at Manotick, Roads and Bridges.....	2
O'Leary, M.....	Removal of Snow, Public Grounds, Ottawa.....	162
Oliver, Davidson & Co.....	Telegraph Line, Canada Pacific Railway.....	152
Oliver, Davidson & Co.....	Building Engineers Heuse, Canada Pacific Railway.....	156
Oliver, Davidson & Co.....	Operate Telegraph Line, Canada Pacific Railway.....	165
O'Neil, E. J.....	Removal of Snow, Public Buildings, Ottawa.....	39
O'Neil, Roderick.....	Madawaska River, repairs, Slides and Booms.....	95
O'Neil, Roderick.....	High Fall and Black River Slides and Booms .....	95
Ontario Car Co.....	Freight Cars, Intercolonial Railway.....	167
Ormsby, J. W.....	Side Pier, St. Maurice Works, Slides and Booms.....	42
Ottawa Gas Co.....	Supply of Gas, Rideau Hall, Ottawa.....	55
Ottawa Waterworks.....	Supply of Water, Public Buildings.....	170
Overend, Thos.....	Emigrant Shed, Kingston, Public Buildings .....	38
<b>P</b>		
Paiement, Louis.....	Removal of Snow, Public Buildings, Ottawa.....	40
Painter, Thomas.....	Powder Magazine do .....	5
Parker, Geo. S. & J. A.....	Breakwater, Liverpool Bay, Nova Scotia, Harbors and Piers..	46
Parker, Thos.....	Ties, Intercolonial Railway.....	123
Paton, Laird.....	Windows, &c., Montreal Custom House, Public Buildings.....	39
Peck, Benny & Co.....	Spikes, Intercolonial Railway.....	64
Peck, Benny & Co.....	Spikes do .....	102
Perkins, E. S.....	Cresting for Parliament Library.....	110
Perkins, Geo. & Co.....	Engine House, Intercolonial Railway.....	73
Perkins, Geo. & Co.....	Branch Line do .....	73
Perry, Jas.....	Gas-holders, Rideau Hall, Ottawa.....	170
Peters, Henry.....	Halifax Passenger Station, Intercolonial Railway.....	160



## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
Peters, Simeon.....	Lighthouse, &c, Pointe St. Laurent, Harbors and Piers.....	3
Peters, Simeon.....	Custom House Wharf, Quebec.....	58
Peterson & Law.....	Iron Staircase, Western Block, Ottawa.....	170
Pidgeon, Thomas C.....	Rideau Hall, Public Buildings do.....	6
Pidgeon, Thomas C.....	Guard-house do do.....	9
Pidgeon, Thomas C.....	Shed at Rideau Hall, Public Buildings, Ottawa.....	55
Piton & Co.....	Grosse Ile, Province of Quebec, Quarantine Buildings.....	91
Plourde, Prosper.....	Gate, &c., L'Islet, Harbors and Piers.....	21
Portland Locomotive Co.....	Locomotives, Intercolonial Railway.....	97
Portland Locomotive Co.....	do do.....	102
Portland Engine Co.....	Coal Cars do.....	102
Pounds Manufacturing Co.....	Dredging Machine, Dredge Vessels.....	9
Proudfoot, John.....	Repairs to Couloung and Black River Works.....	60
Proudfoot, John.....	Portage du Fort, Slide, Ottawa River.....	118
Purcell, Patrick.....	Grading and Masonry, New Brunswick, Intercolonial Railway.....	31
Purcell & Ryan.....	Section 25, Canada Pacific Railway.....	165
Purves, Robert.....	Lighthouse, &c., Black Rock Point, Harbors and Piers.....	3
Purves, Robert.....	do Cariboo Island do.....	3
<b>Q</b>		
Quinton & Tilley.....	Repairs to Custom House, St. John, N.B., Public Buildings.....	39
<b>R</b>		
Randall, E. G.....	Lighthouse, Pomket Island, Harbors and Piers.....	3
Raymond & Tremblay.....	Pier at Eboulements do.....	21
Read & Stanley.....	Enlargement, Ottawa Basin, Rideau Canal.....	54
Read, Stevenson & Co.....	Clifton Breakwater, N.B.....	172
Redmond, Thes.....	Swing Bridges, &c., Grenville Canal.....	36
Red River Transportation Co.....	Transportation of Steel Rails from Duluth to Manitoba.....	155
Red River Transportation Co.....	do do do.....	165
Reed & Walker.....	Breakwater, &c, Lake Huron, Harbors and Piers.....	44
Reynolds, Thos.....	Supply of Steel Rails, Canada Pacific Railway.....	152
Richard, J. C.....	Repairs to Wharf, Grosse Isle, P.Q.....	145
Richard & Sons, E. O.....	Booms and Piers, River St. Maurice, Slides and Booms.....	42
Richards, T. C.....	Buildings at Grosse Isle, P.Q.....	171
Richards, Wm.....	Des Joachims Station, repairs to, Ottawa River.....	118
Ribe and others.....	Metapedia Road, Roads and Bridges.....	19
Robert, Leandre.....	Making Road, Chambly Canal.....	89
Roberts, George.....	Furniture, &c., Custom House, Montreal, Public Buildings.....	37
Robinson, William.....	Ties, Canadian Pacific Railway.....	172
Rodgers, Kelly & Co.....	Section 10, Lachine Canal Enlargement.....	157
Ross, John.....	Ties, Intercolonial Railway.....	123
Ross, Paul.....	Section 11, Welland Canal.....	83
Ross, J., & Mackay, J.....	South English Harbor, Nova Scotia.....	113
Rouleau, Jos.....	Sleepers, Section 2, Province of Quebec, Intercolonial Railway.....	47
Rouleau, Jos, & Co.....	Station Houses, Intercolonial Railway.....	69
Row & Koyl.....	Bridge, River Ottawa, Slides and Booms.....	43
Row & Koyl.....	Bridges, Rideau Canal.....	88
Row & Koyl.....	Cobourg Harbor Pier.....	115
Rowan, John.....	Petewawa River, repairs to, Slides & Booms.....	95
Ryan, John.....	Loading Ballast, Intercolonial Railway.....	163
Ryan & Booth.....	Tracklaying and Ballasting do.....	125
<b>S</b>		
Sarnia Shipbuilding Co.....	Refitting Dredge at Sarnia.....	94
Savoy, Michel.....	Sleepers, Intercolonial Railway.....	75
Schreiber, C.....	Main Line Prince Edward Island Railway.....	51
Schreiber, C.....	Change of line do.....	51

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
Schreiber & Burpee .....	Branch Lines, Embankment, Prince Edward Island Railway...	79
Scott & Co., Jas. E. ....	Railway Fence, Intercolonial Railway .....	125
Seamen, C. C. ....	Sleepers do .....	49
Sherridan, James .....	Dwelling-house, Chambly Canal .....	88
Shannon, Pat. ....	Section 6, Welland Canal .....	105
Sifton, Glass & Co. ....	Telegraph Line, Canada Pacific Railway .....	130
Sifton & Ward .....	Contract 13, do .....	153
Sifton & Ward .....	do 14, do .....	154
Sifton & Ward .....	Ties do .....	156
Simmons, Jas. E. ....	Oromocto Dam, St. John, N.B. ....	168
Simmons & Co., Wm. ....	Built Hopper Dredge .....	94
Simpson & Co., Jas. ....	Grading and Masonry, Nova Scotia, Intercolonial Railway .....	25
Sims, H. F. ....	Removal of Snow, Rideau Hall, Public Buildings, Ottawa .....	40
Sims, H. F. ....	do do do .....	57
Sketh & Johnston .....	Dwelling-house, Cornwall Canal .....	36
Smith, Clark, McKay & Burgess..	Custom House, Victoria, B.C. ....	109
Smith & Pitblado .....	Grading and Masonry, Nova Scotia, Intercolonial Railway .....	22
Soucey, F. ....	Station Houses, Intercolonial Railway .....	68
Soulier, Janvier .....	Repairs to Slide at Chaudiere, Ottawa .....	60
Soulier, John .....	Repairs to Slides, Ottawa and Gatineau River, Slides and Booms .....	41
Soulier, John .....	Cribs, Slide and Piers, Rocher Capitain, Ottawa River .....	62
Spence, Thos. ....	Removal of Sister Rock, Fraser River, B.C. ....	60
Spence, Thos. ....	do Obstructions, Victoria Harbor, B.C. ....	143
Spring Hill Mining Co. ....	Supply of Coal, Intercolonial Railway .....	167
Stanley, Robert .....	River des Prairies, Booms and Piers .....	117
Starr Manufacturing Co. ....	Scabbard Joint Fastening &c., Intercolonial Railway .....	35
Starr Manufacturing Co. ....	Coal Cars, Intercolonial Railway. ....	102
St. Catherines Canal Gas Light Company	Light, Welland Canal .....	7
Steel Company of Canada .....	Car Wheels, Intercolonial Railway .....	167
Stevens, J. W. ....	Ties do .....	122
Stewart, John .....	Rideau Hall, Public Buildings, Ottawa .....	6
Stewart, John .....	Lock Gates, Culbute Canal .....	137
Stewart, Wm. ....	Dartmouth Road Bridge, &c., Nova Scotia Railway .....	7
Stewart, Wm. ....	Tank House, &c., N.S., Nova Scotia Railway .....	15
Stewart, Wm. ....	Embankment, Windsor Junction do .....	29
Stewart, Wm. ....	Railway Embankment, Intercolonial do .....	120
Stinson, Angus .....	St. Andrews, New Brunswick Marine Hospital .....	92
Stothart, James .....	Chatham, New Brunswick, Quarantine Buildings .....	91
Strachan, Beckett & Aspell .....	Carpenter Work, West Block Extension, Ottawa .....	140
Sumner & Somers .....	Grading and Masonry, Nova Scotia, Intercolonial Railway .....	14
Sutton & Co., H. J. ....	do do do .....	11
Sutton, Thompson & Whitehead..	Contract 15, Canada Pacific Railway .....	167
Sutherland & Cochrane .....	Jordan Bay Breakwater, Nova Scotia .....	142
Sutherland, Grant & Co. ....	Grading and Masonry, New Brunswick, Intercolonial Railway .....	32
<b>T</b>		
Taylor, Warren .....	Ties, Intercolonial Railway .....	121
Taylor, Warren .....	Station and Tank Houses, &c., Intercolonial Railway .....	149
Teed, John F. ....	Box Cars, Intercolonial Railway .....	33
Tingley, R. J. ....	Fence Poles do .....	127
Thompson, Wm. ....	Mountain Station Slide, Ottawa Works .....	117
Thompson, Geo. ....	Coal, Public Buildings, Ottawa .....	89
Tilley, C. F. & Redfern, J. W. ....	Savings Bank, St. John, N.B. ....	68
Tolton, John S. ....	Meaford Harbor Works .....	112
Toms, F. ....	Fence Walls, Parliament Grounds, Ottawa .....	139
Toms, F. ....	Drying House, Shed and Workshops, Ottawa .....	140
Toronto, Grey & Bruce Rail'y Co.	Owen Sound Dredging .....	115
Tuck, S. Parker .....	Grading and Masonry, Intercolonial Railway .....	27
Tuck, S. Parker .....	Grading and Masonry, P.Q., N.B., Intercolonial Railway .....	28
Tuck, S. Parker .....	Enlargement St. Peter's Canal .....	138

## ALPHABETICAL INDEX of Contractors.—Continued.

Contractor.	Work.	Page.
Tuck, S. Parker .....	Additional Enlargement St. Peter's Canal.....	160
Turpine, Louis.....	Bulkhead, Hull Slide, Slides and Booms .....	95
Turpine, Louis.....	Chaudière, Hull and Gatineau Boom, Slides and Booms.....	95
<b>W</b>		
Waddell, John.....	Stables, Tête du Pont Barracks, Kingston.....	171
Walker, G. G.....	Mud Punts, Victoria Harbor, B.C.....	97
Walker, G. W.....	Sleepers, Intercolonial Railway.....	123
Walker, Pratt & Co.....	Heating Apparatus, St. John, N.B., Post Office.....	142
Walters, Thomas .....	Trent Works, Repairs.....	18
Walton, Benj.....	Custom House, Toronto .....	90
Walton, Benj.....	Examining Warehouse, Toronto.....	109
Warren W.....	Chicoutimi Pier, Completion .....	117
Watts, Wm.....	Launches and Boats, Red River Route.....	96
Webster, Jas.....	Excavation, Brick and Stone Work, Hamilton Post Office.....	93
Webster, J. W.....	Lantern Portion, Central Tower, Public Buildings, Ottawa...	40
Webster, J. W.....	Post Office and Custom House, Ottawa .....	107
Webster & Aitchison .....	Masonry, West Block Extension, Public Buildings, Ottawa.....	139
Weir, John .....	Sleepers, Intercolonial Railway .....	76
Weir, Robt.....	Dwelling for Office Keeper, Geological Museum, Montreal.....	37
Welland Railway Co.....	Deviation of Line at Thorold, Welland Canal.....	105
West, J. & O'Connor.....	Repairs on Madawaska River, Ont .....	117
West, J. & O'Connor.....	do Petewawa do .....	117
West Cumberland Iron & Steel Co	Supply of Rails, Canada Pacific Railway.....	151
Whitehead, Jos.....	Grading, &c., Pembina Branch, Canada Pacific Railway.....	130
Whitney & Doty.....	Section No. 4, Lachine Canal.....	157
Wickwire, W. W.....	Breakwater at Oak Point Extension.....	143
Wilcox, Stock & Co.....	Dredging, River Thames, Ont.....	147
Wilson, A.....	Breakwater, Colville Bay, Souris East (P.E.I.).....	145
Wilson, Aaron .....	do Pointe du Chêne, Shediac, N.B.....	143
Wittorow & Hillock.....	Alterations to Toronto Post Office .....	9
Wood, Jos.....	Post Office, Custom House, &c., Winnipeg, Manitoba .....	93
Woodland, Stewart.....	Pavement, Grounds, Ottawa Public Buildings.....	161
Worthington, G. & J.....	Grading and Masonry, Section 1, Intercolonial Railway.....	9
Worthington, G. & J.....	do do 2 do .....	10
Worthington, Jas.....	Tracklaying and Ballasting do .....	74
Worthington, Jas.....	Snow Sheds, &c. do .....	102
Worthington & Co., J.....	Sections 1 and 2, Lachine Canal.....	137
Wright, Jas.....	Guard Railing, Chambly Canal.....	88



# INDEX.

## CANADIAN PACIFIC RAILWAY.

Nature of Contract.	No. of Contract.	Name of Contractor.	Page.
Pembina Branch, grading of.....	5	Jos. Whitehead.....	130
Telegraph Line, construction of, from Fort Garry to Livingstone.....	1	Sifton, Glass & Co .....	130
do do from Livingstone to Edmonton.....	2	H. Fuller.....	133
do do from Cache Creek to Edmonton.....	3	F. J. Barnard.....	133
Steel Rails, supply of.....	6	Guest & Co.....	134
do do .....	8	Cooper, Fairman & Co....	151
do do .....	9 & 10	Cumberland Steel and Iron Co .....	151
Telegraph Line, construction of, from Fort Garry to Thunder Bay.....	4	Oliver, Davidson & Co....	152
Steel Rails, supply of.....	7	Ebbw Vale Steel and Iron Co .....	152
Canada Central Railway, extension of.....	16	Canada Central Railway Co .....	153
Georgian Bay Branch, construction of.....	12	Hon. A. B. Foster.....	153
Main Line, construction of, from Thunder Bay to Shebandowan.....	13	Sifton & Ward.....	153
do do from Red River to Cross Lake.....	14	do .....	154
Spikes, supply of .....	11	Cooper, Fairman & Co....	154
Steel Rails, supply of .....	17	do .....	154
do transportation to British Columbia.....	17	Anderson & Anderson ...	155
do do from Duluth to Manitoba.....	18	Red River Transportation Co.....	155
do do from Montreal to Duluth.....	20	Cooper, Fairman & Co., Agents, Merchants' Lake and River S.S. Co	155
do do from Montreal to Lachine .....	21	Pat. Kenny.....	156
do do from Montreal to Kingaton.....	22	Holcomb & Stewart.....	156
Engineer's Dwelling House, construction of .....	19	M. Chevette.....	156
do do .....	24	Oliver, Davidson & Co....	156
Ties, supply of.....	23	Sifton & Ward.....	156
Steel Rails, transportation from Montreal to Duluth .....	27	Merchants' Lake and River S.S. Co.....	165
do do from Duluth to Manitoba.....	28	Red River Transportation Co.....	165
Main Line, construction of, from Sunshine Creek to English River .....	25	Purcell & Ryan.....	165
Engine House at Fort William, construction of .....	26	Jas. Isbester.....	165
Telegraph Line, additional work (on Contract 2).....	2	R. Fuller.....	165
do operating of, Fort Garry to Fort William.....	4	Oliver, Davidson & Co....	165
Main Line, construction of, from Cross Lake to Rat Portage.....	15	Sutton, Thompson & Whitehead.....	165
Spikes, supply of.....	32	Cooper, Fairman & Co....	167
Ties, supply of.....	36	Wm. Robinson.....	172

## CANALS GENERALLY.

Nature of Contract.	Name of Contractor.	Page.
Lock Gates, Timber for. ....	D. S. Booth.....	169

## CARILLON CANAL.

Enlargement of Canal and construction of a Dam and Slide...	R. P. Cooke & Co.....	87
Extras on Contract, agreement as to .....	do .....	159

## CHAMBLY CANAL.

Locks, 3 and 6, repairs to.....	F. B. McNamee.....	16
Lockhouses, construction of.....	Henry Gillespie.....	17
Guard Railing do .....	Jas. Wright.....	88
Dwelling House do .....	Jas. Sheridan.....	88
Macadamized Road do .....	Leandre Robert.....	89
House and Shed do .....	Jas. C. Johnston.....	89
Mooring Pier do .....	Bonneville & O'Brien.....	106

## CORNWALL CANAL.

Regulating Weir, &c., construction of.....	Andrew Hodge.....	5
Pier, &c. of .....	do .....	5
Repairs, Wharves, &c. ....	do .....	36
Dwelling House, construction of.....	Skeith & Johnston.....	36
Office for Collector of Tolls, construction of.....	Jas. C. Johnston.....	54
Section No. 1, enlargement.....	Gordon, Woodward & Chamberlin	159

## CULBUTE CANAL.

Locks and Dam, construction of. ....	Wm. Davis & Sons .....	87
Lock Gates, do .....	John Stewart.....	137

## DREDGE VESSELS.

Dredging Macine, construction of a.....	Pounds Manufacturing Co.....	9
Dredge Vessel and Scows do .....	Clark & Stackhouse .....	20
Dominion Dredge do .....	G. Fleming & Sons.....	41
Refitting Dredge at Sarnia do .....	Sarnia, Shipbuilding Co.....	94
Building Hopper Dredge do .....	Wm. Simmons & Co .....	94

## EUROPEAN AND NORTH AMERICAN RAILWAY.

Branch Line to Ballast Wharf, St. John, N.B., construction of	Mahoney & Robertson.....	73
Platform Cars, supply of.....	J. Harris & Co.....	76

## GRENVILLE CANAL.

Nature of Contract.	Name of Contractor.	Page.
Improving and repairing Canal.....	Jas. Goodwin.....	4
Enlargement of Locks 9, 10 and 11.....	do.....	16
Further Enlargement of do.....	do.....	36
Swing Bridges, &c., construction of.....	Thos. Redmond.....	36
Iron for Lock Gates, supply of.....	Alex. Fleck.....	54
Further work in connection with Enlargement of Locks 9, 10 and 11.....	Jas. Goodwin.....	86
Machinery for Lock Gates, supply of.....	Alex. Fleck.....	87
Increase depth of water in Canal.....	Jas. Goodwin.....	138

## HARBORS AND PIERS.

Moser's Island Lighthouse &c., N.S., construction of.....	Murphy & Lawlor.....	3
Peggy's Point do do.....	do.....	3
Cape St. Mary's do do.....	Dexter & Robichau.....	3
Black Rock Point do do.....	R. Purves.....	3
Cariboo Island do do.....	do.....	3
Pomket do do.....	E. G. Randall.....	3
Pointe St. Laurent do P.Q., do.....	S. Peters.....	3
Beacon Block do N.B., do.....	J. McLachlan.....	5
Michael's Point, Manitoulin Island Lighthouse, &c., Ontario, construction of.....	R. A. Lyon & Co.....	8
Machias Seal Island Lighthouse, &c., N.B., construction of.....	Clark & Stackhouse.....	8
Jourmaine Island do do do.....	John Duffy.....	9
Malbaie do P.Q., do.....	Jos. Lavoie.....	21
Eboulements do do do.....	A. Desbiens.....	21
do Pier, do repairs to.....	Raymond & Tremblay.....	21
Pointe-à-Pic do do do.....	H. Brassard.....	21
Berthier Lighthouse, &c., do erect gates for.....	D. Bernier.....	21
Rivière du-Loup do do do.....	A. G. Côté.....	21
Pointe-aux-Orignaux Lighthouse, &c., do do do.....	Geo. Lévesque.....	21
L'Islet do do do.....	P. Plourde.....	21
Port Maitland Pier Ont., repairs to.....	A. McDonald.....	21
Saugeen River, (entrance to) do improvement of.....	Wm. Hall.....	21
Coteau Landing Mooring Pier, P.Q., construction of.....	P. B. Coutlée.....	22
Rimouski Pier, &c., do repairs to.....	J. LePage.....	22
Little Hope Island Breakwater, N.S., construction of.....	Grant, Sutherland & Co.....	44
Rondeau Harbor and Piers Ont., improvement of.....	John Brown.....	44
Goderich do do do.....	Harvey & Korman.....	44
Chantry Island Breakwater do construction of.....	Reed & Walker.....	44
Grosse Isle Pier P.Q., do.....	A. Mathien.....	45
Partridge Island Wharf N.B., do.....	Clark & Stackhouse.....	45
Kincardine Harbor Piers Ont., extension of.....	Wm. Hall.....	45
Mabou Harbor N.S., improvement of.....	Thos. Evans.....	45
Presqu'Isle Harbor Ont., do.....	A. E. Munson.....	45
Brooklyn Bay Breakwater N.S., construction of.....	Parker & Parker.....	46
Port Colborne Harbor Ont., improvement of.....	G. Neilson & Co.....	46
Coteau Landing Mooring Pier, P.Q., extension of.....	F. B. McNamee.....	62
Little Hope Island Breakwater, N.S., construction of.....	S. B. Cochrane & Co.....	62
Quaco Harbor Breakwater N.B., do.....	Clark & Stackhouse.....	63
McNair's Cove do N.S., do.....	M. G. McLeod & Co.....	63
Stoney Creek Gully do N.B., do.....	Duffy, Steeves, Shaw & Co.....	63
Victoria Harbor B.C., mud punts.....	G. G. Walker.....	97
Yarmouth Harbor N.S., crib work.....	R. Churchill.....	97
Richibuctou Harbor N.B., breakwater.....	S. S. Mayes.....	97
Chicoutimi Pier P.Q.....	H. Dufour.....	98
Herring Cove Breakwater N.B.....	W. H. Duffy & Co.....	99
South Ingonish Crib Work and Dredging, N.S.....	F. W. McKenzie.....	99
Brooklyn Breakwater, N.S.....	Gardner, McLeod & McLeod.....	99
Dipper Harbor Breakwater, N.B.....	Clark & Stackhouse.....	100

HARBOURS AND PIERS—*Concluded.*

Nature of Contract.	Name of Contractor.	Page.
Collingwood Harbor Breakwater, Ont.....	C. W. Moberly.....	100
Kincardine do Pier, Ont.....	J. H. Johnston.....	100
Baie St. Paul Pier, P.Q.....	A. Gagnon.....	101
Chantry Island Breakwater, Ont.....	Andrew Lindsay.....	101
Meaford Harbor Pier and Dredging, Ont.....	John S. Tolton.....	112
South Ingonish Pier, N.S., &c.....	Ross & McKay.....	113
Goderick Harbor Improvements, Ont.....	D. Moore & Co.....	113
Inverhuron Harbor, Ont., repairs.....	P. S. McLaren.....	114
Pictou Harbor, Ont., dredging.....	C. Daly.....	114
Owen Sound Harbor, Ont., dredging.....	Toronto, Grey & Bruce RR. Co.....	115
Cobourg Harbor Pier, Ont.....	Rowe & Koyl.....	115
Shannoaville Salmon River, Ont., dredging.....	C. Daly.....	115
St. John, N.B. Harbor, Negro Point Breakwater.....	J. Duffy & Co.....	115
Port Hope Harbor, Ont., piers and dredging.....	C. W. Moberly & Co.....	115
New London, P.E.I., breakwater.....	G. & H. McKay.....	116
Bayfield Harbor, Ont., piers and dredging.....	J. S. McEwen & Co.....	116
Richibuctou Harbour, N.B., Breakwater.....	T. McManus & Sons.....	116
Chicoutimi Pier, P.Q.....	W. Warren.....	117
Jordan Bay Breakwater, N.S.....	Sutherland & Cochrane.....	142
Tignish Breakwater, P.E.I., repairs of, &c.....	D. G. McDonald.....	143
Point du Chêne Breakwater, N.B.....	A. Wilson.....	143
Oak Point Harbor Breakwater, N.S.....	W. Wickwire.....	143
Victoria Harbor, B.C., improvement of.....	Thomas Spence.....	148
Owen Sound Harbor, Ont., dredging.....	Archibald & Co.....	143
Port Stanley Harbor Pier, Ont.....	T. M. Hubbell.....	144
Mabou Harbor Dam and Oribwork, N.S.....	J. Ellison & Son.....	144
Darlington Harbor, Ont., improvement of.....	L. & J. McKean.....	144
Grosse Isle Wharf, P.Q., repairs to.....	C. Daly.....	145
Kincardine Harbor, Ont., extension of Pier.....	J. O. Richard.....	145
Colville Bay Breakwater, P.E.I., repairs to.....	McLaren & Walker.....	145
Kincardine Harbor, Ont., improvement of.....	A. Wilson.....	145
Shippegan Gully Harbor, N.B., improvement of.....	McLaren & Walker.....	145
L'Ardoise Breakwater, N.S.....	Ed. Faye.....	146
Port Burwell, Ont., dredging of.....	H. McDonald.....	162
Toronto Harbor, Ont., do.....	J. Castleman.....	163
Thunder Bay do.....	Hunter & Murray.....	163
McNair's Cove Breakwater, N.S., addition to.....	do.....	163
Kincardine Harbor Pier, Ont., construction of.....	Beaton & McDonald.....	168
Berthier and L'Islet Piers, supply of timber for.....	McLaren & Walker.....	168
St. Peter's Bay Breakwater, P.E.I.....	Archer & Co.....	168
Shippegan Harbor Breakwater, N.B., extension of.....	John Mulhally.....	168
Oromocto Shoals Dam, N.B., construction of.....	D. A. McDonald.....	168
Malpeque Breakwater, P.E.I. do.....	J. E. Simmons.....	168
Clifton Breakwater, N.E., extension of.....	Pierce Doyle.....	172
	Read, Stevenson & Co.....	172

## IMPROVEMENT OF RIVERS.

Trent River, Ont., improving Brook's Rapids.....	Jas. Dinwoodie.....	
Thames River, Ont., dredging of.....	John Brown.....	20
Trent River, Ont., constructing a Dwelling House.....	Alex. Brough.....	59
Gatineau River, P.Q., dredging of.....	John Heney.....	59
Fraser River, B.C., removal of Rocks.....	Thos. Spence.....	60
St. Maurice River, P.Q., construction of a dam.....	O. Z. Hamel.....	61
Gatineau River, P.Q., dredging of.....	John Heney.....	94
do do.....	do.....	94
St. Lawrence River, P.Q., near Quebec, construction of a Lifting Barge.....	Martineau & Gingras.....	119
Thames River, Ont., dredging of.....	Wilcox, Stock & Co.....	147
Napanee do do.....	C. Daly.....	147



INTERCOLONIAL RAILWAY.

Nature of Contract.	Name of Contractor.	Page.
Grading and Masonry, P. Q.	G. & J. Worthington	9
do P. Q.	do	10
do N.B.	Elliott, Grant & Whitehead	10
do N.B.	do	10
do N.B.	Jacques Jobin	11
do N.S.	H. J. Sutton & Co	11
do P. Q.	Ed. Haycock	11
do N.B.	Bertrand & Co.	13
do P. Q.	D. McDonald	13
do N.S.	Davis, Grant & Sutherland	14
do N.S.	Sumner & Somers	14
do N.B.	McBean & Robinson	14
do N.B.	Berlinguet & Co	22
do N.S.	Smith & Pitblado	22
do P. Q.	McDonnell & Co	23
do N.B.	Berlinguet & Co	24
do N.S.	Jas. Simpson & Co	25
do P. Q.	W. E. McDonald & Co	26
do P. Q.	Neilson & McGaw	26
do N.B.	King & Gough	27
do N.B.	Bertrand & Co	27
do P. Q.	S. P. Tuck	27
do P. Q. and N.B.	do	28
do P. Q.	R. H. McGreevy	29
Telegraph Line, construction of	Montreal Telegraph Co.	29
Grading and Masonry, N.B.	Brown, Brooks & Ryan	30
do N.B.	Duncan McDonald	31
do N.B.	Pat. Purcell	31
do N.B.	C. Cummings & Co	32
do N.B.	Sutherland, Grant & Co	32
Sleepers, Sec. 11, supply of	J. Blair	32
Locomotives, supply of	Wm. Montgomery & Co.	32
do do	Dubbs & Co	33
do do	Canadian Engine & Machinery Co	33
Box Cars do	William Hamilton & Son	33
do do	Gough & Hunter	34
do do	John F. Teed	34
Platform Cars do	Wm. Clendenning	34
do do	Intercolonial Iron and Steel Co.	34
Ties, Sec. 12, supply of	Jas. McCulloch	35
Scabbar'd Joint Fastenings, &c., supply of	Starr Manufacturing Co.	35
Sleepers, Sec. No. 7, supply of	O'Brien & McKin	46
Steel Rails, supply of	Ebbw Vale Co.	46
do do	Barrow Hematite Steel Co.	46
Sleepers, Sec. No. 2, supply of	Jos. Rouleau	47
do do 8, do	A. Lepage & Co	47
do do 1, do	do	47
do do 1, do	A. G. Côté	47
Iron Bridges, supply and erection of	Fairbairn Engineering Co.	48
do do	Clark, Reeves & Co.	48
do do	C. Blondeau & Co.	48
Tracklaying, &c.	I. & F. Burpee	48
Spikes, supply of	Jas. Harris & Co.	48
Cars do	Aikens & McElmen	49
Sleepers, Sec. No. 12, supply of	Crosby & McKean	49
Moncton Buildings, construction of	Wm. Faulkner	49
Sleepers, Sec. No. 12, supply of	Jas. Blair	49
do do 4, do	C. C. Seaman	49
do do 4, do	R. N. B. McLellan	49
do do 4, do	Hawkins & Tait	50
Point du Chêne works	Clark & Stackhouse	50
Mill-Pond works	Robert Connors	50
Sleepers, Sec. No. 15, supply of	G. A. Girouard	50
do 2, supply of	Côté & McDonald	50
do 3, do	do	50
do 7, do	Amos Fountain	51

## INTERCOLONIAL RAILWAY—Continued.

Nature of Contract.	Name of Contractor.	Page.
Spikes, supply of.....	Peck, Benny & Co.....	64
Tracklaying and Ballasting, Secs. 4, 7, 12.....	Fraser, Stewart & Fraser.....	64
Station Houses, Debert and Londonderry, N.S.....	A. McKay.....	65
do Maccan, Thompsons and Wentworth, N.S.....	A. Colborn.....	65
do River Philip, N.S.....	Colburn & Black.....	65
Tank House, &c., do.....	do.....	65
Station House, Athol, N.S.....	Douglass & Cove.....	65
Tank do do.....	do.....	65, 66
Cars, supply of.....	Oscar Bradley.....	66
do do.....	Midland General Manufacturing Co.....	66
do do.....	James Harris & Son.....	66
Engine House and Station House, construction of.....	A. Grant.....	66, 67
Station Houses, construction of.....	A. Lepage & Co.....	67
Refreshment Building do.....	Hillson & Son.....	67
Coal Shed do.....	do.....	68
Station Houses do.....	F. Soucey.....	68
do do.....	J. Rouleau & Co.....	69
Tank Houses do.....	A. Matte.....	69, 70
do and Flag Stations, construction of.....	McKenzie & Chisholm.....	70, 71
Engine House, construction of.....	Jas. Isbester.....	71
Wood Shed do.....	John Moffatt.....	72
Freight House do.....	T. Gallagher & Sons.....	72
Engine do do.....	G. Perkins & Co.....	72
Refreshment and Freight Buildings, construction of.....	G. Grant & Co.....	72
Passenger Station, construction of.....	M. D. Harris.....	73
Engine House do.....	A. Johnston & Co.....	73
Miramichi Branch Line and Grading Station Yard.....	G. Perkins & Co.....	73
Spikes, supply of.....	Jas. Donville.....	73
Iron Roofs do.....	Fairbairn Engineering Co.....	73
Tracklaying and Ballasting.....	Jas. Worthington.....	74
Sleepers, supply of.....	F. B. Leger.....	75
do do.....	Michael Savoy.....	75
do do.....	John Weir.....	76
do do.....	D. C. King.....	76
Coal Shed, construction of.....	Geo. Grant.....	77
Dorchester Branch Line, construction of.....	D. Hawkins.....	77
do Wharf do.....	Lowerison & McManus.....	77
Sleepers, supply of.....	J. E. O'Brien.....	78
do do.....	F. L. McDonald.....	78, 79
do do.....	P. L. Gauvreau.....	79
do do.....	W. F. Costigan.....	79
Locomotives do.....	Portland Locomotive Company.....	97
Passenger and Refreshment Buildings, Newcastle, construction of.....	J. Hillson & Son.....	101
Freight House, Campbelltown, construction of.....	T. Gallagher & Sons.....	101
Engine do do.....	do.....	102
Locomotives, supply of.....	Portland Locomotive Company.....	102
Spikes do.....	Peck, Benny & Co.....	102
Platform Cars do.....	W. Hamilton.....	102
Snow Sheds and Fences.....	J. Worthington.....	102
Coal Cars.....	Starr Manufacturing Company.....	102
do.....	Portland Locomotive do.....	102
do.....	Jas. Harris & Co.....	103
Branch Line to Ballast Wharf, St. John.....	Ed. Faye.....	103
Tracklaying and Ballasting.....	J. J. Macdonald.....	103
Station House, Bic.....	A. Lepage.....	120
Platform Cars, supply of.....	Wm. Hamilton.....	120
Trucks, supply of.....	Canada Car Company.....	120
Locomotives, supply of.....	Manchester Locomotive Works.....	120
Embankment, Richmond, N.S.....	Wm. Stewart.....	120
Trestle Work, Coal siding, Sussex, Moncton, &c.....	Sam McKean.....	121
Ties, supply of.....	Warren Taylor.....	121
do.....	D. W. McLellan.....	121

## INTERCOLONIAL RAILWAY—Continued.

Nature of Contract.	Name of Contractor.	Page.
Ties, supply of.....	John A. Brenton.....	122
do.....	Jacob Harvey.....	122
do.....	Wm. Kennedy.....	122
do.....	J. W. Stevens.....	122
do.....	W. Faulkner, Jr.....	122
do.....	John Ross.....	123
do.....	Jas. Burris.....	123
do.....	Jacob Dowl.....	123
do.....	Wm. Etter.....	123
do.....	Leblanc & White.....	123
do.....	Thos. Parker.....	123
do.....	G. W. Walker.....	123
do.....	D. D. Buchanan.....	124
Customs Warehouse, St. John Station.....	Thos. Currie.....	124
Spikes, supply of.....	J. E. Martineau.....	125
Tracklaying and Ballasting, Sec. Nos. 20, 21, 22, 23.....	Ryan & Booth.....	125
Fence, between Shubenacadie and Stewiacke.....	J. E. Scott & Co.....	125
do Stewiacke and Brookfield.....	T. Lindsay.....	125
do Truro and Pictou.....	R. Christie.....	125
do Truro and Riversdale.....	G. Christie.....	125
do Windsor and Elmsdale.....	A. Macdonell.....	126
do Milford and Elmsdale.....	Forbes & McLeod.....	126
do Windsor and Brookfield, &c.....	do.....	126
Fence Poles, supply of.....	J. C. Archibald.....	127
do and Posts, supply of.....	Forbes & McLeod.....	127
do supply of.....	R. J. Thingley.....	127
do.....	L. Donaldson.....	127
do.....	C. D. Fillmore.....	127
do.....	H. L. Fergusson.....	127
do.....	J. Gordon.....	127
do.....	Forbes & Hamilton.....	127
Tracklaying and Ballasting.....	D. McDonald.....	128
Freight Houses, Brookfield Station.....	Wm. Corbett.....	128
Car Shed, Truro.....	Angus, Barclay & Co.....	128
Halifax Extension.....	Samuel McKean.....	129
Tracklaying and Ballasting.....	McCarron & Cameron.....	129
Passenger Stations, Bedford, &c.....	Geo. J. Grant.....	129
Tank House and Shed, Jacket River.....	T. J. McDonald.....	147
do Canaan, &c.....	D. McKenzie.....	147
Stations at Canaan, &c., N.B.....	Jos. Baker.....	147
Tank Houses at St. Octave, &c., P.Q.....	A. Grant.....	148
Station Houses do.....	do.....	148
Tank Houses at Amqui, &c., P.Q.....	do.....	148
do Charlo, N.B.....	R. Henderson.....	148
do and Shed, at Dalhousie, &c., N.B.....	John Moffatt.....	148
Station House at Belledune, &c., N.B.....	do.....	148
Wood Shed, &c., at New Mills Station, N.B.....	Murphy & Bassett.....	149
Snow Shed and Fence, Ste. Flavie, P.Q.....	A. Lepage.....	149
Station and Tank Houses, Metapedia, P.Q.....	A. Grant.....	149
Tank House and Shed, Bathurst, N.B.....	Chas. Mann.....	149
Station Houses, Charlo, &c., N.B.....	Wm. Murphy.....	149
Station and Tank Houses, &c., at Red Pine, &c., N.B.....	Geo. Kitchen.....	149
do do Coal Branch, N.B.....	Warren Taylor.....	149
Wharf at Pictou Landing, N.S.....	Jos. Hamilton.....	149
Passenger Station, Halifax, N.S.....	Henry Peters.....	150
Steam Ferry Boat at Pictou.....	E. E. Gilbert.....	150
Snow Sheds and Fences.....	Chas. Mann.....	150
Rimonski Branch.....	Jas. Isbester.....	150
Campbelltown, Dwelling House at.....	J. F. Feed.....	163
Loading Ballast.....	John Ryan.....	163
Trois Pistoles, Refreshment Room at.....	A. Grant.....	163
Loading Ballast.....	J. J. McDonald.....	163
Snow Sheds and Fences, construction of.....	C. H. Mann.....	164
do do do.....	M. J. Hogan.....	164

INTERCOLONIAL RAILWAY—*Concluded.*

Nature of Contract.	Name of Contractor.	Page.
Snow Sheds and Fences, construction of .....	F. X. Lemieux.....	164
do do do .....	John Marmon.....	164
Rimouski Pier, extension of .....	Cross & Dwyer.....	165
St. John's, Deep Water Wharf at.....	Wilmot Kennedy.....	166
Tug Boat "John Mitchells," hire of.....	D. Coholan.....	166
Coal, supply of .....	Halifax Coal Co.....	166
do do .....	Intercolonial Coal Co.....	166
do do .....	Spring Hill do.....	167
Locomotives, supply of.....	Kingston Locomotive Company..	167
Car Wheels do .....	Steel Company of Canada.....	167
Freight Cars do .....	Jas. Crossen.....	167
do do .....	Ontario Car Company.....	167

## LACHINE CANAL.

Regulating Weir at Lachine, construction of .....	John A. Cameron.....	15
Mooring Pier do do .....	Denis O'Brien.....	35
River St. Pierre Channel, straightening of .....	Hennessey & Doughney.....	53
St. Gabriel Basins, construction of .....	S. Bonneville.....	53
Flour Sheds do .....	Bonneville & O'Brien.....	84
Wellington Basin do .....	Lemay & Bowic.....	84
Sections 1 and 2 (enlargement).....	A. P. McDonald & Co.....	85
Extension of Street to Côte St. Paul .....	M. Hennessey.....	85
Blacksmith's Works .....	John McIntosh.....	85
Flour Shed, construction of.....	Jas. Howley.....	106
Sections 1 and 2 (enlargement) .....	Jas. Worthington & Co.....	137
do 3 do .....	McNamee, Gaherty & Fréchette..	137
do 10 do .....	Rodgers, Kelly & Co.....	157
do 9 do .....	John Lyons & Co.....	157
do 11 do .....	Wm. Davis & Sons.....	157
do 4 do .....	Whitney & Doty.....	157
do 5 do .....	A. Charlebois.....	158
do 8 do .....	O'Brien, Sullivan & Co.....	158
do 6 and 7 do .....	Wm. Davis & Sons.....	158

## NOVA SCOTIA RAILWAY.

Engines, supply of.....	Canadian Engine Manuf'g Co.....	7
Richmond Depot, Halifax .....	G. P. Mitchell.....	7
Darmouth Road Bridge, &c.....	Wm. Stewart.....	7
Freight Shed, Nova Scotia.....	Joseph Hamilton.....	12
Blackburn Bridge.....	Thos. Morton.....	12
St. Croix Bridge, &c.....	W. J. Allison.....	12
Enfield do .....	W. M. Dimock.....	12
Tank House, &c., N.S.....	Wm. Stewart.....	15
Embankment, Windsor Junction.....	do .....	29
Locomotives, supply of.....	Danforth Locomotive Works.....	74
do do .....	Grant do.....	74
Deep Water Wharf, Richmond .....	W. D. O'Brien.....	77
Roof to Engine House.....	Wm. Montgomery.....	78

PRINCE EDWARD ISLAND RAILWAY.

Nature of Contract.	Name of Contractor.	Page.
Main Line, Railway, construction of.....	C. Schreiber.....	51
Change of Line, Railway.....	do.....	51
Branch Lines, Embankment.....	do & Burpee.....	79
Telegraph Line, construction of.....	Anglo-American Telegraph Co.....	129

PUBLIC BUILDINGS GENERALLY.

Toronto Post Office, alterations to.....	Wittorow & Hillock.....	9
do Emigration Sheds, construction of.....	Grant & Yorke.....	17
Montreal Custom House, alterations to.....	Jos. Laplante.....	17
London do construction of.....	Chas. Dunnett.....	17
Quebec Post Office, do.....	Breton & Freres.....	17
Montreal Custom House, furniture and fixings for.....	Geo. Roberts.....	37
Toronto Post Office, construction of.....	Jno. Elliott.....	37
Commissariat Bakery, altered into a temporary Post Office.....	H. G. Mead.....	37
Montreal Geological Museum, alterations to outbuilding.....	R. Weir.....	37
Lachine Emigrant Shed, construction of.....	J. Laplante.....	38
Kingston do do.....	T. Overend.....	38
Grosse Isle, P.Q., construction of Dwelling House at.....	J. Mathieu.....	38
Point Levis Emigrant Shed, construction of.....	J. Jobin.....	39
Montreal Custom House, alterations of.....	Laberge & Son.....	39
St. John Custom House, N.B., repairs to.....	Quinton & Tilley.....	39
Lawler's Island Quarantine Station, N.B., construction of steamer for.....	J. Bowser.....	39
Montreal Custom House, supply of doors and sashes for.....	Laird Paton.....	39
do Plumber's work in.....	Garth & Co.....	57
Quebec Post Office, heating apparatus for.....	do.....	57
do Custom House Wharf, building slip in.....	Simon Peters.....	58
St. John Savings Bank, N.B., alterations of.....	Tilley & Redfern.....	58
Montreal Post Office, construction of.....	Allard & Dufort.....	58
Toronto Custom House do.....	Ben. Walton.....	90
Middle Island Quarantine Buildings, N.B., construction of.....	J. Stothart.....	91
Grosse Isle do P.Q., do.....	Piton & Co.....	91
St. John Post Office, N.B., construction of.....	Cansey, Stirling & Emery.....	91
London Immigrant Depot, Ont., do.....	J. Christie.....	91
Quebec Observatory do.....	A. Mathieu.....	92
New Castle Custom House, N.B., alterations of.....	Geo. Brown.....	92
Chatham Custom House, &c., N.B., convert a building into a.....	Peter Loggie.....	92
St. Andrew's Marine Hospital, N.B., construction of.....	A. Stinson.....	92
Quebec Custom House Wharf, alterations of.....	J. B. Lefrançois.....	92
Toronto Post Office, heating apparatus for.....	Geo. Harding.....	93
Three Rivers Custom House, construction of.....	Chas. Dugré.....	93
Levis Emigrant Shed, repairs to.....	J. Jobin.....	93
Victoria Marine Hospital, B.C., construction of.....	Kinsman & Styles.....	93
Winnipeg Post Office, Custom House, &c., construction of.....	Jos. Wood.....	93
Hamilton Post Office, excavation and masonry work.....	Jas. Webster.....	93
do carpenter's work.....	Peter Brass.....	93
Montreal Post Office do.....	Allard & Dufort.....	107
Toronto Post Office, alterations of.....	Elliott & O' Connor.....	107
do (old), heating apparatus for.....	D. S. Keith & Co.....	109
Victoria Custom House, B.C., construction of.....	Smith, Clark, McKay & Burgess.....	109
Stoney Mountain Penitentiary, M.A., construction of.....	Morrison & Barclay.....	109
Hamilton Post Office, work on roofs and outbuildings of.....	Brass, North & Freeborn.....	109
Pictou Custom House, N.S., construction of.....	Dodge & Dodge.....	109
Toronto Examining Warehouse do.....	Ben. Walton.....	109
New Westminster Penitentiary, B.C.....	Kinsman & Styles.....	110
Montreal Post Office, heating apparatus for.....	R. Mitchell & Co.....	110
St. John Post Office, N.B., fitting offices in.....	Bowman & Le Lachend.....	110
Montreal do P.Q., do.....	Allard & Dufort.....	141

PUBLIC BUILDINGS GENERALLY—*Concluded.*

Nature of Contract.	Name of Contractor.	Page.
Sydney Marine Hospital, N.S., construction of .....	W. A. McKean .....	141
Souris do P.E.I., do .....	J. McCormack .....	141
Quebec do painting of .....	Gauthier & Frère .....	141
Toronto Custom House, heating apparatus .....	Mathieson, Young & Co. ....	141
Montreal Examining Warehouse, construction of .....	Bourgouin & Lamontagne .....	141
do Inland Revenue Office, alterations of .....	Jas. Howley .....	141
St. John, N.B., Post Office, heating apparatus for .....	Walker, Pratt & Co. ....	142
Kingston Military College, construction of Brick Building .....	John Cunningham .....	142
Guelph Post Office and Custom House, construction of .....	Dobbie & Grierson .....	160
Dorchester Penitentiary, N.E., construction of .....	A. McKenzie .....	160
Charlottetown Dominion Buildings, P.E.I., heating apparatus for .....	McDonald & Co. ....	161
Kingston Military College, foundations of additional building .....	W. Irving .....	161
do construction of Educational Block .....	do .....	170
Montreal Examining Warehouse, elevator for .....	W. P. Bartley .....	170
do heating apparatus for .....	R. Mitchell & Co. ....	170
Kingston Military College, construction of stables at .....	J. Waddell .....	171
Montreal Examining Warehouse, roads, gates, &c., for .....	Jas. Howley .....	171
Grosse Isle, P.Q., construction of chapel, bakery, &c., at .....	T. C. Richards .....	171
St. John, N.B., Military Grounds, gates and fence at .....	S. O. & A. Fowler .....	171
Kingston Military College, heating apparatus at .....	Matheson, Young & Co. ....	171
St. John, N.B., Custom House, foundations of .....	B. Mooney & Son .....	171
do Military Store House, repairs to .....	do .....	172

## PUBLIC BUILDINGS, OTTAWA.

Powder Magazine, construction of .....	Thos. Painter .....	5
Military Hospital, converting a house into a .....	J. Cummings .....	5
Rideau Hall, build a gate house at .....	T. C. Ridgeon .....	6
do addition to old lodge .....	John Stewart .....	6
Firewood, supply of .....	John Heney .....	6
Guard House, construction of .....	T. C. Pigeon .....	9
Rideau Hall, removal of snow from .....	Jas. Devlin .....	9
Coal, supply of .....	Coward & Co. ....	17
Parliament Library, Masonry, &c. ....	Farguhar & Co. ....	17
do Grounds, removal of snow from .....	E. J. O'Neil .....	39
Public Buildings, repairs to roofs of .....	E. G. Laverdure .....	39
Coal, supply of .....	Evans Bros .....	39
Central Tower, completion of .....	John W. Webster .....	40
Parliament Grounds, removal of snow from .....	L. Paiement .....	40
Rideau Hall do .....	H. F. Simms .....	40
Firewood, supply of .....	J. Heney .....	40
Rideau Hall, fire engine for .....	Ant. Lepage .....	55
do construction of shed for .....	T. C. Ridgeon .....	55
Parliament Grounds, construction of wall around .....	Jas. Goodwin .....	55
Rideau Hall, supply of gas at .....	Ottawa Gas Company .....	55
do do pipes at .....	Blyth & Kerr .....	56
Coal, supply of .....	John Heney .....	56
Parliament Library, couple iron roof .....	P. Kilduff .....	56
Parliament Grounds, removal of snow from .....	O. Archambault .....	56
Rideau Hall do .....	H. F. Simms .....	57
Firewood, supply of .....	John Heney .....	57
Post Office, &c., construction of .....	Hatch Bros .....	59
Parliament Grounds, iron railing around .....	Ives & Allen .....	89
Coal, supply of .....	Geo. Thompson .....	89
Parliament Grounds, grading of .....	B. Gibson .....	89
do Library, covering roof of .....	E. G. Laverdure .....	89
do do glazing windows of .....	Wm. McKay .....	90
Workshops, &c., construction of .....	Mathews, Stewart & Stockland ..	90
Parliament Grounds, removal of snow from .....	F. McCann .....	90
Rideau Hall do .....	J. Corbett .....	90

PUBLIC BUILDINGS, OTTAWA—*Concluded.*

Nature of Contract.	Name of Contractor.	Page.
Post Office, foundations and masonry of.....	J. W. Webster.....	107
do carpenter's work.....	Cameron & Mudie.....	108
do iron work.....	G. Chapleau.....	108
Parliament Library, cresting on.....	E. S. Perkins.....	110
do House, boilers for.....	Goldie & McCullough.....	110
East Block, iron staircase for.....	Alex. Fleck.....	111
do repairs to roof of.....	E. G. Laverdure.....	111
Parliament Grounds, complete walls around.....	D. Harrow.....	111
do build drains on.....	B. Gibson.....	111
Coal, supply of.....	F. Clemow.....	111
Firewood do.....	J. Heney.....	111
Parliament Grounds, removal of snow from.....	Jas. Heavy.....	111
Rideau Hall, making trenches for water pipes at.....	B. Gibson.....	111
do removal of snow from.....	J. & W. McAdam.....	112
Pacific Railway Offices, build temporary house for.....	J. Lyons.....	112
Parliament Grounds, iron gates for walls of.....	H. R. Ives & Co.....	139
do completion of walls around.....	F. Toms.....	139
West Block Extension, foundations of.....	B. Gibson.....	139
Parliament Grounds, terrace walls in.....	Harrow & Sinclair.....	139
West Block Extension, masonry work in.....	Webster & Aitchison.....	139
Parliament Library, fresco painting in.....	Wm. McKay.....	139
Coal, supply of.....	Beattie & Co.....	139
West Block Extension, carpenter's work in.....	Strachan, Beckett & Co.....	140
do iron do.....	Thos. Leighton.....	140
Rideau Hall, removal of snow from.....	A. Devlin.....	140
Parliament Grounds do.....	F. McKenna.....	140
Workshops, build drying house, shed, &c., for.....	F. Toms.....	140
Post Office, heating apparatus for.....	R. Mitchell & Co.....	142
do plumber's work in.....	Blyth & Kerr.....	142
Parliament Grounds, wooden pavement in.....	S. Woodland.....	161
Coal, supply of.....	E. J. Charlton.....	161
do.....	J. W. McRae.....	162
Rideau Hall, removal of snow from.....	L. Beaucauge.....	162
Parliament Grounds do.....	M. O'Leary.....	162
Water, supply of.....	Ottawa Water Works.....	170
West Block, build an iron staircase for.....	Peterson & Law.....	170
Rideau Hall, supply gas holders at.....	Jas. Perry.....	170
West Block Extension, carving work on.....	Holbrook & Mollington.....	171
Parliament Grounds, removal of snow.....	E. Jetté.....	171
Rideau Hall do.....	M. Curran.....	171

RIDEAU CANAL.

Bulkhead, &c., at Manotick, construction of.....	William Davis.....	16
Swing Bridge, construction of.....	M. P. Davis.....	54
Enlargement of Basin, Ottawa.....	Reed & Stanley.....	54
Bridges, construction of.....	Row & Koyl.....	88
Swing Bridge do.....	Jas. Lattimer.....	106

ROADS AND BRIDGES.

Metapedia Road, repairs to.....	Daniel Fraser.....	2
Bridge at Manotick, construction of.....	J. R. O'Connor.....	2
Metapedia Road, keep in repair.....	Daniel Fraser.....	7
do construct part of.....	do.....	18
St. Lawrence Gulf Road, construction of.....	Marcel Leclerc.....	18
do do do.....	do.....	19
do do do.....	do.....	19
do do do.....	do.....	19

ROADS AND BRIDGES—*Concluded.*

Nature of Contract.	Name of Contractor.	Page.
Metapedia Road Bridges, rebuilding of .....	Daniel Fraser .....	19
do do do .....	Riby and others .....	19
Gulf Road Western Division, construct part of .....	Jos. Fournier and others .....	19
do do do .....	Marcel Leclerc .....	19
do do do .....	do .....	19
do do do .....	do .....	20
do do do .....	Malory & Gagnon .....	20
Red River Route, construction of launches and boats for .....	Wm. Watts .....	96
do do launch for .....	A. A. Benway .....	96
do do engines and boilers for .....	Gregory, Burley & Co. ....	96
do operation of the line .....	W. H. Carpenter & Co. ....	119
do bridging Muskeag at N. W. Angle. ....	D. F. Begg .....	119
do care of plant .....	W. H. Carpenter & Co. ....	119
Metapedia Road, keep in repairs .....	Dan Fraser .....	119
Belœil Bridge, Richelieu River, approaches to .....	Bonneville & O'Brien .....	119
Red River Route, operation of the line .....	W. H. Carpenter & Co. ....	147

## SLIDES AND BOOMS.

Deschênes Rapids Bulkhead, Ottawa Works, construction of .....	John Harvey .....	2
Trent River Works, repairs to .....	Thos. Walters .....	18
Black do Slide, Ottawa Works, construction of .....	William Davis .....	18
Nagle Dam, Madawaska Riv., Ottawa Works, re-construction of .....	John Harvey .....	18
High Falls Piers, Coulonge River do construction of .....	do .....	41
Chaudiere, Hull & Gatineau Slides do repairs to .....	John Soulier .....	41
Calumet Slides do do .....	M. Aubrey .....	41
Chat do do do .....	do .....	41
Petewawa River do do .....	do .....	41
Madawaska do Dam and Slides do construction of, and repairs to .....	John Harvey .....	41
Madawaska River, Dam and Slides, Ottawa Works, construction of, and repairs to .....	do .....	42
La Tuque Falls Pier, St. Maurice Works, construction of .....	J. W. Ormsby .....	42
St. Maurice River, Booms and Piers do .....	Richard & Fils .....	42
Calumet Slide Piers, Ottawa Works do .....	W. Davis .....	43
Chat's Slide Dam do do .....	do .....	43
Portage du Fort, Dam and Pier do do .....	do .....	43
High Falls, Dumoine Riv. Slide do do .....	do .....	43
River des Prairies Piers do do .....	F. B. McNamee .....	43
Mountain Slide Piers do do .....	Wm. Davis .....	43
Steamers for Red River Route, construction of .....	Jas. Dick & Co. ....	43
Portage du Fort Bridge do .....	Row & Koyl .....	43
Dumoine River, Booms and Piers, Ottawa Works, repairs to .....	John Harvey .....	60
Chaudiere, Hull and Gatineau Slides do do .....	J. Soulier .....	60
Calumet and Mountain Slides do do .....	Wm. McKnight .....	60
Coulonge and Black River Slides do do .....	John Proudfoot .....	60
Madawaska River, Booms and Piers do do .....	John Harvey .....	60
Grassy Bay, Madawaska River, Booms and Slides, Ottawa Works, construction of .....	do .....	60
Grandes Files Dam, &c., St. Maurice Works, construction of .....	O. Z. Hamel .....	61
Rocher Capitaine, Piers and Booms, Ottawa Works, construction of .....	J. Soulier .....	62
Chenaux Boem, Ottawa Works, extension of .....	A. H. Johnson .....	62
Calumet and Mountain Slides, Ottawa Works, repairs to .....	Wm. McKnight .....	95
Madawaska Dam, &c. do do .....	R. O'Neil .....	95
Hull Slide Bulkhead do construction of .....	L. Turpine .....	95
Black River Slide do repairs to .....	R. O'Neil .....	95
Petewawa River do do .....	J. Rowan .....	95
Chaudiere, Hull and Gatineau Slides do do .....	L. Turpine .....	95
Whitelaw's Dam and Piers, Trent River Works do .....	H. Calcutt .....	95



SLIDES AND BOOMS—*Concluded.*

Nature of Contract.	Name of Contractor.	Page.
Lake St. John, Booms and Dam, Saguenay Works do .....	H. Dufour .....	96
Cedar Lake Dam, Ottawa Works, construction of.....	D. Fox .....	96
Fenelon River, Piers and Booms, Trent River Works, construction of.....	John Boyd .....	96
Mountain Station Slide, Ottawa Works, repairs to.....	W. Thompson.....	117
Madawaaska, Piers and Booms do do .....	West & O'Connor.....	117
Petewawa do do do .....	do .....	117
do do do .....	John Harvey.....	117
Riv. des Prairies do do do .....	R. Stanley.....	117
Des Joachims Slides do do .....	Wm. Richards.....	118
Grandes Piles Falls' Dam, St. Maurice Works, repairs to.....	O. Z. Hamel.....	118
Portage du Fort, Bulkhead, Slide, Dam, Piers, Ottawa Works, construction of, and repairs to.....	J. Proudfoot.....	118
Gatineau River, Booms and Piers, Ottawa Works, construction of.....	Jas. Murphy.....	118

## ST. ANNE'S LOCK.

Lock Channel, deepening of .....	A. Becker .....	86
----------------------------------	-----------------	----

## ST. LAWRENCE CANALS.

Chain Tug, construction of a.....	E. E. Gilbert.....	159
Crane Chain for Steam Tug, construction of a.....	Morland, Watson & Co.....	159

## ST. PETER'S CANAL.

Removal of earth and stone from slope of Canal .....	W. M. Kavanagh.....	37
Hardwood Logs, supply of.....	Allan McNeil.....	37
Enlargement of Canal.....	S. P. Tuck.....	138
Additional Enlargement of Canal .....	do .....	160
Transfer of S. P. Tuck's contract.....	Jas. T. Kennedy.....	169

## TUG SERVICE.

Towing Line of Steamers between Lachine and Kingston, supply and operate a .....	Calvin & Breck.....	8
do do do .....	do .....	37

## WELLAND CANAL.

Nature of Contract.	Name of Contractor.	Page.
Deepening of Canal to Lake Erie level, completion of .....	John Brown.....	3
Collector's Office at Port Robinson, construction of.....	Wm. Henery.....	3
Basin at Port Colborne and Port Dalhousie, enlargement and deepening of.....	John Brown .....	4
Port Dalhousie Pier (West), superstructure of outer part, construction of.....	Angus McDonald.....	4
Collector's Office at Dunnville, construction of.....	David Irwin.....	4
Lamps and Light along Canal, supply of.....	St. Catherines & Welland Gas Co	7
Port Dalhousie Pier (East), rebuilding superstructure of.....	Angus McDonald .....	7
Dunnville Waste Weir, construction of.....	David Irwin .....	15
Lockmaster's House, Port Colborne, construction of.....	Campbell & Burley.....	35
Deep Cut, lightening east bank of.....	R. Mitchell.....	52
Port Dalhousie, enlarging and deepening of.....	F. B. McNamee.....	52
Timber Piles, supply of.....	John McDonagh.....	52
Feeder, deepening of.....	H. W. Manning & Co.....	53
Section No. 15, New Line, construction of.....	John Brown.....	79
do 31-32, enlargement of.....	do .....	80
do 29, do .....	R. Mitchell & Co .....	81
do 30, do .....	J. Ferguson & Co.....	81
do 10, New Line, construction of.....	John Ginty & Co .....	81
do 16, do do .....	John Elliott & Co .....	82
do 11, do do .....	Paul Ross .....	83
do 8-9, do do .....	Cairns, Morse & Co .....	83
do 21-22, enlargement of.....	John Brown .....	84
do 14, New Line, construction of.....	do .....	103
do 2-3, do do .....	Denison, Belden & Co.....	104
do 7, do do .....	Higgins & Sullivan.....	104
do 6, do do .....	Patrick Shannon .....	105
do 13, do do .....	Ginty & Dickey .....	105
do 5, do do .....	Alex. Manning .....	105
Deviation of Welland Railway Line .....	Welland Railway Co.....	105
Port Maitland Pier, construction of.....	Stephen Haney.....	106
Section No. 24-36, enlargement of.....	C. F. Dunbar.....	135
do 4, New Line, construction of.....	Blake Bros. & Campbell.....	135
do 25, enlargement of.....	Ferguson, Mitchell & Co.....	135
do 12, New Line, construction of .....	Lobb, Dawson & Murray.....	136
do 23, enlargement of.....	John Carroll.....	136
do 1, New Line, construction of .....	Patrick Larkin.....	136
do 26, enlargement of.....	John Carroll.....	156
do 28, do .....	Ferguson, Mitchell & Co.....	169
do 27, do .....	Hunter, Murray & Co.....	169
do 35, do .....	do .....	169
do 17-18, New Line, construction of.....	R. J. Campbell.....	169
do 19-20, do do .....	Heney, Heney & Parry .....	169
do 33-34, enlargement of.....	Ambrose Clark.....	169

(21T)

**RETURN**

To an ADDRESS of the SENATE, dated the 14th March, 1878;—For any correspondence that the Government may have respecting a Railway Bridge across the Falls at St John, New Brunswick, so as to connect the Government Work known as the Intercolonial Railway, with that of the Western Extension at said Falls.

By Command.

R. W. SCOTT,

*Secretary of State*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 25th April, 1878.

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(21U)

**RETURN**

To an ADDRESS of the HOUSE of COMMONS, dated 1st April, 1878;—For Statements of amounts paid annually for carrying the Mail between Kamouraska and the Railway Station at St. Pascal since the express train on the Intercolonial Railway began to deliver the mail at that station, &c.

By Command.

R. W. SCOTT,

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,

OTTAWA, 8th May, 1878.

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(21v)

**RETURN**

To an ORDER of the HOUSE of COMMONS, dated 1st April, 1878;—  
For Return showing in detail all fees paid by the Department of Justice, or by any other Department, or in connexion with the Intercolonial Railroad, to Counsel or Attorneys in connexion with any business before the Supreme Court since its formation, and the names of the Counsel and Attorneys and the several suits in respect of which such fees were paid.

By Command.

R. W. SCOTT

*Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 9th May, 1878.

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

(22)

**R E T U R N**

To an ORDER of the HOUSE OF COMMONS, dated 28th March, 1877;—For copies of all Reports of Engineers or correspondence respecting the existence and cause of the greater rise in the waters of the sixty mile level of the River Ottawa, between the Chaudière Falls and the Long Sault Rapids, than the levels below and above those points, as set forth in the petitions to this House of certain inhabitants of the Counties of Ottawa, Prescott and Russell.

By Command.

R. W. SCOTT,  
*Secretary of State*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 11th February, 1878.

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*[In accordance with the recommendation of the Joint Committee on Printing, the above  
Return is not printed.]*